Evidence Based inhoud van geschreven informatie vanuit de farmaceutische industrie aan huisartsen

KCE reports 55A

Federaal Kenniscentrum voor de Gezondheidszorg
Centre fédéral d'expertise des soins de santé
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Algemeen Directeur adjunct :	Jean-Pierre Closon

Contact

Federaal Kenniscentrum voor de Gezondheidszorg (KCE)
Wetstraat 62
B-1040 Brussel
Belgium

Tel: +32 [0]2 287 33 88
Fax: +32 [0]2 287 33 85

Email : info@kce.fgov.be
Web : http://www.kce.fgov.be

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ANNELIES VAN LINDEN, SYLVIANE CARBONNELLE, LAURENCE KOHN,
FRANÇOISE MAMBOURG, DIRK RAMAEKERS

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Auteurs:	Annelies Van Linden (Domus Medica), Sylviane Carbonnelle (SSMG), Laurence Kohn (KCE), Françoise Mambourg (KCE), Dirk Ramaekers (KCE)
Externe experten:	Marc Bogaert (BCFI), Marie-Louise Bouffioux (FAGG), Serge Boulanger (SSMG), Dirk Broeckx (APB), Carl Cauwenbergh (RIZIV), Bruno De Schuiteneer (FAGG), Jos De Smedt (Domus Medica), Monique Debauche (GRAS), Peter Dieleman (Domus Medica), Robert Gérard (SSMG), Hugues Malonne (MSD), Katelijne Matthys (Pfizer), Antoon Mensaert (RIZIV), Jan Saevels (APB), Piet Schutyser (AstraZeneca), An Van Gerven (GSK), Edward Van Rossen (Domus Medica), Dirk Vander Mijnsbrugge (Pfizer), Michel Vanhalewyn (SSMG)
Acknowledgments:	Chris De Laet, Geert De Meulenaere, Stephan Devriese, Mark Leys, Imgard Vinck
Externe validatoren:	Thierry Christiaens (Huisartsgeneeskunde en Eerstelijnsgezondheidszorg, Universiteit Gent, Belgium), Ruud Coolen van Brakel (DGV, Nederlands instituut voor verantwoord medicijngebruik, the Netherlands), Bruno Toussaint (Prescrire, France)
Conflict of interest:	Jos De Smedt (lid van de Fondation AstraZeneca), Robert Gérard (deelname aan studie van AstraZeneca), Hugues Malonne (werkt bij MSD), Katelijne Matthys (werkt bij Pfizer), Piet Schutyser (werkt bij AstraZeneca), An Van Gerven (werkt bij GSK), Dirk Vander Mijnsbrugge (werkt bij Pfizer)
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VOORWOORD

Bijblijven op het vlak van geneesmiddelen is geen eenvoudige klus. Artsen worden overladen met informatie via allerlei kanalen: via de post, de medisch afgevaardigde, bijscholingen en de laatste tijd ook meer en meer via elektronisch weg. Het merendeel is ongevraagde informatie, al staat dit niet synoniem voor ongewenste informatie. In heel deze informatiestroom neemt de farmaceutische industrie een prominente plaats met duizenden medisch afgevaardigden die artsen bezoeken. Hun belang werd onlangs nog in de medische pers benadrukt door het voorstel om de 'medisch afgevaardigde' een naamsverandering te laten ondergaan naar 'medisch informateur' inspelend op de informatienood bij artsen. Artsen zijn er zich van bewust dat de informatie vanuit de farmaceutische industrie 'gekleurd' kan zijn door marketingbelangen. Uit studies blijkt dat de perceptie van artsen over beïnvloedbaarheid door reclame in schril contrast staat met de objectieve gemeten impact van reclame.

Dit rapport gaat in op de geschreven informatie die artsen ontvangen vanuit de farmaceutische industrie. Gezien het toenemend belang van Evidence-based Medicine (EBM) bij het voorschrijven van geneesmiddelen, gaat dit rapport vooral in op de inhoudelijke kwaliteit van de boodschappen in de advertenties. In het kwalitatieve luik van dit rapport worden deze bevindingen getoetst bij huisartsen in het veld en bij huisartsen met een meer gedegen EBM-achtergrond.

Deze studie was niet mogelijk zonder de steun van vele medewerkers. In de eerste plaats de wetenschappelijke verenigingen voor huisartsen, Domus Medica en SSMG die nauw betrokken waren bij de uitvoering van het onderzoek. Daarnaast konden we rekenen op de bijdrage van informatiedeskundigen vanuit de farmaceutische industrie en talrijke experten op farmaco-therapeutisch vlak: voor dit rapport een absolute toegevoegde waarde.

De uitvoering van deze studie heeft op zich al een mogelijke impact: wij hebben de indruk dat de kwaliteit van de advertenties in de medische pers de laatste maanden erop vooruit is gegaan. En nu maar hopen dat onze indruk bewaarheid wordt.

Jean Pierre Closon
Adjunct Algemeen Directeur

Dirk Ramaekers
Algemeen Directeur

EXECUTIVE SUMMARY

INLEIDING

Geschreven informatie maakt deel uit van de talrijke middelen gebruikt door de farmaceutische industrie in de promotie van geneesmiddelen. Deze studie betreft de geschreven informatie gekregen via de post, de medische vertegenwoordigers of via bijscholingen. De focus ligt op de inhoud van advertenties gericht aan huisartsen. Dit is slechts een onderdeel van de globale marketingstrategie vanuit de farmaceutische industrie voor een specifiek product.

De reclame op geneesmiddelen valt onder een Europese richtlijn waarvan de uitvoering specifiek is voor elk land apart. Deze richtlijn expliciteert dat de reclame het rationeel gebruik van medicatie moet bevorderen; dat de informatie van de documentatie die de reclame vergezelt moet overeenstemmen met de 'samenvatting van de kenmerken van het product; up to date moet zijn; verifieerbaar en zodanig opgesteld, zodat de lezer zich een idee kan vormen over de therapeutische waarde van het product.

DOELSTELLINGEN

Dit project heeft verschillende doelstellingen. Ten eerste dient het een overzicht te geven van de aard en de inhoud van de geschreven informatie die de huisartsen ontvangen in België. Ten tweede, wordt er een literatuurzoektocht uitgevoerd naar wat geweten is over geschreven informatie van de farmaceutische industrie en welke methodes gebruikt werden om hun wetenschappelijke inhoud te analyseren. Na de globale analyse van de inhoud, wordt onderzocht in welke mate de de geschreven informatie overeenstemt met conclusies uit EBM. Tenslotte, wordt als derde doelstelling, de mening van de artsen over geneesmiddeleninformatie en hun informatiebehoefte onderzocht.

METHODOLOGIE

De uitwerking van de methodologie gebeurde op basis van een onderzoek in de internationale literatuur. Een groep artsen op het terrein verzamelde gedurende één maand alle geschreven informatie vanuit de farmaceutische industrie. Na het inventariseren en het kwantificeren van dit materiaal volgde de inhoudsanalyse.

De evidence based (EB)-waarde van de verzamelde informatie werd gemeten op basis van verschillende methodes die afgeleid werden uit het literatuuronderzoek. Inhoudsanalyses werden uitgevoerd volgens een 8-stappenplan, zijnde: een algemene beschrijving, gevolgd door een beoordeling van tabellen en grafieken en nadien ook van claims, met - indien aanwezig - uitkomstmaten. Vervolgens werden de referenties bestudeerd. Deze werden geconfronteerd met de bestaande evidence. Er werd geverifieerd of er een link was tussen de claims en de referenties. Deze stappen mondden uit in een finale classificatie. Voor elk van deze tussenstappen werd telkens - in geval van twijfel of bij gelijke aantallen - voor 'the best case scenario' gekozen.

Tenslotte discussieerden huisartsen en experten tijdens focusgroepen over de noden in deze materie. Er werd nagevraagd of huisartsen EBM-informatie wensen vanuit de farmaceutische industrie, of ze andere informatie nodig hebben dan EBM, en hoe ze deze informatie gepresenteerd willen zien.

De eerste resultaten van de studie werden gepresenteerd en besproken tijdens twee bijeenkomsten met informatie-specialisten van de farmaceutische industrie, academici en personen van wetenschappelijke verenigingen. Het uiteindelijke rapport werd wetenschappelijk gevalideerd door nationale en internationale experten op het gebied van geneesmiddeleninformatie.

LITERATUURSTUDIE

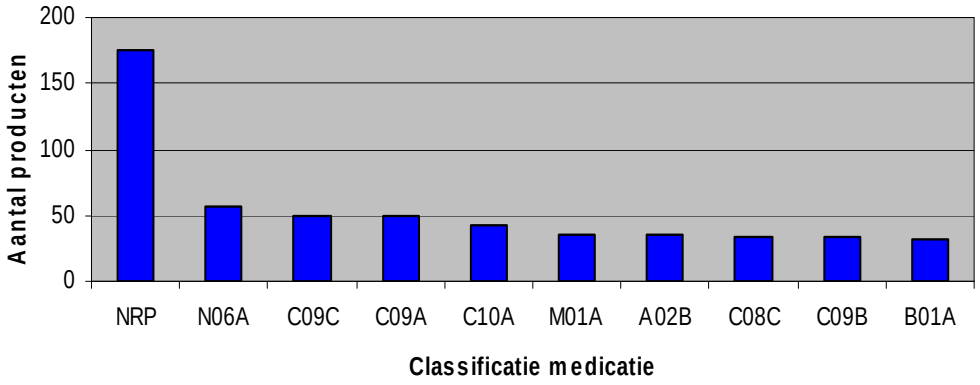
Het literatuuronderzoek bracht artikelen aan die verschenen tussen januari 1990 en mei 2006 en gevonden werden in Medline, Embase, Cochrane Database of Systematic Reviews, Cochrane Controlled Trials Register and Database of Abstracts of Reviews of Effects, gebruik makende van passende zoektermen.

Uit de 36 weerhouden artikels worden meerdere methodes voor inventarisatie en diverse criteria voor inhoudsanalyse teruggevonden. In de meerheid van de studies, blijft de analyse eerder descriptief dan zich toe te spitsen op inhoudelijke elementen. Talrijke studies leggen de nadruk op slechts één aspect van de inhoud, zoals de claims, de grafieken of de referenties. Uiteindelijk is, op basis van de resultaten uit deze literatuurstudie, de methodologie voor inhoudsanalyse uitgewerkt.

INVENTARIS

Een explorerende inventaris, uitgevoerd bij 13 artsen en 4 apothekers gedurende één maand (mei 2006), maakte het mogelijk om de frequentie en de kenmerken van advertenties en andere geschreven materiaal vanuit de farmaceutische industrie te documenteren. Tijdens deze maand werd de post als belangrijkste kanaal geïdentificeerd. Bovendien heeft dit onderzoek toegelaten om de belangrijkste groepen binnen de 'Anatomical Therapeutic Chemical' (ATC) classificatie te bepalen bij de keuze voor de inhoudsanalyse. De 9 meest voorkomende klassen van medicatie zijn op ATC-niveau 3: antidepressiva (N06A), sartanen (C09C), de ACE-inhibitoren met of zonder diuretica (C09A, C09B), cholesterolverlagers (C10A), de NSAID (M01A), de antireflux-medicatie (A02B), calciumantagonisten (C08C) en de anti-thrombotica (B01A). Bovendien verschenen er veel advertenties over niet geregistreerde producten (NRP), zoals vitaminen, homeopathische middelen, plantaardige producten,… Zie figuur 1.

Figuur 1: Frequentie van aantal producten per klasse



Vergeleken met de specialisten en de apothekers ontvingen de huisartsen het grootste aantal documenten. De post bleek het voornaamste kanaal te zijn om informatie te verspreiden.

195 van de 896 advertenties vermeldden enkel de naam van de medicatie, de zogenaamde "reminders". Meer dan de helft van de advertenties bevatte meer dan één boodschap.

In de groep met cardiovasculaire medicatie was de enkel de naam van de medicatie vermeld in 16% van de gevallen, een slogan was aanwezig in 26%, een tekst in 13% en een beeld was in 45% van de advertenties aanwezig. Beelden roepen emoties op in bijna de helft van de gevallen, in 30% tonen ze de toedieningsvorm of de verpakking, en in de overige gevallen, in dalende orde van voorkomen: andere beelden, een aspect ivm. pathofysiologie, een tabel of een arts.

INHOUDSANALYSE

De algemene beschrijving bestond uit verschillende elementen: naam van de medicatie, ATC classificatie groep, farmaceutische firma en aard van presentatie (tekst, claims of tabellen).

In de advertenties werden weinig tabellen en grafieken getoond: slechts 4 tabellen konden inhoudelijk geanalyseerd worden. Elk van deze vier bevatte voldoende informatie (vb. titel en legende zijn aanwezig, definitie van symbolen en afkortingen,…)

CLAIMS EN UITKOMSTMATEN

Op een totaal van 123 claims, werden 39 klinische claims geteld (1 op 3). Slechts ¼ van de analyses met klinische claims vermeldde uitkomstmaten, waarvan 5 kwantitatief zijn.

REFERENTIES

In bijna de helft van de advertenties werden referenties vermeld, die bijna allemaal konden teruggevonden worden. Slechts 18 van de 47 referenties verwezen naar studies van hoge kwaliteit. Twee derde van alle studies waren gefinancierd door de farmaceutische industrie. Een vierde van de artikels vermeldde geen belangenconflicten.

FINALE CLASSIFICATIE (ZIE FIGUUR 2)

In de finale classificatie werden elk van de 123 claims ingedeeld in één van volgende groepen: “well supported”, “partially supported”, “not supported or ambiguous” of “evidence against”. Dit komt overeen met de X-as. Op de Y-as worden de 40 verschillende advertenties (die de 123 claims bevatten) uitgezet. Indien meer dan één claim voorkomt per advertentie voor eenzelfde classificatie, wordt de “bubble” groter. Een advertentie met meer dan één claim kan dus in meerdere groepen tegelijkertijd ingedeeld worden.

Slechts 10 van de 123 claims werden geklasseerd als “well supported by evidence”. 11 claims vielen in de categorie “well supported by instruction leaflet”. Hier moet benadrukt worden dat de bijsluiter (officieel de “samenvatting van product kenmerken”) niet apart bestudeerd werd, omdat deze valt onder de reglementering van de geneesmiddelenregistratie. Er kan wel een discongruentie bestaan tussen de bevindingen uit EBM en de inhoud van de bijsluiter. Meestal zijn de geregistreerde elementen, zoals de indicaties, ruimer te interpreteren dan deze voorkomend in evidence-based bronnen.

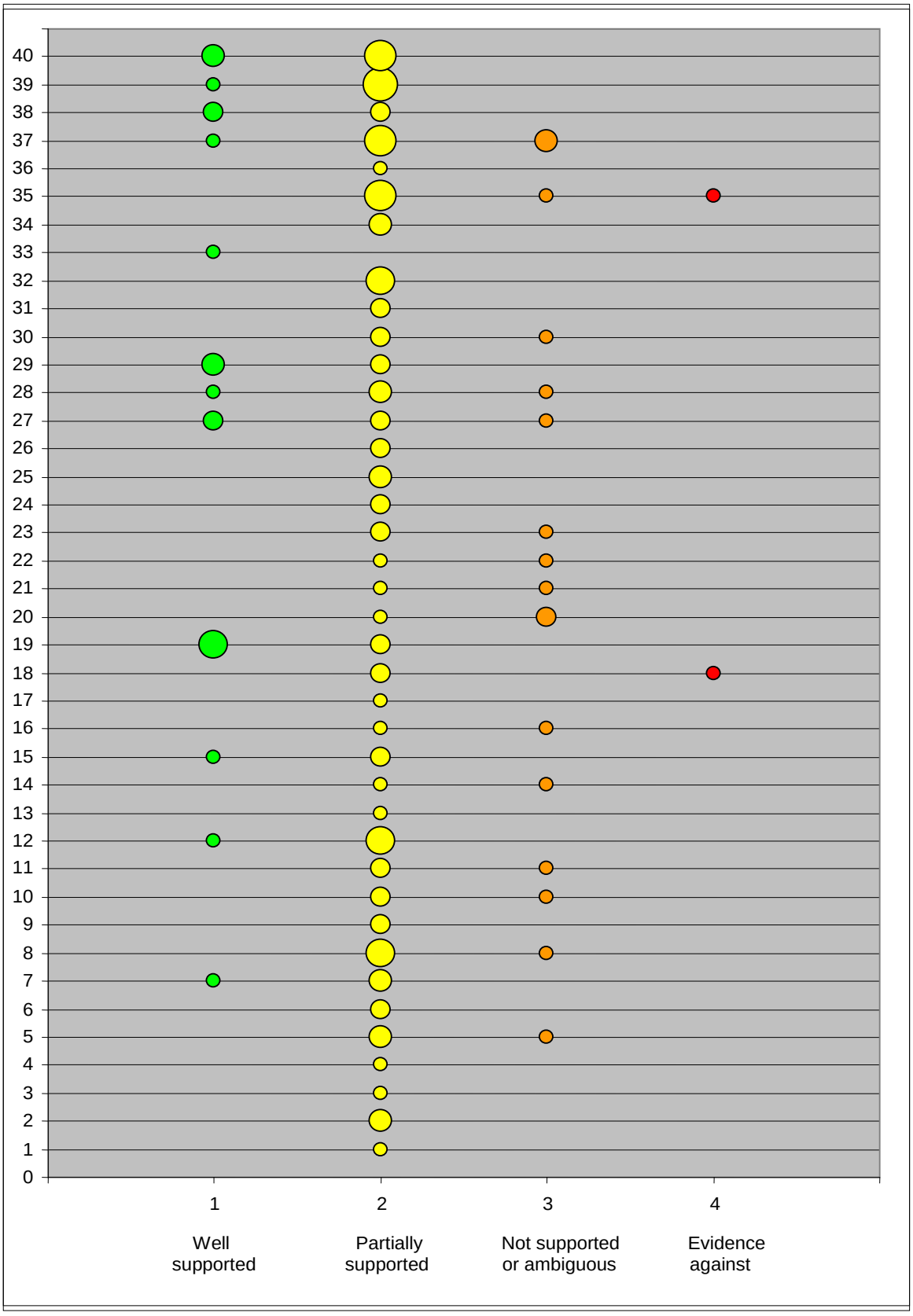
Het grote merendeel van de claims behoorde tot de groep “partially supported”. Hieronder vonden we: 31 claims die inwerken op de emoties, 38 die vaag zijn, 8 over pathofysiologische uitkomsten en 6 met intermediaire uitkomstmaten. Op één na, bevatten alle advertenties minsten één zulke claim.

In de categorie “not supported or ambiguous” klasseerden we 8 claims en 10 inadequate referenties. Meeste claims vielen in deze categorie, omdat er extrapolatie van de doelgroep of de indicatie aanwezig was. Het is opvallend dat 3 van de 12 advertenties die “well supported” claims bevatten, ook minstens één claim tonen die onder de “not supported or ambiguous” categorie valt.

Bij 2 advertenties was er duidelijk “evidence against”.

In de methodologie was het voorzien dat de advertenties beoordeeld zouden worden op “fair balance”: of er voldoende informatie is over de indicaties en de voordelen, alsook over de neveneffecten en contra-indicaties. Omdat slechts in één advertentie een concrete claim rond neveneffecten werd vermeld, hebben we deze categorie niet kunnen analyseren.

Figuur 2: Aantal claims (= grootte van bol) per advertentie (Y-as), gesorteerd als in de finale classificatie (X-as)



KWALITATIEF ONDERZOEK

Een kwalitatief luik werd toegevoegd om de voorgaande resultaten beter te kaderen binnen het werkterrein van de huisartsen. De gevonden resultaten zijn als exploratief te beschouwen en complementair aan de andere delen van het onderzoek. Vier focusgroepen werden uitgevoerd waarvan 2 met huisartsen 'op het terrein' en 2 met huisartsen die onderlegd zijn in EBM en geneesmiddeleninformatie.

Uit de focusgroepen bleek dat huisartsen vragende partij zijn voor geschreven EB-informatie. De farmaceutische industrie wordt hiervoor niet als betrouwbare bron beschouwd: onafhankelijke bronnen hebben deze taak volgens hen. De meest vermelde bron hierbij is het Belgisch Centrum voor Farmacotherapeutische Informatie (BCFI). Anderzijds is het geschreven materiaal vanuit de farmaceutische industrie wel gewenst als het op praktische informatie aankomt. In dit geval worden de marketing technieken eerder ondersteunend dan storend ervaren. Huisartsen suggereren dat onafhankelijke bronnen zouden kunnen leren van deze manier van presentatie.

De verhouding tussen huisartsen en de farmaceutische industrie is eerder ambigu te noemen. Enerzijds vertellen ze de farmaceutische industrie nodig te hebben voor o.a. praktische informatie, uitleg rond nieuwe medicatie en sponsoring van bijscholingen. Anderzijds ervaren zij de farmaceutische industrie ook als mogelijks manipulerend, waarbij sommige deelnemers zelfs spreken over onethische beïnvloeding.

Tussen de huisartsen en de EBM-experten viel een verschil op in de gewenste manier van presentatie van informatie. Terwijl huisartsen aangeven nood te hebben aan korte, eerder 'voorgekauwde' informatie, vertellen EBM-experten dat dit niet voldoende kan zijn: huisartsen moeten beter opgeleid worden in het kritisch omgaan hiermee.

Tijdens de focusgroepen was het opvallend dat het zeer moeilijk was om de geschreven informatie te scheiden van de bezoeken van de medische vertegenwoordigers: beiden zijn zeer nauw verbonden met elkaar. Bovendien werden ook elektronische bronnen vaak vermeld, die in toenemende mate aanvullend of soms zelfs vervangend kunnen zijn voor geschreven informatie

CONCLUSIES EN AANBEVELINGEN

Uit deze studie volgen een aantal majeure conclusies ivm. de EB inhoudelijke waarde van geschreven informatie vanuit de farmaceutische industrie.

Geschreven informatie is één van vele manieren van de farmaceutische industrie om huisartsen te benaderen. Deze kan zodoende niet los gezien worden van deze globale marketing strategie. Er is een nauwe band met andere marketing technieken, vooral met de bezoeken van de medische vertegenwoordigers.

In deze studie werd, behalve in het exploratief onderzoek, geen rekening gehouden met de lay-out en de emotionele aantrekkingskracht van advertenties, alhoewel dit minstens even belangrijk kan zijn als de inhoud. De EB-inhoud nagaan is nochtans belangrijk, o.a. omdat uit de focusgroepen blijkt dat het voor huisartsen niet altijd even eenvoudig is om een verschil te maken tussen publiciteit en onafhankelijke informatie: de informatie vanuit de farmaceutische industrie of die van daaruit gefinancierd wordt, kan op zodanige wijze gepresenteerd worden dat onderscheid moeilijk is.

In het exploratief onderzoek zien we dat veel advertenties 'reminders' zijn, een niet-geregistreerd product tonen of informatie geven over prijs en toedieningswijze. De meerderheid van de boodschappen in de advertenties bevatten geen of weinig werkelijke informatie. In de inhoudsanalyse merken we op dat slechts één zesde van de claims in de bestudeerde advertenties "well supported" is, waarbij de helft gebaseerd is op de bijsluiter. Tijdens de focusgroepen is er weerstand tov. zogenaamde EB-informatie die komt vanuit de farmaceutische industrie. Dit alles doet ons besluiten dat er op dit moment nog relatief weinig rekening gehouden wordt met de EB-inhoud van advertenties.

De reglementering die op dit moment van kracht is in ons land is weinig restrictief en er bestaan belangrijke verschillen tussen de informatie die verspreid wordt door de farmaceutische industrie en door onafhankelijke bronnen. Naar de volgende vijf doelgroepen kunnen een aantal suggesties gedaan worden om de coherentie en betrouwbaarheid van geneesmiddeleninformatie naar artsen toe meer te garanderen.

AANBEVELINGEN NAAR DE FARMACEUTISCHE INDUSTRIE

De presentatie en lay-out van de advertenties zouden moeten beantwoorden aan striktere criteria. De industrie kan een eigen systeem van kwaliteitscontrole ontwikkelen - zich eventueel inspirerend op systemen die reeds in andere landen, zoals Canada, Groot-Brittannië en Australië toegepast worden. Een aantal Belgische zetels heeft reeds een interne kwaliteitstoetsing van de door hen verspreide informatie. Cruciale punten hierbij is het vermelden van klinische uitkomsten en het toevoegen van kwaliteitsvolle, transparante referenties. Het vermelden van belangenconflicten bij geciteerde experten of opinie-leiders strekt tot aanbevelingen.

AANBEVELINGEN NAAR DE OVERHEID

Op dit ogenblik ontbreken voldoende mankracht en methodes bij de overheid om inhoudelijke controle uit te voeren. Met name het tolereren van de tegenstelling tussen de inhoud van advertenties en de informatie vanuit door de overheid gefinancierde onafhankelijke bronnen is moeilijk verdedigbaar. In meerdere landen zoals bvb. in Frankrijk werden hiertoe meer pro-actieve systemen ontwikkeld. Het recent opgericht Federaal Agentschap voor Geneesmiddelen en Gezondheidsproducten (FAGG) wacht hier een bijzondere taak.

AANBEVELINGEN NAAR DE UNIVERSITEITEN

De universiteiten hebben een belangrijke rol in de basistraining van studenten over het kritisch denken, lezen en beoordelen van informatie. Anderzijds zijn universiteiten voor een deel van de financiering van hun biomedisch onderzoek afhankelijk van de industrie, waardoor een spanningsveld kan ontstaan. Maximale transparantie in mogelijke belangenconflicten bij academici is noodzakelijk.

AANBEVELINGEN NAAR DE ONAFHANKELIJKE INFORMATIEBRONNEN

Het BCFI is geciteerd als een aanvaarde onafhankelijke informatiebron. De site die talrijke bezoekers kent, zou zich nog kunnen uitbreiden met de 'samenvatting van de kenmerken van het product' en met de dossiers ivm. aanvraag tot terugbetaling van medicatie en zich nog meer kunnen integreren in elektronische medische dossiers. Bovendien is het zinvol dat deze informatie reeds tijdens de marketing van een nieuw geneesmiddel beschikbaar is.

AANBEVELINGEN NAAR DE ARTSEN

Het belang en de kennis van kritische analyse moet een belangrijkere plaats kennen in de basisopleiding en de navorming. De opleiding en informatie hierrond kan verder uitgewerkt worden door oa. de wetenschappelijke verenigingen, CEBAM, de universiteiten en het RIZIV. De inhoudelijke kwaliteit van de navorming kan bevorderd worden door positieve incentives. Daarom is het ook noodzakelijk dat publiek gehonoreerde navorming losgekoppeld wordt van sponsoring vanuit de farmaceutische industrie.

Scientific summary

Table of contents

1 INTRODUCTION

Pharmaceutical companies use representatives, advertising, journal articles and supplements, magazines and other media to communicate the benefits of their products. The type of communication on drug is either verbal either written. Verbal information is used by medical representatives or at continuing professional development (CPD), i.e. during trainings, symposia, congresses and conferences. Delivery of written information can be done through the following ways: post, medical representatives, CPD, internet and CD-ROMs. We studied written information from pharmaceutical companies delivered by the first three ways: post, medical representatives and trainings. The focus of the study is on the content of advertisements sent to general practitioners (GPs) and not on marketing techniques.

1.1 BACKGROUND

This chapter is focused on regulation of advertisements of prescription drugs from pharmaceuticals companies towards health professionals. It gives an overview of the regulatory framework in Europe before focusing on particularities of existing regulations on Belgium, France and the Netherlands. Regulatory framework in the United Kingdom, Canada and the United States stays in the appendix 5.

1.1.1 Regulatory framework in Europe

In Europe, all national regulations on drug advertising derive from a European Directive relating to medicinal products for human use.[a] This means that the Directive provides a framework for member states that transpose the Directive into national laws that can be more precise, but still within the framework. Title VIII of this Directive (2004/27/EC) contains rules on the contents of advertising and promotions and requirements for national monitoring of advertising. It states that advertising of a non registered medicinal product is prohibited. Advertising of a medicinal product must encourage the rational use of the medicinal product, by presenting it objectively and without exaggerating its properties, and shall not be misleading. It also states, without giving further details, that any advertising of a medicinal product to persons qualified to prescribe or supply such products shall include essential information compatible with the summary of product characteristics (SPC) and the supply classification of the medicinal product. Any documentation relating to a medicinal product which is transmitted as part of the promotion of that product to persons qualified to prescribe or to supply it must include, as a minimum, the particulars listed above and must state the date on which it was drawn up or last revised. All the information contained in the documentation above-mentioned must be accurate, up-to-date, verifiable and sufficiently complete to enable the recipient to form his or her own opinion of the therapeutic value of the medicinal product concerned. Quotations as well as tables and other illustrative matter taken from medical journals or other scientific works for use in the documentation above-mentioned must be faithfully reproduced and the precise sources indicated. Member States must ensure that there are adequate and effective methods to monitor the advertising of medicinal products.

1.1.2 Regulatory framework in Belgium

Drug advertising is controlled by the Royal Decree of 9 July 1984, relating to information and advertising concerning drugs, modified by the Royal Decree of 7 April 1995, relating to information and advertising concerning drugs for human use. The Royal Decree took up the definition of drug advertising as mentioned in the European Directive 2004/27/EC (Royal Decree of 9 June 2003). Important points of the Decree are chapters I (definitions and area of application), III (advertising in general), V (advertising aimed at health professionals) and VIII (Commission de Contrôle de la Publicité des Médicaments / Commissie van Toezicht op de reclame voor geneesmiddelen). This Commission is part of the Agence Fédérale des Médicaments et

[a] http://europa.eu.int/eur-lex/lex/LexUriServ/LexUriServ.do?uri=CELEX:32004L0027:EN:HTML consulted on 10 May 2007

des Produits de Santé (AFMPS) / Federaal Agentschap voor Geneesmiddelen en Gezondheidsproducten (FAGG) and performs an a priori control on advertising, but only with regard to advertising towards the general public, i.e non prescription drugs, and not concerning written information. The Decree was recently modified (Royal Decree of 22 November 2006). Concerning advertising towards health professionals, besides information required from the European Directive, the Decree specifies the type of information required: drug name, active ingredients (qualitative and quantitative information), dosage, particulars of the following columns: indications, posology, contra-indications, side effects (from the SPC), name of the registration holder and number of drug registration. It also requires the mention of the public selling price of the various presentations of the drug. The price should be in bold characters on a contrasting background at the upper-right of the advertisement and should have 0,50% of the advertisement surface. At least 50% of the surface should be covered exclusively by the information required. Besides the accurate source of the quotations, tables and other illustrative matter, the original text should be supplied to the health professional asking for it. During each visit, every medical sales representative must give the persons visited, or have available for them, the summary of the product characteristics of each medicinal product presented and the public selling price for each presentation on the market. Most of the regulations of the Royal decree have been inserted in the act on medicinal products in order to harmonize the pharmaceutical legislation.

Pharma.be is the general association of drug companies in Belgium and has a commission of deontology and pharmaceutical ethics. This commission established a code of deontology in April 2003 (with amendments in June 2004 and January 2006). This text states among others that the set of rules laid down ensures that information and advertising from pharmaceutical companies about drugs that they market, take place in a scientific framework of quality, taking into account justified expectations and interests of the different healthcare players, including those of the patients. However, it does not have a big impact on advertisements.

In addition to these regulations and ethical code, pharmaceutical companies must also respect regulations and ethical codes of the International Federation of Pharmaceutical Manufacturers and Associations (IFPMA) and of the European Federation of Pharmaceutical Industries and Associations (EFPIA), which are in accordance with the national regulation. The IFPMA is a non-profit, non-governmental organization representing industry associations and companies from both developed and developing countries. These companies are committed to IFPMA code of pharmaceutical marketing practices. The EFPIA has a code of Practice for the Promotion of Medicines ("EFPIA code"), which reflects the requirements of the European directive above-mentioned.

Recently, a joint ethic platform for information on and promotion of medicines and medical devices called Mdeon was created. It includes doctors, pharmacists and the medical industry and aims to apply a pro-active attitude of self-regulation. However, it does not concern written information.

1.1.3 Regulatory framework in France

In France, article L.5122-2 of the Public health code states, besides obligations already mentioned in the European Directive on medicines for human use, that advertising should not disturb protection of public health, that it should give an objective description of the drug or health product and favour the good use of the drug. Promotional materials should also take into account the information attached with the marketing authorization (SPC) for health professionals and patient information leaflet (PIL) for the public. Article L. 5122-9 states that advertising oriented towards health professionals is controlled after dissemination (*a posteriori* control): the promotional material should be sent to the drug regulatory agency (Agence française de sécurité sanitaire des produits de santé (AFSSAPS)) within eight days following its diffusion. According to article R.5122-11, during oral presentation of drugs by medical representatives of pharmaceutical companies, the most recent opinion of the committee in charge of pharmaco-economic evaluation of new drugs and new indications (Commission de la transparence) must be given to the health professional (or all opinions if several opinions have been released due to extensions of therapeutic indications), as well as all bibliographical references mentioned in any promotional

material, except brochures. The French drug regulatory agency (AFSSAPS) has a Department of studies and pharmaco-economic information, including a unit *Publicité et bon usage*, which is in charge of the secretariat of the Committee for advertising control concerning drugs for human use, and for dissemination of recommendations on good use of medications. Article R. 5122-2 of the French Public health code relating to advertising of drugs and health products for human use states that every drug marketing company shall have a department devoted to advertising, which ensures the scientific validity of information which is disseminated . Article R. 5122-8 states that any promotional material disseminated towards health professionals should include all particulars contained in the SPC. It should not quote the position taken by an administrative or consultative authority towards a drug in a way that would be susceptible to alter the meaning or objectivity of this position, and any written mention should be perfectly readable.

1.1.4 Regulatory framework in the Netherlands

In the Netherlands, besides information required from the European Directive, the Decree on drug advertising[b] states that advertising must mention the drug price. The law of 8 February 2007 on pharmaceuticals is not implemented yet but it states in addition to the Decree that advertising should mention the composition, therapeutic indications, contra-indications, activity and secondary effects of the drug that are in agreement with the SPC of the drug; the texts in the documents containing advertisement(s), except the titles, should be written in the same letter size.

The control of advertising towards health professionals is based on a combined system of self-regulation and [c] monitoring of activities by the governmental healthcare inspection. Self-regulation is performed by the Stichting Code Geneesmiddelenreclame (CGR) for advertising directed to health professionals, the Keuringsraad Openlijke Aanprijzing Geneesmiddelen / Keuringsraad Aanprijzing Gezondheidsproducten (KOAG/KAG) for advertising directed to the general public (the functioning will be evaluated in the spring of 2008) and the Stichting Reclame Code (SRC) –for advertising in general- and her Reclame Code Commissie (RCC) and Professional College. The CGR has established a guidance code for drug advertising. The most relevant points of this code, besides information already given in the European Directive, are given below. The use of vague terms or superlatives should be avoided as well as the exaggeration of drug properties in another way. Cited publications must reflect the current state of the science and of the technique. A lot of rules concerning the comparison of a drug with another one (where a competitor is explicitly or implicitly mentioned) are given in the code. Important points are that the comparison must not be misleading; compared drugs must fill the same gap or must be intended for the same purpose; the comparison must objectively concern one or more real, relevant, verifiable and representative drug characteristics, e.g. the (clinical) efficacy; the comparison must not unnecessarily harm the value of the other drugs; the comparison should not present the drug as an imitation of a drug with a protected brand name; the comparison must be accurate -scientifically demonstrable- and in agreement with the most recent state of the science; the comparison is complete concerning efficacy, side effects, indications, contra-indications and other relevant data of the drug to be compared with. Advertising (excluding reminders or advertisements intended for practical information containing no pharmaco-therapeutical claim) must contain the drug name, the name and address of the marketer, the qualitative and quantitative composition of active ingredients, the conditioning, the main indications and clinical effectiveness according to registration data, the most important side effects and warnings, all contra-indications and the supply classification. The governmental healthcare inspection controls the application of the above-mentioned Decree; it also monitors the functioning of the CGR and controls the compliance to the CGR code by means of three inspectors. Also studies on request of the Minister on e.g. the way the pharmaceutical industry tries to influence guidelines are one of the Inspection roles. In a

b http://wetten.overheid.nl/cgibin/sessioned/browsercheck/continuation=27050002/session=039131002866415/acton=javascript-result/javascript=yes consulted on 10 May 2007

report of August 2006, the governmental healthcare inspection pointed out that the CGR is not proactive, only reacting in case of complaints and it does not control if its decisions are observed.

Since a control regarding regulations and ethics is already made on advertisements otherwise, the objective of the study is to assess content agreement with most recent evidence-based medicine (EBM) data.

1.2 OBJECTIVES

The objectives are formulated as research questions as follows:

- What does (inter)national scientific literature tell us concerning content and agreement with regard to EB-value of written information distributed by the pharmaceutical industry?
- Which written information coming from the pharmaceutical industry is sent to physicians or put to their disposal in Belgium?
- Is written information coming from the pharmaceutical industry and sent to general practitioners (GPs) based on reliable scientific data? In case of positive answer, is this evidence-based information presented in such a way that GPs can analyse it critically in order to use it to base the choice of their treatments?
- Which information does a physician need, except from EB-information, to perform an adequate therapeutic choice?

1.3 METHODOLOGY

In order to answer the first research question, a literature search was performed. A first contribution of the study of scientific literature was to give a methodology for the inventory and for the content analysis of written information. The second contribution was to give an overview of existing knowledge on EBM value of information from the pharmaceutical industry. Literature study is detailed in chapter 2.

The second research question was answered by performing an exploratory inventory consisting of the collection by a sample of physicians (GPs and specialists) and pharmacists of all written information received from the pharmaceutical industry during one month. Material was classified according to the type and a descriptive analysis of material collected was performed, allowing choice of the field (drug classes) for content analysis. The exploratory inventory is detailed in chapter 3.

The answer to the third question was given by the content analysis of classes of drugs selected at the time of the exploratory inventory. This analysis concerned prescription drugs only and SPCs were not part of information studied. Messages were classified according to specific criteria and content analysis was performed by means of a standardized plan. The content analysis is detailed in chapter 4.

Finally, the last question was answered by the qualitative analysis of focus group interviews. Physicians with good experience of general practice but not interested in EBM information searching were interviewed on the one hand and physicians knowing well principles of EBM work and having developed activities on the subject (training, research…) were interviewed on the other hand. These interviews were performed separately in French and in Dutch. The qualitative analysis of focus group interviews is described in chapter 5.

'Instruction leaflet' is legally not the correct name, although it is used in this report as more readable term for 'summary of product characteristics'.

2 LITERATURE STUDY

2.1 INTRODUCTION

Literature search was performed to obtain an answer to the research question «What does (inter)national scientific literature tell us concerning content and agreement with regard to evidence based (EB) content of written information distributed by the pharmaceutical industry?». This research question was further subdivided into three research questions:

- «What is nationally and internationally known in the scientific literature concerning the content of written information distributed by the pharmaceutical industry?»
- «What is nationally and internationally known in the scientific literature concerning the EB-value of written information distributed by the pharmaceutical industry?»
- «Which methodology is used in studies for the content analysis of written information?»

2.2 METHODOLOGY

Literature search was performed in Medline (via Ovid); Embase; Cochrane Database of Systematic Reviews, Cochrane Controlled Trials Register and Database of Abstracts of Reviews of Effects (via Ovid). Papers were also searched on references via articles found. Literature search was performed using search terms in the following four categories: physicians, drug industry, written information and advertising. Details of search strategy are given in appendix.

"Sceptical" sites (known to be critical towards the pharmaceutical industry) were also used. The following ones were consulted on 30 May 2006:

- www.nofreelunch.org (USA)
- http://www.nofreelunch-uk.org (UK)
- http://www.gruson.name/nolabos (France)
- http://www.nograziepagoio.it (Italy)
- http://healthyskepticism.org
- http://www.gezondescepsis.nl
- http://www.grouperechercheactionsante.com
- http://www.drugpromo.info/ (reviews of materials in the World Health Organization/ Health Action International database on drug promotion)
- www.paab.ca
- Health Action International : http://www.haiweb.org/01_about.htm

Public sites were also consulted on the same date:

- http://www.hon.ch/ (Health on the Net Foundation)
- http://www.chu-rouen.fr/cismef/ (Catalogue et Index des Sites Médicaux Francophones)
- http://www.kartoo.fr/flash04.php3

The following keywords were entered: written information and drug industry.

Literature search was performed by two researchers in May 2006. Only papers in English since 1990 were included. Abstracts for which the full-text was not in English

were finally not included, since the content of the abstract was not very different from full-texts found in English and therefore not yielding any added value.

No methodological filter was used and literature search was not restricted to a particular type of paper and included observation, cross-sectional studies in particular, as well as reviews.

Inclusion and exclusion criteria were determined for the selection of papers. All papers on written information from the pharmaceutical industry to physicians were selected. Written information means all magazines, newspapers, letters... that are sent to the physicians. Physicians include specialists as well as family physicians.

On the other hand, all the following papers were excluded: papers with main topic related to patient information and direct-to-consumer advertising (DTCA), over-the-counter (OTC) drugs, information material supplied by electronic way or on TV, information supplied from a source other than the pharmaceutical industry or financed by the industry, information leaflets, design of advertisements (marketing), quantity of advertisements in journals, quantity of advertisements, influence of representatives, gifts, evaluation of research articles, students.

From papers found, a first selection was performed on the abstract. In case of discrepancy between the two researchers, the reasons of (non) selection were explained and discussed until a consensus was reached. After exclusion on the abstract, other papers were rejected on the basis of the content of full papers.

The list of articles selected was validated by an expert of the KCE.

2.3 RESULTS

2.3.1 Description of selected studies

Some studies analyzed content in general and are often cited below; others were more restrictive and focused only on one aspect. For this reason, these latter were less frequently referred to.

Descriptive tables of selected studies stay in appendix.

2.3.1.1 Scope of study

Of the 36 articles, 32 were really about content analysis, most of the time of advertisements in medical journals.

Three concerned DTCA[1-3] but information on content analysis (e.g. description of risks) was of interest.

One dealt more on intensity of promotion rather than on the content, but useful information on type of claims present in advertisements was found.[4] A last one, although on devices, was kept because of information on classification of claims.

2.3.1.2 Date of publication

Fifteen articles were published before 2000 and 21 were published since 2000.

2.3.1.3 Date of study

A lot of studies concerned comparisons between two periods of time. Other studies were performed mainly during 2000-2004.

2.3.1.4 Duration of study

Duration of studies was variable and ranged 1 month to 6,5 years. A duration of 1 year was the most common.

2.3.1.5 Country

The final 36 papers kept from the literature search came from all around the world: thirteen from the United States (Keng[5], Wilkes[6] Mazor[7] Bhattacharyya[8] Cardarelli[9], Cowden[4], Kaphingst[3], Sansgiry[1], Caplovitz[10], Hogan[11], Stryer[12], Rothermich [13, 14]), three from Canada (Lexchin[15, 16], Cassels[2]), one from Brazil (Mastroianni [17]), one from Finland (Lankinen[18]), one from Spain (Villanueva[19]), one from Russia (Vlassov[20]), one from the Netherlands (van Winkelen[21]), four from India (Christo [22], Lal[23-25]), one from Pakistan (Rohra[26]), one from Israel (Gilad[27]) and two from Australia (Carandang[28], Loke[29]). Six articles involved several countries together: four for the United States and Canada (Cooper[30, 31], Gutknecht[32], Neumann[33]), one for the United States and Europe (Nelson[34]), one for the United States, the United Kingdom and Brazil (Mastroianni[35]). One article involved eighteen countries, namely eleven from Europe, four from Asia, two from Africa and one from South America (Herxheimer[36]).

2.3.1.6 Study design

The study design was seldom mentioned. Most of the time, articles were descriptive. There were no interventions, sometimes before-and-after measurements (i.e. before and after a new regulation).

2.3.1.7 Setting

The setting was not mentioned in most cases. In other cases, it went on physicians (type not mentioned), specialists, GPs, pharmacists and patients.

2.3.1.8 Class of medication

The class of medication was frequently not mentioned, i.e. no focus on a specific class. There were two articles on miscellaneous classes[23, 2]. Other articles were on cardiovascular drugs[19], psychoactive drugs[17, 35], dermatological drugs[11, 4], antibiotics[27], urological drugs and devices[34], devices only[8].

2.3.2 Source of advertisements/claims

One advertisement contains one or more claims. Some articles were on advertisements, other on claims.

Advertisements came mainly from medical journals or brochures but also from drug letters, pamphlets, DTCA material (newspapers), responses (e.g. file cards) of pharmaceutical companies on requests of information (e.g. following FDA citations of prescription drug advertisements). These advertisements were received by mail or by drug representatives.

2.3.3 Choice of advertisements/claims

There was a huge variability regarding the choice of advertisements/claims. Sometimes all advertisements were chosen with no specific inclusion criteria and no exclusion criteria. In other cases, only advertisements with specific features were selected. These characteristics concerned presentation (e.g. specific size such as at least one-page length) or content (e.g. specific type of drugs like prescription-only drugs, specific class of medication like antihypertensive drugs, most frequently prescribed types of drugs, presence of (a certain number of) claims or references, mention of relative risk reduction or (at least one) harm or benefit …). Some advertisements were chosen in order to perform a comparison (between countries or before and after an intervention, e.g. new regulation). Some advertisements were selected during a certain period of time or according to a certain number of issues of a journal or until a certain number (arbitrary) was reached. Other advertisements were selected at random …

Statements were all selected in some cases, other statements were sometimes chosen according to a specific order (e.g. first claim) in an advertisement.

2.3.4 Assessment of advertisements/claims

A lot of different methods of assessment were used.

Advertisements were analysed on general information, claims, graphics and/or references. The data were sometimes blinded.

Assessment consisted of evidence-based review of articles, rating on letters presentation, identification of areas of deficiency, assessment of link of claims with references, comparison of data studied with those in underlying study, coding of graphs, score assignment and comparison of scores, classification (rating) of references, inclusion or not of articles in the study, support of claims by studies mentioned…

Analysis was generally performed independently by several (pairs of) reviewers. Interrater reliability of assessment was performed and in case of discrepancies, either a consensus was reached between researchers or a validation by another (pair of) researcher(s) was performed.

In case of a validation of a checklist, the drop of questions was performed if there was disagreement.

Despite of the numerous methods used, some methods more commonly used emerged, namely the use of a checklist and the use of scores.

2.3.5 Specific results

2.3.5.1 Number of advertisements

The number of advertisements ranged from 14 to 6710 according to the studies. The number of unique advertisements ranged from 14 to 1033 according to the studies.

2.3.5.2 General information

General information was checked on a list of items sometimes coming from the FDA or from WHO.[36, 22, 25, 34, 35]This list comprises items generally mentioned in the SPC (product name, therapeutic class, ingredients, presentation, indications, dosage, risk information, storage, cost, references, name and address of company, mention of further information available on request …). One author called this «technical content».[17]

2.3.5.3 Claims

Some articles were specifically focused on claims. The methodology used and the results are presented below.

Classification of claims based on an item-list

Classification systems were based on a few characteristics (efficacy, safety, convenience, cost) [19] or on more characteristics (new, unique, better …).[27]

Classification of claims based on a specific topic

One classification was focused on health-related quality-of-life.[13, 14] Another one was contained also information on economics (price, cost-effectiveness)[33] and other studies only mentioned economic characteristics.[2, 27]

One study assessed the claims according to the type of side effects: side effect severity (65%), side effect frequency (qualitative terms: 57%, comparative terms: 9%, quantitative terms: 4%)[3]. Another one only reported if this type of information was present[1]. The authors found 7% of the claims containing such information. Accuracy of claims regarding risks/benefits was checked by using a five-point scale (strongly agree-strongly disagree) in another study[15]. Claims were also classified according to type of violation[4]. Concerning respectively medications overall and specific (dermatology-related) medications, insufficient communication of possible risks was present in 32,4% and

33,9% of cases, overstatement of efficacy in 18,9% and 20,3% of cases, amplification of approved product indication or use in 18,7% and 18,6% of cases, misleading comparison with another product in 12,8% and 16,9% of cases, failure to submit a copy to FDA prior to advertising campaign in 5,7% and 6,8% of cases, promotion of investigational drug as effective in 3,5 and 1,7% of cases, inadequate dissemination of product labelling information in 3,5 and 1,7% of cases, misleading claim of mechanism of action in 3,3 and 0% of cases and other types of violations in 1,2 and 0% of cases. Another author classified advertisements according to agreement or disagreement with items of FDA regulations: there was no agreement with the claim that the drug was "the drug of choice" in 30% of cases, information was not fair-balanced in 40% of cases, statement of drug safety was correct in 86% of cases but misleading of reader about efficacy was present in 32% of cases[6]. In 44% of cases, advertisement would lead to improper prescribing if no other information was present. Fifty-seven percent of advertisements were judged to have little or no educational value. Publication would not have been recommended in 28% of advertisement and major revisions would have been required in 34% of cases before publication. One author classified misleading/unjustifiable claims (i.e. not supported by evidence – 18%) as exaggerated (32%), ambiguous (21%), false (26%) or controversial (21%).[26] One author classified claims in either of the following categories: misrepresentation of risk information (37%), promotion for use not proven safe and effective (24%), unsubstantial or misleading (36%) or other (3%)[10].

Classification of claims based on outcome measures

Clinical outcomes were reported as RRRs only (50%); ARRs or NNTs (0%); RRRs, but ARRs or NNTs could be calculated (9%); no value given, but RRRs, ARRs, or NNTs could be calculated (41%).[16]

Other outcomes were reported as patient-oriented outcomes or disease-oriented outcomes. Statistical significance of the outcome was also assessed.[9]

Mentions of drug benefits and harms were categorized as surrogate or clinical outcomes and a quantification was also performed[2]. Nineteen percent mentioned only surrogate benefits and 2% only surrogate harms.

Claims were classified depending on the outcome. The outcome was either an unambiguous clinical outcome (e.g. When compared with DRUG X, DRUG Y delivers faster symptom relief) or a vague clinical outcome (e.g. DRUG X is the new, effective 20µg pill with a low incidence of discontinuation due to skin problems) or an emotive or immeasurable outcome (e.g. DRUG X – a source of healing power) or a non-clinical outcome (e.g. Using DRUG X resulted in a 30% increase in arterial luminal diameter in post-mortem dissections). This study found respectively 23%, 20%, 29% and 28% for each type of outcome.[29]

Assessment of claims

One author used a scale ranging from (strongly) agree to (strongly) disagree to assess the accuracy of claims concerning risks/benefits.[6]

Some authors classified the claims according to the balance promotional/educational value of the claim. None had a great educational value; respectively 50%, 29% and 21% offered some, little and no educational value[1, 6, 12]

2.3.5.4 Graphs

Description

Several studies gave a description of graphs characteristics. The figures were described as graphs or tables, or as medical illustrations[11]. Other descriptions included type of picture (drugs, scientific material, patients, doctors…[27], presence of a picture on drug indication or drug benefit, or presence of a picture (before and) after use of a product[11], emphasis on patient or physician…[34]). Graphs were characterized as pictures, scientific tables, scientific graphs, pseudo-graphs (arrows and diagrams without e.g. axes allowing interpretation of dimensions).[30]

Assessment

One article was specifically focused on graphs.[30] Graphical presentation (charts, arrows, or line graphs) was assessed.[9] This study conceptualized components of graph evaluation as a set of distinct constructs (format, comprehensiveness and coherence, visual quality, efficiency of design, relation to the rest of the advertisement) and assessed the type of outcome graphed. The same study checked the presence of a numeric distortion and used an instrument with a list of items to score graphs. A list of items on influence of behaviour, support, consistency, possibility of misleading … was also used to assess illustrations on a 5-point scale (strongly agree - strongly disagree).[1] Compliance with FDA guidelines was assessed by checking different items (representation, possibility of misleading, references, appropriateness …).[6] The size of graphs was also assessed. [11] Relevancy of graphs or pictures was evaluated.[30] Finally, graphs were judged acceptable (96%) or not (4%).[28]

2.3.5.5 References

Availability/retrievability of references

A reference was considered as available (90% of cases) if a copy of the cited material could be obtained[31] or if it was readily available in the medical library of the university or hospital of the city.[28]

Citation of references

They were either mentioned (24% in one study, 37,9% in another one) or not mentioned.[23, 8]

Source of references

The journal or meeting in which the data were disclosed was mentioned.[2] Source of references did not only concern journals (75,7%) or conferences/ symposia (2,4%), but also books, personal testimonials (4,2%), unpublished data (0,8%), data on file (1,9%) in another study.[23]

A reference could also refer to a "major" medical journal (27,9% in 1980 and 10,3% in 1990), a "minor" medical journal (7,9% in 1980 and 15,8% in 1990) a text book or data on file.[11]

Characteristics of references

References must be in a specific language, e.g. in English.[28]

Classification of references

A system of classification was the following: journal article (55%), generic data on file (a reference to an unspecified, unpublished company document – 19%), specific data on file (e.g., "Drug Company packet WP 1234"), meeting abstract or presentation, book or monograph, marketing report (material cited in support of claims such as "prescribed over 2 million times in 1999"), prescribing information (e.g., Physicians' Desk Reference [PDR] or package insert, government document (e.g., the US Centers for Disease Control and Prevention Morbidity and Mortality Weekly Report [MMWR]), internet site.[31]

Another system classified references according to the level of evidence available, i.e. unreferenced (62% of cases), non-Medline, irrelevant reference, non-scientific evidence (all supportive information other than meta-analyses or randomised controlled trials), limited research-based evidence (at least one supportive and adequate scientific study), moderate research-based evidence (at least one supportive, relevant, high-quality randomised controlled trials or multiple supportive adequate studies) or strong research-based evidence (supportive meta-analysis or multiple relevant, high-quality scientific studies with homogeneous results).[18]

References were classified into one of five categories: review article (with a scale for rating methodologic quality - 26%), clinical trial of treatment (also with a scale for rating methodologic quality - 64%); basic laboratory experiment, survey or government-generated statistics, secondary data source (e.g., book, product monograph or entry in the CPS), data on file (unpublished material), all these categories accounting for 10%. A methodologic quality scale was applied to the first two categories but not if it belonged to the third category nor if it was a secondary source (except if it was unreferenced, i.e. considered as author's opinion, in this case, it received the lowest score). References received as "data on file" were classified into one of the first four categories and then treated accordingly.[15]

Adequacy of references

Adequacy was either complete or incomplete according to the standard bibliographic norms. [23] The majority was found to be incomplete.

Type of references

According to a study, type of references could be tertiary literature (books – 2%), editorials (1%), primary literature (human or non human research, epidemiologic research, review articles, all these categories accounting for 97%)[5]

Type of study referenced

It could be a clinical study (50% of cases) or a laboratory study or there could be no scientific study (34% of cases).[8]

Another author classified the type of articles referenced as original research, review article, letter or editorial.[31]

The type of study design of referenced studies was presented as well as details like the number and characteristics of study subjects.[2] Study design was classified as controlled (42% of cases), uncontrolled (8%), prospective (1%) or retrospective (3%).[5]

Outcome in the study referenced

The outcome could concern either clinical endpoints (43,1%), surrogate endpoints (37,2%) or pathophysiological endpoints (19,6%).[19]

Data supporting the references

A study defined the academic status of data supporting references as follows: published report, presented at meeting only, data on file only, no scientific study, no response of company. The data could be considered as high quality or low quality. Claims were assessed as well supported or unsupported, based on the review of the data. The validity of the claims was assessed by the rating of the data and they were considered as well supported, possibly supported (here meaning not the same validity rating by al reviewers), unsupported or no response from company. Fourteen % of the claims were well supported, 34% were possibly supported, 44% were unsupported and there was no response for 8% of them.[8] Another classification was the following: well supported, poorly supported or misleading.[21]

The validity of an article was also determined by a list of six questions that addressed evidence-based principles.[9]

The level of supporting evidence of each reference was determined as follows: meta-analysis or systematic review = level I evidence (10% for unambiguous clinical outcome; 14% for vague clinical outcome), at least one randomised controlled trial = level 2 evidence (respectively 45 and 25%), other study (such as a cohort study) = level 3 evidence (9% for both types of outcome), claims with references not searchable on Medline, unreferenced claims.[29]

The response for information for data on file was either no response (64% for generic data; 47% for specific data), response to initial request (29 and 37%, respectively) or

response after repeat request (7 and 16%, respectively). The type of response was either a decline (14 and 34%, respectively), study data that were unpublished (12 and 7%, respectively) and/or journal reprint (4 and 3%, respectively).[31]

Link with the claim

A comparison was performed between the data presented in the document studied and the data presented in the original study to determine consistency.[9]

A study assessed the link between claims and references and considered claims as either well supported or poorly supported by the reference(s) or misleading. The distribution into these categories was 17, 74 and 9%, respectively.[21]

Referenced statements were also classified as correct (46,1%), incorrect/inaccurate (4,2%), misleading (15,3%) or taken from abstract, discussion or conclusion of a study (5,4%).[5]

Another one used a series of criteria to determine if claims were supported or not (44,1%).[19]

One study used a scale (score 1 to 5: complete support, limited or partial support, not directly relevant, irrelevant, contradictory) to rate the degree to which references support statements.[15]

Financial source of study

Funding sources were searched for in each referenced study as well as affiliation of authors with manufacturer of product.[2, 31, 9]

Acceptability of references

References cited as data on file or available upon request were considered unacceptable (65%).[28]

2.3.5.6 Final classification of the advertisement

The advertisement was classified as «accept» (4%), «accept contingent upon minor revisions» (35%), «accept contingent upon major revisions» (34%) or «reject the advertisement» (28%).[6]

Reasons for revisions or rejections were lack of information (on safety, efficacy, populations, side effects and contraindications or references), presence of misleading information (references, statements, graphs and tables or images), or need of another correction [6, 1]

A simple final classification was proposed as acceptable or unacceptable, this last category being further classified according to the Australian Pharmaceutical Manufacturer Association (APMA) Code of Conduct into advertisement containing unacceptabe reference or making unacceptable claims.[28]

2.4 DISCUSSION

The aim of the literature search was to obtain a support for the choice of the methodology for the exploratory inventory as well as a support for the choice of the domain and of the methodology of the content analysis of the material chosen from the exploratory inventory.

From the literature search, it appeared that there was a great variability regarding the methods used for the inventory as well as for the content analysis of written information from the pharmaceutical industry. However, for the latter, some methods were used several times, like the use of a checklist or of a score.

The duration of studies was variable; the domains covered in the studies were also variable, as presented in the results section (class of medication).

Furthermore, concerning content analysis, the literature search gave simply information on description of content rather than information regarding EBM information of content.

Finally, some studies focused only on one aspect of the content analysis, i.e. claims or graphs or references ….

That is the reason why we tried to make our own methodology by including the best methods found in the literature for each part of the content analysis (i.e. analysis of graphs, references …). By integrating all these aspects of the content analysis, our project is so far the first to our knowledge to perform such an exhaustive analysis of content at once (with analysis of claims one by one, analysis of references with critical appraisal of studies referenced, analysis of tables …). The methodology of the content analysis is described in the content analysis methodology section.

2.5 KEY MESSAGES

- **Methodology highly variable for the inventory and the content analysis**
- **Duration and domains covered also highly variable**
- **Study of the content mainly descriptive rather than analysis of the EBM content**
- **Study of the content generally focused on only one aspect**

3 EXPLORATORY INVENTORY

3.1 BACKGROUND

The exploratory inventory is the second part of the study "EBM-value of the information from pharmaceutical companies. Content analysis on documents for general practitioners (GPs)." Before focusing on the content, it was of interest to know which information (kind of information, quantity…) GPs receive and which kind of written information we would choose for analysis. That is the reason why we began with an exploratory inventory: a descriptive and clearly limited assessment of a sample of the written information GPs received from pharmaceutical companies. This sample was extended to some specialists and pharmacists to get an idea if there were great differences between these groups of health professionals.

3.2 OBJECTIVES

To quantify the amount of written material coming from pharmaceutical companies to GPs, specialists and pharmacists.

To facilitate the choice of material originating from pharmaceutical companies, which are of interest for the further evaluation study.

3.3 METHODOLOGY

3.3.1 Collection of documents

During one month, 17 health professionals recruited by the scientific societies collected all written information they received from pharmaceutical companies, including indirect communication through advertising in journals and periodicals. Health professionals included GPs, specialists and pharmacists. Table 1 shows the characteristics of those health professionals.

They all received three boxes: a big one for all documents received by post, a smaller one for documents received by drug representatives, and the smallest one for everything they could gather at continuing professional development (CPD) sessions, i.e. symposia, meetings, conferences (see appendix).

For practicability reasons, the collection period was limited to one month, from 28 April to 26 May 2006.

Table 1: Characteristics of collecting health professionals

Occupation	Language	Area	Gender
GP	F	Brussels	F
GP	F	Brussels	M
GP	F	Brussels	M
GP	F	Brussels	F
GP	D	Antwerp	M
GP	D	Antwerp	M
GP	D	Antwerp	M
GP	D	Antwerp	M
Surgeon	D	Antwerp	M
Cardiologist	D	Flemish Brabant	M
Gastro-enterologist	D	Antwerp	M
Chest physician	F	Brussels	M
Paediatrician	F	Walloon Brabant	M
Pharmacist	F	Walloon Brabant	M
Pharmacist	F	Walloon Brabant	F
Pharmacist	D	Antwerp	M
Pharmacist	D	Flemish Brabant	M

GP: general practitioner, F (language): French, D: Dutch, F (gender): female, M: male

3.3.2 Sorting of documents

Documents are all non-asked for written material received by the health professionals (see letter to participants in appendix for further details). At first the boxes were emptied and each document received a different code according to the participant and kind of box. Documents were classified in five groups: letters, folders, brochures, periodicals, journals. The definitions of document, each type of document and advertisement are shown in Table 2.

Table 2. Definitions of document, each type of document, and advertisement

Type of document	Characteristics
Document	all non-asked for written material received by health professionals
Letter	one or several A4 pages
Folder	folded paper, not stapled or sticked -postcard or poster included in this group
Brochure	little booklet or several pages that are stapled or sticked
Periodical	booklet of several stapled A4 pages, sent monthly, including any periodical other than journal, i.e. magazine and review
Journal	stapled A3 pages, sent (three-)monthly or (bi-)weekly
Advertisement	(part of a) document containing information from the pharmaceutical industry

Documents were excluded if they were not originating from pharmaceutical companies or if there was no mention of any medication (or mention of a not for human use drug or mention of something else than a drug) or if they were meant for patients or were sent by e-mail.

Each advertisement received a different number in case of documents with several advertisements.

3.3.3 Assessment of documents

Every document and every advertisement in these documents were entered in a database by four different people (two secretaries and two researchers). Data entered by the secretaries was checked by the researchers. In case of doubt, a consensus was reached by the researchers.

Fields to fill in or to tick for each document and for each advertisement in a document are given in appendix.

3.3.4 Analysis of documents

The analysis was performed using Microsoft Access and Microsoft Excel.

3.4 RESULTS

3.4.1 Documents

3.4.1.1 Number of documents

The 17 participants received at total of 477 documents during this one month in spring 2006, corresponding to 165 distinct documents. Among the 477 documents, 461 (96,6%) were received only once by the same participant.

3.4.1.2 Number of documents by type of health professionals

Table 3. Number of documents received per individual by type of health professionals and by type of document

	Letters			Brochures			Folders			Journals			Periodicals			Total		
	Mdn	Q1	Q3	Mdn	Q1	Q3	Mdn	Q1	Q3	Mdn	Q1	Q3	Mdn	Q1	Q3	Mdn	Q1	Q3
GPs (n = 8)	7	7	9	3	2	4	6	6	15	13	12	13	7	6	9	37	34	46
Specialists (n = 5)	2	1	2	3	1	4	3	2	3	9	7	12	4	2	4	20	18	22
Pharmacists (n = 4)	8	5	9	2	1	3	5	3	6	0	0	0	4	2	5	19	14	20
Total (n = 17)	7	2	9	2	1	4	5	3	6	10	3	13	5	4	7	22	19	35

Table 3 presents the number of documents received per individual by type of health professionals and by type of document Since the numbers were not normally distributed, we choose to present median and quartiles rather than means. As shown by this table, GPs (and specialists) received the largest amount of documents. One GP received much more documents than the others. No journal was received by the pharmacists, and one pharmacist received only three documents.

3.4.1.3 Mean number of journals and periodicals received by health professionals

Table 4. Mean number of journals and periodicals received by health professionals

Total	GPs (n=8)	Specialists (n=5)	Pharmacists (n=4)	Total (n=17)
Journals (periodicity)				
Artsenkrant / le Journal du médecin (2/week)	4,88	3,80	0,00	3,41
De agenda Cardio (1/month)	0,00	0,20	0,00	0,10
De Huisarts / Le Généraliste (1/week)	3,88	0,80	0,00	2,06
Intra Muros (1/month)	0,00	0,60	0,00	0,20
Le journal des Cardio (1/month)	0,00	0,60	0,00	0,20
Het Medisch Weekblad / La Semaine Médicale (1/week)	2,88	2,60	0,00	2,12
De specialist (1/month)	0,00	0,60	0,00	0,20
Total journals	11,63	9,20	0,00	8,18
Periodicals (periodicity)				
Andrologic (1/month)	0,00	0,40	0,00	0,10
Apothekersblad Korte Berichten (1/month)	0,00	0,00	0,30	0,10
BHL (1/2 months)	0,00	0,20	0,00	0,10
BioServInfo (1/month)	0,88	0,00	0,50	0,50
Diabetographia (1/month)	0,00	0,20	0,00	0,10
Framingham on respiratory diseases (1/month)	0,00	0,40	0,00	0,10
De Generiek (1/month)	0,50	0,00	0,80	0,40
le Journal d'alpha (1/month)	0,00	0,00	0,30	0,10
LOK-magazine (1/month)	0,63	0,63	0,00	0,47
Médecine & Vieillissement (1/2 months)	0,63	0,00	0,00	0,29
Medical Digital Digest (1/month)	0,63	0,00	0,00	0,29
Medisfeer (2/month)	1,88	0,00	0,00	0,88
Ortho-Rheumato (1/month)	0,00	0,20	0,00	0,10
Patient Care (1/month)	0,88	0,40	0,00	0,50
Pharma Sphère (1/month)	0,00	0,00	0,33	0,06
Semper (1/month)	0,88	0,20	0,50	0,50
Substraat (1/month)	0,00	0,00	0,50	0,10
Tempo Medical (1/month)	0,88	0,80	0,00	0,65
Tijdschrijft voor Cardiologie (1/month)	0,00	0,20	0,00	0,06
Total periodicals	7,63	3,60	3,00	5,35
Total journals and periodicals	19,25	12,80	3,00	13,53

The mean number of journals and periodicals received by health professionals is presented in Table 4. During the collection period, there were seven different journals and nineteen periodicals, without taking into account the number of issues of each journal/periodical. Some titels are only mentioned in Dutch or French because it was only received by Dutch- or French-speaking health professional(s).

The periodicals *Apothekersblad Korte Berichten*, *le Journal d'alpha*, *Pharma Sphère*, *Substraat* are only sent to pharmacists, explaining why the other health professionals did not receive them. Other documents are aimed at specific specialties such as de agenda Cardio, Intra Muros, le journal des Cardio, de Specialist, Andrologic, BHL, Diabetographia, Framingham on respiratory diseases, Ortho-Rheumato, Tijdschrift voor Cardiologie, explaining why the others did not receive them.

By counting the number of journals every physician received, we can check the reliability of the gathering. Artsenkrant / le Journal du médecin has the widest distribution among

GPs and specialists. It was not collected at all by one GP and one specialist. Only two GPs and one specialist collected every journal issue (see appendix). Het Medisch Weekblad / La Semaine Médicale is also a journal that is sent to a large number of GPs and specialists. De Huisarts / le Généraliste is normally sent to all GPs but we can notice that one specialist received it.

3.4.1.4 Way of delivery

Table 5. Way of delivery by type of document

	Post	Medical representatives	CPD	Total
Letters	94	1	1	96
Brochures	25	19	2	46
Folders	71	31	3	105
Journals	139	0	0	139
Periodicals	89	2	0	91
Total	418	53	6	477

The Table 5 shows the way of delivery by type of document. Overall, most documents (87,63 %) were received by post. Among documents obtained from medical representatives, folders and brochures were the most represented. Finally, a small number of documents were collected at CPD.

No journals nor periodicals/periodicals were received at CPD or from medical representatives, except from two issues of the Framingham on respiratory diseases received from medical representatives.

Table 6. Way of delivery by type of health professionals

	Post			Medical representatives			CPD			Total		
	Mdn	Q1	Q3	Mdn	Q1	Q3	Mdn	Q1	Q3	Mdn	Q1	Q3
GPs (n = 8)	36	33	40	3	3	12	1	1	1	37	34	46
Specialists (n = 5)	16	14	16	3	2	4	3	3	3	20	18	22
Pharmacists (n = 4)	15	11	17	3	2	4	2	2	2	19	14	20
Total (n = 17)	19	16	35	3	2	5	2	2	3	22	19	35

As shown in Table 6, post is the way of delivery most represented for all health professionals. Other ways of delivery are much less represented.

3.4.2 Advertisements

3.4.2.1 Number of advertisements in unique documents

The number of advertisements in the 165 unique documents received by the health professionals of the study is 896.

3.4.2.2 Number of advertisements by type of document

Table 7. Number of advertisements by type of document

	Number of unique documents	(Mean) number of advertisements	Standard deviation (SD), if applicable
Journals			
Artsenkrant / le Journal du médecin	7	30,29	6,00
De agenda Cardio	1	15	
De Huisarts / le Généraliste	4	32,00	6,00
Intra Muros	1	10	
Le journal des Cardio	1	5	
Het Medisch Weekblad / La Semaine Médicale	4	13,00	4,32
De specialist	1	14	
Periodicals			
Andrologic	1	8	
Apothekersblad Korte Berichten	1	9	
BHL	1	15	
BioServInfo	1	6	
Diabetographia	1	1	
Framingham on respiratory diseases	2	1,00	0,00
De Generiek	1	9	
le Journal d'alpha	1	8	
LOK-magazine	1	10	
Médecine & Vieillissement	2	11,00	2,83
Medical Digital Digest	1	10	
Medisfeer	3	19,00	3,61
Ortho-Rheumato	1	16	
Patient Care	2	15,50	3,54
Pharma Sphère	1	17	
Semper	1	26	
Substraat	1	17	
Tempo Medical	2	5,50	4,95
Tijdschrijft voor Cardiologie	1	9	

Table 7 shows the number of advertisements by type of document. Among all documents, *de Artsenkrant/le Journal du médecin* and *de Huisarts/le Généraliste* contain the largest amount of advertisements. Among periodicals/periodicals, Medisfeer and Patient Care contain the largest amount of advertisements. The great majority of folders, brochures and letters contain only one ad (data not shown).

Table 8. Number of drugs with ATC-code versus not registered products for each type of document, detailed for journals and periodicals

	Drugs with ATC-code	Not registered products	Not registered products among all drugs
Journals			
Artsenkrant / le Journal du médecin	133	44	24,86%
De agenda Cardio	15	2	11,76%
De Huisarts / le Généraliste	147	33	18,33%
Intra Muros	11	0	0%
Le journal des Cardio	6	0	0%
Het Medisch Weekblad / La Semaine Médicale	63	10	13,70%
De specialist	17	6	26,09%
Total journals	392	95	19,51%
Periodicals			
Andrologic	7	1	12,50%
Apothekersblad Korte Berichten	11	1	8,33%
BHL	44	1	2,22%
BioServInfo	0	9	100%
Diabetographia	1	0	0%
Framingham on respiratory diseases	2	0	0%
De Generiek	10	0	0%
le Journal d'alpha	3	11	78,57%
LOK-magazine	11	0	0%
Médecine & Vieillissement	19	0	0%
Medical Digital Digest	9	3	25,00%
Medisfeer	35	37	51,39%
Ortho-Rheumato	17	7	29,17%
Patient Care	31	5	13,89%
Pharma Sphère	17	7	29,17%
Semper	26	4	13,33%
Substraat	9	12	57,14%
Tempo Medical	10	2	16,67%
Tijdschrijft voor Cardiologie	11	0	0%
Total periodicals	273	100	26,81%
Letters, brochures, folders	221	59	21,07%

As shown in Table 8, the percentage of not registered products (e.g. vitamins, homeopathic products, phyto-products…) among all drugs is very variable, depending on the document. Some documents do not have any advertisements for not registered products: Intra Muros, Le journal des Cardio, Diabetographia, Framingham on respiratory diseases, De Generiek, LOK-magazine, Médecine & Vieillissement, Tijdschrijft voor Cardiologie. On the other hand, BioServInfo contains not registered products only, le Journal d'alpha, Substraat and Medisfeer contain respectively nearly 80%, approaching 60% and more than 50% of not registered products.

3.4.2.3 Number of advertisements by type of health professionals

Table 9. Number of advertisements received per individual by type of health professionals

	Median	Q1	Q3
GPs (n = 8)	463	412,5	522,25
Specialists (n = 5)	254	145	285
Pharmacists (n = 4)	66	36	85,5
Total (n = 17)	285	112	429

Table 9 shows that GPs represent the category of health professionals who receive the highest number of advertisements, followed by specialists and pharmacists.

Table 10. Total number of advertisements for drugs with ATC-code versus not registered products by type of health professionals

	Advertisements for drugs with ATC-code	Advertisements for not registered products	Advertisements for not registered products among all advertisements
GPs (n = 8)	2988	443	12,91%
Specialists (n = 5)	1056	133	11,19%
Pharmacists (n = 4)	155	61	28,24%
Total (n = 17)	4199	637	13,17%

As one can see in Table 10, not registered products are more represented among pharmacists whereas the percentage of not registered products among all drugs is equivalent among GPs and specialists.

3.4.2.4 Number of advertisements according to number of drug names

Figure 1. Number of advertisements according to number of drug names

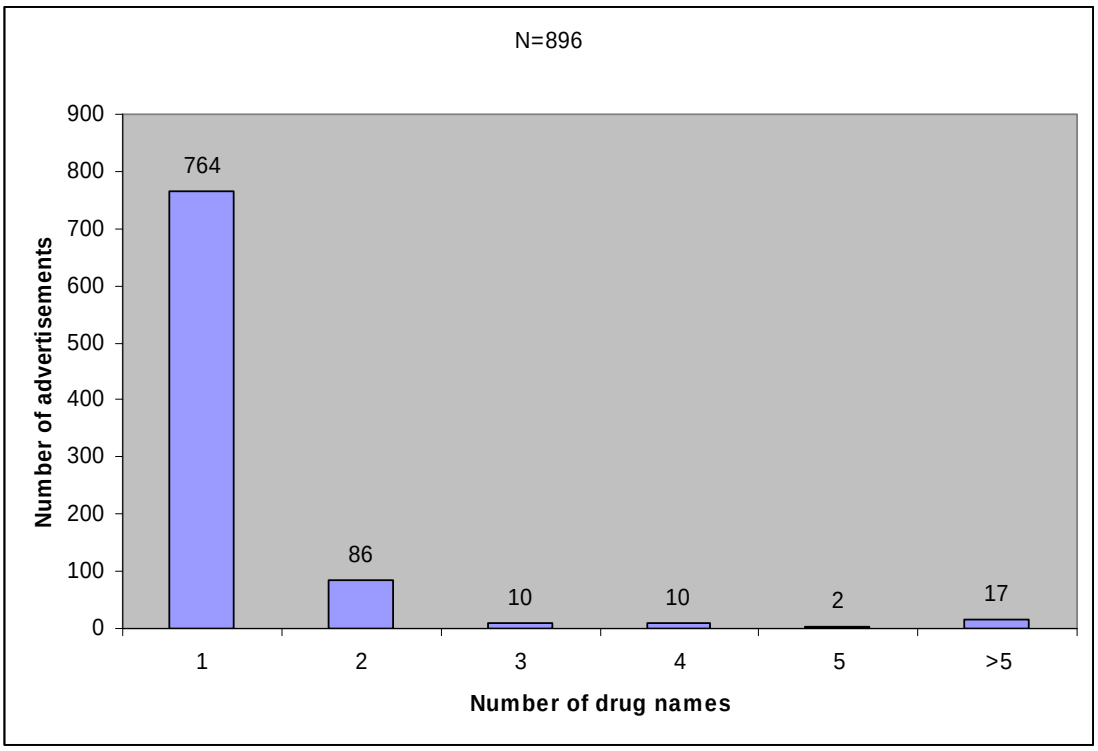


Figure 1 represents the number of advertisements according to number of drug names

Most advertisements contain one drug name. Around 10% contain two drug names. Among advertisements with more than five drug names, the same advertisement with 6 drug names appears ten times and there is a magazine with an advertisement containing 31 drug names. Advertisements with two drug names include 34 advertisements of C level 1 ATC classification drugs with eight different combinations of cardio-vascular drugs.

3.4.3 Drugs

The number of drugs in the 896 advertisements from the 165 unique documents is 1196.

3.4.3.1 Number of drugs by level 1 ATC classification group

Table 11. Number of drugs by level 1 ATC classification group

Level 1 ATC	Level 1 ATC designation	Number of drugs	% of total
A	Alimentary tract and metabolism	135	11,29%
B	Blood and blood forming organs	41	3,43%
C	Cardiovascular system	303	26,67%
D	Dermatologicals	18	1,51%
G	Genito-urinary system and sex hormones	60	5,02%
H	Systemic hormonal preparations, excl. sex hormones and insulins	5	0,42%
J	Antiinfectives for systemic use	106	8,86%
L	Antineoplastic and immunomodulating agents	14	1,17%
M	Musculo-skeletal system	64	5,35%
N	Nervous system	165	13,80%
R	Respiratory system	83	6,94%
S	Sensory organs	3	0,25%
V	Various	2	0,17%
/	Not registered products	176	14,71%
Total		1196	100,00%

Table 11 does not mention P and Q since P concerns antiparasitic products, insecticides and repellents and Q concerns veterinary drugs. These drugs are not included in the study. C, the not registered products group and N are the most frequent. Detailed results are given below for C. Non registered drugs represent complementary and alternative medicine, e.g. vitamins, homeopathic preparations...

Table 12. Total number of drug advertisements by level 1 ATC classification group and by type of health professionals

Level 1 ATC	Level 1 ATC designation	GPs (n=8)	Specialists (n=5)	Pharmacists (n=4)	Total (n=17)
A	Alimentary tract and metabolism	532	145	49	726
B	Blood and blood forming organs	113	55	6	174
C	Cardiovascular system	1224	484	43	1751
D	Dermatologicals	97	30	2	129
G	Genito urinary system and sex hormones	254	82	18	354
H	Systemic hormonal preparations, excl. sex hormones and insulins	7	0	1	8
J	Antiinfectives for systemic use	282	149	10	441
L	Antineoplastic and immunomodulating agents	17	18	5	40
M	Musculo-skeletal system	216	90	11	317
N	Nervous system	672	224	49	945
R	Respiratory system	373	131	11	515
S	Sensory organs	17	3	0	20
V	Various	0	2	0	2
/	Not registered products	562	175	74	811

Table 12 shows the global exposure of health professionals to advertisements in each level 1 ATC classification. The C level is the most represented in GPs and specialists and the third most represented in pharmacists as shown in the following graph.

Figure 2. Proportion of drug advertisements in each level 1 ATC classification by health professional

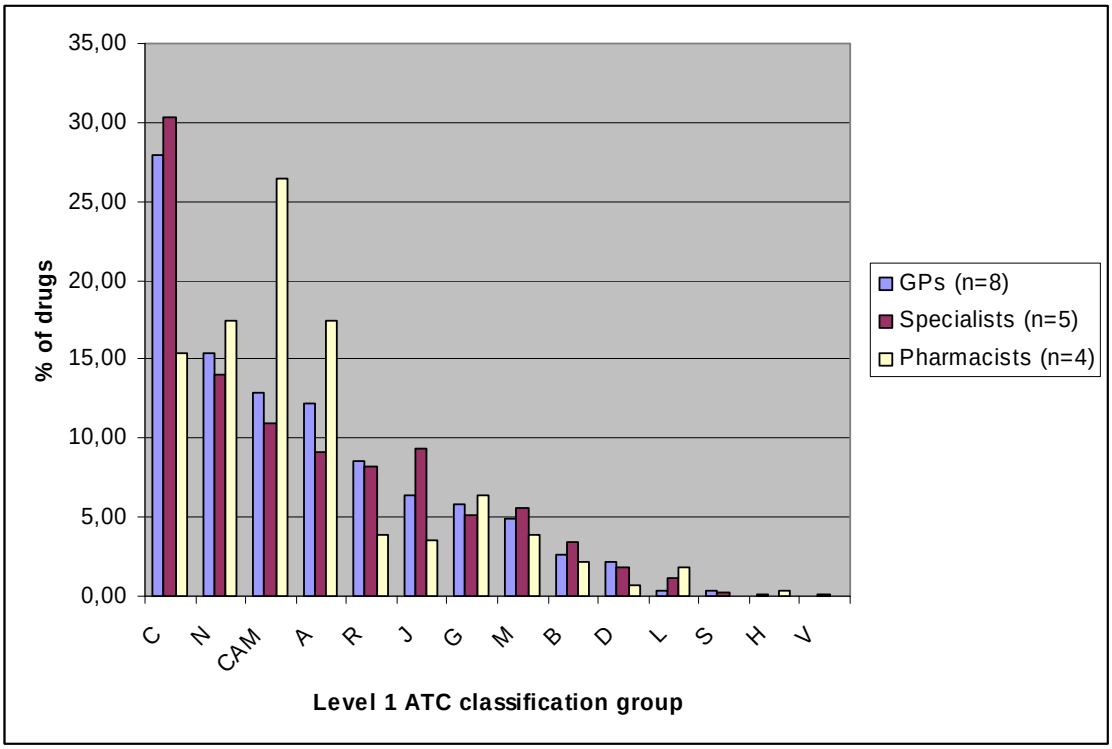
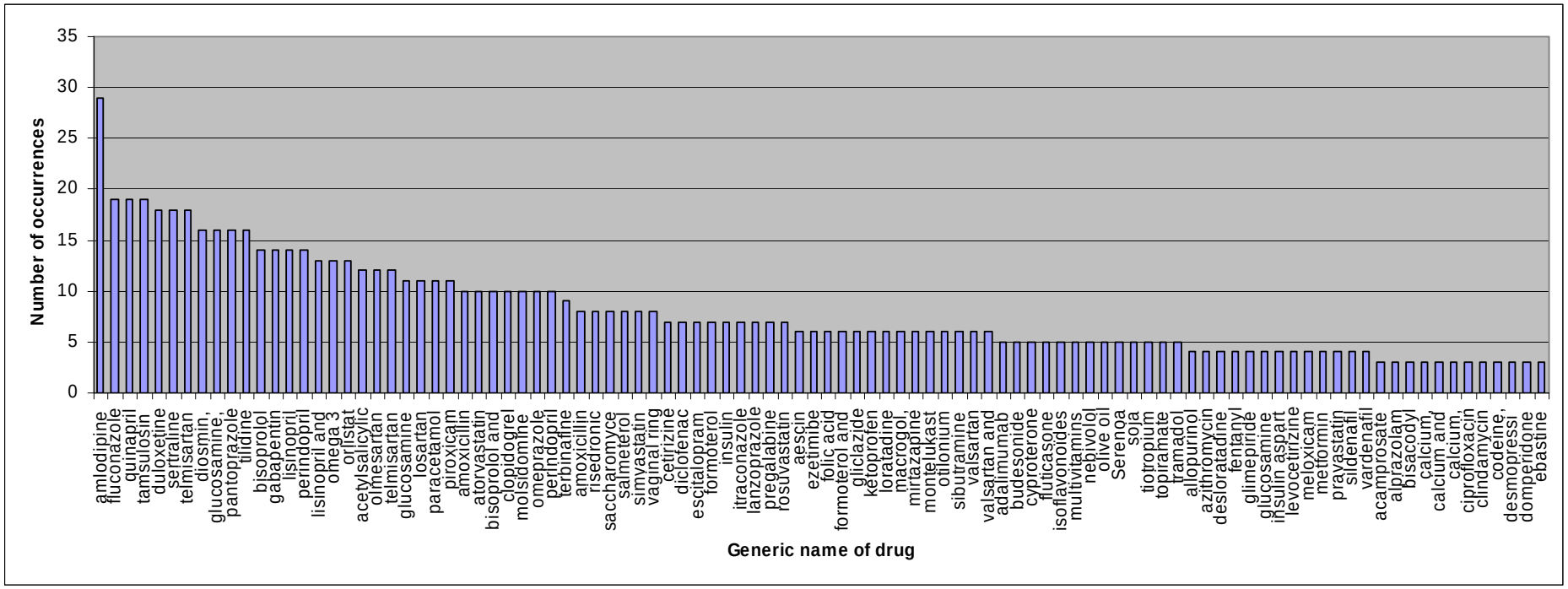


Figure 2 shows the proportion of drug advertisements in each level 1 ATC classification by health professional

Figure 3. Number of drugs by generic name (ordered by frequency-first 100)



3.4.3.2 Number of drugs in C level 3 ATC classification group

Table 13. Number of drug advertisements within the C category by level 3 ATC classification group among all health professionals (ordered by frequency)

Level 3 ATC	Level 3 ATC designation	Number of drugs	% of total
C09C	Angiotensin II antagonists, plain	50	4,2%
C09A	ACE inhibitors, plain	49	4,1%
C10A	Cholesterol and triglyceride reducers	43	3,6%
C08C	Selective calcium channel blockers with mainly vascular effects	34	2,8%
C09B	ACE inhibitors, combinations	33	2,8%
C09D	Angiotensin II antagonists, combinations	27	2,3%
C05C	Capillary stabilizing agents	23	1,9%
C07A	Beta blocking agents	22	1,8%
C01D	Vasodilators used in cardiac diseases	12	1,0%
C07B	Beta blocking agents and thiazides	10	0,8%
C03B	Low-ceiling diuretics, excl. thiazides	3	0,3%
C03D	Potassium-sparing agents	3	0,3%
C03E	Diuretics and potassium-sparing agents in combination	3	0,3%
C01B	Antiarrhythmics, class I and III	1	0,1%
C02A	Antiadrenergic agents, centrally acting	1	0,1%
C02K	Other antihypertensives	1	0,1%
C03C	High-ceiling diuretics	1	0,1%
C04A	Peripheral vasodilators	1	0,1%
C07C	Beta blocking agents and other diuretics	1	0,1%
C08D	Selective calcium channel blockers with direct cardiac effects	1	0,1%

From Table 13, one can observe that drugs from C09C, C09A, C09B, C09D level 3 ATC classification are the most represented. The others are a mix of other subgroups.

Table 14. Number of drugs in each level 3 ATC classification (ordered by frequency-first ten)

Level 3 ATC	Level 3 ATC designation	Number of drugs	% of total
Not registered products		176	14,7%
N06A	Antidepressants	57	4,8%
C09C	Angiotensin II antagonists, plain	50	4,2%
C09A	Ace inhibitors, plain	49	4,1%
C10A	Cholesterol and triglyceride reducers	43	3,6%
M01A	Antiinflammatory and antirheumatic products, non-steroids	36	3,0%
A02B	Drugs for peptic ulcer and gastro-oesophageal reflux disease (gord)	35	2,9%
C08C	Selective calcium channel blockers with mainly vascular effects	34	2,8%
C09B	Ace inhibitors, combinations	33	2,8%
B01A	Antithrombotic agents	31	2,6%

Table 14 does not show other level 3 ATC classification drugs here since it is chosen to take the first ten.

3.4.4 Pharmaceutical companies

3.4.4.1 Number of advertisements in unique documents per company (ordered by frequency-first ten)

Table 15. Number of advertisements in unique documents per company (ordered by frequency-first ten)

Ranking	Company	Nb of ads	% of ads among all ads (n = 896)
1	No company name mentioned	115	12,83
2	Pfizer	89	9,93
3	GSK	36	4,02
4	Boehringer Ingelheim	31	3,46
5	Menarini	30	3,35
6	Eurogenerics	28	3,13
7	Servier	28	3,13
8	Novartis Pharma	26	2,90
9	Astra Zeneca	24	2,68
10	Bayer	23	2,57

Table 15 shows the first ten companies according to number of advertisements. Out of the 896 advertisements, 781 mentioned a company name and 115 had no company name mentioned (nearly all of these latter are "reminder" ads). All companies are mentioned, those producing registered drugs only, not registered products only, or both types of drugs. Even companies such as Danone which are not only active on pharmaceutical field are mentioned. The ads where no name of company is mentioned are also taken into account. This is the most important group, followed by the largest pharmaceutical companies.

3.4.5 References

3.4.5.1 Number of advertisements with a reference in unique documents ("reminder" advertisements excluded)

Figure 4. Number of advertisements with a reference in unique documents ("reminder" advertisements excluded)

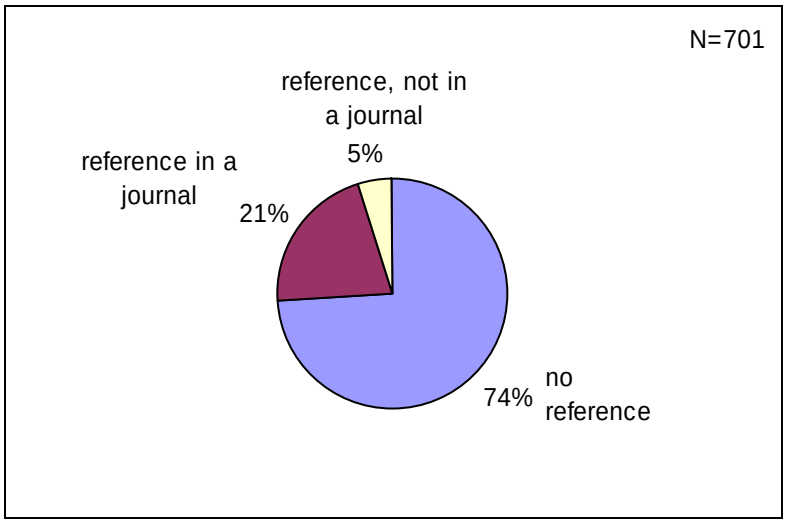
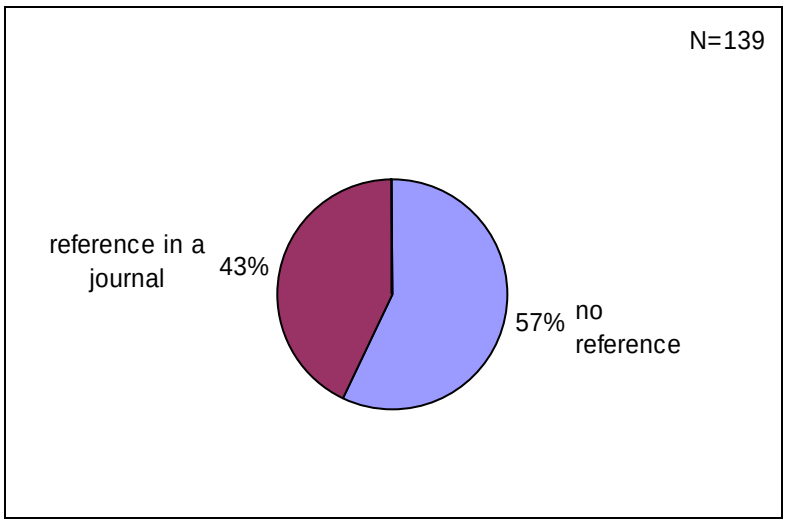


Figure 4 does not include "reminder" advertisements (n=195). The great majority of advertisements do not have any reference.

3.4.5.2 Number of advertisements with a reference in unique documents, sorted by group C of ATC classification

Figure 5. Number of advertisements with a reference in unique documents in group C of ATC classification



"Reminder" advertisements (n=77) were excluded for the above-mentioned reason. There is a fair number of ads with reference in the group C of ATC classification. In this group all references come from journals.

3.4.6 Summary of product characteristics (SPC)

3.4.6.1 Frequency of SPCs in advertisements

Table 16. Frequency of SPCs in advertisements

	SPC included	SPC not included	Total
Number of advertisements	496	400	896
% of total	55,36	44,64	100

Table 16 shows that advertisements are divided into about half leaflet included advertisements and half leaflet non included advertisements.

Table 17. Frequency of SPCs in advertisements in group C of ATC classification

	SPC included	SPC not included	Total
Number of advertisements	130	86	216
% of total C group ads	60,19	39,81	100,00

As shown in Table 17, there are a little more ads with leaflet included ads as compared with the group of all other levels together.

3.4.7 Place

3.4.7.1 Frequency of each type of advertisements place

Table 18. Frequency of each type of advertisement place

	Particular page	Other page	Not applicable	Total
Number of advertisements	143	642	111	896
% of total	15,96	71,65	12,39	100,00

"Particular page" refers to front, back or glossy thick page. "Not applicable" refers to letters, folders and brochures for which a choice between front, back or glossy page and other page was not possible.

Table 19. Frequency of each type of advertisement place in group C of ATC classification

	Particular page	Other page	Not applicable	Total
Number of advertisements	43	148	15	216
% of total	19,91	73.15	6,94	100

The same remarks apply to "particular page" and "not applicable".

3.4.8 Size

3.4.8.1 Frequency of each type of advertisements size in group C of ATC classification

Table 20 gives the definition of each type of advertisement size.

Table 20. Definition of each type of advertisement size

Double page	advertisement size identical to size of a double page of a document
One page	advertisement size identical to size of a document page
A4	advertisement size equivalent to A4 (in this case, not possible if periodicals)
>1/2 page	advertisement size greater than a 1/2 document page
<1/2 page	advertisement size lower than a 1/2 document page
Small reminders	Advertisement size lower than a 1/2 document page and only drug name present

Table 21. Frequency of each type of advertisement size in group C of ATC classification

	Double page	1 page	A4	>1/2	<1/2p	Small reminders	Total
Number of advertisements	10	72	35	3	47	49	216
% of total	4,63	33,33	16,20	1,39	21,76	22,69	100,00

Table 22. Frequency of each type of advertisement size in group C of ATC classification, specified for small messages

	1x	2x	3x	4x	≥5x	Total
Number of advertisements	39	3	1	3	3	49
% of total	79,59	6,12	2,04	6,12	6,12	100,00

3.4.9 Presentation

3.4.9.1 Frequency of each type of presentation in letters in group C of ATC classification

Table 23. Frequency of each type of presentation in letters group C of ATC classification

	Text only	Text with tables	Text with pictures	Text with figures / tables	Total
Number of advertisements	2	2	1	6	11
% of total	18,18	18,18	9,09	54,54	100,00

3.4.9.2 Frequency of each type of presentation in documents other than letters in group C of ATC classification

Table 24. Frequency of each type of presentation in documents other than letters in group C of ATC classification (part 1)

	Drug name only	Claim	Text	Picture	Total
Number of advertisements	75	125	59	215	474
% of total	15,82	26,37	12,45	45,36	100,00

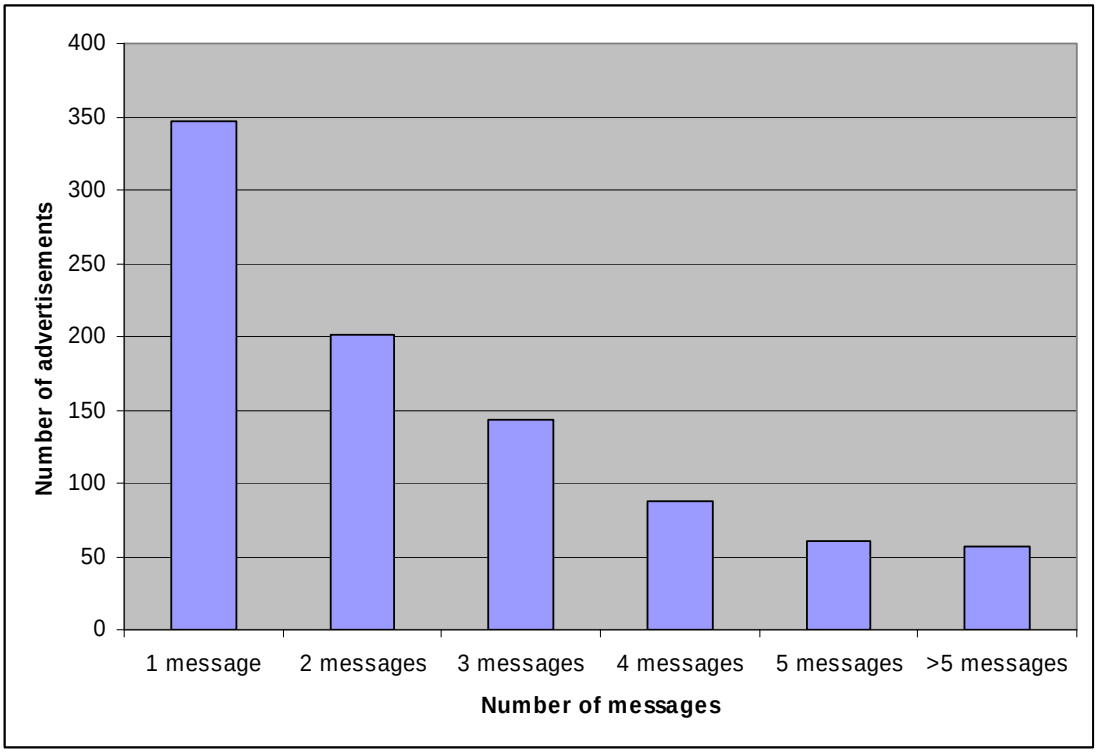
Table 24. Frequency of each type of picture in documents other than letters in group C of ATC classification (part 2)

	Pill or box	Physician	Prof	Emotion	Table	Physiology	Other	Total
Number of advertisements	78	3	0	122	8	17	24	252
% of total	30,95	1,19	0,00	48,41	3,17	6,75	9,50	100,00

3.4.10 Message

3.4.10.1 Number of advertisements according to number of messages

Figure 6. Number of advertisements according to number of messages



As one can see in Figure 6, nearly half of the advertisements show only one message.

3.4.10.2 Frequency of each type of message in advertisements in group C of ATC classification

Table 25. Frequency of each type of message in advertisements in group C of ATC classification (part 1)

Type of message	New medication	New presentation	New indication
	16	11	12

Table 26. Frequency of each type of message in advertisements in group C of ATC classification (part 2)

Type of message	Clinical efficacy: it works	Clinical efficacy: better than	Clinical efficacy: less side effects
	95	8	4

Table 27. Frequency of each type of message in advertisements in group C of ATC classification (part 3)

Type of message	Generic drug	Information on price	Information on reimbursement	Market withdrawal
	19	40	18	2

Table 28. Frequency of each type of message in advertisements in group C of ATC classification (part 4)

Type of message	Indication (not new)	Presenta-tion (not new)	Ingre-dients	Dose	Mecha-nisms of pharmaco-logy	General info	No info
	38	17	1	13	25	22	77

The most frequent message is on clinical efficacy, there is also a high proportion with no information (drug name only). On the other hand, only one message is about drug composition, two on market withdrawal, four on side effects, eight on superiority. There could be more than one type of messages in one advertisement of group C of ATC classification.

3.5 DISCUSSION

The aim of the study was to quantify the type of written information physicians and pharmacists receive and of the drug advertisements contained in those. The exploratory inventory was intended to give an answer to this question and to find out if any important differences exist between GPs and other health professionals, whereas the content analysis focuses on GPs. That is the reason why specialists and pharmacists were included for the exploratory inventory but content analysis was focused on material received by GPs and only GPs were interviewed in focus groups.

This chapter reports on a descriptive, cross-sectional study of the written material health professionals receive (It was predefined to exclude information sent by e-mails like digital newsletters and other digital information to keep it feasible for the participants) and the drug advertisements contained in this written material. This represents a "real life" sample of documents.It is a snapshot of a given period, i.e. May 2006, since advertisements change regularly according to e.g. registration of new drugs with large marketing campaign. Therefore, generalisation is not possible. We reported the gross amount of documents, advertisements and drug names and gave information related to more detailed variables.

Information related to the documents was entered in a database by four different people. Most fields were simply to be ticked off, avoiding typing errors. However, two variables (kind of message and presentation) were subjective and were therefore based on judgement. For these variables a consensus had to be reached between the researchers in case of disagreement. The next step of the study, the content analysis, will be deeper and objective.

Advertisements in journals and periodicals were similar for the French- and the Dutch-speaking participants. It was therefore not necessary to make a distinction based on language.

GPs are the type of health professionals who receive the highest number of documents and therefore of advertisements. Most of these advertisements are sent by the largest pharmaceutical companies. On the other hand, we found that a lot of envelopes had not been opened or that journals were still in their plastic packaging, meaning that advertisements were not read, for unknown reasons (lack of interest, lack of time?).

We observed that the number of not registered products is higher among pharmacists and GPs. An explanation for this observation is that not registered products can be delivered without prescription by pharmacists and that GPs are more prone to prescribe this type of drugs as compared to the specialists.

We found that the great majority of advertisements show a single message, mainly on efficacy, and do not have any reference, even after exclusion of "reminder" ads which, by definition, do not have any reference since only the drug name is present. On the other hand, there are a lot of ads with a reference in the group C of ATC classification.

It should be emphasized that successful drug marketing to physicians entails more than simply presenting a brochure or a leaflet to the physicians. Written information is only one tool – and maybe not the most important one – in this global marketing strategy of the pharmaceutical companies. The promotional techniques in the advertisement, the way of bringing information (medical representatives), or Direct to Consumer Advertising (DTCA) are however explicitly not within the scope of this study.

Some limitations of this collection of documents should be stated. This is a small sample with little geographic variation. Although we have no *a priori* reason to believe that participants would receive different material than their colleagues, a greater sample is needed to confirm this, although it is unlikely that this would have influenced the results. Involvement of participants was also crucial. *De Artsenkrant/le Journal du médecin* is sent to nearly all medical doctors. We took this feature to check whether the gathering of documents was reliable. All issues were not systematically collected by the doctors. Three doctors collected every issue, but two doctors did not collect it at all. Either some issues were not received (problem with post?), either the participants received it,

but did not put it in the box or some participants were not in the mailing list for this journal. Another example is given by a pharmacist who collected only three documents. He leaned the documents to his colleague, and some others were lost. Only a small amount of documents were received from drug representatives and at CPD. The reliability of the documents gathering is difficult to establish since the number of representatives seen and the attendance at CPD sessions was not asked to the participants. The collection period is probably too short to assess documents received from representatives and at CPD. Even by post, there is sometimes only one issue per month for some documents. This short period of time was however found in the literature (see chapter 2). A duration of one year would have been better to give more information allowing a confident generalization and to detect seasonal variations, but due to time constraints, this was not feasible. Furthermore, the "agenda setting" was not the scope of the study. This is anyway unlikely that this would have had an impact on the results of the content analysis. The type of advertisements (directed to seasonal pathologies) would have been different in another season changing maybe the weight of the different classes of medications, but it was the content that was of interest. Also, we did not study differences between classes, however as it will be seen later in the content analysis, there are no big differences concerning the content between classes.

3.6 KEY MESSAGES

In the particular situation of this exploratory inventory performed during one month the following key messages could be given:

Way of delivery

- **Postal mail is the main way of delivery for information to health professionals from the pharmaceutical industry.**

ATC levels and not registered products

- **In this exploratory inventory, the most frequent drugs present in advertisements belong to the group C from the ATC classification system (319 drug names), followed by group N (165 drug names). Not registered products are also well represented (176 drug names).**
- **Still in this exploratory inventory, the NRP, N06A, C09C, C09A, C10A, M01A, A02B, C08C, C09B and B01 categories are the most represented.**

3.7 CHOICE OF WRITTEN MATERIAL FOR FURTHER EVALUATION

One of the aims of this inventory was to enable us to choose the advertisements, for the further evaluation-study.

The ten most represented classes were chosen for further analysis of the content of the advertisements of these classes, except for the first one, namely the NRP, because these do not belong to the ATC classification.

4 CONTENT ANALYSIS

4.1 BACKGROUND

This chapter on content analysis is one part of the study "Evidence-based (EB) content of written information from pharmaceutical companies aimed to general practitioners (GPs)". The first step in this study was to collect all the written information GPs received during one month. Based on the results of this exploratory inventory and with the material collected, we executed a content analysis: a content analysis on EBM-value.

4.2 OBJECTIVES

To evaluate the content of advertisements sent by pharmaceutical companies to GPs with the focus on the evidence-based aspects.

To come to a final classification of the advertisements: are the claims in the advertisement 'well supported', 'partially supported', 'not supported by evidence or ambiguous' or is there 'evidence against'?

The objective of this study is to evaluate the advertisements on an evidence-based manner. It must be stated that regulation laws, deontological rules or marketing obligations are not appraised.

4.3 METHODOLOGY

4.3.1 Choice of domain

The domain of advertisements for the content analysis was determined by the results of the preliminary, exploratory inventory. It was decided to base the content analysis on the top ten of drugs on the ATC-classification[d] level 3 (see table 26).

The first class are products that are not registered as drugs (NRP). They were excluded a priori. The other 9 classes were selected to analyse.

Table 26. Number of drugs in each level 3 ATC classification (ordered by frequency-first ten)

Level 3 ATC	Level 3 ATC designation	Number of drugs	% of total
NRP	Not registered products	176	14,7%
N06A	Antidepressants	57	4,8%
C09C	Angiotensin II antagonists, plain	50	4,2%
C09A	Ace inhibitors, plain	49	4,1%
C10A	Cholesterol and triglyceride reducers	43	3,6%
M01A	Antiinflammatory and antirheumatic products, non-steroids	36	3,0%
A02B	Drugs for peptic ulcer and gastro-oesophageal reflux disease (gord)	35	2,9%
C08C	Selective calcium channel blockers with mainly vascular effects	34	2,8%
C09B	Ace inhibitors, combinations	33	2,8%
B01A	Antithrombotic agents	31	2,6%

For all analyses, groups are always shown with the code of the 3rd level in the ATC-classification.

[d] ATC-classification = Anatomical Therapeutic Chemical classification

Table 27. Selected groups for the content analysis by ATC-classification

ATC 1 1st level anatomical main group		ATC2 2nd level therapeutic subgroup		ATC3 3rd level pharmacological subgroup	
N	Nervous system	N06	Psychoanaleptics	N06A	Antidepressants
C	Cardiovascular system	C09	Agents acting on the rennin-angiotensin system	C09C	Angiotensin II antagonists, plain
C	Cardiovascular system	C09	Agents acting on the rennin-angiotensin system	C09A	ACE inhibitors, plain
C	Cardiovascular system	C10	Lipid modifying agents	C10A	Lipid modifying agents, plain
M	Musculo-skeletal system	M01	Antiinflammatory and antirheumatic products	M01A	Antiinflammatory and antirheumatic products, non-steroids
A	Alimentary tract and metabolism	A02	Drugs for acid related disorders	A02B	Drugs for peptic ulcer and gastro-oesophageal reflux disease (GORD)
C	Cardiovascular system	C08	Calcium channel blockers	C08C	Selective calcium channel blockers with mainly vascular effects
B	Blood and blood forming organs	B01	Antithrombotic agents	B01A	Antithrombotic agents
C	Cardiovascular system	C09	Agents acting on the rennin-angiotensin system	C09B	ACE inhibitors, combinations

4.3.2 Choice of material

Material from exploratory inventory was taken. All of the advertisements in the 9 selected groups are analysed. This could be advertisements in journals, periodicals, or folders. From n

ow on in this chapter, "advertisement" is used, although it includes letters or folders too. In tables, this will be abbreviated as "ads".

Some advertisements were excluded:

- Advertisements only sent to specialists or pharmacists: this study focuses on GPs.
- Reminders (advertisements that mention only the drug name, and eventually also the firm name): there is no content to analyse.
- Brochures: there are not that many brochures gathered by the GPs in one month and this kind of information differs too much from the advertisements.
- Advertisements on convenience (ease of administration, dose,…) and on cost (low price, new price, reimbursement,…).

4.3.3 Assessment of advertisements

Each of the 2 researchers (SYC, AVL) assessed a part of the chosen advertisements. The first 2 classes were assessed by both of them. Because there was enough coherence in their assessments, all other advertisements were assessed by only one of both. All assessments of the advertisements were validated by a third researcher (FRM). Disagreements were resolved by consensus to generate a single score.

A prefabricated form in Excel was used (see appendix).

4.3.4 Analysis of advertisements

Analysis of the assessment results was done in Excel.

4.3.5 8 steps in the content analysis

Eight steps could be differentiated in the content analysis. All steps must be taken one by one to come to the final classification of the advertisement, which is the last step of this analysis. All steps could be filled in in the Excel file with "0" (not present or answering negative on a question), "1" (present or answering affirmative on a question) or "NA (not applicable)". For each step, space was provided for remarks, so additive information would not be lost by obligatory scoring systems.

There was decided to choose always for "the best case scenario": if more items had to be evaluated to get one score, the best option was taken in case of doubt or equality in frequency of appearance (e.g. if one reference was retrievable and the second not, it was noted in the final table as "1" for retrievability). If there were more than 2 items, than the score of the majority was taken as final quotation.

4.3.5.1 Step 1: Description of different parts of the advertisement

The first step gives a description of the advertisement.

Number/code of advertisement

Each advertisement has a unique code to find it.

Each advertisement was analysed just once, unless there were more drug names in it that required a distinct approach.

Name of the drug

Brand and generic name of the drug.

ATC classification group

For each ATC classification group a different Excel file was completed. For each drug the complete ATC classification code was filled in.

Count of how many times this unique advertisement appears

For each advertisement was counted how many times it appeared. Identical advertisements that appeared more than once or advertisements with the same messages in it, were analysed just once. Advertisements for the same drug but with a different content were analysed separately.

Pharmaceutical company

The name of the pharmaceutical company that sell the drug.

Presentation

There were 3 possibilities in the kind of presentation:

- Text: a few sentences written in text-format. Not presented as claims.
- Verbal claims: short and alone-standing sentences or words. Slogans, statements, expressions,… are compromised in this category. Claims on price, reimbursement rules, dosage and convenience are not taken into account, unless there were references for these claims in the advertisement. In this category the number of claims in each advertisement was counted as "1", "2" or ">2".
- Tables or graphs: tables or graphs with scientific information in it. Tables with price information are excluded. Pictures of a medical illustration, a pathogen, a box, a pill are not taken into account. Neither photographs (landscape, human characters, drug itself,…), cartoons, diagrams, or drawings.

The information found in the text, the verbal claims or the scientific tables or graphs were from this point on analysed as "claims".

The information in the instructions leaflet was not used for the content analysis, unless for checking a claim: for the appraisal on the evidence-based content, only the information around the instructions leaflet was utilized.

4.3.5.2 Step 2: Assessing the scientific tables and graphs

To assess for each table or graph if:

- It is having a title.
- It is defining all abbreviations and symbols. Having a figure legend.
- It is having clear quantitative labels for the x and y dimensions. Properly scaling and properly splitting axes.
- It is depicting the sample size (n).
- There are no other remarks that make the graph or the table unacceptable. This is a subjective interpretation of the researcher. This will always be done in consensus with the other researcher.

Final classification of the scientific table or graph: if all criteria were met, the scientific table or graph was classified as "acceptable". If one or more criteria were not met, the graph or the table was classified as "unacceptable".

4.3.5.3 Step 3: Analysing the claims in the advertisement

Each claim was categorized in one of the following groups:

- Claims with non-clinical outcomes, which are subdivided in:
  - Emotive claims: claims that act on the emotions (e.g. source of healing power).
  - Vague claims: claims that are not clear in their outcomes, although they may look as clinical claims at the first glance (e.g. effective drug with a low incidence of discontinuation).
  - Claims with pathophysiological outcomes: claims that declare functional changes in the body, in organs or at cellular level (e.g. regression of atheroma plaques).
  - Claims with surrogate outcomes: claims that give a clinical outcome, but one that cannot be counted as a final outcome measure, a hard end-point outcome measure (e.g. decrease in arterial pressure or lipid concentrations in stead of cardiovascular mortality).
- Claims with clinical outcomes, which are subdivided in:
  - Claims on indication / therapeutic uses / benefits: new indication, new product, more effective than another drug or placebo, the "drug of choice" for at least one condition, benefits, indication (without benefits).
  - Claims with risk information: contraindications, adverse drug reactions, interactions, precautions and warnings

Note: some pathophysiological and surrogate outcomes are clinical outcomes. It is classified as "non-clinical" if studies exist with intermediary (e.g. cholesterol level reduction) and hard endpoints (e.g. cardiovascular mortality).

4.3.5.4 Step 4: Analysing how the claims are presented: outcome measures

Only the claims with clinical outcomes were analysed further. Other claims were categorized as "not applicable". The fourth step is to evaluate the outcome measures of these clinical claims. Three categories are possible:

- Quantitative outcome measures. This can be subdivided in:
  - Only relative risk (reduction) [RRR] is shown, no other numbers.
  - Odds ratios or hazard ratios are shown. [ORs, HRs]
  - Only absolute risk (reduction) [ARR] or number needed to treat [NNT] is given.
  - RR(R) is shown, but numbers are given, so readers could calculate ARRs or NNTs.
  - No value is given, but readers could calculate RRRs, ARRs, or NNTs.
  - It is noted if confidence intervals were shown or not.
- Qualitative outcome measures
- No outcome measures given (eg. Only indication)

Advertisements with more than one claim on clinical outcome measures could have a score in more than one category. The subdivisions of the quantitative outcome measures are not visible anymore in the final classification. In the final classification scores are given as "0" or "1" for the three main categories, indicating that there is respectively no or at least one claim with such an outcome measure.

4.3.5.5 Step 5: Analysing the references

To assess the references, a few sub-steps must be taken.

References present

If references were present, the number is noted.

References to instruction leaflets or to the "Belgisch Staatsblad / Moniteur Belge" were excluded.

Retrievability of references

It was noted where the references could be found:

- In Medline
  - Direct: the reference is retrievable by "Single Citation Matcher".
  - Indirect: retrievable in Medline a search was needed (e.g. working title of study is given, but without references to an author, a journal or an article)
- Not via Medline
- Not retrievable

If the cited article was found, it was positively scored. If at least half of the articles was found, this was also positively scored.

Study design

All found articles were classified for their study design:

- (Systematic) review or meta-analysis
- Guideline
- Clinical trial
  - Controlled: randomised or not
  - Uncontrolled
- Basic laboratory experiment or non-human research
- Letter or editorial
- Other than journals

The three first categories were positively scored. This can give a too "optimistic" score on study design: the first three categories do not guarantee good quality studies. On the other hand, if methodological flaws could be found, these positively scored studies were put in the "not supported or ambiguous" category in the final classification.

Quality of evidence

The positively scored articles were assessed for the study quality with the checklist of the Cochrane Library[e]. The quotation given was high or low level of evidence. Studies with pathophysiological or surrogate outcome measures were immediately classified as "low level of evidence".

Financial source of the study

In the last step of the references, it was stated if the articles found were funded or sponsored. And if yes, by who. Three categories were possible:

[e] http://www.cochrane.nl/index.html (entered at 28.03.2007)

- Not stated
- Funded or sponsored by other than the pharmaceutical industry
- Funded or sponsored by pharmaceutical industry

The two first categories were scored positively for their (possible) independency.

4.3.5.6 Step 6: Checking the evidence

For each drug a search to the existing evidence was executed. Since the analysed advertisements were gathered in April 2006, the evidence published after May 2006 was not taken into account. The main source for checking the evidence was the BCFI/CBIP site with the repertory, the Folia Farmacotherapeutica and the Transparantiefiches / Les fiches de transparance. If the information was not sufficient, other sources that are relevant for GPs were searched for (e.g. Recommendations of the scientific organisations in Belgium – Domus Medica / SSSMG, Prodigy guidelines, Cochrane Library,…)

A brief summary of this evidence is written down in the final Excel sheet.

4.3.5.7 Step 7: Linking the claims with the references

Step 7 is completed if there is at least one found reference. In this step is evaluated if there is a link between the claim and the cited article in the reference. All links between claim(s) and reference(s) are classified as:

- Correct: the reference completely supports the clinical claim (= references are correctly cited by claims).
- References inadequate: The reference is of low quality. Or the references are of high quality, but claims are emotive or vague, so there is an absence of relation between the non-clinical claims and the references.
- Extrapolated: references are not correctly or not completely cited by claims. This can be because of exaggeration / generalisation of target groups (the patients of the study differed from the target patients in the advertisement, including cases in which effects seen only in animals or in vitro were transferred to human beings. Explicit reference was made to an indication in patients who were excluded from the study. The study did not include an analysis of a particular subgroup), because of exaggeration of efficacy (exaggeration of the efficacy of the product, using "statistical significance" to support a claim lacking known clinical significance, claims of risk reduction that had not been significant in the research referenced) or because of a misleading comparison with another product.

4.3.5.8 Step 8: Final classification of the advertisement

At the final step all the different parts were brought together. All claims (linked with references or not) were classified and got a colour code:

- 1. Well supported:
  - 1A. By evidence: references were well cited by the claims. All claims were supported by evidence. This evidence is shown in the advertisement as reference(s).
  - 1B. By instructions leaflet: the claims in the advertisement were exact copies of the instructions leaflet.
- 2. Partially supported. A claim cannot be completely accepted, because it is:
  - Emotive

- Vague
- On pathophysiological outcomes
- On surrogate outcomes

- 3. Not supported or ambiguous.
  - A claim cannot be accepted, because it is:
    - Controversial: when the claim is supported by some scientific evidence. However, contradictory reports are also found.
    - Extrapolated
    - Using EBM-terms on a misleading way
  - The reference is not adequate, because the quality of evidence is low or not acceptable. Or because there is absence of relation between the claim and the reference. If all references are independent of claims, then the quality of the majority of references is taken for the final classification.
- 4. Evidence against: there exists contradictory evidence against the claims made in the advertisement.

4.4 RESULTS

4.4.1 Number of analyses

Table 28. Number of selected advertisements and drugs by each group

	ATC1		ATC3		Excluded		Included		Final	
	Ads	Drugs	Ads	Drugs	Ads	Drugs	Ads	Drugs	Analyses	Drugs
N - N06A	119	123	56	56	23	23	33	33	4	4
C - C09C	216	303	49	49	22	22	27	27	6	6
C - C09A	216	303	41	42	37	38	4	4	2	2
C - C10A	216	303	35	37	21	23	14	14	8	6
M - M01A	58	61	33	36	24	27	9	9	4	4
A - A02B	119	126	34	35	25	25	9	10	6	6
C - C08C	216	303	32	33	15	16	17	17	3	3
B - B01A	40	41	30	31	11	12	19	19	4	4
C - C09B	216	303	28	28	20	20	8	8	3	3
Total			**338**	**347**	**198**	**206**	**140**	**141**	**40**	**38**

Ads = advertisements – ATC1 = Anatomical Therapeutic Chemical Classification level 1

Of the 896 analysed advertisements in the exploratory inventory, 552 advertisements (62%) belong to the ATC-classification group A, B, C, M or N. For the drugs there are 654 of the 1196 drugs (55%) analysed. On the third level of the ATC-classification there are 338 advertisements included: 38% of all advertisements in the exploratory inventory.

It was chosen to give number of advertisements and of drugs, because there were some advertisements with more than one drug in the analysed group. Two drugs in the same advertisements are analysed together, unless they made different claims for each drug, or there were other references (eg. for A02B there was one advertisement with 2 drugs in it: so there were 9 advertisements for 10 drugs). This is also seen for drugs in class C09A and C09B. Because these 2 groups were analysed separately, this has had no influence on the final number. The final number of analyses is different from the included number, because there were many advertisements that appeared more than once: these were analysed just once. On the other hand, different advertisements for the same drug were analysed as many as there were different advertisements (eg. for C10A: one drug had 3 different kinds of advertisements with each time other messages. One of these 3 had also 2 kinds of appearances, but with the same message, so this was counted only once).

Advertisements with drugs in an ATC group not analysed here, were only analysed for the drugs included (eg. for C09: drugs of C09C were analysed, whereas drugs of C09D in the same advertisement were not).

Why advertisements or drugs are excluded is explained in table 29.

Table 29. Reasons for exclusion on the 3rd level of the ATC-classification group

	Number of Ads ATC3	Excluded				
		Reminders	Brochures	No GPs	Price	Total
N06A	56	16	3	2	2	**23**
C09C	49	16	0	6	0	**22**
C09A	41	14	5	3	15	**37**
C10A	35	7	2	8	4	**21**
M01A	33	10	6	8	0	**24**
A02B	34	17	2	2	4	**25**
C08C	32	8	3	4	0	**15**
B01A	30	2	0	9	0	**11**
C09B	28	10	2	2	6	**20**
Total	**338**	**100**	**23**	**44**	**31**	**198**

Ads = advertisements – ATC1 = Anatomical Therapeutic Chemical Classification level 1 – No GPs = pharmacists or specialists – Price = advertisements with information on price, reimbursement, package, dosage, convenience,…

Table 30 shows the 40 advertisements that are included.

Table 30: 40 included advertisements

	Brand name	Generic name	ATC	Pharmaceutical company
A02B	Ranitidine EG®	ranitidine	A02BA02	Eurogenerics
	Merck Omeprazole®	omeprazole	A02BC01	Merck
	Merck Lanzoprazole®	lanzoprazole	A02BC03	Merck
	Lansoprazole EG®	lanzoprazole	A02BC03	Eurogenerics
	Pantozol®	pantoprazole	A02BC02	Altana
	Zurcale®	pantoprazole	A02BC02	Altana
B01A	Clexane®	enoxaparin	B01AB05	Sanofi-Aventis
	Plavix®	clopidogrel	B01AC04	Sanofi-Aventis
	Asaflow®	acetylsalicylic acid	B01AC06	Sandipro
	Cardioaspirine®	acetylsalicylic acid	B01AC06	Bayer
C08C	Amlor®	amlodipine	C08CA01	Pfizer
	Vasexten®	barnidipine	C08CA12	Fournier
	Zanidip®	lercanidipine	C08CA13	Zambon
C09A	*Zestril*®	lisinopril	C09AA03	AstraZeneca
	Coversyl®	perindopril	C09AA04	Servier
C09B	*Zestoretic*®	lisinopril and diuretics	C09BA03	AstraZeneca
	Coversyl Plus®	perindopril and diuretics	C09BA04	Servier
	Preterax®	perindopril and diuretics	C09BA04	Servier
C09C	Cozaar®	losartan	C09CA01	MSD
	Diovane®	valsartan	C09CA03	Novartis Pharma
	Atacand®	candesartan	C09CA06	AstraZeneca
	Micardis®	telmisartan	C09CA07	Boehringer Ingelheim
	Kinzalmono®	telmisartan	C09CA07	Bayer
	Belsar®	Olmesartan medoxomil	C09CA08	Menarini
C10A	Merck Prareduct®	pravastatin	C10AA03	Sankyo
	Pravastatine EG®	pravastatin	C10AA03	Eurogenerics
	Lipitor®	atorvastatin	C10AA05	Pfizer
	Lipitor®	atorvastatin	C10AA05	Pfizer
	Lipitor®	atorvastatin	C10AA05	Pfizer
	Crestor®	rosuvastatin	C10AA07	AstraZeneca
	Lipanthyl®	fenofibrate	C10AB05	Fournier
	Ezetrol®	ezetimibe	C10AX09	MSD / Schering-Plough
M01A	Biofenac®	aceclofenac	M01AB16	Almirall Prodesfarma
	Brexine®	piroxicam	M01AC01	Christiaens
	Glucosamine Pharma Nord®	glucosamine	M01AX05	Pharma Nord
	Mesulid®	nimesulide	M01AX17	Therabel
N06A	Sipralexa®	escitalopram	N06AB10	Lundbeck
	Remergon®	mirtazapine	N06AX11	Organon
	Efexor Exel®	venlafaxine	N06AX16	Wyeth
	Cymbalta®	duloxetine	N06AX21	Boehringer Ingelheim/Lilly

4.4.2 Pharmaceutical companies

Table 31: Pharmaceutical companies in advertisements in order of frequency of advertisements by this company

Pharmaceutical company	Analyses
AstraZeneca	4
Pfizer	4
Eurogenerics	3
Servier	3
Altana	2
Bayer	2
Fournier	2
Merck	2
Sanofi-Aventis	2
Almirall Prodesfarma	1
Boehringer Ingelheim	1
Boehringer Ingelheim/Lilly	1
Christiaens	1
Lundbeck	1
Menarini	1
MSD	1
MSD / Schering-Plough	1
Novartis Pharma	1
Organon	1
Pharma Nord	1
Sandipro	1
Sankyo	1
Therabel	1
Wyeth	1
Zambon	1
Total	**40**

Table 31 shows the 25 pharmaceutical companies for each of the final 40 analyses.

Astra Zeneca is counted 4 times in stead of 3 times, because of one advertisement with 3 drugs in it that were analysed separately (C09A & C09B).

Merck is counted 2 times in stead of 3 times: 2 different drugs in one advertisement are analysed separately, because one drug had also another advertisement with more claims in it (A02B).

Pfizer is counted 4 times for 2 different drugs: one drug with 3 different kinds of advertisements is analysed 3 times (C10A).

4.4.3 Presentation of claims

Table 32: Presentation of claims

	Number of analyses	Text	Count of claims			Tables/graphs
			1	2	>2	
A02B	6	0	3	1	2	0
B01A	4	0	0	1	3	0
C08C	3	0	1	1	1	0
C09A	2	0	1	1	0	0
C09B	3	0	2	0	1	0
C09C	6	0	1	3	2	1
C10A	8	0	0	3	5	3
M01A	4	0	2	0	2	0
N06A	4	0	0	0	4	0
Total	**40**	**0**	**10**	**10**	**20**	**4**

None of the advertisements contained text. Half of advertisements had one or two claims, while the other half had more than two claims. Some claims exist from a single word. Only 1/10 advertisements showed a table or a graph with scientific material. In group B01A a table with doses per weight was shown: this was not included here, neither a table with tension levels as cardiovascular risk stratification in group C09C.

4.4.4 Tables and graphs

Only 4 tables or graphs could be analysed: one in group C09B and 3 (for the same drug) in group C10A. All tables and graphs had sufficient information included, although there was an important remark made for the graph in group C09C: this advertisement contained also a drug of group C09D. In the graph it was not clear for which of these two drugs it was applicable, although it could be estimated for both (because the C09D group contain the same drug as in C09C, but diuretics are added). Not all information in the C10A graphs was found right in the framework of the graph, but was clearly stated around it and it was clear it referred to the graph. That is the reason it was included as sufficient information.

4.4.5 Claims

4.4.5.1 Number of claims

For the 40 analyses, 123 claims were noted: 83 (67%) on non-clinical claims and 39 (32%) on clinical claims.

In all groups there were far more non-clinical claims presented, although 8 advertisements (group C09C, C10A, M01A and N06A) contained more clinical claims.

For further information: see table in appendix 3.

4.4.5.2 Claims on non-clinical outcomes

Table 33: Number of claims on non-clinical outcomes

	Number of analyses	Emotive	Vague	Patho-physiological outcome	Surrogate outcome	Total non-clinical claims
A02B	6	6	5	0	0	11
B01A	4	5	5	1	0	11
C08C	3	2	5	0	0	7
C09A	2	1	0	1	1	3
C09B	3	1	1	1	0	3
C09C	6	3	1	1	2	7
C10A	8	4	11	1	3	19
M01A	4	1	6	0	0	7
N06A	4	8	4	3	0	15
Total	40	31	38	8	6	83

Emotive and vague claims are almost 5 times used more than claims on pathophysiological or surrogate outcomes.

Surrogate outcomes were seen in the cardiovascular groups with statements on tension and cholesterol levels.

4.4.5.3 Claims on clinical outcomes: benefits

Table 34: Number of claims on clinical outcomes - benefits

	Number of analyses	Benefits						Total claims on benefits
		New indi-cation	New product	More effective	Drug of choice	Benefits in general	Indi-cation	
A02B	6	0	0	0	0	0	0	**0**
B01A	4	0	0	1	0	0	1	**2**
C08C	3	0	0	0	0	0	1	**1**
C09A	2	1	0	0	0	0	0	**1**
C09B	3	0	0	0	1	0	1	**2**
C09C	6	1	0	0	2	3	3	**9**
C10A	8	0	1	8	0	0	0	**9**
M01A	4	0	2	0	1	0	1	**4**
N06A	4	1	0	0	1	3	6	**11**
Total	**40**	**3**	**3**	**9**	**5**	**6**	**13**	**39**

In the group with drugs for acid related disorders (A02B), no claims on benefits were made, although there were 6 advertisements included. It was remarkable that all advertisements in this group used similar words that seemed to report on benefits (or risks) at first glance, but were in fact emotive or vague.

Three advertisements reported on a new indication for the product and two products were (rather) new on the market. One of these two used two claims to emphasize this.

If the claim stated more effectiveness, it was always compared to another active product and not to placebo, although in one analysis of the lipid modifying agents the comparison was with the same molecule, but in a higher dose. The 8 claims in the lipid modifying agents group were made for 3 advertisements and were based on 4 references.

If claims on "drug of choice" were made, these were - unless one time - linked with a new indication or a new product.

"Benefits in general" were claims that reported on outcomes.

One advertisement on antidepressants mentioned 3 times the indication of the product.

4.4.5.4 Claims on clinical outcomes: risk information

Only one claim in the group of antidepressants (N06A) gave concrete information on risks. Many claims contained a kind of risk information, but were too vague, so they were classified as such. For example: better tolerance, safe, better safety profile,…

4.4.6 Outcome measures in clinical claims

4.4.6.1 Quantitative versus qualitative outcome measures

In 19 analyses there were no clinical claims, so outcome measures were not applicable. In 11 analyses with clinical claims there were no outcome measures presented. So in only 10 advertisements a qualitative outcome measures was given. Five times quantitative data were added to these qualitative claims. For further information: see table in appendix.

4.4.6.2 Quantitative outcome measures

Only 1/10 of all advertisements showed quantitative outcome measures: these were presented as a relative risk reduction and/or as a hazard risk. All mentioned the number of participants but not the baseline risk, so that ARR or NNTs could not be calculated. It was only once stated in the advertisement which kind of risk ratio was used.

4.4.7 References in advertisements

4.4.7.1 Number of references

Sixteen advertisements contained references. In total there were 47 references in the 40 analyses. The number of references varied between one and ten, but most advertisements contained one or two references. In the group with antiinflammatory and antirheumatic products there were no references given.

For further information: see table in appendix.

4.4.7.2 Retrievability of references

Unless 3, all references were retrievable. Eight on ten references were retrievable by the citation index in Medline. One advertisement for an ACE-inhibitor gave only the name of studies: these were found in Medline, but not directly. One article was found by Google, and another in Embase.

For further information: see table in appendix.

4.4.7.3 Study design in references

Table 35: Study design of articles that were referenced for

	Number of analyses	Number of ads with refer-ences	Number of refer-ences	SR or MA	Guide-line	Review	RCT	Non-human or labo-ratory	Opinion	Not applicable
A02B	6	1	10	0	0	6	3	0	0	1
B01A	4	1	2	1	0	1	0	0	0	0
C08C	3	1	9	0	0	0	9	0	0	0
C09A	2	1	3	0	0	0	3	0	0	0
C09B	3	1	1	0	0	0	1	0	0	0
C09C	6	5	12	0	1	1	8	0	2	0
C10A	8	4	5	0	0	2	3	0	0	0
M01A	4	0	0	NA	NA	NA	NA	NA	NA	NA
N06A	4	2	5	0	0	0	1	1	0	3
Total	40	16	47	1	1	10	28	1	2	4

Almost 60% (28/47) articles that were referenced for in the advertisements were randomised controlled clinical trials, followed by review articles. Seven articles were not acceptable, because they report on laboratory results, it was an opinion document or a cross-sectional study or they were not found.

4.4.7.4 Quality of evidence of cited references

Table 36: Quality of evidence of cited references

	Number of analyses	Number of ads with references	Number of references	Quality of evidence		
				High	Low	NA
A02B	6	1	10	2	7	1
B01A	4	1	2	1	1	0
C08C	3	1	9	5	4	0
C09A	2	1	3	3	0	0
C09B	3	1	1	0	1	0
C09C	6	5	12	3	7	2
C10A	8	4	5	3	2	0
M01A	4	0	0	NA	NA	NA
N06A	4	2	5	1	1	3
Total	**40**	**16**	**47**	**18**	**23**	**6**

Only one third of the articles that are referenced for, were of high quality evidence. Of the articles that are "not applicable", one was not found, two were opinions, two were books and one was on laboratory results.

4.4.7.5 Financial source of the referenced article

In one fifth of the referenced articles it was not stated who funded or sponsored the study. In only 4 studies it was another source than pharmaceutical industry. In all other articles pharmaceutical companies funded or sponsored the studies. For further information: see table in appendix.

4.4.8 Linking the claims with the references

Table 37: Linking the claims with the references

	Number of analyses	Number of ads with references	Number of references	Link between claims and references		
				Correct	References inadequate	Extrapolated
A02B	6	1	10	0	1	0
B01A	4	1	2	0	1	1
C08C	3	1	9	0	1	0
C09A	2	1	3	1	0	0
C09B	3	1	1	0	1	0
C09C	6	5	12	2	4	2
C10A	8	4	5	6	2	2
M01A	4	0	0	NA	NA	NA
N06A	4	2	5	1	0	1
Total	40	16	47	10	10	6

For 16 advertisements with references there were made 26 assessments for the link between the claim and the references: 10 advertisements with 1 assessment and 6 advertisements with 2 assessments. The latter means that there was more than one references cited or more than one claim that was referring to the same article.

The 10 inadequate references were references with low quality of evidence or on non-clinical outcome measures. Or there was no link with the reference and the emotive or the vague claim.

4.4.9 Final classification of the advertisement

For the final classification there are 4 main categories. Looked on aggregated level (per group), there are 21 well supported claims (with a reference of high quality), 92 are partially supported, 8 claims and 10 references are not supported or ambiguous, and for 2 claims there is evidence against. This is shown in table 38.

Table 38: Final classification of the advertisement (aggregated)

	Number of analyses	1 Well supported		2 Partially supported				3 Not supported or ambiguous				4 Evidence against
		By evidence	By instruction leaflet	a Emotive	b Vague	c Pathophysiological	d Surrogate	e Controversial	f Extrapolated	g misleading use of EBM-terms	h Inadequate reference	
		1A	**1B**	**2**				**3**				**4**
A02B	6	0	0	6	5	0	0	0	0	0	1	0
B01A	4	0	1	5	5	1	0	0	1	0	1	0
C08C	3	0	1	2	5	0	0	0	0	0	1	0
C09A	2	1	0	1	0	1	1	0	0	1	0	0
C09B	3	0	0	1	1	1	1	0	0	0	1	1
C09C	6	2	2	3	3	1	2	0	1	0	4	0
C10A	8	6	0	4	11	1	4	0	1	0	2	0
M01A	4	0	1	1	8	0	0	1	0	0	0	1
N06A	4	1	6	8	7	3	0	0	3	0	0	0
Total	**40**	**10**	**11**	**31**	**45**	**8**	**8**	**1**	**6**	**1**	**10**	**2**
Total		**21**		**92**				**18**				**2**

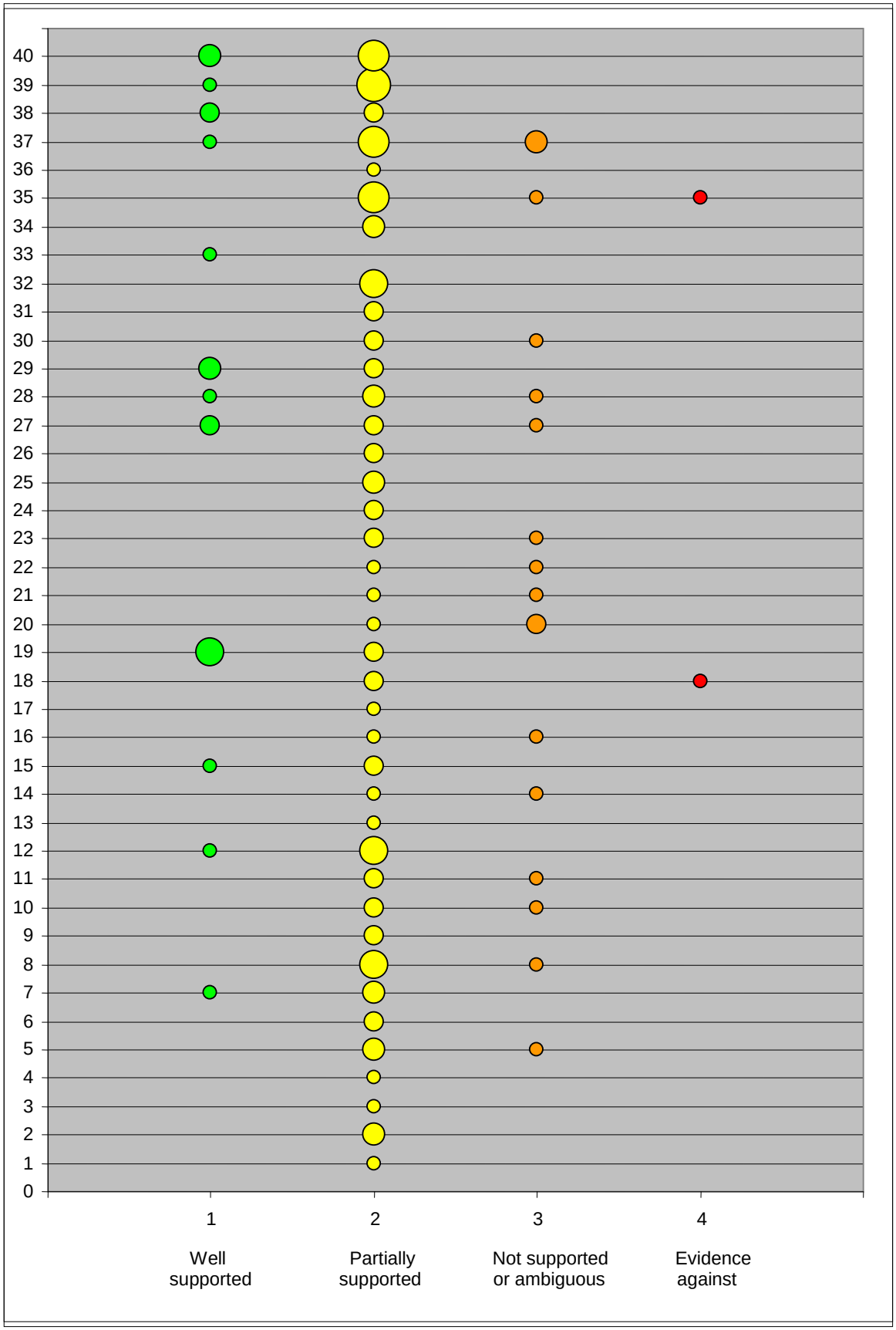
In fact, it is more interesting to look at this data per advertisement. This is shown in table 39 en figure 7. In the latter, there is for each claim in each advertisement a bubble drawn. If there is more than one claim, the bubble enlarges.

For all advertisements, unless 1, there is at least 1 claim that is partially supported. Twelve advertisements are well supported. Of these, there are three advertisements that have also claims in the "not supported or ambiguous category". Fifteen advertisements are ambiguous or not supported. There are 2 claims where there is evidence against.

Table 19: Final classification of the advertisement

		1 Well supported		2 Partially supported				3 Not supported or ambiguous				4 Evi-dence against
		By evi-dence	By instr-uction leaflet	a Emotive	b Vague	c Patho-physio-logical	d Surro-gate	e Contro-versial	f Extra-polated	g mis-leading use of EBM-terms	h Inade-quate refe-rence	
		1A	1B	2				3				4
A02B	1			1								
	2			2	1							
	3			1								
	4			1								
	5			1	2						1	
	6				2							
B01A	1		1	2	1							
	2			2	1	1			1			
	3				2							
	4			1	1						1	
C08C	1				2						1	
	2		1	2	2							
	3				1							
C09A	1			1						1		
	2	1				1	1					
C09B	1			1							1	
	2						1					
	3				1	1						1
C09C	1	2	2	1	1							
	2				1						2	
	3			1					1			
	4						1				1	
	5					1	1				1	
	6			1	1							
C10A	1				3							
	2			1	1							
	3	2		1	1						1	
	4	1		1	2				1			
	5	3		1	1							
	6				1		1				1	
	7				1		1					
	8				1	1	2					
M01A	1		1									
	2				3							
	3			1	4			1				1
	4				1							
N06A	1	1		2	2	1			3			
	2		2	1	1							
	3		1	5	1							
	4		3		3	2						

Figure 7: Number of claims (=bubble size) per advertisement (Y-axis), ordered as in final classification (X-axis)



4.4.10 Lacking information

It was planned to do an appraisal of the completeness of the advertisements. Most important issue to take into account, apart from the already appraised topics, is the presence of a fair balance: are the benefits of the drug in proportion to the risk information? Because there was hardly any claim on risk information, this item was skipped in the final score.

4.5 DISCUSSION

4.5.1 Strengths and weaknesses of this study

Advertisements were taken from the material of the exploratory inventory, with the described advantages and limitations of this. Because the exploratory inventory was based on information gathered by GPs, but also by specialists and pharmacists, the choice of the top nine could be less inaccurate for GPs, who are the target group of this study. Fortunately, by verifying this, this was not the case. The first six groups in the top ten for GPs were also met in the top ten for all health professionals (Not registered products, antidepressants, angiotensin ii antagonists, ace inhibitors, calcium channel blockers and drugs for peptic ulcer and GORD). The seventh place in the top ten for GPs was taken by the antihistamines for systemic use and the eight place by the opioids, two classes that were not analysed here. Then the ninth place is again for an analysed product (ace inhibitors, combinations). The tenth place is for the "angiotensin ii antagonists combinations". Most often they appeared together with the plain forms in the advertisements, while there is not made a difference in references or claims. So inexplicitly most of them are analysed here already. The cholesterol & triglyceride reducers and the antithrombotic agents were seen at the 15th and 18th place respectively.

By choosing the top 10, almost 40% of the 896 analysed advertisements of the exploratory inventory were chosen for the content analysis. One third of these were reminders. These could not be evaluated from an EBM point of view. One third of advertisements was not for GPs, were brochures, or contained only practical or price information: therefore these were also excluded. The one third that remained for this study included many identical advertisements. Finally, there were 40 analyses with 123 claims executed: this number therefore covers a manifold of different claims and several repetitive advertisements.

In the literature found, there were no analyses done on as many aspects as was done in this study. That is the reason why we could not copy a methodology of another study: we had to invent our own methodology.

By scoring as much as possible by dichotomy ("0 or 1"), classifications must be straight, so subjectiveness was minimized as much as possible. On the other hand, information could be lost.

4.5.2 Principal findings

4.5.2.1 Claims

Two third (83) of the 123 claims are emotive (31), vague (38) or on pathophysiological (8) or surrogate (6) outcomes (the so-called "non-clinical" claims). Unless for 6 advertisements, in all other analyses non-clinical claims were in the majority This finding expresses already that evidence-based statements are not the most important kind of message in advertisements. On the other hand, it does not mean that these "non-clinical" claims should be neglected. They are playing an important role in the advertisements, certainly because of marketing reasons. And by the way that these claims were formulated, they could be misleading too. That's why it was important to include them in this content analysis.

The emotive and the vague claims together took half of all claims in the analyses. It was not always easy to make a difference between emotive and vague claims: this was rather

a subjective interpretation. Although being aware of this, it was decided to keep the categories separated, because they are appealing the GPs on a different way. In the emotive claims there could be a distinction into direct emotive claims (e.g. "Who would not like to see their great-grandchildren growing up?") and more indirect emotive claims (e.g. "You can make the difference"). This is not analysed as such, since it is part of the marketing technique. Also, for the vague claims some of them are not suggesting any outcome (e.g. "Timeless…"), while other are more insinuating clinical outcomes but are not giving enough information to classify them (e.g. "Primary and secondary prevention"). The latter are – in an EBM perspective – most misleading and more difficult to distinguish from purely marketing messages.

If studies exist with intermediary (e.g. cholesterol level reduction) and hard endpoints (e.g. cardiovascular mortality), the latter are of preference. That's why the 14 claims with pathophysiological or surrogate outcomes were not categorized as clinical claims. By showing surrogate outcome measures and by this suggesting effectiveness, these could be very appealing to GPs.

In half of the analyses with clinical claims, there is no outcome measure present, because (new) indications are presented. Only in one quarter of analyses (10/40) there are qualitative outcome measures presented. In five of the latter, quantitative outcome measures are added. And these are always relative [or hazard] risk ratios. The absolute risk could never be deducted from the data given in the advertisement. In 4 on 5 quantitative outcome measures these were presented as a graph. In all these graphs, there is sufficient information present to interpret the graph. In one graph a non-significant p-value is given (in little letters).

In the methodology of the content analysis one parameter was provided to analyse the fair balance in the advertisements: are the advertisements showing the risk information (secondary effects, interactions,…) in equal terms as the benefits? Most of the time there is a complete lack of this information. A few advertisements used the word "safe" or "safety profile", without indicating why or in which cases the product is safe: these claims are all classified as vague. It can be questioned whether a drug can ever be classified as fully «safe». There was only one claim that was specific enough to be classified as a "risk information claim". The fair balance could not be taken into account in the final classification of this study.

Using the word "new" or "the first" could be a misleading way to fix the attention of the GPs. Even if it could be useful for practical reasons to know the appearance of new packages, other reimbursement rules, etc. by using the word "new" it attract more attention than it needs and suggests a new drug of new indication.

4.5.2.2 References

In 16 of the 40 analyses references were present. Three of the 47 references were not retrievable via Medline. Only 18 of the referenced studies were of high quality. Part of these studies had a very selected patient population while others were showing non-significant primary outcome measures (so called non-inferiority studies). Many low quality references were narrative reviews without methodology section or focussing on surrogate or pathophysiological outcome measures.

Two third of all articles are funded or sponsored by at least one pharmaceutical company. In one quarter of the articles, this was not clearly stated. Quoting the financial source of the study was part of the analysis, but was not taken into account in the final classification.

References can contribute to the EBM-value of an advertisement. However, if they are "overused" like parts of our results are showing, they could be more misleading than supporting.

4.5.2.3 Final classification

The final classification summarizes all previous steps of the analysis: the place of (non)-clinical claims, the references and the supporting evidence. Four main categories were

possible with their respective subclasses. One advertisement could have claims in more than one category. Because these categories are additive to each other and there is no superiority (or inferiority) in the categories that could neutralize the others, it was chosen to score all the distinct claims of an advertisement separately and not the advertisement with all his claims as one entity.

Well supported

WELL SUPPORTED BY EVIDENCE

Ten of 123 claims coming from 6 different analyses were classified as "well supported by evidence". All these analyses contain a high quality reference that is linked correctly to the claims, in a direct way (with a footnote) or indirectly (just mentioning the reference in the advertisement). This category seems the "summum" of claims, but this must be nuanced. Most often, it describes indication(s) that are clearly described in the referenced article. In that case, outcome measures are not given. On the other hand, three quarters of the advertisements with quantitative outcome measures were found in this category. Sometimes only a secondary endpoint was shown. Another important nuance: the claims could not be separated of the rest of the advertisement. In half of the advertisements, there is also at least one other claim classified as "not supported or ambiguous".

Six out of ten claims that are well supported by evidence, are for the same product. In these advertisements a graph, the study data (design, number of participants, duration,…) and some main results – although sometimes secondary endpoints, are presented. These advertisements are quite overwhelming and maybe thereby rather convincing.

The quotation of "well supported by evidence" can be too optimistic. Firstly, because the scores were always given as there is the "best case scenario". Secondly, because the study design and quality was not scored on (clinical) relevance. Some included studies concern a highly selected target group that does not reflect the general population seen by GPs. Others are comparing the advertised product with the standard treatment, but not in doses who are reflecting the regular treatment or who are equipotent. These are ways of misleading by study design.

WELL SUPPORTED BY INSTRUCTION LEAFLET

Instruction leaflets were not studied, unless for checking indications. Eleven claims are thereby classified as "well supported by instruction leaflet". References were not necessary to belong to this category. For registration reasons these could be "perfect advertisements". In an EBM-perspective this must be "refined" for a great part. Some products' indications are limited to a very selected target group of patients. In most others, the indication – for registration - is very large and it is from an EBM-perspective that the indication becomes much more focussed on one (or a few) specific target group(s). The best example of this is seen with the sartans: some have as indication "arterial hypertension". In evidence-based guidelines they have a very strict position in the treatment of arterial hypertension: not every patient with hypertension should take a sartan. By putting only the indication in the advertisement, it is suggested that the product is indicated for all patients with arterial hypertension. If the advertisement was not showing references that describe the target group more specifically, this advertisement was still classified as well supported in accordance with the instruction leaflet. In fact, for some indications, it could be disputable that these claims should be placed also in the group of "extrapolated".

Partially supported

Unless one advertisement, all advertisements are showing at least one "non-clinical" claim. Most claims were too vague and - because of coherence of this study - it was not possible to evaluate their EBM-impact. For example: if an advertisement for a statin stated "primary and secondary prevention" this was classified as vague, because there was too little information given on the expected impact on clinical outcomes and the target population. By classifying this as vague, critical appraisal about this claim is lost.

So, at first glance, they could be estimated as the less interesting category. But, as described above, the claims in this category are not that "harmless" as they appear at first glance. By suggesting things, these could be quite well misleading. By mentioning one aspect, but being silent about other aspects, they could have a large impact.

Not supported or ambiguous

Most items of the "non supported or ambiguous" category were found in the subgroup of "inadequate references". Of the 16 analyses with at least one reference, the majority (10/16) was not adequate in their references. If there is more than one reason for inadequacy of one reference, this was scored only once. So this item is actually underestimated. High quality articles that are only referencing to "non-clinical" claims are also put in this category: "non-clinical" claims could be already quite convincing in there way of misleading. If a (high-quality) reference is added, the misleading character of the advertisement is only augmented.

Most claims in this category are "extrapolated". By giving clear, but however incomplete information, the advertisement suggested a broader indication than EBM sources stated. Most of the time, it concerned an inappropriate broadening of the target group.

In the analysed claims, only one claim used EBM-terms in a misleading way ("first line product"). In this sample, the word "EBM" itself was never used. "Responsible choice" was classified as emotive claim, because it could refer to EBM-choice, but also to price.

Evidence against

Two analyses were found in the category "evidence against". Both, because the drug is presented as a first choice drug, while the guidelines (at the moment of registration) clearly stated another point of view. In one of these, the evidence found is also controversial about the value of this product. So, stating that it is first choice, is really against the evidence.

4.5.3 Too little or too much?

The categories in the final classification are well defined. However, one word or one reference can already make the difference, in both ways: either in contributing to the EBM-value of the advertisement or vice versa in rendering the information in the advertisement misleading.

As already stated above, purely suggestive marketing messages were not taken into account. Only statements about the EBM-content of the advertisement were made. Of course, marketing techniques are important too and probably even more important than the content: using colours, highlighted reminders, repetitive claims, repetitive images,... In the appraisal process, it is not always clear how some claims must be interpreted. For example: "Protection without conditions": is this a statement about the product or about the reimbursement rules or both? All these items are part of a more global marketing strategy of a product. Advertisements will often be complemented by the visit of a drug company representative, an oral presentation or other communications related to e.g. continuing professional development. Sometimes gadgets are left with the same claim in the same colour as an additional reminder.

All the components of this global marketing are neglected by only focusing by the content. On the other hand, this study reveals that there are still many advertisements without clear messages, or with messages that are too vague or that are ambiguous, with messages that are not evidence-based or where there is even evidence against misleading

4.6 KEY MESSAGES

- **40 analyses on content were executed about the advertisements in the 9 most showed ATC-classes during May 2006.**
- **By scoring the different topics there is always chosen for the "best case scenario".**
- **Clinical claims:**
  - **In half of the analyses with clinical claims, there is no outcome measure present.**
  - **Only in one quarter of analyses (10/40), there are qualitative outcome measures presented.**
  - **Only in five of the latter are quantitative outcome measures added.**
- **Almost all references were retrievable. References could be more misleading than supporting, because:**
  - **In less than half of the advertisements references were present.**
  - **Only 18 studies of the 47 references were of high quality.**
  - **Two third of all articles were funded or sponsored by at least one pharmaceutical company. In another one quarter of articles this was not clearly stated.**
- **Classification of advertisements showed:**
  - **Only 10 claims (out of 123 claims) in 6 different analyses were classified as "well supported by evidence". Eleven claims are "well supported by instruction leaflet".**
  - **2/3 of the 123 claims are "partially supported"claims: emotive (31), vague (38) or on pathophysiological (8) or surrogate (6) outcomes. Unless one, all advertisements showed at least one of this kind of claims.**
  - **Eight claims and ten references put the advertisement in the category "not supported or ambiguous". Most claims in this category are "extrapolated", because they are giving clear but however incomplete information.**
  - **There was evidence against for claims in 2 advertisements.**
  - **In the methodology it was foreseen to score on the "fair balance". This was not possible, because only once there were notations on side effects.**
- **The lay-out and the emotional appealing components of the advertisement are not taken into account, although this could at least be of equal importance as the content. Certainly, because this written information is just one part of the global marketing strategy of pharmaceutical companies.**

5 QUALITATIVE APPROACH

5.1 INTRODUCTION

In the framework of this project, we wanted to study written information from the pharmaceutical industry. A content analysis of written information received by the participants was performed, but we also wanted to go a step further and to put written information in a larger context by giving them the word in a qualitative approach to know their perceptions on this topic.

Focus groups interviews have therefore been organized, with the global aim of finding out which information general practitioners (GPs) need and which improvements for this information they suggest. It was thus a complementary exploratory work giving a qualitative light to the quantitative part.

5.2 OBJECTIVES OF THE FOCUS GROUP INTERVIEWS

The objective of the focus group interview is to clarify which information a GP needs, apart from Evidence Based Medicine (EBM) information, to perform an appropriate therapeutic choice. Formulation of questions is the following:

1. Do GPs need written EBM information from pharmaceutical companies to perform an appropriate therapeutic choice?
2. Do GPs need other information than EBM information?
3. How can this information best presented and reported, with respect to content?

We stayed open for other information outside the questions.

5.3 METHODOLOGY

To approach the specific research questions, we chose a qualitative approach rather than a quantitative approach which in this case would have been too focused, not allowing sufficient place for discussion and the framework would have been too restricted. The qualitative approach was also preferred to favour a brainstorming. This choice for a qualitative approach allowed clarifying concepts or ideas, too. The use of a structured interview guide with open questions allowed the emergence of ideas (e.g. not especially found in the literature). The choice for focus group interviews permitted the confrontation of ideas. For a question of feasibility (time in particular), it was the best way to quickly obtain information of good quality. Focus groups are actually a kind of a semi-structured group interviews; the way of moderating the interview being very loose or on the contrary very directional.

Because of the focus of our research on GPs (performed in collaboration with the two scientific societies for GPs) we chose to interview GPs only and not specialists or pharmacists.

Four focus group interviews were carried out: two groups with GPs (one French-speaking and one Dutch-speaking) and two groups with EBM experts (also one for each language). An EBM expert is defined here as «a GP with knowledge in EBM, because of teaching it, implementing it, or doing research in the field». EBM experts group interviews followed those of GPs, allowing further discussion with EBM experts on several statements the GPs made.

Selection and recruitment of participants were organized by the scientific societies. The interviews took place in Brussels at the headquarters of the Société Scientifique de Médecine Générale (SSMG) for the French-speaking GPs, in Berchem at the headquarters of Domus Medica for the Dutch-speaking GPs and in Brussels at the headquarters of the KCE for both groups with EBM experts.

Selection of GPs was performed according to age, gender, type of practice (solo, duo, group) and location in order to have a good representativeness. Selection of EBM experts was not randomized: people known for their expertise were asked to participate. All GPs and EBM experts were asked about conflicts of interest. They received a fee for their participation and two credits in "Ethics and Economy" category.

In practice, the way of recruiting groups was different according to scientific societies: the SSMG recruited participants by phone followed by a confirmation letter with all practical details (see in appendix) whereas Domus Medica recruited participants by e-mail (with an attached letter containing all practical details, see in appendix) followed by phone. Because of the low response on first run in both societies, it was opted for a more selected group: more in the neighbourhood of both headquarters. The representativeness was thus not as optimal as completely wished.

Each focus group interview was lead by an experimented moderator. A former GP was the moderator for the French-speaking groups and a sociologist was the moderator for the Dutch-speaking groups. There was a reporter-analyst for the French-speaking groups and another one for the Dutch-speaking groups. The observer was the same for all groups.

An anonymous questionnaire was first distributed to all participants (see appendix), then the focus group interview was performed according to pre-listed questions ("interview guide", see appendix). The interview was scheduled to last two hours. A debriefing with the moderator, the reporter-analyst and the observer was performed after the interview concerning the course of the interview and the main ideas emerging.

Interviews were recorded and reporters took notes in parallel. Interviews were further transcribed. It was in no case a speech analysis; transcription was not completely literal (e.g. hesitation words not taken), but very close to participants words.

Analysis was performed as soon as possible after the interview (in the following days). Processing of data was performed at a basic level, in particular without using a specific software. The transcribed texts were ranged by type of question and then put in an analysis framework. This analysis was done separately for the French-speaking and the Dutch-speaking groups. Then it was brought together. All analyses were read by the observer and another person. The aim of the analysis was in no case a comparison of people within groups nor a quantitative analysis. The results were written down based on this framework.

If not otherwise stated in the following sections, "written information" means all written information in general. If it is about information coming from pharmaceutical companies or concerning advertisements, this is explicitly mentioned.

The participants from focus group 1 and 3 are called "GPs" from now on. Sometimes "more experienced GPs" are mentioned: these are the GPs with experience in the field of more than 10 years. The participants of focus group 2 and 4 are from now on called "EBM experts", abbreviated as "experts", without forgetting these are all GPs too.

We used always the masculine form to report on citations, also if it was a feminine GP who made this remark.

All statements in the text are supported by citations. If there is more than one citation, the most suitable is chosen, even if there are citations in the 2 languages. Only when citations are complementary or contradictory, more than one citation is showed.

The following section (results) will answer the three questions presented in the objectives section and will also present topics emerging from the interviews.

5.4 RESULTS

These are exploratory results. They are very detailed, but the aim is to reflect as much nuances as there were, to avoid a generalization of results.

5.4.1 Participants, moderation of interviews and atmosphere

5.4.1.1 Participants characteristics

Four focus groups (two in French and two in Dutch) were performed between 23 January and 15 February 2007. The number of participants in each focus group ranged between 5 and 11 and lasted between 1h45 and 2h. Globally there were more men than woman (19 versus 13), and age range was quite well represented (27-66) as well as type of practice (solo, duo, group, with or without GP assistant, full-time or part-time, with or without other professional activities, payment by service or at fixed price).

Thirteen out of all participants were GP trainers but not all had an assistant. Globally all interviews went well. Fifteen out of the eighteen GPs were trained to EBM (during their studies for the youngest and after graduating for the others). All eighteen claimed they implemented EBM and followed scientific literature, but the questionnaire was maybe too suggestive.

All experts were also GPs, at least in the past. Nine experts were EBM trainers and nine did research in EBM field.

The number of representatives seen per month rose up to 20 for GPs and up to 30 for experts. All except from two GPs and five EBM-experts received medical representatives.

Participants in some groups came all for the same university or the same region. For a question of time and money, it was not possible to perform additional focus group interviews to allow for a final good heterogeneity.

5.4.1.2 Moderation of interviews

For the French-speaking groups, the moderator was a former general practitioner whereas it was a sociologist for the Dutch-speaking groups.

The GP was probably less neutral because she was experienced in medical practice and she knew several participants, mainly in the experts group.

On the other hand, the Dutch-speaking moderator was more directive in the way he conducted the focus group.

5.4.1.3 Atmosphere in the groups

In general

Almost two hours of discussion was not too long to keep a good atmosphere in the four groups.

The accommodation at the three locations did not prevent a good discussion.

The profile of the youngest person in the two focus groups with EBM experts was a bit different compared to the others. It did not give problems in the discussion. On the contrary, it opened doors to more reflection.

Focus group 1: French-speaking GPs (GP)

Most GPs were young and worked in group practice. The group was finally very homogeneous because they knew each other for the majority (two couples participated). Two participants arrived later after the focus group interview had started, but they joined directly the discussion. All came from the same university (except for

two) and worked in the same region (except for one). They tended to speak with the same voice. All gave their opinion. One GP seemed to co-moderate the interview.

Focus group 2: French-speaking EBM-experts (Expert)

The interview took place in the cafeteria, which was considered convivial by the participants. All knew each other including (except for one) knew also the moderator. The ambiance was very convivial. They all practiced general medicine, at least in the past. This explained why they sometimes answered as GPs. The participants were rather old than young (only one young expert). The youngest expert seemed to have a different approach, for instance concerning information channels (electronic versus paper).

Focus group 3: Dutch-speaking GPs (GP)

Some did not know very well why they were invited. The two youngest participants were rather aware of EBM: they have had basic training in their formation to physician. One of these two had already worked with advertisements, as part of communication training for students.

Opinions were not always unanimous, but they respected each other. The group dynamics was acceptable: all opinions were heard. Not many contradictions in non-verbal communication were seen.

Focus group 4: Dutch-speaking EBM experts (Expert)

All participants were males. They knew each other and all had experience in the methodology of group interviews. They all, except the youngest, reacted as they are in their function as expert, not only as GP.

They all were very aware of the things they told about. They reacted in a controlled way. They acted in their role as representatives for their organisation(s).

What is written information according to participants and why do they use it?

5.4.2 What is written information according to participants and why do they use it?

5.4.2.1 What is written information according to participants?

GPs and experts mentioned many different types of written information. They cited folders, letters, brochures coming directly from pharmaceutical companies, but also periodicals containing advertisements of pharmaceutical companies. However, during the course of the interviews, it was not always clear which type of written information they spoke about.

They quickly spontaneously spoke about independent information. By "independent information", they meant «information not coming from or not sponsored by pharmaceutical companies». They told they experienced reading independent information – in journals or elsewhere – that seemed independent, but then realized it was actually sponsored by pharmaceutical companies. All sources of written information in general, cited by GPs and experts, stay in the appendix.

They also frequently referred to electronic information (websites, CD Rom, newsletters).

5.4.2.2 Why do participants use written information?

A series of objectives of written information as perceived by GPs and experts was obtained from the focus group interviews. Participants were not specifically asked for the reason why they could need written information. Their perceptions were however taken from their answers throughout the interviews.

One GP was surprised about the focus of these interviews: written information was not that important to him.

> "Je vraagt altijd naar dat papier maar die informatie gebruik je niet echt." (GP)

Updating general medical knowledge

GPs and experts said refreshing their general medical knowledge by reading information, for instance overviews on specific topics in journals or periodicals.

> "Wat lees je dan?" - "Bijvoorbeeld een artikel over gedragsstoornissen of autisme bij kinderen [in de Artsenkrant]." (GP)

> "[Folia van BCFI / BCIP] Je krijgt het maandelijks. En dat het nuttig is omdat je op die manier kan zeggen dat je over de meeste onderwerpen toch vrij goed bijgeschoold bent.." (Expert)

Being aware of innovations in medicine

GPs and experts mentioned the fact that written information enables them to be aware of the newest technical inventions and to be able to answer questions of their patients in this field.

> «Parfois, les patients sont au courant des nouveautés avant les généralistes et posent des questions aux généralistes» (GP)

Some GPs read medical information to be aware of things representatives tell them.

> "Dat zal wel, massaal gebruikt!" [over populaire medische bladen] - "Het zijn de medisch afgevaardigden die refereren naar die bronnen." - "Het is daarom, om te kunnen spreken met de medisch vertegenwoordigers, moet je dit allemaal gelezen hebben. Want die zegt van «het heeft daarin gestaan». Zelden zeggen ze: "het staat in de Folia." (Expert)

Reading pharmaco-medical information is also a means for GPs and experts to know changes on the drug market (new drugs, new packaging or drugs which are withdrawn from the market).

> «Les informations publicitaires sont utiles surtout pour les nouveaux médicaments » (GP)

> «Je lis les lettres qu'ils nous envoient 2 ou 3 fois par an pour les mises en garde et les retraits du marché, il y a des effets indésirables parfois rares ou des évènements signalés qui n'étaient pas connus auparavant» (Expert)

Participants have also discussed a lot about new medications. Those remarks will be developed later in this text (see 1.4.4.3)

Supporting in therapeutic decisions

GPs and experts believe some material is useful to take a decision.

> «J'utilise les longues fiches qui indiquent certains dosages, cela aide» (GP)

> «Je lis parfois ce que le délégué donne : un petit résumé sur la bonne façon d'utiliser les héparines de bas poids moléculaires (HBPM) avec le dosage, … ; généralement, c'est bien fait» (Expert)

GPs and experts consider written information can be useful at the point of care in helping to take therapeutic decisions. One stated very clearly it has to be validated sources. For this are certain books, the «Belgisch Centrum voor Farmacotherapeutische informatie (BCFI)/Centre Belge d'Information Pharmacothérapeutique (CBIP)-site and the «Centre for Evidence Based Medicine» (CEBAM)-site explicitly mentioned.

> «Au moment de la prescription, je dis aux patients : « Attendez, cela change tout le temps » et je regarde dans un support qui a été validé » (GP)

> "Maar dat gebruik ik dagdagelijks om mijn praktijk te veranderen tijdens mijn consult. Dus dat ik zeg van: ik weet niet hoe ik nu moet reageren op deze situatie, dat ik dat rap even bekijk terwijl mijn patiënt voor mij zit. Ze noemen mij dikwijls «dokter zoekt het op op zijn computer want hij weet het niet» wat ik op zich een compliment vind. Dat zijn mijn handboeken en dan de BCFI-site ook puur om echt medicamenteus te gaan vergelijken en zo." (Expert)

A few GPs reported they also use written information to check quickly the evidence-based vision on one aspect (concerning here scientific, reliable value of something).

> "We gaan weer naar BCFI gaan. Ik denk dat Folia, dat is dus een tijdschrift dat de farmacotherapeutische actualiteit een beetje probeert te volgen en waar ook raadgevingen enzo instaan van hoe je bepaalde zaken moet aanpakken. Ik denk dat het nut daarvan is dat je – ook omdat er altijd een klein abstract staat waardoor je heel vlot kan lezen - dat als het een langer artikel is dat je vrij snel kan zien wat de actuele evidence based visie is over een of andere therapie." (Expert)

Being aware of political news

According to some GPs and experts, reading medical journals is a means to be aware of the latest news concerning their profession or of the political news in the medical landscape.

> «[…] Je garde le Journal du médecin et le Généraliste pour les informations sur la profession, la politique» (Expert)

> «Je lis les 2 premières pages du Journal du médecin ou du Généraliste pour voir un peu ce qui se passe dans la profession» (Expert)

> "Ik geef toe dat ik de Artsenkrant lees. Niet om de literatuur, maar om politiek zeker bij te blijven. Ik merk dan wel – vraag is natuurlijk of je politiek bijblijft door de Artsenkrant te lezen – dat je ondertussen diagonaal toch heel wat meegenomen hebt. " (Expert)

> "Waarvoor wordt het gelezen? Toch vaak owv. de politiek." (Expert)

> "Wij hebben in ons land een beetje pech. Het Tijdschrift voor Geneeskunde - dat als rol heeft om een stuk de informatie die artsen zoeken te vangen: dat kan beter. Er zijn inderdaad veel mensen die dat lezen en het is nog altijd een bron van verwijsinformatie en van de nieuwe stents en wie is met wat bezig. Maar ik hoop dat er wat vernieuwing komt, maar ik denk dat dat een beetje onderschat wordt. We moeten roeien met de riemen die we hebben. Het wordt vaak opgevuld door de assistenten van de staf van de universiteiten. Er zijn dan Nederlandse tijdschriften – Medisch Contact en het Nederlands Tijdschrift voor Geneeskunde - die wel die rol spelen, en ook een beetje de rol van politiek forum. Wij hebben dat niet en dat is jammer" (Expert)

Using as training material

Written information is used by experts for continual professional development (self-training) as well as training of students. For instance, experts critically analyze articles with their students to assess reliability.

> « Je lis très peu de l'industrie juste quand j'ai des étudiants et que je dois leur apprendre à être critique » (Expert)

> « Je lis dans un but d'enseignement, pour la formation critique» (Expert)

An expert explained that the source of information is linked with the purpose of gathering information: other sources are consulted to take decisions in practice versus training or research purposes.

> "Informatie voor de praktijk is verschillend van deze voor navorming of onderzoek. Er zijn elke keer andere bronnen. Dus dat speelt ook wel mee." (Expert)

5.4.3 Need of written EBM information

EBM wording was consciously not used in the questions of the interview guide. Some GPs and experts nearly did not talk spontaneously about the need of EBM information. In this case, we identified what was referring to EBM, without being explicitly mentioned. Other GPs and experts however mentioned EBM several times during the interviews.

5.4.3.1 Need of written EBM information from the pharmaceutical industry

As above mentioned, some GPs and experts nearly did not talk spontaneously about the need of EBM information.

Some GPs told advertisements are not very nuanced: the advertised product is always the best.

> «Les produits sont toujours tous les meilleurs sur le marché» (GP)

Experts mentioned a new trend in advertisements from the pharmaceutical industry: they use EBM wording to make their messages more credible.

> «Ils mettent une étiquette "EBM" dans leurs messages, comme "prescription EBM"» (GP)

Finally, some GPs discussed the relative weight of EBM and of the need of putting it in the context of field practice.

> "Je moet echt goed kijken en kritisch zijn tegenover jezelf. Bv je weet dat Brufen kortwerkend is maar wel zeer goed, maar soms wil je liever iets gebruiken dat heel de dag werkt terwijl evidence zegt: blijf Brufen voorschrijven." - "Evidence is geen verplichting." (GP)

5.4.3.2 Need of written EBM information from independent sources

If GPs and experts in general did not talk a lot about EBM information from the pharmaceutical industry; on the contrary, they spoke a lot about EBM information from independent sources - or referred to it, at least.

> "Hier zou ik een lans willen breken voor «La Revue Prescrire». Daar staat dan alle informatie in. Tenslotte, zoals u zegt, die studies zijn al gebeurd. Er bestaat dus concrete informatie of het product goed of slecht is." (GP)

Several aspects of independent information (sources) are touched by the participants during the interviews, beginning with which sources they use and then reporting that these could help to counterbalance the specialists and the representatives. It was stated that they are suspicious towards new drugs and they need validated information to assess them. Much is said about the difficulties to read independent information. That is the reason GPs ask for pre-digested information, while the experts stress on the critical appraisal. This paragraph will end with the importance of independent information for patients. It is not surprising that citations in this paragraph were most taken from the interviews with the experts.

During the interview experts were asked which independent sources they use. They mentioned: BCFI/CBIP, the «Rust- en VerzorgingsTehuis (RVT)-formularium», the letters from Farmaka, the Cochrane Library, Minerva, Clinical Evidence and the recommendations from Domus Medica, SSMG, the Belgian Antibiotic Policy Coordination Committee (Bapcoc) and the Belgian Health Care Knowledge Centre (KCE). As reported earlier, the source they consulted was related with the purpose of which they consulted: eg. for training purposes or for an update during the consultation.

> «Je suis d'accord avec ce qui existe : le CBIP, le répertoire commenté des médicaments, les Folia, les fiches de transparence, Minerva, Prescrire (mais il faut être abonné), les recommandations de l'Etat, de la SSMG, de la WVVH.» (Expert)

> "De informatie van het Belgische Centrum voor Farmacotherapeutische informatie is voor mij de belangrijkste bron zou zijn, omdat ik er al 20 jaar mee werk: het biedt de arts onafhankelijke geneesmiddeleninformatie die bruikbaar is voor de praktijk. Daarnaast gebruik ik ook richtlijnen van vooral Domus Medica, Bapcoc, en KCE. Dat is beknopt de informatie waarmee ik te maken heb." (Expert)

> "Zoveel moet ik er niet aan toevoegen. Het is ongeveer hetzelfde. Ik ga ook wel eens in de Cochrane Library kijken. Ik ga ook wel eens naar de Minerva, zeker over de topics waarvan ik weet dat Minerva erover gepubliceerd heeft. Clinical Evidence is ook een bron die ik vrij regelmatig raadpleeg. Dat is denk ik het belangrijkste." (Expert)

> "Ik denk dat ook het RVT-formularium, de uitgaven van Project Farmaka, ook met de geneesmiddelenbrief als maandelijkse of tweemaandelijkse aanbeveling. Dat is denk ook een bron die vermeld mag worden." (Expert)

The youngest GP in the group with experts confirmed the above-mentioned sources, but added also that his prescription behaviour was formed by his trainer, so not only by independent sources.

> "Ik denk dat mijn basispakket van wat ik voorschrijf nog altijd ligt bij wat mijn stagemeester voorschreef, omdat dat mij gewoon niet lukte om al die literatuur na te lezen." (Expert)

For some GPs a few good EBM-sources could be enough. Here they mention Clinical Evidence and La Revue Prescrire. A bit further in the discussion the Folia were added too.

> "Van mij mag La Revue Prescrire vertaald worden naar het Nederlands." - "Dat kost veel geld. Maar met Clinical Evidence en La Revue Prescrire heb je praktisch alles. Dan heb je niets anders meer nodig, moet je geen vertegenwoordiger ontvangen, geen boeken meer lezen, dan heb je alles." (GP)

Evidence-based practice is not that easy for GPs if the specialists do not follow the same guidelines, said one expert.

> "Het conflict waar veel huisartsen in verwikkeld zijn: huisartsen willen blijkbaar het voortouw nemen in de evidence-based praktijk, maar rondom hen bevinden zich veel anderen, zoals de gespecialiseerde artsen. Dus als je zelf zegt van ik spoor osteoporose niet op, ik behandel osteoporose niet, dan zie je dat iedereen, alle vrouwen van de gynaecologen komen met onderzoeken. Dan sta je daar. Als je dan heel kritisch zelf een onderzoek voert, dan sta je stevig. Dan kan ik me voorstellen als je niet alle literatuur hebt doorgenomen of niet helemaal overtuigd bent, dat je onmiddellijk omswitcht." (Expert)

However, some GPs think that independent information can be a help for GPs to defend themselves against the specialists.

> "Ik vind dat er een enorme meerwaarde is verkregen voor de eerste lijn om u ook te verdedigen op alles wat van hogere echelons komt waar wij vroeger van uitgingen dat dat in was. Terwijl we nu kritischer en genuanceerder zijn." (GP)

One expert claimed that it is difficult to form a counter-balance with the pharmaceutical companies.

> "We blijven met alle onafhankelijke informatie-kanalen als David tegen Goliath!" (Expert)

Several GPs and one expert seem suspicious towards new drugs. They stated they need validated information before using these medications.

> «Chaque fois que l'on prescrit un nouveau médicament, on a besoin de savoir si c'est validé ou pas, si cela apporte quelque chose de nouveau ou pas.» (GP)

> «On a le temps, on n'est pas pressés pour prescrire une nouveauté, on a bien le temps, on nous en parlera à la SSMG, à la limite, il n'y a pas urgence, on attend» (GP)

One expert claimed that the independent information in Belgium is one of the best in Europe.

> "Zo'n 40 jaar geleden bestond er ongeveer niets van onafhankelijke informatie. Feitelijk zit de huisarts in een heel goede positie, een luxe-positie: hij heeft nog nooit zo'n goede onafhankelijke informatie gehad! Zelfs Europees gezien staan wij echt aan de top tov. Nederland, Duitsland. Frankrijk heeft zijn Prescrire. Zeg dat niet te vlug tegen de overheid, ga maar terugdraaien hé!" (Expert)

However one expert stated that some independent information is more difficult to read than the popular press.

> «Minerva est plus difficile à lire que le journal du médecin» (Expert)

That is what some GPs found too: reading articles in the big journals is hard to do. Especially because you have to follow all the developments on a specific article to get a complete image of the whole story.

> "*Lancet* en *New England Journal of Medicine* zijn moeilijk om te lezen." (GP)

> "Als je bijvoorbeeld een onderwerp leest, moet je de maanden nadien nog altijd de bemerkingen en opmerkingen lezen om het op zijn plaats te zetten.." (GP)

GPs reported they do not want to make themselves the critical appraisal of information received because they do not have time to make it or they do not have the skills required for this type of exercise. They want this job to be done by experts because they need reliable sources.

> «Un comité de sages pourrait faire le tri de l'information et une synthèse pour les généralistes sur les nouveautés, les génériques…» (GP)

> "Ik heb geen tijd en zin om die literatuur te bestuderen, anderen [Revue Prescrire] doen dat voor ons. Dus waarom zou ik zelf alles nog eens bestuderen terwijl er zijn die dat voor ons gedaan hebben? (GP)

GPs would welcome pre-digested information coming from independent sources, such as scientific associations, universities (professors, although these are sometimes sponsored by the pharmaceutical industry), CBIP/BCFI, INAMI/RIZIV.

> «L'information doit provenir de sociétés scientifiques, de professeurs d'université, du CBIP, de l'INAMI […].» (GP)

Experts agree with the idea of pre-digested information, but some of them think GPs should learn by themselves to make a critical appraisal. One called this the "crisis during the last training year"

> "De vakken die op dit moment het meeste succes hebben in het zevende jaar – na 6 jaar basisopleiding -, is waar ze het meest van dergelijke dingen zeggen van: kijk met een kindje dat hoest moet je dat doen! Dat heeft een succes, maar de opleiding, de klinische opleiding, daarin is het een feit dat het geen catechismus is. Het zit dieper in mekaar en dat is dus de crisis die de meesten in het zevende jaar doormaken: voor wat hebben we hier zeven jaar gestudeerd? Ofwel weten we het niet, ofwel geven we toch niets. Ga naar huis, neem een Dafalgan en het zal wel over gaan! En geef ons concrete boodschappen, aub! Ik herken dat perfect! Maar dat is juist wat we niet mogen doen!" (Expert)

Other did agree with this, but made a difference in students and GPs with a practice for more than several years: for older GPs promoting this crisis is not realisable anymore. For this group, messages that are pre-digested and built up with slogans could be more useful.

> "Maar ondertussen zitten we toch met een hele generatie toch tot 65 jaar waar een heel deel van die mensen nog door die crisis moeten gaan! En hoe doe je dat? En mijn gevoel zegt dat het wel zou helpen om wat sloganesk, zowel op

patiëntenniveau als op bepaald artsenniveau te gaan werken, zodanig dat bepaalde boodschappen toch wel wat ingang beginnen te krijgen en er een verbreding is." (Expert)

One of the experts is afraid of the gap between practitioners and experts. Theoretically it is simple for him: the time GPs spend for representatives could be enough for critical reading. But he realizes that this is not how it works in real-life.

> "Als wij blijven zeggen dat de anderen kritisch moeten zijn, hoe krijg je ze kritisch? Door dubbel zoveel argumenten aan te geven zoals voor stoppen met roken voor kritisch te zijn. Dat ze al hun tijd steken in het ontvangen van medische vertegenwoordigers, soms wel vier per dag, dat is dus vier maal een kwartier, dus een uur per dag dat ze vertegenwoordigers moeten ontvangen. En dan zeggen dat ze geen tijd hebben. Dus tijd is geen argument." (Expert)

In the same line with these statements one completed this by saying that independent information for patients could help the GPs.

> "Ik denk dat die slogans zoals die koersbroekslogan eigenlijk goed van pas voor komt voor de huisartsen. De patiënten, omwille van de griepepisode, komen onmiddellijk al zelf met de werking: ja, antibiotica zijn toch niet nodig! Ik kan in feite heel relaxed een praatje doen en vrijblijvend een paar vragen stellen! Er zijn mensen die zeggen: ik heb al 3 dagen griep en ik heb nog koorts dan moet ik toch wel een antibioticum hebben hé! Dan kan je zeggen, ja hier komt de koersbroek! En ze lachen ermee en het is voor ons ook een stuk gemakkelijker nu!" (Expert)

Another one stated that slogans could be useful, but must be based on guidelines.

> "We kunnen die slogans wel gebruiken. Maar ondertussen hebben we dus ook guidelines gemaakt hé! En dat is dus weer het verschil. En laat ons dat nu eens verpakken naar boodschappen die zowel voor de artsen, als voor de patiënten kunnen dienen. Want voor artsen is dat wel een versterking." (Expert)

An expert explained that already in the guidelines themselves, key messages are used, what could be seen also as a kind of slogans.

> "De guidelines gaan er ook al wat naartoe: op het einde van de guidelines zit er ook een kaart met enkele basisboodschappen. De kernboodschappen en dat zijn slogans, maar die zijn dus wel heel goed onderbouwd hé, de guidelines! En dat is het grote verschil met andere informatie" (Expert)

One GP reacted that complete independent information would be very expensive.

> "Dan moet het al heel duur zijn als het niet gesponsord is." (GP)

5.4.4 Need of written information other than EBM information

EBM information is a specific type of written information. During the focus group interviews, different other types of written information have been listed, namely pharmacological information, practical information (information concerning taking of medication, information on price/reimbursement), information on new drugs and information on the several aspect in comparisons between drugs.

5.4.4.1 Pharmacological activity of the drug

Experts blamed the fact that one has sometimes to search to which class the medication belongs to.

> "Daar vind ik dan die gedrukte reclame vrij slecht in. Als je zo'n advertentie ziet - en ik ontvang dan zo'n schone tekening met een naam- dan moet je echt liggen zoeken tot welke klasse dit behoort." (GP)

Some GPs emphasized the absence of information on the added value or not of a drug, information which would be of interest.

> «Il faudrait une alternative aux informations des firmes […], savoir si les médicaments apportent un plus par rapport à l'ancien médicament ou non […], sans données théoriques.» (GP)

One GP made a difference between «pharmacological» information and «practical» information. He stressed the importance of both.

> "Voor een huisarts zijn er 2 aspecten aan een nieuw product. Ten eerste het farmacologische, het technische, wat het waard is. En ten tweede ook de praktische kant ervan: verpakkingen, terugbetalingen enz. Nu is het voor een huisarts sowieso heel belangrijk dat je het praktische luik ook kent, anders geraak je niet ver en daarvoor is de farmaceutische industrie een gemakkelijke bron." (GP)

5.4.4.2 Practical information

Information on taking of medication

GPs find practical information from the pharmaceutical industry but also from independent sources very useful, mainly when starting medical practice. Practical information is useful to solve clinical problems (at the point of care or after the consultation).

> "We wensen een concrete, praktische info." (Expert)

GPs and experts mentioned lacks in this type of information, like no information on dosage, or use during pregnancy or lactation.

> «On a le nom du médicament mais pas la posologie» (GP)

> «Il y a des manques, on s'oriente vers d'autres sources d'information comme Prescribe qui est up to date, on a les informations pour l'usage pendant la grossesse, la lactation…» (Expert)

Some GPs blamed the fact that a picture of the drug is not always present.

> «La photo du médicament pour le reconnaître» (GP)

GPs appreciate to know if the medication is divisible or not by seeing pictures of the medication.

> «Une photo pour voir si le médicament est sécable ou non» (GP)

GPs want to have information on dosage, indications, contra-indications, interactions, conditioning.

> «On aurait besoin des nouveautés, des nouveaux dosages dans les publicités pour qu'elles nous soient utiles. » (GP)

> «Quand on prescrit un médicament qu'on connaît bien, on voudrait des informations très pratiques, des schémas, des comparaisons, les indications, les contre-indications, les interactions, donc un message utile, aussi le mode de prise (avant ou après le repas), les posologies, le conditionnement […]» (GP)

Although, in one group of GPs, there was hardly any interest in information on secondary effects of medication. Possible reasons for this are mentioned by the participants: they know the product or the class of the product, they do not find it useful information, or the secondary effects are that huge so the information is more than present enough.

> "Van nieuwe producten lees ik wel de nevenwerkingen, de interacties en contra-indicaties." (GP)

> "Zelfs bij nieuwe producten in een bestaande groep, heb je aan de nevenwerkingen geen boodschap." (GP)

They mention also the difficulty to read the instruction leaflet.

> «La notice est trop petite» (GP)

Most GPs told they read sometimes the instruction leaflet, but most of the time not in the advertisement, rather in Compendia of in Prescribe.

> "Je kan dat vinden op internet in het Compendium of in Prescribe. " (GP)

An expert reported that he only reads instructions leaflet if necessary, not "a priori".

> «On ne lit pas systématiquement les notices sauf si on a besoin d'une information sur les effets secondaires, les interactions, ….» (Expert)

One assessed the function of the instruction leaflet as a way to augment the reliability: this will be developed under 1.4.6.1)

One GP reported he likes receiving information on the number of pills to be taken for instance.

> «Je dis à une patiente de prendre 2 comprimés de Norlevo et elle me dit « Ce n'est pas 1 seul comprimé en une fois ? »» (GP)

GPs appreciate to have for instance practical files on dosage easy to use.

> «J'utilise des fiches faciles à emporter dans la mallette» (GP)

One GP remarked the importance of the documents needed.

> "Alle praktische formulieren [gekregen van vertegenwoordigers zijn handig]." (GP)

Information on price/reimbursement

Information on price and reimbursement are important points to take into account according to some GPs.

> "Terugbetalingswijze zien is handig." (GP)

One explained he has a lot of socially underprivileged patients and he needs to know the cheapest drugs.

> «Je vois beaucoup de patients défavorisés et le prix des médicaments, c'est important.» (GP)

GPs mentioned lacks concerning price, for instance one has to search to find the price, or there is no information on price, or no information on daily cost or on cost of treatment of a specific pathology.

> «[…] les types de remboursement A, B, les conditions, avoir l'idée du prix du médicament, le coût journalier ou le coût du traitement de la maladie, par exemple une angine traitée par tel produit, cela coûte autant.» (GP)

5.4.4.3 Information on new drugs

Many participants welcome information on new drugs, but, as said before, others have reservations about this point: they choose rather to wait a bit before prescribing and to look at the evolution of new products. More experienced GPs even think GPs lose their time with new drugs and in seeing representatives for this reason since there are few really new molecules; they relativize the "new" label.

> "90% van de nieuwe producten moet je niet onthouden." (GP)

> «En fait, des médicaments réellement nouveaux, il y en a vraiment très peu.» (GP)

GPs refer to letters from the pharmaceutical industry for information on new molecules.

> «Je me base sur les lettres pour connaître les retraits du marché, les nouvelles molécules» (Expert)

Besides these sources of information, a GP mentioned also that it is hardly impossible not to see information in all letterbox medical journals.

> "Je krijgt ook informatie waar je niet naast kan zoals van de Artsenkrant en van de Huisarts." (GP)

One GP said he obtains information on new products by the pharmaceutical representatives as well, but he does not consider it as highly scientific.

> "Via de vertegenwoordigers: voor de nieuwe zaken. Is niet zo hoogst wetenschappelijk." (GP)

Finally, information in the prescription program of the GPs' electronic medical file (EMD/DMI) is also used to obtain information on new products.

> «J'utilise le logiciel Medigest qui est utile et très performant» (Expert)

> "Compendium en Prescribe gebruik ik vooral." (GP)

GPs told to be irritated if they knew not soon enough of new products: they do not want to be confronted with representatives, patients or pharmacists who are asking for something they do not know.

> «Quelquefois, la Dernière Heure sort la première des indications de médicaments, concernant par exemple l'allergie ou l'asthme avant l'industrie pharmaceutique. Un patient dit parfois : «Tiens, je voudrais ce nouveau traitement » et il faut chercher» (Expert)

> "Ik vind dat als een nieuw product of vorm op de markt komt dat beschikbaar is, dat het niet zou mogen zijn, voordat wij als voorschrijver eerst op de een of de andere duidelijke manier daar eerst informatie over krijgen." (GP)

One GP launched the idea of auto-alert mechanisms by the BCFI / CBIP.

> «Le site des Folia où il y a des rappels et où il est mentionné chaque fois qu'il y a quelque chose de nouveau devrait être plus performant et surtout envoyer l'info. Il faudrait ne pas devoir regarder tous les jours. Il devrait envoyer les nouveautés sous forme d'alerte» (GP)

One expert stated he wants more concrete information to have a counterbalance towards the specialist who prescribes new drugs the GP does not even know about.

> "Maar ik dacht misschien dat de arts die dat ook zei van: we wensen een concrete, praktische info dat het ook voor een stuk is, als huisarts word je ook met medicatie, nieuwe medicatie geconfronteerd, omdat de specialist ze heeft voorgeschreven en dat jij dan daar zelf de concrete, praktische modaliteiten niet van kent dan is het inderdaad een beetje frustrerend. Dus in die zin denk ik dat een bepaalde, heel concrete informatie soms wel zinvol kan zijn voor nieuwere medicatie." (Expert)

In the group with GPs some want to have information about new products in the Artsenkrant / Journal du Médecin. For some in an aggregated form (once a month) and for some even on the first page! For another it could be a part of an article. However, some told it is already a fact, certainly for the larger pharmaceutical companies which put some information in the journals.

> "Ik vind dus dat er een artikel in de Artsenkrant moet verschijnen waarin staat van 'artsen pas op, ons product verandert vanaf dan in dat, dat en dat» – […] Liefst op het eerste blad.".(GP)

There was a difference in looking for information on new drugs versus old, well-known drugs. For information about new products, GPs look in the compendia. One GP cited mainly the "thick" compendium of pharma.be. The little compendium of BCFI/CBIP is only used if the name of the drug is already known.

> "Als ik het echt niet ken dan volg ik meestal het dikke compendium, omdat daar veel meer interacties in staan. Dat groene boekje is vooral een beetje als de naam al bekend is om te bepalen welke klasse. Als ik het echt niet ken dan kan ik het ook niet gebruiken." (GP)

5.4.4.4 Comparison between drugs and choosing for one drug

In this paragraph there is a description of how GPs choose between different drugs; the acceptability and use of comparisons; the place of patients in this choice and the use of generic medications. At last the training of GPs will be reported.

At the question "how to choose between different drugs?", many different answers were possible.

For one GP it is a choice based on EBM-guides.

> "Keuze tussen producten op basis van EBM." (GP)

Price is one element in the choice, but for most GP not the most important one.

> "Voor de goedkoopste: je gaat niet elke maand veranderen voor 2 euro." (GP)
>
> "De prijs speelt wel mee in uw keuze." (GP)

Another stated he chooses a drug because he knows the product from the past and he is afraid of applying new ones, or he knows them by using them by himself.

> "Ik kies voor producten die ik ken van zelf patiënt te zijn en van vroeger. Voor de klassieke producten, omdat ik ze ken en omdat ik wat schrik heb voor de nieuwe, hoe is hun positie op de markt en zullen ze blijven bestaan." (GP)

Or changes are based on discussions with peers. Some stated it still has to be based on evidence, while for others it can be compliance or experience too.

> "Als er iets verandert, dan baseer ik mij nu vooral op de discussie met mijn collega's..." - "Er moeten wel wetenschappelijke redenen voor zijn." - "Gebruiksgemak is soms een reden om het product te blijven gebruiken." - "En ook uit verslagen waarin je kan lezen dat de patiënt er echt wel beter van werd, en zo ben je zeker van het product en van het resultaat. Vb. Singulair: voornamelijk door klinische resultaten bij patiënten, niet door de reclame." (GP)

Many GPs claimed it is perverse to accept comparisons of pharmaceutical companies, because they always promote their own product as the best.

> "Ik vind dat meestal schandalig, ik vind dat belachelijk. Alles is slecht en enkele deze is goed." (GP)
>
> «Dès qu'une dit mon produit est meilleur qu'un autre, je dis au revoir» (GP)
>
> «Une comparaison de médicaments entre eux ?, surtout pas et surtout si c'est les firmes pharmaceutiques qui la font» (GP)
>
> «Elles le font tout le temps, c'est de l'abus, de la manipulation, on n'en veut plus» (GP)
>
> «Dès qu'une firme dit « Mon produit est meilleur qu'un autre », je dis au revoir» (GP)
>
> «Je ne veux des tableaux que s'ils viennent du CBIP ou d'un autre organisme indépendant» (GP)

One said he liked comparisons, because of the reminder effect. However, for another comparing drugs is difficult, because patients react differently to identical drugs.

> "Ik vind dat wel interessant, want dat is telkens een herhaling. Vb. Dat zijn de ACE-I. [en wat kwam er verder? – De sartanen] Dat ze terug een overzicht geven van welke producten zijn er nog die ook in die klasse horen, dat is een opfrissing van uw geheugen." (GP)
>
> "Maar soms is de reactie van een individuele patiënt verschillend en dan mogen ze nog zoveel vergelijkende studies of elementen ophalen, je bent nog altijd met mensen bezig dus iedereen reageert anders." (GP)

An expert stated that patients need information about products, so that they would not use two identical products at the same moment. He appraised the GPs as smart enough to be aware of the most important differences between products.

> "Van wat men tegenwoordig allemaal ziet van advertenties voor verschillende soorten bv. die Ibuprofen. Wat mensen dan beginnen te mengen, want ze weten niet dat ze 2 of 3 keer hetzelfde nemen. Daar vind ik het dus wel heel essentieel. Maar normaal wordt er toch verondersteld dat de beroepsgroep voldoende kennis heeft om het zelf te kunnen of op zijn minst om het product een beetje te plaatsen." (Expert)

One GP reported that comparisons are most often made for generic medications.

> "Diegenen die het dus vooral doen zijn de witte producten en de kopiefirma's die willen aangeven van "'kijk, zie onze prijs in vergelijking met de andere". Die doen dat omdat ze inhoudelijk weinig te zeggen hebben over de producten en die geven dus soms meer praktische informatie." (GP)

> "Ik onthoud dat moeilijk. Je hebt lijstje met 14 producten en hun prijs. "Wat stond er nu alweer bovenaan?"" (GP)

One GP stated that is a kind of attitude: keeping with the same generic product or every time changing of brand name.

> "Er is ook het feit dat ik denk dat er twee soorten dokters zijn: ten eerste dokters die graag elke keer een ander product gebruiken […] en dokters die met een beperkt aantal producten willen werken. En dat is volgens mij ook mogelijk. Want waarom elke keer veranderen als een product niet beter is?" (GP)

On the other hand, some GPs said that changes are seen due to influence of the specialists, certainly with generic products, although this is not always based on evidence.

> "Onmogelijk om gevecht te winnen. Voor een stuk wordt dat toch echt door specialisten gestuurd, ze veranderen alles. Zeker met generieken." (GP)

Some experts discussed about the training: may be this is not sufficient enough to make comparisons as clinician.

> "Ik vond het als HIBO heel frustrerend. We moesten ons wetenschappelijke uurtje voorbereiden als hibo voor de praktijk. En ik zat daar dan uit te leggen dat bisoprolol beter was dan atenolol, maar eigenlijk wist ik niet wat ik aan het zeggen was. Wat ik wil zeggen: die waaier van alle anti-hypertensiva is zo groot. Dat duurt toch wel een paar jaar eer je daar inzicht in krijgt. Laat staan dat je de dingen begint te vergelijken met elkaar." (Expert)

> "Het probleem begint al bij het onderwijs. Hier en daar zijn er lovenswaardige pogingen maar uiteindelijk kennen de meeste afgestudeerde artsen het therapeutisch arsenaal als een kadertje met een aantal producten die onder mekaar worden geplaatst door diegene die les geeft. Er zijn nog altijd artsen die afstuderen zonder te weten welke klasse superieur kan gebruikt worden in die en die indicatie. En dan "gelukkig" hebben ze dan een farmaceutische industrie die hen ter hulp komt." (Expert)

Another expert promoted the use of an independent source to make comparisons. (see under suggestions, 1.4.8.2)

5.4.5 Presentation of written information

GPs and experts were asked on their perceptions of the best ways to present and report information. They talked about electronic versus paper support and marketing.

5.4.5.1 Electronic versus paper support

GPs feel that electronic information takes a larger part in information in general.

> «Les nouveautés, posologies sont informatisées, l'écrit a tendance à disparaître, c'est inutile de recevoir des informations écrites, maintenant avec l'informatique, tout est à jour, l'information écrite devient moins intéressante qu'avant» (GP)

> « Maintenant avec l'informatique, tout est à jour, l'information écrite devient moins intéressante qu'avant» (GP)

One expert thinks independent information should be accessible electronically.

> «Il faudrait une information indépendante accessible sur pocket PC» (Expert)

Another expert proposed that there must come incentives for the use of electronic sources. This could revaluate the place of the GPs.

> "Er moet een herwaardering komen van de huisarts door incentives bij gebruik te maken van de elektronische bronnen." (Expert)

As already said, information in the prescription program of the GPs' electronic medical file is used to obtain information on new products.

> "Compendium en Prescribe gebruik ik vooral." (GP)

One expert summarized four efficient ways of having electronic information: reminders - possibly with the use of boxes, updates on websites or newsletters, active selection of a topic when information is needed with links and entering of a keyword to obtain specific information. According to him, the best would be to be able to use the same keyword for all EBM websites.

> «Le message est renforcé par la technique du «reminder», bien connue des firmes, moins utilisée par les Folia. Une suggestion serait que le message arrive au bon moment pour que l'information soit prise au sérieux, faire des petits rappels ou synthèses à certains moments avec des encadrés. Je vois 3 choses : recevoir automatiquement une information quand il y a une nouveauté, des « reminders » («souvenez-vous») quand un produit existe déjà, la possibilité de faire une sélection dans un domaine précis - par exemple l'asthme –pour avoir une information au moment où on en a besoin -, plus une quatrième : la possibilité d'entrer un mot-clé pour avoir une information précise. Il faudrait un même mot-clé pour les informations gratuites indépendantes, que ce soit pour Minerva, le CBIP, les recommandations de bonne pratique...» (Expert)

However, according to an expert, electronic information channels do not really allow to transmit some types of information, e.g. practical information like packaging or reimbursement type.

> "Ik heb dus de indruk dat veel artsen dat regelmatig gebruiken: verpakkingen, Bf…Dat kan je moeilijk elektronisch raadplegen." (Expert)

Although some GPs stated the contrary: they are especially using the BCFI-site for practical information.

> "Die informatie vind je toch veel gemakkelijker via BCFI op het internet! Je ziet daar de klasse, je drukt op dat euroke en je krijgt al die verschillende producten. Met prijzen, met verpakkingen." (GP)

Another uses folders for patients by getting them on the computer.

> "Ik gebruik ook de folders op de computer." (GP)

An important point is that both young and older GPs use electronic information. And that not all young GPs prefer the computer above written information.

> "Peu de médecins utilisent beaucoup le web pour les informations médicales : moins de 10% utilisent le PC selon une étude en France, en Aquitaine, et 90% des médecins lisent des infos médicales sous forme papier ; les objectifs sont différents.» (Expert)

> "Ik merk tot mijn grote verwondering – vb. in de groepspraktijk waarin ik werkte - dat de jonge artsen, waarvan je dacht dat als ze voor een probleem staan ze online gaan - dat ze in de dagelijkse praktijk toch naar papieren versies

grijpen om het probleem op te lossen. Ze gaan dan uit de praktijk naar de bibliotheek. Vb. de tijdschriften liggen daar en de Folia, Minerva en het Farmacotherapeutisch Kompas – dat is Nederlands boek met veel goede informatie." (Expert)

"Maar als het over naslagwerken gaat, dat is nog altijd een beetje zo, maar het is toch gedoemd om te verdwijnen: het Farmacotherapeutisch Kompas, het Compendium." (Expert)

Some GPs and experts think written information will still have a place, because it reads more easily than on the computer screen. Certainly for training purposes, especially those that are periodically.

"Pour un article, un texte, on a besoin du papier, c'est plus agréable pour lire, et c'est utile dans ma mallette. » (Expert)

"Als het gaat over navorming en periodiciteit, over jezelf verplichten van elke maand een tijdschrift te lezen, dan zie ik mij dat niet doen op het scherm." (Expert)

"Persoonlijk blijf ik gefrustreerd dat de stapel groter en groter wordt en dat ik er niet door geraak. Zelfs niet door de Folia – wat ik een schande vind voor mezelf, maar ik geraak er niet door. Mijn naslagwerken zijn: 'kleine kwalen voor kinderen', «kleine kwalen in de huisartsenpraktijk» en « farmacotherapie»." (Expert)

With written information the GPs are not obliged to search for information on the (complex) web. However, one expert thinks an active behaviour is preferable.

«Avec l'informatique, on est plus actif, c'est donc plus intéressant, on épuise le sujet, tandis qu'avec le papier, on regarde : est-ce que c'est intéressant ou pas, parfois on lit quand même, on feuillette, on va voir les conclusions […]» (Expert)

In case of paper support, GPs prefer bound files.

« On ne veut plus de fiches volantes séparées, elles doivent être intégrées dans un addendum relié, comme ça, c'est lu facilement» (GP)

5.4.5.2 Attractive aspects with regard to marketing techniques

Some GPs and experts found also attractive aspects to marketing.

All participants agreed that information must be presented attractively. According participants, «attractively» meant layout, images, colour… Black-white information is not accepted well: one GP nominated it as "boring".

«Le layout est important» (Expert)

"Maar het zijn ook vaak de prenten, op den duur heb je niet veel herkenning meer nodig, adhv de kleuren herken je de advertentie." (GP)

"Ze moeten toch blijven hangen, je moet ze toch leren kennen en ik vind dat moeilijker in een wetenschappelijk artikel. Net dat kleurrijke, die associaties, die beelden, dat blijft hangen." (GP)

"Brieven, gewoon zwarte tekst met op de achtergrond een embleem van een farmaceutisch bedrijf, die wil ik eigenlijk niet lezen want dat is saai. (GP)

Under the GPs there was a discussion about the usefulness of the attractive advertisements: some said they need it, because a "flashy advertisement" is easier to remember (also because of the reminder effect). Other found it a misleading way of giving information. And another doesn't know if he is influenced by the colours, but he supposed he is.

"Als het gaat over memoriseren dan is dat heel vaak een grote gekleurde advertentie. Veel in verschillende boekjes." (GP)

> "Als het gaat om brief in een omslag, dan is er al wat meer informatie over een vorm die verdwijnt en dat wordt dan serieuzer genomen dan flashy advertenties." (GP)

> "Slogans en kleuren volg ik niet *per se*, maar onbewust waarschijnlijk wel." (GP)

Another GP liked the way of presenting in La Revue Prescrire: the use of clear symbols.

> "[La Revue Prescrire] Er staat een icoontje bij van dit is de moeite waard en dit zeker niet en dit eventueel. Het is heel duidelijk, en dan lees je de tekst. Het is niet flashy." (GP)

One expert thinks information that can be read easily and quickly, is acceptable. Longer articles are more welcome with an abstract or with key messages.

> "Ik denk dat het nut [van de Folia] is dat je – ook omdat er altijd een klein abstract staat waardoor je heel vlot kan lezen - dat als het een langer artikel is dat je vrij snel kan zien wat de actuele evidence based visie is over een of andere therapie." (Expert)

One expert explained the use of marketing techniques also for independent sources.

> "De boodschap antibiotica heeft geen zin bij griep, bij bronchitis en verkoudheid, is een perfecte boodschap die helpt en waar dat we stilletjes beginnen mee te draaien hé! Dus ook in omgekeerde zin helpt het, denk ik!" (Expert)

According to experts, the use of reminders is an interesting technique.

> «Le message est renforcé par la technique du «reminder», bien connue des firmes, moins utilisée par les Folia.» (Expert)

In the way of presenting the claims, and also by the message of the claims, these are attracting to read.

> «Ce sont toujours des messages de tolérance, puissance, efficacité, sur le coût, le profil» (Expert)

> «Slogan: tarte à la crème» (GP)

In one group they laughed with the slogans: name one and we could say for which product it claims. This could also be seen as an reminder effect.

> "Je zou eens moeten proberen om ons een slogan te zeggen en wij moeten raden waarover het gaat!" (GP)

For some GPs, the name is the most important issue in the slogans.

> "Merknaam, productnaam, al zijn het veelal dezelfde producten die terugkomen" (GP)

Under GPs much is talked about new medications. Once it was said that, by saying "new", it is attracting them.

> "Ze zeggen: «we hebben iets compleet nieuw». Dat trekt de aandacht" (GP)

One GP is telling that he is more influenced by practical information than by scientific information in advertisements.

> "Ik denk dat we ons puur wetenschappelijk niet laten leiden maar eerder door het praktische." (GP)

5.4.6 Reliability

A topic which occurred several times during the focus group interviews is reliability. This concerns reliability of written information coming from the pharmaceutical industry as well as reliability of written information coming from other sources.

5.4.6.1 Reliability of written information from the pharmaceutical industry

In this paragraph there is a description about the link between sponsoring and reliability. Further it is explained how the GPs remarked that pharmaceutical try to augment the reliability of advertisements by showing credible symbols, SPCs or references. At the end of this paragraph the focus lies on the way how GPs are checking the reliability of written information from the pharmaceutical industry.

GPs and experts think information sponsored by the pharmaceutical industry is questionable. There is a clear link between the reliability of a journal or periodical and the publicity in it: GPs are manipulated by sponsored journals. One GP even believes nothing is reliable.

> «Pour les tableaux et les graphiques, on se fait avoir, on lit en croyant que c'est un article et c'est en fait une publicité donc on n'y croit pas» (GP)
>
> «Le Journal du médecin, ce n'est pas crédible car l'information est manipulée par la pub» (GP)
>
> «Il faut dire «acceptable» ou pas ; rien n'est «crédible».» (GP)

It becomes difficult for some GPs to distinguish between marketing and useful information.

> "Firma's sturen tegenwoordig ook informatie rond in een enveloppe en vroeger was dat een plastieken zakje dat je moest open doen. Het wordt moeilijker en moeilijker, om te selecteren en te klasseren of weg te gooien, omdat het toch om nuttige informatie kan gaan." (GP)

One expert remarked that the pharmaceutical companies are using symbols coming from independent sources, for example those from the BCFI / BCIP, to get more reliability.

> "Het zelfs zo dat men zaken gebruikt, zoals symbolen die in het BCFI gebruikt worden voor goedkoop en niet goedkoop, dus dat men probeert elementen erin te brengen waardoor ze een grotere geloofwaardigheid pretenderen." (Expert)

Some GPs stated that showing the SPC is a way to augment the reliability of an advertisement.

> "Ze willen betrouwbaarder overkomen door dat er bij te zetten maar ik lees het niet, als ik iets nodig heb zal ik het wel opzoeken." (GP)

Many GPs and also one expert talked about the influence of putting references in advertisements. By checking the articles and comparing them to the claims, GPs discover the distortion: the study population is too small, tables are presenting the numbers of the article, causal relationships are exaggerated, sponsored authors…

> «Manipulation: je n'ai pas la certitude que ce qui est repris correspond à ce qu'il y a dans l'article, alors je demande à avoir l'article au délégué si c'est un délégué qui se présente et en général il l'envoie et c'est là que l'on voit la distorsion par rapport au message qui a été donné et que le nom de l'article a été utilisé parfois pour donner un certain poids.» (GP)
>
> "Het gaat soms over studies bij 100 mensen, dat is niet echt relevant. Ze gebruiken soms informatie, ze bewerken grafieken zodat cijfers niet meer overeenstemmen met de realiteit" (GP)
>
> "De referenties, zelfs de grote referenties die ze in artikels aangeven - ze halen daar een stukje uit en dat gebruiken ze dan als kop." (GP)

"Het is zelfs «persuasion by citation»." (Expert)

That's one reason why some GPs declared not reading them.

"Nog nooit gelezen. Geen impact." (GP)

Although some other said they thought in the past that a reference from a big journal could act as a quality label. But one GP said he knows better yet (by following discussions in a peer review group for pharmacology). Another one was not such convinced yet.

"Ja, maar als je dan vb. een artikel ziet met als referentie Lancet of zo dan beschouw je dat toch als een kwaliteitslabel. En dan nog, zelfs daar twijfel ik nu soms aan." (GP)

A GP told he is verifying (on the internet) the drugs seen in advertisements before using them.

"Maar wat ik meer en meer doe is de reclame opzoeken op internet en als ik het dan terugvind ben ik gerustgesteld." (GP)

Another GP is checking other, more independent sources.

«Comme animateur de Glem ou maître de stage, on essaie de comparer avec d'autres publications : article de Minerva et on essaie d'attirer l'attention sur la manière dont l'info a l'air d'être correcte, scientifique, rigoureuse mais c'est toujours tronqué. » (GP)

5.4.6.2 Reliability of written information from independent sources

Implicitly there is talked a lot about the reliability of independent sources. But because there is lots of information about this topic already placed in other paragraphs, this one is kept short. But this may not give the impression that this is less important. Especially the contra-argumentations are given here.

As above-mentioned, GPs do not have total confidence in letters, folders or brochures from pharmaceutical companies nor in information sponsored by the pharmaceutical industry. They seem to have a general attitude of rejection towards these types of information. On the other hand, they have confidence in independent information, which they consider as more reliable, although one expert qualified this latter statement, but was not followed by the others.

«Au niveau écrit, je me fie à tout ce qui est financé par l'état en toute indépendance, par des gens payés pour cela […] aussi la SSMG, intéressante, correcte et fiable, le CBIP, l'INAMI» (GP)

«Avec les Folia, on reçoit les fiches avec un tel retard ; c'est un flou magistral, il y a très, très peu d'informations utiles, et elles sont mal faites alors que ce devrait être un outil beaucoup plus performant car l'information est disponible mais elles ne sont pas publiées sur ces fiches» (Expert)

5.4.7 Participants perceptions of marketing techniques of pharmaceutical companies

From the group interviews, we gathered hereunder the perceptions of GPs and experts towards written information in general from the pharmaceutical industry.

5.4.7.1 Characteristics of information according to participants

Advertisements are perceived as polluting and aggressive, because of the following reasons: the amount is too large, the participants felt that they have no control over it, the advertisements take a too important place in the journals and are aggressive. Aggressive in their presentation as in their content.

The participants felt influenced or even manipulated by the slogans and the way of presentation, especially if the advertisements are giving numbers. Also by putting advertisements near articles they are manipulated.

Participants perceived advertisements unethical if pictures of professors are used, if it leads to disease mongering or if prices were not presented on a sociologically correct way. Moreover they mentioned the enlargement of indications (this is also reported as manipulative) or giving claims out of the context.

Polluting and aggressive

GPs consider advertisements as pollution; they think the amount of unuseful written information is too important.

> «Il y a une pollution par de l'information qui ne sert à rien et les rares informations qui servent à quelque chose sont noyées dans la masse» (GP)
>
> «Il y a beaucoup de publicités et mailings que j'ouvre à peine : tout ce qui est pub et mailing, va en général directement à la poubelle sans être ouvert.» (Expert)

Some GPs think it is difficult to refuse written information from the pharmaceutical industry, others not.

> «Le délégué vient et laisse des documents parce qu'on est fatigué de refuser, on dit «oui, merci» et on les met le plus vite possible à la poubelle dès qu'il est parti.» (GP)

Although some GPs and an expert reported making efforts for not reading advertisements, they told it is difficult and acknowledge marketing strategies of pharmaceutical companies work.

> "J'utilise la technique de l'œillère, mais c'est difficile, comment faire pour ne pas voir ?, ce n'est pas écologique, ça énerve …, " (GP)
>
> "Als het reclame is, dan vraag ik aan de secretaresse om weg te gooien. Ik probeer het buiten te houden, maar dat komt toch via binnen alle mogelijke brievenbussen." (GP)

A few GPs find it annoying that advertising gets a too important place in journals.

> «Le Journal du médecin, on n'a plus confiance dans la valeur scientifique ; c'est vraiment de la pub» (GP)
>
> "Voor mij zeker niet de bron [van relevante informatie]. Je merkt dat de artsenkrant meer en meer gesponsord wordt" - "Artsenkrant is altijd al gesponsord geweest" - "Nu zit er vaak nog een extra cover rond. En een boekje bij, Dialoog." - "Ja, maar werkt meer en meer storend" (GP)

Some GPs find advertising very aggressive ; they feel uncomfortable with it.

> «Des grandes photos design, des grands papiers en couleur qui prennent de la place, ça saute aux yeux alors que c'est dans des revues en noir et blanc, cela ressort très fort et c'est très envahissant, on est mal à l'aise» GP
>
> «Maintenant, c'est encore pire, il y a une nouvelle méthode : la publicité est mise en première page, c'est encore plus agressif, c'est la première chose qu'on est censé voir donc il faut fermer les yeux et arracher la page, mais elle a quand même été vue.» (GP)

A GP and an expert told the aggressive ways in marketing techniques. Some experts think this should not be accepted anymore.

> «C'est envahissant, utilisons le terme pollué si on veut lire un article sur la profession médicale sur le page de droite dans un papier plus luxueux en tout grand avec des couleurs dans un journal noir et blanc une pub, c'est assez agressif, d'où un rejet qui se dégage, la présentation est agressive» (GP)

> "En dan zie je ook dat er zeer agressieve campagnes zijn. Het bekende voorbeeld van de laatste jaren is - dat toen de antibioticacampagne aan het lopen was - dat daar een bepaalde firma hun quinolone gepromoot hebben. En dat de verkoop ervan nog tijdens de campagne gestegen is, voor acute infecties bij de luchtwegen. Maar dat noem ik agressieve campagnes! Die zich niets meer aantrekken van de gezondheid en die gewoon tegen alle normen zijn." (Expert)

Influencing and manipulating

GPs claimed they are influenced by advertisements from pharmaceutical companies, especially by their slogans. In the part of marketing techniques it was already stated that slogans are manipulative.

> "Ze zetten dat erin omdat veel mensen dat lezen, zodat die eigenlijk onbewust beïnvloed worden. Dat is het gevaarlijke ervan van die mooie reclameboodschappen." (GP)

One GP is a communication teacher for students. They had to study the messages in the advertisements and were chocked that the information was so misleading.

> "Vorig jaar heb ik dat gebruikt voor de studenten en ze moesten in die advertenties dan de argumentatie bestuderen. Ze waren echt gechoqueerd dat daar zoveel smerige, achterdochtige informatie in staat. Zo doorzichtig." (GP)

GPs told that they were influenced by the pharmaceutical companies in the way they were presenting the advantages of the drug. The motivation that it could improve patient compliance by the mechanism of action or by improving the tolerance, was persuading them.

> "Als ik iets nieuws zie, ben ik eerder argwanend. Maar wat mij beïnvloed zijn vb. «dosering is handiger, prijs die lager is,...»" (GP)

Experts also reported they or their colleagues are influenced by the pharmaceutical industry: persuasive presentations are hard to resist and can influence the prescribing behaviour.

> «J'avais demandé à un délégué à avoir un article, il m'a laissé un memory stick en tant que publicité, il me l'a offert parce que je me suis intéressé à son produit, mais je ne lui avais pas demandé ce memory stick, je ne l'ai pas encore utilisé mais c'est pervers, le lendemain j'avais tout le temps envie de prescrire le médicament» (Expert)

> "En dan zie ik dus wel dat het natuurlijk het voorschrijfgedrag van veel collega's – niet bij mij - zal beïnvloeden, want je hoort, je ziet alleen meer deze calciumantagonist." (Expert)

A GP stated that some journals need the sponsoring of the pharmaceutical industry, sometimes via advertisements.

> «La revue de la SSMG, ce sont des collègues praticiens, comme nous, qui sont à la base des articles qui invitent à certains moments des experts, même si pour vivre, il faut intégrer des paquets de pub» (GP)

One GP and one expert deplore the use of commercial names rather than generic names.

> «On ne connaît plus le nom générique, donc on ne se rend pas compte que des noms commerciaux différents représentent la même molécule.» (GP)

> «Les médecins connaissent le nom marketing de la firme mais ne connaissent pas le nom de la molécule. C'est la preuve que le marketing prime au niveau de l'information.» (Expert)

A lot of claims refer to prescription profiles. One expert thinks it is marketing without control.

> «Ce sont des slogans «Soignez votre profil», c'est de la publicité sans contrôle a posteriori.» (Expert)

GPs feel even they are manipulated by the pharmaceutical industry. GPs and experts feel information coming from the pharmaceutical industry like presenting their products as the best ones as a distortion and perceive it as a manipulation. Therefore they do not consider it as reliable.

> «On a le sentiment d'être manipulé par le marketing» (GP)

> «Les références dans les publicités des firmes, c'est de la manipulation» (GP)

> "Goede advertenties zijn er niet, omdat ze nooit echt correcte informatie geven, zoals het moet zijn. Omdat ze het éénzijdig belichten en ze zich proberen te profileren op een of andere manier, wat niet altijd even wetenschappelijk onderbouwd is, meestal zelfs niet." (Expert)

An expert told he made an exercise with some students: looking how the advertisement on Vioxx was misleading. There are statements about the use of risks: using relative risk reduction rather than absolute risk reduction. Statements about manipulative tables and references to data that are no published yet ("data on file").

> «On a travaillé en atelier pour l'analyse du Vioxx : ce sont des messages d'efficacité, tolérance, puissance, l'analyse des graphiques montre qu'ils ne partent pas de zéro, que l'ordonnée es coupée, pour les références, on regarde le type de références (data on file…) on va voir les références si elles soutiennent ce que dit la publicité, on demande la réaction des étudiants comment avez-vous compris le message ?» (Expert)

> «Ils utilisent la notion de réduction du risque relatif et pas la réduction absolue du risque ; ils prennent aussi des sous groupes. Pour les références, quand on regarde le type de référence, ce sont des « data on file » […] » (Expert)

> « Ils ne parlent pas de réduction absolue de risque, de NNT » (Expert)

Another expert stated that the advertisements are giving the right numbers, but they were taken out of context.

> "Het probleem is dat de tabellen die ze gebruiken ook waarschijnlijk in een groot deel van de gevallen overeenkomen met de literatuur enz. maar dat het zo uit de context wordt getrokken. Dat maakt het zo moeilijk." (Expert)

By giving figures and text the advertisements are misleading, told an expert: figures will be memorized and the text will be forgotten.

> « Il y a des graphiques qui font appel par exemple à la notion de réduction du risque relatif et de réduction absolue du risque et, cela dit tout à fait autre chose et on essaie de faire un autre graphique plus conforme à la réalité, on ne triche pas, eux montrent les parties qui les arrangent, mais on retient ce qu'ils montrent même si on est critique car on est marqué, on retient l'image, on oublie le texte… » (Expert)

In the same group they are discussing about the misuse of non-inferiority studies and the fact that one big study is used for different messages and different products. They remarked that recommendations are based on those studies, so a constant awareness is necessary.

> "Il faut tout le temps être attentif, il y a des erreurs de logique, on n'a pas prouvé une différence donc c'est la même chose. Autre exemple, 3 produits différents avec des avantages et inconvénients différents utilisent le même nom d'étude, il faut être expert pour bien comprendre le message» (Expert)

One expert stated that it is a better exercise for students to make a critical appraisal of an advertisement than of an article. It is possible, but asks lots of time. So, in fact it is not possible for practising GPs. Pharmaceutical companies are already satisfied if GPs are seeing the advertisement.

> "In feite een reclame goed beoordelen, is in feite nog moeilijker dan een artikel goed te beoordelen. Je moet al 2 brillen hebben om de bronnen iedere keer te zien. Dus al die dingen kan je niet telkens beoordelen, maar dat is ook niet de bedoeling. In feite is het een paar seconden en de firma is tevreden: je hebt het product gezien en voor hen is dat voldoende en al de rest telt niet. Feitelijk moet je uw tijd daar voor nemen. Dat is eigenlijk het antwoord. Dat is en blijft manipulatie, want je weet het niet en je kunt er niets aan doen." (Expert)

In the group with experts, it was also reported that SPCs could be manipulating too. The "Geneesmiddelencommissie" is aware of this problem, but it is very difficult to change indications of one product: if you change it for one product, you have to change it for all comparable products too.

> "Dat is dus ook al een probleem: de wetenschappelijke bijsluiters in België. Nu goed. De nieuwere worden nu al volgens Europese richtlijnen gedaan. Het zit dus ook al een stukje beter: de meeste. Maar dus de meeste van de wetenschappelijke bijsluiters, daar moeten we toch veel commentaar bij geven. De vorm die niet echt correct is. Als je naar de antibiotica gaat kijken, het indicatie-gebied daar: dat is erg." (Expert)

> "Een zeer hot item! Ook in de geneesmiddelencommissie is die vraag er! Er is een totale gap van aan de ene kant de verworvenheden van de EBM en die van de bijsluiter." (Expert)

Information coming from the pharmaceutical industry is sometimes hidden. Several GPs and one expert reported that, by reading "common" articles in all letterbox medical journals, they are unwillingly exposed to the marketing components too. Moreover the difference between article and advertisement is too vague and therefore misleading. One expert regrets possible misleading between advertisement and information.

> «Il faudrait interdire légalement avec des sanctions à l'appui l'association 'information publicitaire»»

In one focus group they all discussed about issues of information from symposia or congresses.

> "Het probleem met de Artsenkrant is dat je eerst moet kijken welke de normale artikels zijn en welke de gesponsorde, want de lay-out is gelijk en dat is enorm storend." - "Zo vb. die van de symposia." - "Dat is een hinderpaal. Wat mij er niet in aantrekt is: er staan daar wel interessante dingen in, maar ze gaan soms te veel over naar stukken uit gesponsorde artikels. Ze houden die niet altijd uiteen." (GP)

> "Voor mij moeten ze dat [= advertenties] niet afschaffen maar ze mogen dat wel de advertenties in de Artsenkrant duidelijk scheiden. Advertenties in het eerste deel en de rest erachter of omgekeerd." (GP)

> "Ik geef toe dat ik de Artsenkrant lees. Niet om de literatuur, maar om politiek zeker bij te blijven. Ik merk dan wel – vraag is natuurlijk of je politiek bijblijft door de Artsenkrant te lezen – dat je ondertussen diagonaal toch heel wat meegenomen hebt. Vb. de erectiestoornissen: die behandelen dankzij de Artsenkrant. Dat wel, maar ik sla wel systematisch bepaalde pagina's over." (Expert)

Unethical

Experts talked about some marketing techniques that are unethical.

Concerns on the use of a picture or the mention of a professor in advertisements or in articles were expressed by one GP and one expert.

> «Parfois, il y a des faux articles avec des photos de professeurs, c'est décevant, ce sont des articles publicitaires, on lit 3 ou 4 lignes et puis on laisse tomber, il y a des tableaux avec des conclusions qui résument l'article criticable et financé par des firmes pharmaceutiques, on note à la fin qu'il y a conflit d'intérêt» (GP)

> "Een groot probleem bij veel jonge artsen is dat zij ook in die gratis blaadjes krijgen met «prof x zegt dat» met foto en al bij. Want prof x, waar ze nog les van gehad hebben, zegt dus dat product veilig is. Maar een groot deel van de professoren verrijkt zich daardoor. Zelfs als het nog juist is, kan het niet. […] Dus wij moeten naar een echt serieuze code zodat zo'n dingen niet meer mogelijk zijn. Want de verwarring wordt te groot." (Expert)

Besides using the university professor and the aggressive marketing, the pharmaceutical industry uses also the technique of disease mongering: by forcing up the number of diagnoses of some disease, the therapies are multiplied right proportional. Or, by announcing changes in reimbursement rules, it is made easier to prescribe some medication.

> "Ze trekken de artsen mee op de kar door bepaalde ziekten ofwel te gaan opsporen of te zeggen dat ze ze niet goed opsporen. Ze trekken dat enorm op, door die informatie." (Expert)

Also by making advertisements about the price for patients, without taking into account the price for the society, advertisements can be unethical.

> "Het probleem is dat ze dikwijls ook wel de waarheid zeggen, maar dat ze een heel stuk verzwijgen. «Wij zijn goedkoop voor de patiënt». Dat is waar. Maar ze zeggen niet dat ze heel duur zijn voor de maatschappij. (Expert)

And by enlarging the indications – untruly -, some drugs will be more used than before.

> "Dat die geneesmiddelen verschijnen en dat ze verkocht worden, stoort me op zich niet, maar wel dat de indicatiestelling, en dat is voor bepaalde antibiotica net hetzelfde - niet dat het een slecht product zou zijn - maar de indicatie waarvoor ze gepromoot wordt, foutief is. Dat is het onethische, vind ik!" (Expert)

Not knowing the appropriate recommendations and by only reading advertisements, GPs are mislead, because they can not see the context, the policy around some class of medication.

> "Het is eigenlijk nooit geloofwaardig, omdat de context ontbreekt. Dus je kan een mooie advertentie hebben voor een product. […] Ze stellen ze zich als eerste keuze op en daar zit het. Dus als je als arts, of als huisarts, je aanbevelingen niet leest of op een aantal punten wat dat betreft niet bijblijft, dan kan je dat nooit over een nieuw product weten." (Expert)

One GP claimed that juridical procedures must be possible for untrue advertisements. He based it on some precedent in the UK.

> "Wat vb. niet waar is, is dat esomeprazole krachtiger is dan omeprazole. Omdat dat verkeerde informatie is. Dat zou niet mogen. Ze zouden moeten aansprakelijk zijn. In Engeland zijn ze zelf voor de rechter getrokken en dat vind ik goed. " (GP)

5.4.7.2 Pharmaceutical representatives

When discussing on written information, all participants spoke spontaneously on representatives. Participants who receive written information via medical representatives also spoke about its interest.

GPs stressed the (specific) role of pharmaceutical representatives. Especially for new products. Most of the time they are faster with new information than the written information.

> «Quand certains généralistes discutent entre eux pour savoir pourquoi on reçoit encore des délégués, beaucoup disent parce que c'est la seule information que j'ai et dont je tiens compte par rapport aux nouveaux médicaments» (Expert)

> "Bij mij is het zo dat vertegenwoordigers op afspraak komen […] Dat respecteren ze vrij goed en dan blijf je toch op de hoogte van de nieuwe

> producten, want ze zijn nogal snel om iets nieuws te melden of een terugbetaling of zo." (GP)
>
> "Ik merk dat er bepaalde nieuwe producten er niet zo goed inzitten omdat ik deze niet door een vertegenwoordiger heb voorgesteld gekregen." (GP)
>
> "Om een vertegenwoordiger waardig te kunnen ontvangen is het van belang om de informatie snel te krijgen. Niets is zo ontnuchterend voor een vertegenwoordiger dan te horen «stop maar, ik heb dat gisteren al gehoord»." (GP)

One expert thinks representatives own a huge power.

> «Le budget des firmes repart maintenant sur les délégués ; ce ne sont plus les managers qui peuvent le distribuer aux niveaux national et régional ; c'est le délégué qui a la clé de l'argent ; c'est le travail du délégué et les contacts personnels qui rapportent. La puissance du délégué est beaucoup plus forte qu'avant» (Expert)

A GP thinks that, by using other techniques, like images and computer applications, representatives could be more persuasive than written information can be.

> "Toch een goeddoordachte uitgebreide uitleg met computer en beelden" (GP)

For one expert the representatives are also useful to get some practical information.

> "Ik heb ze lange tijd niet ontvangen. Maar zo rond de hele praktische informatie over uitzicht van dozen en zo dat werd op den duur wel een beetje een lacune." (Expert)

For several GPs some types of information can only be supplied by representatives, e.g. practical use of inhalation drugs or some syringes.

> "Voor het vb lokale producten om te inhaleren, daar zijn verschillende toedieningswijzen van. Ja dat zijn dingen die je maar leert kennen door farmaceutische vertegenwoordigers." (GP)
>
> "En ook om het gebruik te laten zien. Hoe moet je het anders leren kennen? Vb insulinespuiten: je moet eerst zo doen en zo, ja je gebruikt die praktische informatie wel." (GP)
>
> "Zo ook met Qvar. Ik toon dit dan: het stokje staat zo en dan zo." (GP)
>
> "Of de Imitrex-spuiten" (GP)

Some GPs said they make clear regulations with their representatives about what they want, the time they get and about what they can speak.

> "En dat weten de vertegenwoordigers ook perfect bij mij, dus ik zeg gewoon dat ze niet moeten afkomen. Enkel met praktische informatie." (GP)
>
> "Nu komen ze op afspraak en er wordt ook gebrieft wat ze mogen zeggen en wat niet. Ze mogen enkel nieuwe zaken vertellen, dus soms bellen ze af, omdat ze geen nieuwe boodschap hebben." (GP)

Some GPs and experts receive representatives because they need financial support to organize their activities (dodecagroups, other meetings).

> « Les délégués sont reçus parce qu'on a besoin de sponsors » (GP)

One GP mentioned he received representatives to obtain samples for his patients.

> «Mais pour certains patients illégaux et avant qu'ils ne soient en ordre, les échantillons par exemple du sirop, c'est important» (GP)

Sometimes the representatives act on the GPs (for example with samples) at the same time as some campaigns to patients.

> "[Vioxx voorschrijven?] Dat was omdat patiënten dat kwamen vragen. Het heeft eerst in de krant gestaan voor we wisten wat het was en dan kwamen de

> vertegenwoordigers met stalen" [deelnemer gebaart van grote pakken stalen.] (GP)

Other GPs felt the influence of the pharmaceutical representatives by the prescribing behaviour of the specialists.

> "Je ziet dat soms als de patiënten terugkomen. Dan zeg ik: «de vertegenwoordiger is langsgekomen en ineens moeten we – vb. Kinzalkomb voorschrijven.»." (GP)

> "Van sommige dingen leer je uit eigen praktijk dat dat voor sommige mensen absoluut geen meerwaarde is. Er zijn toch heel veel specialisten die zulke dingen voorschrijven" (GP)

Although one remarked that some groups of specialists behave very fraternally by letting the choice to the treating GP.

> "Er is misschien een aspect dat van belang is: welk van de producten je ook voorschrijft – omeprazole, lansoprazole,…- , je doet niet aan slechte geneeskunde. Uiteindelijk kan je dus niet zeggen van iemand die dit of dat voorschrijft dat die een slechte arts is. Maar ik vind het wel tof van bepaalde gastro-enterologen in dat ze de naam van het product opschrijven en tussen haakjes de naam van 5 generische producten vermelden. Vroeger zouden ze gewoon opgestart zijn met 1 product. Daar zit veel evolutie in vind ik." (GP)

The GPs laughed with it that the gifts for specialist are bigger than those for GPs. Although they are suspecting an influence of the pharmaceutical companies on the management of hospitals.

> "Specialisten zijn even naïef als huisartsen. Zij krijgen wel auto ipv. fles wijn." (GP)

> "De werking van de diensten wordt daardoor gesponsord. Vb. je krijgt 8 medicamenten gratis en ze moeten dat verkopen. Ze rekenen dat aan, maar ze krijgen het wel gratis. Die dokter kan er misschien niet aan doen, want die krijgt de opdracht vanuit het management." (GP)

Some GPs think representatives do not replace written information.

> "Als er een vraag gesteld moest worden «wat zou je meest missen: geschreven of vertegenwoordigers» dan zou ik toch geschreven meest missen" (GP)

Experts think representatives refer to non EBM sources rather than to EBM sources and can therefore influence GPs.

> "Het zijn de medisch afgevaardigden die refereren naar die bronnen [Artsenkrant]." (Expert)

> "Zelden zeggen ze: het staat in de Folia." (Expert)

One expert gave an example for antibiotics: the consumption in Belgium lowers bit by bit, but it stays still high, because of the big influence of the representatives.

> "Hier en daar scoren wij: het antibioticaverbruik gaat naar beneden, maar we zijn nog een van de toppers die dit voorschrijven. Maar dit hangt van andere dingen af: dit hangt af van dat er 3500 medische vertegenwoordigers rondlopen. […] Maar tot nu toe hebben deze goed opgebracht hé!" (Expert)

One expert regretted that representatives are now mainly commercial people rather than scientific ones.

> «Les délégués n'ont plus de formation scientifique mais une formation en communication-marketing.» (Expert)

One expert thinks representatives are not objective.

> «Le délégué passe sous silence les aspects négatifs et exagère les aspects positifs ; il amène à prescrire ; le but est de vendre ce produit-là et on ne contre-balance

pas ; on laisse de côté l'aspect comparatif ; donc je vais voir moi-même quand je prescris» (Expert)

Several GPs told that they can not believe the tables showed by the representatives. They are presenting it as articles, but in fact it is pure publicity.

«Aucun tableau présenté par un délégué n'est objectif» (GP)

«Les graphiques, on n'y croit plus» (GP)

One expert expressed a bit frustration that it is hard to have answers to the argumentations of the representatives.

"Ik voel dat - zelfs in de tijd dat je nog een beetje ambitieus bent – dat je denkt zo eens in te gaan tegen de vertegenwoordigers. Maar je hebt geen argumenten, want je kunt niet direct erbij halen wat je denkt en je loopt vast! En dat is mijn gevoel toch, dat ik na een tijd begin te geloven wat ze zeggen. En ik voel mij daar zelf ook in lopen en toch kun je er niets aan doen!" (Expert)

Another replied on this that he used although the "Transparantiefiches" of the BCFI / CBIP. On the other hand, he ends by saying it is not necessary to see representatives.

«Pourquoi encore recevoir les délégués ? » (GP)

"Ik vind wel dat met de transparantiefiche in de hand – zo vb. rond diabetes mellitus met metformine en Avandia - dat je wel weerwerk kunt bieden. Ik zeg niet dat je dat moet doen, dat is verloren tijd maar dat je zelf psychologisch dat weerwerk kunt bieden. Je moet ze niet ontvangen, dat is juist." (Expert)

In the other group with experts, there is even one who is "resisting" the representatives by making his own presentations of the same studies as they show.

«Moi au cabinet je montre aux délégués envoyés par les firmes des présentations Power Point que je fais personnellement car je donne cours donc c'est un outil pour moi ; elles sont mises à jour suivant les publications qui sortent (des études sérieuses comme LIFE, ASCOT…), c'est basé sur des preuves et ça les met mal à l'aise, le délégué ne se sent pas bien» (Expert)

One expert remarked that it is very bad that already trainees are seeing representatives. By doing this, they could not be learned to get a critical way of thinking.

"Als je hen toelaat dat de HIBO 4 tot 5 vertegenwoordigers per dag soms ontvangt en je laat dat gedurende enkele jaren toe. Dan moet je bij hen niet afkomen met kritisch zijn en zo, die persoon is murw geslagen, uitgeteld. En dat is een drama." (Expert)

Both in the group of GPs and experts there were voices to forbid the visits of representatives of pharmaceutical companies.

"Ik zou als boodschap brengen: afschaffen van bezoek van medische afgevaardigden bij artsen." (Expert)

5.4.8 Additional suggestions for improvement of written information

A series of suggestions were already mentioned earlier. Other suggestions proposed by the participants during the interviews and not mentioned yet are listed here.

«Le renforcement du message fait appel à des techniques connues comme les firmes le font et utilisées par les Folia. Le message doit arriver au bon moment pour que l'information soit prise au sérieux et les Folia sont bonnes pour cela. Dans les logiciels médicaux, il faut que l'information arrive au bon moment, par exemple, on tape « angine » et un message apparaît, ce sont des techniques connues par les firmes mais sous-exploitées par les messageries indépendantes» (Expert)

5.4.8.1 Written information from pharmaceutical companies

One GP and one expert think information given by pharmaceutical companies aimed at GPs should be more specific; others would also like to have information that is only given to specialists but would be of interest for GPs, too.

Several GPs asked more practical and more simple information.

> «Il faudrait une simplification de l'information.» (GP)

> «On a de moins en moins d'info gynéco, il y a 20 ans on en avait plus ; les firmes ciblent pour raison de marketing, on n'est pas de gros prescripteurs de nouveaux médicaments bien chers.» (Expert)

Another GP would like to have no claims and no comparisons anymore.

> «Il faut légiférer les slogans, on ne pourra pas les supprimer, mais il faut interdire les comparaisons de médicaments.» (GP)

One GP would also appreciate to give his mind concerning information he receives.

> «Il faudrait pouvoir dire ce qu'on pense de l'information reçue […] » (GP)

One GP reported that all practical information can be shown during a presentation, once a year in the circle. This could be an argument against the idea that GPs can only receive models by representatives.

> "Onze kring doet 1 keer per jaar een vergadering over praktische zaken." (GP)

An expert thinks either the pharmaceutical industry improves information or it should come from other sources.

> «Les firmes gardent le monopole de l'information sur le terrain : ou bien elles l'améliorent ou bien elle doit venir d'ailleurs.» (Expert)

Another GP proposed some kind of influence from the KCE to the pharmaceutical industry. However, another is immediately reacting that this would work in the opposite direction.

> "Als we het van het KCE – naam alleen al is fantastisch- zouden krijgen, als men die reclame van daaruit zou duwen, dat zou ook al iets goedmaken." - "Bij mij zou dat een tegengesteld effect hebben als ze beginnen sturen." (GP)

5.4.8.2 Development of independent labelled information

About the development of independent information much is suggested, mostly by the experts. The following paragraph gives the presented ideas. These are rather freestanding and cover some topics like: content, sources and label, way to implement this information, "financing from those information".

Content

According to one expert, there is not enough information on secondary effects and contra-indications in the advertisements.

> "Er zeker zou moeten inkomen dat zijn de ongewenste effecten, de contra-indicaties. Die moeten altijd heel goed omschreven zijn en moeten duidelijk af te leiden zijn bij iedere advertentie. En dat ontbreekt dus bijna altijd. Ik denk dat dat zeker essentieel is." (Expert)

Sources and label

One GP suggested the creation of an independent journal on drugs in addition to information coming from pharmaceutical companies.

> «J'aimerais la création d'une revue indépendante sur les médicaments, en plus des informations fournies par les firmes» (GP)

Another GP and one expert disagreed, and suggested rather improvement of journals already existing.

> «[…] il faut exiger une information plus pratique dans les revues qui existent déjà et il ne faut pas encore en créer une nouvelle ; ce n'est pas intéressant.» (GP)

> «Il y a une grosse quantité de bons textes qui sont produits, je pense aux RBP, aux introductions des feed-back (…) il faudrait faire, je ne sais pas, des textes super et bien pensés au niveau des messages courts» (Expert)

Another proposed free subscriptions for independent journals with every inscription for a scientific organisation of GPs.

> "Kijk nu naar Domus Medica, het is er hectisch. Maar je hebt een huisartsengroep waar je lidgeld betaalt: daar kan een startabonnement gegeven worden voor beginnende huisartsen. Voor 2 jaar." (GP)

Experts recommend a better access to independent information.

> «Il faut promouvoir les Folia, faciliter l'accès certainement ; beaucoup de collègues ne connaissent pas. »» (Expert)

Although some experts are already rather contented with the existing sources, as there are Cebam, Minerva, BCFI / CBIP and the interuniversity training centre for GPs (ICHO)

> «Le problème, c'est que les sources sont trop abondantes […], ce qu'il faut, c'est une bonne formation à la lecture critique, faire quelque chose de simple et accessible qui résume, faire un mailing hebdomadaire par internet avec des liens directs vers les sites correspondants ou par mailing mais en reprenant les textes d'introduction RPB, faire une synthèse […]» (Expert)

> "Het bestaat toch: de manier waarop het ICHO aan de opleiding werkt. Je hebt Minerva en je hebt CEBAM. Allemaal interuniversitair. En er zijn toch bepaalde realisaties die het mogelijk maken dat artsen, die willen, en tijd nemen, bepaalde bronnen kunnen raadplegen. En het vraagt ook inspanning om meer en meer artsen te overtuigen van de eenvoud en het gebruik van zo'n virtuele bibliotheek en een aantal tips te geven. Zo ook op de site van het groene boekje. Ze aanleren om op dat knopje te duwen." (Expert)

Two experts found that handling with information in a critical way, already begins during the training, with good lessons in pharmaco-therapy. For one of them, GPs are more trained to do this than specialists.

> "Als ik nu zie in Vlaanderen, dan is het eerste waar iedereen het er nog over eens is dat de farmaco-therapie, het verantwoord voorschrijven, dat het nog altijd stiefmoederlijk wordt behandeld aan de universiteit! Ik denk dat in bepaalde universiteiten er nog een enorm gebrek is aan klinische farmacologen. " (Expert)

> "Als ik dus minister zou worden – maar die kans is zeer klein – dan zou ik de opleiding grondig aanpassen. Farmacotherapie, kritische farmacologie: daaraan moeten veel meer uren besteed worden. Dat lijkt mij de basis te zijn." (Expert)

On the other hand, GPs expressed the wish to have labelled information by saying they want information approved by independent, expert people. As mentioned in paragraph 1.4.3.2 on EBM information from independent sources, GPs consider they do not have the required skills and want to have this work done by experts.

One expert stated GPs in training are now educated to search for information from independent sources, he would like a study being carried out to assess if improvement in information searching is now open to objectification.

> «Les étudiants ont des formations différentes de la nôtre depuis quelques années, formation à l'EBM, à l'esprit critique, est-ce qu'il y a quelque chose qui a changé dans leur lecture ?,» (Expert)

This organisation is independent from pharmaceutical companies, government and professional organisations. One stated that the "pharmaceutical inspection" has already a bit of this objective, but is not at all reaching it. May be this must even be enlarged by other experts.

> "De boodschappen van de industrie moeten aan banden gelegd worden. De farmaceutische inspectie moet met andere woorden veel meer controleren. Ze moeten zich eventueel laten bijstaan door een comité van experten die dus vastleggen wat kan en wat niet kan." (Expert)

> "Als je gaat kijken internationaal, naar de centra die dus ook algemene geneesmiddeleninformatie geven. Dan zie je dat er daar ook onderlinge verschillen zijn. Volgens bepaalde lokale gebruiken enzo, die zich nochtans baseren op dezelfde Evidence Based basis. Dan merk je inderdaad dat er altijd interpretatie mogelijk is. Het is daarom dat ik denk dat je inderdaad een groep van experten gaat moeten hebben die onafhankelijk is, en dat is niet zo gemakkelijk. Bijvoorbeel over de positie van Rotarix. Er is de Hoge Gezondheidsraad. Maar de Hoge Gezondheidsraad durft zich soms nogal laten beïnvloeden door bepaalde zaken. Ze distantiëren zich, en ze komen daar openlijk voor uit: «wij bekijken het alleen maar puur wetenschappelijk, wij kijken niet naar de kostprijs wat dat veroorzaakt enz., of dat eigenlijk haalbaar is voor onze gezondheidszorg of zo, hé»! Dus daar kijken ze niet naar. Dus vind ik, mag je niet zomaar aannemen dat wat ze schrijven, dat je dat eigenlijk als evangelie gaat zien. Wij werken in een realiteit waarbij je zegt: de kostprijs speelt wel een rol." (Expert)

Another expert is warning for the independency of the independent institute itself: there must be lots of diversity in this institute.

> "Je moet er ook mee opletten. Je moet er ook voor zorgen dat er in de onafhankelijke groep veel verscheidenheid is. En niet alles van één instituut volgen. Ervoor zorgen dat we elkaar scherp houden. Anders zijn we ook maar doekjes voor het bloeden. En pluk er de vruchten van." (Expert)

This independent organisation could give levels of evidence for each advertisement.

> Daar heb je toch een onafhankelijke bron nodig om de vergelijking te maken. Je kan dus nooit van een firma vragen dat ze zo'n vergelijking in een advertentie plaatst. Maar je kan wel bv - het is nog niet helemaal duidelijk hoe dit kan gebeuren -, maar je zou dus de niveaus van evidentie van de publiciteit kunnen vermelden. Wij zijn werkzaam op evidentieniveau zoveel, waarbij je dan toch als gebruiker kan bekijken van ja, als dit zo'n lage evidentie is! Ik zie dat een ander antibioticum evidentieniveau I heeft bij pneumonie: dan kan je wel een verschil maken. " (Expert)

A few experts stated that comparisons can not be made by pharmaceutical companies. This must be done by an independent organisation that follows the EBM-rules.

> "[Te volgen criteria door zo'n instituut] De EBM-criteria, de wetenschappelijke." (Expert)

A practical example of the use of labelling was already discussed in the group of experts: the vaccination against Rota-virus.

> "Bijvoorbeeld het pas op de markt gekomen product Rotarix. Het wordt aanbevolen door de hogere gezondheidsraad, het wordt aanbevolen door Kind&Gezin. Wat doe je daarmee? Want de vakliteratuur gaat pas over 2-3 jaar beginnen reageren." - "In de «Goed om weten» van de Folia stond er al na een

> maand, een kleine anderhalve maand op." - "OK, maar als op dat moment, op de reclame van Rotarix, een nieuw product - want de mensen staan te wachten om daar de juiste informatie over te hebben - als op dat moment er een soort van embleem staat op zo'n reclame, dat ik zeg van: «dat kan ik nu vertrouwen», dan ben ik daar iets mee. En dus voor zo'n situaties denk ik dat het wel zinvol kan zijn om de publiciteit wel z'n werk te laten doen. Of het nu zinvol is of niet." (Expert)

They did propositions for the claims: these must be based on evidence.

> "Of het nu efficacy, safety, efficiency, cost-benefit is of value. Er mogen geen claims gemaakt worden, tenzij er evidentie is. Alles wat ook het criterium is! Wat is het criterium: dat de claim die gemaakt is, gesubstantiveerd is door degelijk wetenschappelijk onderzoek. In principe: een studie die wordt bevestigd door tenminste een andere studie! En liefst een meta-analyse. Dat is de essentie denk ik! Dat de beweringen onderbouwd moeten zijn." (Expert)

However, experts remarked that finding evidence can be a hard job, because studies will only be done with the newest products. Studies will only be done by pharmaceutical companies who are just interested in their (new) products. Older and cheaper products will be thrown away from the landscape, because no one does any study about them. This could give a bias in the level of evidence.

> "Je zit zelfs nog met een ander probleem: dat oudere producten, waarin men niet echt meer in geïnteresseerd is, dat je daar dus zelfs geen evidentie meer over vindt. En dat je daar dus weer de scheeftrekking gaat hebben: dat enkel de nieuwere producten mogen gaan adverteren, maar de oudere dat dus niet mogen!" (Expert)

Implementation

GPs made warnings that there exists a difference in having good information and using this information, although there can be lots of free time by stopping reading sponsored information.

> "Advertenties mogen van mij afgeschaft worden, maar dan maakt de farma-industrie geen reclame meer. Dus de enige keuze blijft dan nog inspiratie vanuit wetenschappelijke EBM-opleidingsachtergrond. Maar daarvan wil ik eerst weten of dat goed zou werken. Het is niet omdat er geen advertenties meer zijn, dat alle artsen dan ineens gaan omswitchen en gaan lezen en zichzelf bijscholen." (GP)

> "Als je de vertegenwoordigers niet ontvangt en je leest je brieven niet na, dan heb je veel tijd over, zodat je het gemakkelijk kunt gaan lezen." - "Dan moet je daar nog goesting voor hebben ook." (GP)

For one expert it is even an obligation that guidelines were read by the GPs.

> "Dat artsen verplicht zijn van de aanbevelingen gelezen te hebben." (Expert)

For some experts it is clear that information must also be spread under patients. Experts approve initiatives where information on antibiotics for instance is also directed to patients, which may lead to a better relationship between patients and doctors.

> "Allerlei dingen van onafhankelijke informatie voor de arts zou moeten kunnen doorgespeeld worden. Er zijn allerlei pistes. Gelijk die slogans van die antibiotica. Ik denk door die slogans en door die campagne naar patiënten - moesten wij enkel campagne gedaan hebben naar artsen, dan was dat niets geworden." (Expert)

> "Prodigy: die bespelen dubbele lijn." (Expert)

One expert is dreaming of audits: externally formed, but certainly it must be possible by the electronic medical record.

> "Absoluut verderdoen met het analyseren van de profielen enzovoort van huisartsen, zodat je geconfronteerd wordt met wie je bent. En waarom niet gewoon audits die uit je eigen computerprogramma komen, die continu zeggen van wat je doet met je patiënten en waar je ergens zit. Nu weet ik wat ik goed doe, maar niet wat ik slecht doe." (Expert)

One GP goes even a bit further: there may be some kind of control, a sort of continual monitoring, if it is in a positive way.

> "Productomschrijving, therapeutische klasse, indicaties, contra-indicaties,... Alle praktisch informatie (dus verpakking, prijs,...), dat zouden ze ergens op 1 plaats moeten aanbieden. Ik droom ervan dat ik via mijn electronische dossiers – geregeld door de overheid – ergens met mijn rechtermuisknop kan inklikken. En dan zou ik ook willen - tegenwoordig worden we allemaal geprofileerd en in de gaten gehouden - dat we verwittigingen krijgen en als we ergens van afwijken wat alle gevolgen kunnen zijn. Misschien zouden er mensen die gewoon gestandaardiseerd in een normale werking, niet exclusief in een of andere richting, bij de accreditering, zoals in het buitenland, toch ergens een abonnement op een tijdschrift krijgen, dus ergens op een positieve manier benaderd worden." (GP)

Another reported that following evidence is not easy. For example, following the evidence is prescribing nothing.

> "Maar wat, denk ik, ook essentieel is als je de aanbeveling gaat lezen. En vb. je leest de aanbeveling van vb. Domus Medica over hoest. Dan hoef je eigenlijk geen huisarts meer te zijn, want je kunt niet veel doen. Ja, maar dat is de essentie hé! Wat ik daarmee wil zeggen is: als je die aanbeveling leest, dat het verdomd frustrerend is om 99 keer tegen uw patiënt te moeten zeggen, we kunnen eigenlijk niets doen. Alhoewel dat dat de enige juiste boodschap is! De tijd zal genezen!" (Expert)

Another replied that the future will solve this. By lack of GPs, they do not have to prescribe medication to keep their patients with them.

> "Ik denk dat de toekomst dat voor een stuk zal oplossen: er gaan te weinig huisartsen komen. En je zal dergelijke zaken niet meer beginnen doen. En je zal zeggen: «als het niet nodig is, schrijf ik dus ook niet voor». " (Expert)

"Financing" those information

Some experts are also clear in their statements about the need for more resources to develop good (tools for) independent information and for the promotion of it. As well under physicians as under patients.

> "Er moet veel meer geld komen voor de promotie van EBM. Dat mag op alle manieren: met campagnes, met de kanalen die bestaan, zowel voor artsen als voor patiënten." (Expert)

One GP suggested decreasing the cost of drug reimbursement; money saved by this way could then be allocated to financing of independent sources.

> «Il faudrait diminuer le coût du remboursement des médicaments, 5% pourraient être consacrés à faire de la formation et de l'information scientifique médicale. Au lieu de financer les firmes, on financerait la SSMG etc. et les publicités seraient plus contrôlées. Les firmes ne devraient pas avoir le monopole de l'information» (GP)

An expert suggested having taxes on advertisements from pharmaceutical companies. Money obtained by this way would be allocated to the development and implementation of independent information sources. He stated this several times, at different points of the discussion.

> "Er moeten meer middelen komen, door een belasting, niet op de verpakking van de geneesmiddelen, maar op de reclame voor geneesmiddelen. Eigenlijk is dat

hetzelfde maar het is conceptueel anders. Geneesmiddelen die veel verkocht worden, daar wordt ook veel reclame voor gemaakt, dus eigenlijk komt het op hetzelfde neer. Ik betaal nu belasting op de verpakking en daarmee wordt de inspectie gefinancierd. Het is een goed model. Reclame moet geaccepteerd worden, maar maak er dan een eerlijke strijd van. Belast de reclame 5 à 10% en financier daarmee degelijk weerwerk dat – in militaire term- andere vormen van weerwerk goed doet in plaats van te investeren in het geld." (Expert)

5.4.8.3 Examples from foreign countries

Experts were asked for their experiences with written information from other countries.

Some experts referred to the files of the Dutch practice guidelines (Nederlands Huisarts Genootschap - NHG) which are a good support in therapeutical decisions. It is free and very compact, so very friendly in use. Informatrix. (They think some information tools are independent information tools but, in fact, these are sponsored by pharmaceutical companies and the objectivity is sometimes questionable.).

«Les fiches de la NHG sont très bien, concises et sont une bonne aide à la décision clinique, mais il faut être bilingue, c'est aussi en anglais. Il ne faut pas s'inscrire, c'est très concis (fiches de deux pages). Si tu as un doute, tu hésites, tu y vas […]» (Expert)

"Ook op niveau van patiënten denk ik dat dit een heel belangrijke rol speelt. Ik werk heel dikwijls met de NHG-patiëntenbrieven, wat voor mij heel belangrijk is." (Expert)

Also taking an example from the Netherlands, some experts suggested more ambitious methods to compare medication: the SOJA-method and the Informatrix.

"Wat ik persoonlijk vind, is dat we dus de afweegtechnieken ook in de onafhankelijke informatie te weinig toepassen. In het onderwijs nu gebruiken we de SOJA-methode. En in Nederland heeft men zo het afwegen met de Informatrix enz., dat specifieke producten ontwikkelt om de afweging te ondersteunen. Zo kan je atenolol versus bisoprolol zetten en de sartanen versus de beta-blokkers. Dat is een methodologie die daar ontwikkeld is en nog in ontwikkeling is. Daar kan je op terugvallen voor het onderwijs en de navorming." (Expert)

Experts want also to have independent reporting on political news as it exists in the Netherlands.

"Er zijn dan Nederlandse tijdschriften – Medisch Contact en het Nederlands Tijdschrift voor Geneeskunde - die wel die rol spelen, en ook een beetje de rol van politiek forum. Wij hebben dat niet en dat is jammer." (Expert)

There are some French websites and organisations that are interesting: l'Unaformec et Prescrire.

«En France, tu as l'UNAFORMEC, avec des renseignements sur la formation médicale continue et un accès à Bibliomed - par thème médical - très bien fait mais payant.» (Expert)

«Ca coûte cher et tout le monde ne s'y abonne pas, mais Prescrire, c'est le plus fiable, la référence, il y a des rappels, mises au point d'anciens médicaments, les nouveautés, l'intérêt d'un médicament par rapport à telle ou telle chose ; Prescrire est bien étudié» (Expert)

One expert cited online independent journals from Great Britain, the Netherlands, Australia and Germany.

«Drug and Therapeutics Bulletin, Geneesmiddelenbulletin, Australian Prescriber, Arznei-Telegramm, ArzneiMittel» (Expert)

In the United Kingdom there is the Prodigy: reliable information for GPs as for patients. Very compact and easy to access.

> "Prodigy vind ik een vrij goed voorbeeld." - "Zowel naar publiek als naar artsen toe." - "Ja, echt heel concreet, heel beknopt. Je hebt het heel snel." (Experts)

Language is a barrier in evidence-based medicine: almost all evidence is in English. And according to him, evidence must be accessible in your own language. It must also be possible to integrate the guidelines immediately in the electronical medical record, may be even as clinical decision support system. Also the search engines must be developed in your own language.

> "U vroeg naar buitenlandse regio's: wij zijn Vlamingen en de Evidence is Engels. Een multilinguale ondersteuning is cruciaal. Zowel in het Nederlands als in het Frans. Huisdokters hebben het recht om in hun moedertaal geïnformeerd te worden, dat geldt zowel voor de informatie zelf als voor het zoeken naar informatie. Daar zijn in het buitenland inderdaad wel voorbeelden van: de Mesh is vertaald in het Frans, in het Pools, het Tjechisch, maar niet in het Nederlands – nu ja, het is wel vertaald in het Nederlands maar er is geen geld voor om het toe te passen. Het is heel belangrijk dat er verschillende onafhankelijke bronnen zijn, maar het zoekkanaal moet gemeenschappelijk zijn. En daar zijn ook weer voorbeelden van in het in buitenland om dat te realiseren. Maar ook voor de inbouw van de informatie de we maken in de computerprogramma's. Dat dus de link als cruciaal wordt aangevinkt. Dat we de aanbevelingen zodanig opmaken, dat ze in computer als clinical decision support systems gaan ingebouwd worden." (Expert)

In foreign countries there is not that much of experience with independent representatives. Also in Belgium there are some studies with these. According to this expert it has to have an effect, if you compare this with the effect of the pharmaceutical representatives.

> "Wij hebben hier ook de onafhankelijke artsenvertegenwoordigers. […] De face to face komt er dus altijd vrij goed uit: 85% van de artsen reageert zeer tevreden en het heeft meer effect. Het is wel duur. Daarover is ook in het buitenland te weinig ervaring: er zijn enkele centra in de wereld die dat gedaan hebben, die daar enige ervaring in hebben. Maar dat een kans geven en eens zien." (Expert)

5.5 DISCUSSION AND CONCLUSIO

5.5.1 Strengths and weaknesses of the study

The focus group interviews were not an alone-standing methodology in this study: they are complementary to the content analysis and tend to give a qualitative light reflecting the place of advertising in the practice. The aim is therefore only exploratory. That is the reason why two groups with GPs and two groups with experts could be sufficient enough. We can not be sure that saturation in the ideas was reached with this small number of groups, but by having a sample that was diverse enough, we should have enough information to be additive with the content analysis.

Although we tried to obtain groups as heterogeneous in their composition regarding region, university of training and kind of practice (solo or in group), we have to state and regret that some biases have to be noted because of the effective recruitment of the participants, mainly in the GP groups.
Indeed, in the group with French GPs, there were many of them from the same university. More, in this group there was an overrepresentation of GPs working in a medical house. Also in the geographical spread was some inequality: French GPs were almost all from Brussels and Dutch GPs from the Antwerp agglomeration. This could be explained by the way of recruitment: because there was too little response in the beginning, GPs who are practising in the neighbourhood of the place where the interviews were done, were called. In the Dutch group of experts, there were only males. Unless in the Dutch GP-group, the participants knew each other, but in the groups with experts this was inevitable. All these inequities in the groups could have a

negative impact on the results of the interviews. We estimate although that this is small, because in all groups there were good dynamics. Above, there were many different visions lanced during the discussions. In the Dutch group with GPs, some of them did not even knew the real purpose of the interviews, so they were certainly not biased before. Moreover, it was never meant to have a representative sample, just to collect some ideas to have a greater framework to put in the content analysis. These focus groups were also never meant to be a quantitative report.

In the moderation there was a difference noticed in the French versus the Dutch groups. The French moderator was a former GP who knew almost all participants, while the Dutch moderator was a sociologist that was used to work in health care sciences. The first followed the checklist nearly literally, whereas the latter reacted more freely. Because saturation was not the objective, this difference in moderation was more an added value than a methodological weakness: by the more stimulating way of interviewing of the sociologist – with respect of the basic intentions of the checklist questions - other ideas or perceptions of the participants were launched. Certainly also, because the analysis was on a descriptive way and not on discourse.

The analysis and the reporting were done in English, while the interviews were performed in French and Dutch. The collaboration of the two researchers prevented a split in the analysis of the 2 languages. This was done by following a clear methodology of ranging by questions, then putting all in a prefabricated framework that could be adapted during the analysis and to end with a text that is based on the 3 questions of the objective. Moreover, during the analysis, the observator, who was a constant in every focus group, watched over the completeness.

5.5.2 Principal findings

5.5.2.1 Context of written information

In the focus group interviews the objective laid on written information in general, with the main point on written information delivered by pharmaceutical companies. Not only a lot of different types and formats exist, but moreover, the written information fits in with a global strategy. A global strategy wherein marketing plays a major role. It was very clear during the discussions that written information is very tied together with the visits of representatives of pharmaceutical companies. Two GPs stated even clearly that written information is not their main source for pharmaco-therapeutic information: they relied more on information received during face-to-face contacts, as with the pharmaceutical representatives. This was noted too in their remarks during the interviews, although they had also meanings about written information, so this was no problem during the discussion. Even aware of the role of the representatives before the interviews, and taken into account by making the checklists of questions, it was very hard to bring them out of the discussion. That is the reason why this got a place in the analysis, even if it was not directly the objective of this study.

On the other hand the participants referred a lot of times to independent information sources, even if not asked for.

Much written information exists also as electronic form. Sometimes it was not clear during the interviews if they meant written or electronic source. Many participants used both together, so it was hard to distinguish them.

5.5.2.2 Written information is necessary

The main reason to consult written information is knowledge gathering: general information in daily practice or during training and seeking information about innovations (technical or on drugs). This can be done on an active manner (they look purposely after it) or passive (they are confronted with the information while reading for other reasons). Advertisements are most read as the latter, for example while reading background articles or by looking after political news. Most participants were aware of this. Some found it even too misleading that it is so hard to distinguish the sponsored information from the articles. Except two, all other participants expressed

their need for written information, as there is from the pharmaceutical companies and the independent sources. The difference between both is not made explicitly by the participants. If we could, we tried to distinguish them, but that was not always possible.

The written information coming from the pharmaceutical companies was seen as useful for some specific reasons. However, almost all participants agreed that the information given by the pharmaceutical companies was perceived as being not evidence-based information. That's probably also one of the several different reasons why they hardly talked about evidence-based terms (as risk ratio, NNT,…). More, according to the participants, it is not the task of the pharmaceutical industry to give evidence-based information, although the information must be as reliable as possible. In the experts group they proposed to link the claims in advertisements with levels of evidence, so it would be clear for the reader - in one glance - which is the value of this particular advertisement. This could be a motivation for the makers of the advertisements to claim more precisely in their publicity. On the other hand, according to them, this method could favourite the pharmaceutical industry too, because there exists a bias in sponsored studies. This bias will be seen too in the levels of evidence: old products with no studies anymore will be concurred by newer products.

Most participants welcomed the idea of comparing medications, but, according to them, this is not a task for the pharmaceutical industry: if they make comparisons it is not reliable enough.

About the content, the participants, especially the GP groups, felt well by advertising with information about package, dosage… : all practical information. Certainly on new products it is obvious they want as soon as possible the information. The information on new products has other demands than this for already known medication. Others warned about new products: it is better to wait for a critical appraisal before using them or not using them anyway, because they have no added value.

Other differences in the need of information were seen with GPs who are starting a practice versus well-experienced GPs: the younger ones want more practical information (presented in handy pockets and leaflets).

There was seen a huge gap between the GPs and the experts (although they are GPs too) about the way of presenting EBM-information. Most GPs are stating they rather want pre-digested information: information that is been validated by independent sources, so that GPs must only read abbreviated forms of these evaluations. Some experts agree with this, especially for GPs who are practising already for years, who are not educated in EBM. Other experts - most - stated that critical thinking and analysing is a job for every GP. A proposition made to facilitate this, is labelling the written information: to make a link with an independent organisation. In fact some pre-digested information exists already: this is set up for example by Minerva or by the BCFI / CBIP. Although they give summaries about recent findings in literature and presenting these in key-points and in an abstract, this is apparently not enough – or not known? - for the interviewed GPs in the focus groups. May be here plays also the role of marketing techniques: the BCFI / CBIP is probably not appealing enough and too "serious". Another example is "La Revue Prescrire": it is perceived by the participants as reliable, but is perceived for some as "too difficult" to read, while others prompted just on the easy key-messages. Some independent sources were also perceived as too expensive.

5.5.2.3 Information ways

Written information is one way to inform the GPs. Many other - most of the time complementary - ways of informing exist. As already said, the most mentioned way of approaching GPs in this global strategy is via pharmaceutical representatives. The most important advantage is the way of reporting, certainly if there are novelties. They give practical information that is easy applicable. Moreover they give samples and example-devices. One of the participants countered this benefit by reporting that a practical meeting could be organised under peers, for example in the circles. In the group with experts, one told about the results of a study with independent representatives as alternative. About gifts less is said, but some remarked that this could have an influence too.

Trainings were not that much mentioned, unless that written information used for self-trainings is more agreeable to read than electronic information.

Concerning electronic information there are 3 categories met under the participants during the interviews: those who are always using written information, those who are bound to their computer (even during the consultation) and a group that uses both of them. That's probably also why there is a big difference in the utilisation and know-how of some programs, sources or tools. Some participants did even propositions for tools that already exist. In general it looked that most sources are not exploited sufficiently, because of a lack of knowledge of them. The most prominent example again was the use of the BCFI / CBIP site. Some GPs did not even know the electronic version. Others use it during the consultations to compare prices, to look after reimbursement rules, side-effects…

Participants reported more than once the communication with specialists. Often the GPs are confronted with pharmaco-therapeutic decisions of specialists: sometimes they learn from it, sometimes they felt not sure – not informed enough – to form argumentations against some decisions of the specialists which they do not agree with.

5.5.2.4 Perception of the role of pharmaceutical industry

The attitude of the interviewed GPs versus the pharmaceutical industry was very divers. As it looked as total rejection at the very first moment it became much more nuanced during the interviews.

The large amount of (unasked) written information from pharmaceutical companies and the way of presenting their drugs in a very captivating manner, is perceived as pollution and leads to resistance of some GPs. A remarkable point is that there are sources of information – separately, or in journals or periodicals – that seem independent, but which are in fact sponsored by pharmaceutical companies. Some participants were more aware of this than others.

That's why it can become aggressive too. GPs felt influenced and often even manipulated by this. They recognize marketing techniques of the pharmaceutical industry and acknowledge this sometimes as unethical.

Although all the perceived manipulation ways, GPs told they do not like distancing from the pharmaceutical industry, because they see some collaboration ways. As above said, an important way of welcoming the pharmaceutical companies in their daily practice, is by seeing representatives with practical information (for themselves or for their patients), example-devices, and samples. Some expect sponsoring for the trainings they organize as circle or as GP-organisation. Finally it can not be denied that there is a long tradition of rather close links between GPs and pharmaceutical companies for all kind of ways of sponsoring the continuous "education". Most participants agreed that this collaboration must be developed under certain conditions. Logically, these limitations are much more defined in the groups with experts.

A plus was also given for the pharmaceutical industries' marketing techniques. Reminder techniques, colours, sending representatives,… is quite well accepted by most GPs and some experts. For some GPs and a few experts it is even indispensable.

5.5.2.5 Suggestions made by participants

In these suggestions, it is remarkable that a few of them are especially pointed to young GPs, because they have other needs. In the group with experts, it was said that more experienced GPs are not that used to EBM, so trainings could be useful for them too.

Written information must be simple and practical

All participants, especially the GPs, agreed that written information «for daily use» (not for training purposes) must be rather simple and practical.

EASY TO FIND

The used sources must be retrievable. Journals and periodicals received for free in the letterbox are well accepted by almost all GPs, as long as they become not too much in number. GPs agreed they would welcome free subscription to important journals / sites: especially for beginning GPs could this be a trigger for applying EBM in daily practice. Some participants remarked that online sources are more users-friendly than the written information. About finding information about secondary effects and contra-indications, unanimity was not reached in all groups: some found it indispensable, while others reported they rarely look after it.

EASY TO READ

As already mentioned, the biggest contradiction was seen with the need for easy to read information. GPs want pre-digested information. Most experts could not agree with this, although they stated also that abstracts or key-messages could favourite the lecture. Slogans could be useful, but until now, most are coming from the pharmaceutical industry and are therefore not reliable enough. GPs must have the possibility to have access to information in their own language. Most participants stated that for reading a lot of information, written information is superior to electronic information. At last, the lay-out plays an important role in the readability of the information.

EASY TO USE

Especially GPs, and certainly the youngest ones, were asking for information on handy formats, in a compact way. Sources must be constructed in a way that they could be accessed at the point of care.

Development of independent information and ways of using it

Although some good sources exist already, all participants, especially the experts, agreed that independent information should play a more substantial role than it is now. It should here noted that some experts think some information tools are independent information tools but, in fact, these are sponsored by pharmaceutical companies and the objectivity is sometimes questionable. For most participants it seemed as a big confrontation: the huge marketing techniques of the pharmaceutical companies versus the scarce resources of the independent sources. There is a real disequilibrium between these two. To get a more substantial role, the independent information sources, tools and programs could develop still more on specific points.

LABELLED INFORMATION

If all (written) information could be labelled by an independent organisation, it would be much simpler for the readers to evaluate this. The unanswered question was: who is this reliable, independent organisation? For some experts it must be consisted of more than one reliable, independent source. For some other expert it exists already as the Pharmaceutical Inspection. But it should work more sufficiently to have another impact.

This independent organisation could also give some levels of evidence to advertisements. Most experts in one group could agree with this, although some of them feared the possible bias.

TRAINING

More training in EBM is necessary, according to most experts. Especially the point of critical reading is not known enough by the "mean" GP. More training in pharmaco-therapy, especially for students, is unbearable. Within these, learning to work with comparisons of drugs is important.

INFORMATION FOR SPECIALIST AND PATIENTS

Most participants welcomed the idea of having the same information as the specialists: to be aware of the newest drugs and techniques and to make it possible to give the same information to the patients as the specialists do.

In all groups the participants insisted for (written) information for patients too. This can give a stronger base to the messages they receive of their GP. Information campaigns to the great public could be a successful way to reach this purpose too.

Economical views

All experts were convinced that more resources – as well human as financial – are needed to develop the independent information. One expert stated more than once that taxes can be the solution: by asking taxes to pharmaceutical companies to advertise, the government receives money to favourite independent information. One GP proposed to decrease the cost of the drug reimbursement. And some other GPs urged to stop reading sponsored information and seeing representatives: this could save lots of money and lots of time, that could be used for the independent information.

5.6 KEY MESSAGES

- **GPs need written EBM information to perform an appropriate therapeutic choice.**
  - **The pharmaceutical companies were not perceived as a reliable source to give EBM information.**
  - **Independent sources, like the most mentioned BCFI / CBIP, should accomplish this role.**
- **The information from pharmaceutical companies is most wanted if it comes to practical information.**
  - **At that point, the marketing techniques are perceived as more welcome than bothering.**
  - **Independent sources could learn more from these techniques to make their messages more appealing.**
- **There is a difference between GPs and EBM-experts about the best way of presenting EBM-information.**
  - **Most GPs stated they rather want pre-digested information.**
  - **Most experts are convinced that GPs must also have the basic knowledge of critical reading.**

6 DISCUSSION AND CONCLUSIONS

In the last years, the awareness about what impact advertisements can have on physicians and patients is growing. This is seen by the number of articles about advertisements of the pharmaceutical industry that were found. In this study, we developed a new methodology to appraise the evidence base of advertisements that are sent to physicians and pharmacists. First in a descriptive manner with an exploratory inventory. Secondly, we performed an appraisal of the content of advertisements to GPs, and this from an EBM-viewpoint. This methodology could be used in the future more systematically to assess the quality of the content of an advertisement. In addition a thorough literature search was performed as well as focus group interviews to assess the information needs of GPs and expert meetings were organised to receive the input of specialists in information on drugs.

6.1 PRINCIPAL FINDINGS

6.1.1 Global strategy of marketing

Pharmaceutical companies use a global marketing strategy to ensure their place on the medication market and to increase their return on investment and profits for their stakeholders.[37-39] They set up marketing campaigns to different kinds of health professionals and to patients. This can be done on a direct way, by promoting the drugs themselves or indirectly by "promoting diseases", by making health professionals or patients aware of some disease. [40] These campaigns are entering on many ways: by TV[41], radio and internet, by mail, by drug company representatives[42], by showing well-known people with the disease or telling about it, by inviting opinion-leaders[43], academics, etc… In the focus group interviews, the GPs told they were most confronted by the pharmaceutical industry by meeting representatives and by written mail. In the last few years, electronic sources are increasingly entering medical practices.

In this study, we focussed on the evidence base of written information for GPs. This only accounts for a limited part of the global marketing strategy for a specific product. We are aware that the implicit – most of the time emotive - messages, given by the lay-out and the pictures showed, are at least of equal importance as the written messages. This is already demonstrated in several studies.[44, 45] The analysis of the quality of the messages in these advertisements is however important, since they contribute to the enormous amount of information that is being addressed currently to physicians and since they are expected to be able to influence the prescription behaviour of physicians. Representatives are most of the time explaining more than what's in the advertisements. The same claims, colours and characteristics are seen again in the gadgets and advertisements. All these are reinforcing each other.

6.1.2 Semantics of pharmaceutical publicity versus information

In the content analysis part, we critically appraised every advertisement with a least one claim in it. We called this "written information from pharmaceutical companies". Used in this context, "information" is a neutral word, without giving it a value and by being aware that all information from the pharmaceutical companies come from the marketing department and not (only) from the scientific department. Some participants of the experts meeting made however a difference between "information" and "publicity/advertising" or between "information" and "reminder". A reminder is in general an advertisement with only the name (and eventually the firm name) in it. For some experts, a reminder is an advertisement without information in it, only with one or some words possibly referring to often vague claims in other advertisements. We don't follow the latter. All claims, for any reason, except those with information on price and on convenience were analysed to find out if there are differences in the kind of claims and if this could make a difference to the EBM-value of the advertisements.

The GPs in the focus groups expressed clearly the need for both: they need information and they are not against marketing. They discussed in extenso the importance of

reliable information. When it comes to reliability, they prefere independent sources over pharmaceutical companies. For practical information they welcome the strategies of the pharmaceutical companies nevertheless: not only for the advertisements, but certainly also for the information that is provided by the pharmaceutical company representatives. Marketing information has some specific characteristics: the repetitiveness, the colourful layout, the presentation,… For these reasons, the pharmaceutical companies with their advertisements, the representatives and the sponsoring of the continuous medical education, are clearly more attractive than the information coming from independent sources. The latter was appraised as more serious, but often too difficult to read and too expensive.

Is it necessary to make a difference between advertising or marketing and pharmaceutical information, which could be understood as reliable evidence-based information? Following the arguments of the experts during the meeting, it is: there are distinct laws for both of them. Interpreting the results of the focus groups: GPs are not always aware that the information coming form the pharmaceutical companies is in first place marketing material. Above this, they could not always distinguish publicity from information. The articles right adjacent to an advertisement or the reports of sponsored congresses for example: sometimes it is hard to differentiate between "scientific" articles and publicity. That's one of the reasons for us to argue that all messages from the pharmaceutical companies - independently if they are called advertisements or information – should be correct in their content.

6.1.3 Evidence based value

Although many articles about content analysis were retrieved, not many were reporting on the evidence based value. Most studies examined the form of advertisements, content in relation to regulation and were comparing the content to a simple checklist. The only exception was seen in studies on the quality of references: unless they are just reporting on references, these studies were quite elaborate.

The growing awareness about the influence of marketing and publicity is also reflected by the development of organisations and websites that are opposing some of the current marketing techniques. Some are bringing together scientific articles, some are promoting independent sources and some are discussing the content of advertisements (see chapter 2 - Literature search).

A major part of the content of advertisement is not focussing on good medical practice and appropriate use of a drug. In the exploratory inventory we counted a large amount of reminders, publicity of many unregistered drugs and many advertisements about price or convenience. This indicates that evidence-based practice and use of the drug is often not in the scope of an advertisement.

In the content analysis, only 10 on 123 claims were well supported by references. Most of the claims were vague or emotive without any clear evidence base presented. Also the majority of references was inadequate. And virtually never figures (such as RRR or ARR) allowing the reader to quantify the efficacy of the drug were found.

In the focus groups, the GPs as well as the experts, had a reluctant attitude to EBM-information from pharmaceutical companies. Some suggested that this information should come from more independent sources.

All these findings are not that surprising neither for Belgium, neither for studies in other countries: most laws and regulations are arguing a lot about the format of advertisements and a much less about the content, and especially less (or nothing?) about the quality and thus the evidence supporting the information. This leads to a situation where the pharmaceutical industry is hiding behind laws and reglementation from the government and where the practitioners are asking for more transparancy and reliable EBM-information. About the latter, there was no congruence between the GPs and the experts in the focus groups. GPs declared they need the pharmaceutical industry because of practical reasons and for reminders. EBM-information must not originate from the pharmaceutical industry, but from independent sources. Preference is clearly given to 'pre-digested» information. The experts during the focus group

discussion expressed the need for development of critical appraisal skills, so that information could be appraised by each GP.

6.1.4 Reliability of advertisements

In the content analysis we discovered that only one sixth of the claims in the advertisements were well supported. Hundred claims and more than half of references are partially or not supported, ambiguous, or there even exists some evidence against. Although some not well supported claims could be ameliorated by adding one (or a few) more words, with the current marketing strategies the advertisements of several pharmaceutical companies cannot be considered as trustworthy.

6.1.5 Minimum information needed in advertisements

Some articles on the content of advertisements used a checklist to tick off which components were present in the searched advertisements. Most were based on the FDA-regulations. Most of the time, these components were picked out of the the summary of product characteristics (SPC). In the exploratory inventory, more than half of advertisements had a SPC included. In the focus groups, most participants said they never or rarely read the SPC of an advertisement: the typographic size is too small. Also during the experts meeting, it was discussed that its inclusion is mostly futile or that mentioning a few things from the SPC would be more useful than printing the whole. On the other hand, there is a difference between the components needed for registration of a drug - those that are included in the SPC - and the components needed for a critical appraisal on the conscientious and appropriate prescription of a drug. Several indications could be classified in our content analysis as "extrapolated", because the target population was described broader than evidence would allow. So, merely adding (some components of) the SPC is not enough to make an advertisement reliable enough – from an EBM point of view.

And what about adding references to an advertisement? Many articles were written about the value of references (see chapter 2 – literature search). Our findings show that more than half of the analyses with references are inadequate. In the focus groups, some GPs found that advertisements with references appeared more reliable, while others argued that the articles referenced were often bias to a large extent. Several other studies focussed on these issues: who is funding the studies, are only the positive results published, are all numbers given, which kind of risk ratios are shown,…? It can be questioned whether the references added to advertisements increase the quality of the information or that they render the content more doubtful and sometimes even misleading.

In the focus groups with experts, as well as with GPs, there was an attitude of rejection towards EBM-information in advertisements. In several studies found in our literature search, the authors looked for the fair balance between the benefits and the risks. In our study, we had planned to assess the fair balance, but this appeared impossible, because almost nowhere risk information was given, unless in a very vague manner. During the experts meeting, most participants agreed that it is not the task of the pharmaceutical industry to show risks or disadvantages in their advertisements. The question arises if it is ethical to show only the benefits and deliberately withholding possible important harmful effects.

6.1.6 How to make therapeutic decisions?

Evidence based medicine is, according to Sackett, the integration of best research evidence with clinical expertise and patient values. This is already a broad vision about taking therapeutic decisions. Many barriers to follow EBM guidelines are known. Specifically for drugs, there is also a major influence from reglementation and of marketing.

6.1.7 Regulations and laws

Regulations give rules concerning content -these do not vary a lot between countries- and presentation. This latter has specific rules in each country. In Belgium, the emphasis is made on the size of content in the advertisement; in France, it concerns the readability; in the Netherlands, it is about the letter size.

In Europe, regulations and laws are based on the same European Directive and each country can decide to go further or not. All countries have a control by the national authorities and a self-regulation.

In Belgium, there is a regulatory framework allowing few possibilities of control concerning the content. The Agence fédérale des Médicaments does not work proactively but only intervenes in case of complaints.

In France, there is a control of the advertisement the AFSSAPS. The avertisement can not be in contradiction with the most recent opinion of the Commission de la Transparence.

In the Netherlands, drug advertising is strictly regulated by the Decree on drug advertising. Besides this, the CGR self-regulating body has set up a guidance code where the rules are further developed.

There is a need for minimum criteria concerning presentation (lay-out) and content. In France, concerning the content, the AFSSAPS asks the opinion of the Commission de la Transparence to take her decision. In some countries, like in Canada, a review and preclearing of advertising is performed on the content before publication of the advertisement (contrarily to what exists in France).

6.1.8 Suggestions for improvement

From the focus groups, especially those with the experts, and during the experts meetings, suggestions for improvement of written information coming from pharmaceutical companies to GPs, were formulated. This was sometimes broadened to some electronic information, to information for patients and to independent information too.

All these suggestions could be divided in 4 categories: suggestions concerning health professionals, the pharmaceutical companies, the government and some others.

6.1.8.1 Suggestions concerning health professionals

GPs must be more educated in critical appraisal of information and in EBM. This is especially emphasized by the experts during the focus groups and the meetings. The GPs in the focus groups were not that convinced about it. They do rather like pre-digested information from reliable sources. For some other experts during the meeting it was much more important to teach the GPs on the dangers of the influence of the pharmaceutical industry. GPs should learn how to differentiate between real information and publicity.

For the GPs in the focus groups, it was clear that all information must be clear and practical. They do like information from independent sources, but it must be presented in more attractive format, and structured for more easy consulting and with more ease-of-use.

6.1.8.2 Suggestions concerning the pharmaceutical companies

Experts from the pharmaceutical industry stated they would have also more education possibilities, especially in EBM. This could be implemented in an internal quality control process.

Besides education, the pharmaceutical companies present during the meeting expressed the wish to have a self-evaluation scale or checklist: instead of control, positive incentives or a quality label are preferred. For experts not coming from industry, the

attribution of its own quality label is a bridge too far. Not incentives or an internal control are necessary, but external control. Some experts from the pharmaceutical industry can agree with that: biased advertisements can harm all the members. One proposed that Pharma.be could do a screening of the advertisements: not only at the moment of complaints, but also pro-actively. Another reacted that this would lead to an additional possibly unacceptable delay in the dissemination of publicity.

During the focus groups some participants expressed that pharmaceutical representatives should be refused, because they are not giving appropriate information and are taking too much time of the GPs. Most other GPs and even some experts during the focus groups could not agree with that vision.

6.1.8.3 Suggestions concerning the government

For some participants during the experts meeting, the government should be much more pro-active in their control on pharmaceutical publicity: currently inspections are primarily only performed after exposure in the media or after official complaints (of other firms). Inspections and certain bodies such as the "committee for control on publicity of medication" focus on the direct to consumer advertising on TV and other media or purely of the form and not on content. The experts discussed a lot about the need for more adequate control mechanisms: the resources and professionalism were a point of concern.

Next point for the government, linked with the previous: there exists too much bureaucracy and this prohibits necessary steps. In additions, all actions and measures taken should be more transparent and become part of the public domain.

There is often a clear controversy or even contradiction between the registered indications (in the instruction leaflet) and those that are supported by relevant clinical evidence or by evidence-based guidelines. Some are proposing the inclusion of more references instead of the instruction leaflet. Some others are proposing some short messages in the advertisement that are more comprehensible and clear than the instruction leaflet on its whole.

In the focus groups and during the experts meeting, the participants argued that visits of an independent representative could be a valuable alternative for the "biased" presentations of those coming from the pharmaceutical companies. The impact of a very small number of independent physician visitors compared to the enormous army of pharmaceutical representatives (for Belgium the number is estimated to be about 3500 persons) should be questioned however.

In the focus groups, participants expressed the need for independent, reliable sources, presented as written information, but also electronically. The information should be low-cost and for beginning GPs even for free.

The participants in the focus groups asked also for more information they could give to their patients..

One expert in the focus groups insisted on taxes on publicity, rather than on packages.

6.1.8.4 Other suggestions

For the experts during the meeting much more transparency on the conflicts of interest is needed in the presentations of experts, opinion leaders and academics. GPs should be able to verify the reliability of the source, for example by giving labels and by imposing the declaration of conflicts of interests. Some expert gave the example of the UK: the difference between promotional and education material is very clear for the practitioners. In the focus groups too, about the importance of labelling was discussed. This cannot be done by the pharmaceutical companies or their organisations themselves, but must be done by an independent institute. One participant argued about adding some levels of evidence too.

7 RECOMMENDATIONS

7.1 SUGGESTIONS TOWARDS HEALTH CARE POLICY MAKERS

Currently, there are only limited restrictions in the presentation and the content of publicity by pharmaceutical industry towards prescribers. Furthermore, there are clear discrepancies between the information disseminated in advertisements and the officially endorsed information such as the 'transparantie fiches / fiches de transparence'. Based on the results of this research and health policy in other countries, several suggestions towards different stakeholders can be formulated in order to improve the quality of information in advertisements. Pharmaceutical companies should be encouraged to guarantee the quality of the claims, summary of product characteristics and of the references used. Self-regulation is undoubtedly a first and important step in this process towards more public accountability. The government should take more responsibility too by pro-active control, public transparency in registration and in complaints and if needed by effective sanctions. Above this, independent information sources should be more enhanced. More training for health professionals is necessary.

7.1.1 Recommendations concerning the pharmaceutical companies

The presentation and layout of the advertisements should adhere to more strict criteria. The Canadian regulation, where several requirements are imposed to advertisements holds several interesting suggestions. At least the components to make the fair balance of the presented product must be clearly shown in the advertisement.

Referenced studies should be readily available via publicly available sources and must be of good quality: to control this, a checklist should be used –some instruments are already used internationally and by some Belgian offices.

It should be possible to link the claims with the references. Emotive and vague non-clinical claims should be avoided and should at least not be the only type of claims present in the advertisement. Vague clinical claims are not acceptable. Ambiguous or not supported claims or claims with evidence against are clearly inappropriate. The utility for prescribers of claims on pathophysiological or surrogate endpoints is questionable. Clinical outcomes on hard endpoints should be mentioned too..

More transparency in the medical press is needed on documents or articles that are funded by or sponsored by pharmaceutical companies: these should get a label like "advertisement / sponsored information". For expert opinions e.g. by opinion leaders or academics, mentioning their competing interests would be an illustration of their intellectual integrity.

Quality control measures can be easily implemented by industry and their representative organisations, and should apply to all firms. Pharmaceutical companies should be encouraged to work out more developed processes and structures for self-regulation.

7.1.2 Recommendations concerning the government

Within the current structures, the messages disseminated by the pharmaceutical industry are merely controlled on the presence and the readability of the notice within or adjacent to the advertisement. Seldom, claims themselves are verified mostly after a complaint of another firm. Most governments in neighbouring countries are much more pro-active in their control on pharmaceutical publicity. The claims in an advertisement should at least be in accordance with the notice, that should represent the critically appraised data in the registration file. From a prescribers and societal point of view, it is strange that the information in the notice does not adhere to the conclusions of the 'transparantie fiches / fiches de….', albeit independent information for rational use of medicines sponsored by the government. In other countries, such as e.g. France, the information distributed by industry should comply with the official independent

information. Currently, the legal possibilities to focus on the content of advertisements are virtually non-existing. The department "Information and communication about health" of the Agence fédérale du Médicament et des Produits de Santé (AFMPS) / Federaal Agentschap voor Geneesmiddelen en Gezondheidsproducten (FAGG) does not have the necessary human resources to fulfil this task. Examples of foreign countries, like the PAAB in Canada, the MHRA in the UK and AdWatch in Australia, make it possible, together with our results, to create a framework to judge the publicity. Current sanctions have limited impact.

Medication registration files and reimbursement evaluation sheets should be made publicly accessible since they can have an impact on public health and since their reimbursement comes from public means by large. This files contain more information about the safety of the drugs than currently available. Also transparency in treatment of complaints on publicity is to be considered: this enhances the critical reading of publicity and is an additional incentive for the pharmaceutical companies to take care of the scientific value of their publicity.

Firms should be encouraged to finance independent education rather than product-specific promotion. This could be done by differentiating deductabilities and taxes on the marketing budget of pharmaceutical companies depending on product-specific promotion versus independent initiatives.

7.1.3 Recommendations concerning independent information sources

Written information coming from the pharmaceutical companies is actually marketing. Therefore, the government had a moral task, for the importance of the consumers, to guarantee independent and honest information to health professionals and to consumers. This also applies to all products with health claims, e.g. food supplements that are aggressively promoted via the media towards consumers.

Independent information sources must be well accessible. They should be available as written material, but preferentially also electronically. The readability could be developed more by making the independent information more "glossy".

The CBIP / BCFI is appraised as a reliable, trustworthy, independent source. The important, but independent link with the AFMPS / FAGG should be continued. Their website counts a high and increasing number of visitors. It would be worthwhile to add links to the notice and evaluation data used in the reimbursement decisions. In that way, prescribers can find all usefull information in one source. Timeliness is crucial: This type of information should be available simultaneously with the start of the marketing campaigns for new drugs.

Other independent information sources should be enhanced too, to complement or counterbalance the information of the pharmaceutical companies.

7.1.4 Recommendations concerning the universities

During the medical basic training, the universities have a major role in the students' education of critical thinking, reading and appraisal. On the other hand, universities are in part dependent on the industry for financing of biomedical research, which could lead to unwanted influence and bias. There should be maximum transparency in conflicts of interest of academics. Transparent firewalls should be installed between sponsors and researchers if not already present

7.1.5 Recommendations concerning health professionals

Health professionals in general have the perception that they are not influenced by the publicity by the pharmaceutical industry, while several studies show the opposite. In Belgium there are some examples such as e.g. the latest generation of quinolone antibiotics, that show that the prescription patterns changes immediately after large scale marketing campaigns. In addition, some participants to the focus groups also had the perception that they need the information of the industry to be uptodate on new developments in medicine.

Health professionals should be better educated in critical appraisal of advertisements and marketing materials. This must be better integrated in the basic training at the university. It should be emphasized to the health professionals that the legally registered indications are not always equal to the evidence-based indications for a product.

Also in continual professional development (CPD), the critical appraisal demands a more important place. This could be worked out by, among others, the professional and scientific organisations, CEBAM, the universities and the RIZIV / INAMI.

The CPD could be enhanced by positive incentives, as there are the accreditation points. Therefore, the publicly funded CPD should be made independent of financial funding by pharmaceutical companies. It can be questioned why to date no firm firewalls were installed to discourage the frequent entanglement between CPD and industry.

7.2 NEED FOR FURTHER RESEARCH

We studied the content of written information coming from pharmaceutical companies to GPs. Although we used complementary methods to put this in a broader context, still some questions remain after this study:

- Advertising is just one of the marketing strategies of the pharmaceutical companies, maybe not even the most influential one. It should be worked out if the conclusions of this study could be extrapolated to other information canals than written information too. For example: what about electronic information? The information presented by the representatives of pharmaceutical companies?
- We focused on the evidence-based content analysis. A more global analysis, with also taking the form, the lay-out and the emotive aspects into account could increase the value.
- This study focused on GPs. It is unclear whether its conclusions can be extrapolated to specialists or other health professionals too, such as nurses and physiotherapists.
- We focused on registered drugs. The content of the publicity for not registered drugs, implants and supplements (herbal or natural products, dietary supplements) where the regulatory framework is much weaker or virtually non-existing is clearly another important research topic.

8 REFERENCES

1. Sansgiry S, Sharp WT, Sansgiry SS. Accuracy of information on printed over-the-counter drug advertisements. Health Marketing Quarterly. 1999;17(2):7-18.
2. Cassels A, Hughes MA, Cole C, Mintzes B, Lexchin J, McCormack JP. Drugs in the news: an analysis of Canadian newspaper coverage of new prescription drugs. CMAJ Canadian Medical Association Journal. 2003;168(9):1133-7.
3. Kaphingst KA, DeJong W, Rudd RE, Daltroy LH. A content analysis of direct-to-consumer television prescription drug advertisements. see comment. Journal of Health Communication. 2004;9(6):515-28.
4. Cowden AL, Katz KA. Food and Drug Administration surveillance of dermatology-related and nondermatology-related prescription drug advertising in the U.S.A., 2000-2003. Br J Dermatol. 2006;154(5):950-8.
5. Keng A, Coley RM. Evaluating the accuracy of citations in drug promotional brochures. Ann Pharmacother. 1994;28(11):1231-5.
6. Wilkes MS, Doblin BH, Shapiro MF. Pharmaceutical advertisements in leading medical journals: experts' assessments. see comment. Annals of Internal Medicine. 1992;116(11):912-9.
7. Mazor KM, Andrade SE, Auger J, Fish L, Gurwitz JH. Communicating safety information to physicians: an examination of dear doctor letters. Pharmacoepidemiol Drug Saf. 2005;14(12):869-75.
8. Bhattacharyya T, Tornetta P, 3rd., Healy WL, Einhorn TA. The validity of claims made in orthopaedic print advertisements. J Bone Joint Surg Am. 2003;85-A(7):1224-8.
9. Cardarelli R, Licciardone JC, Taylor LG. A cross-sectional evidence-based review of pharmaceutical promotional marketing brochures and their underlying studies: is what they tell us important and true? BMC Fam Pract. 2006;7:13.
10. Caplovitz. Turning Medicine into snake oil. How pharmaceutical marketers put patients at risk. 2006.
11. Hogan DJ, Sarel D, Canas A, Bellman B, Eaglstein W, Hogan LA, et al. An analysis of advertisements in the Journal of the American Academy of Dermatology, 1980 and 1990. see comment. Journal of the American Academy of Dermatology. 1993;28(6):993-7.
12. Stryer D, Bero LA. Characteristics of materials distributed by drug companies. An evaluation of appropriateness. see comment . Review 81 refs. Journal of General Internal Medicine. 1996;11(10):575-83.
13. Rothermich EA, Pathak DS, Smeenk DA. Health-related quality-of-life claims in prescription drug advertisements. Am J Health Syst Pharm. 1996;53(13):1565-9.
14. Rothermich EA, Pathak DS. References for health-related quality-of-life claims in prescription drug advertisements. Am J Health Syst Pharm. 1997;54(22):2596-9.
15. Lexchin J, Holbrook A. Methodologic quality and relevance of references in pharmaceutical advertisements in a Canadian medical journal. see comment. CMAJ Canadian Medical Association Journal. 1994;151(1):47-54.
16. Lexchin J. How patient outcomes are reported in drug advertisements. see comment. Canadian Family Physician. 1999;45:1213-6.
17. Mastroianni Pde C, Galduroz JC, Carlini EA. Influence of the legislation on the advertisement of psychoactive medications in Brazil. Rev Bras Psiquiatr. 2003;25(3):146-55.

18. Lankinen KS, Levola T, Marttinen K, Puumalainen I, Helin-Salmivaara A. Industry guidelines, laws and regulations ignored: quality of drug advertising in medical journals. Review 19 refs. Pharmacoepidemiology & Drug Safety. 2004;13(11):789-95.

19. Villanueva P, Peiro S, Librero J, Pereiro I. Accuracy of pharmaceutical advertisements in medical journals. see comment. Lancet. 2003;361(9351):27-32.

20. Vlassov V, Mansfield P, Lexchin J, Vlassova A. Do drug advertisements in Russian medical journals provide essential information for safe prescribing? West J Med. 2001;174(6):391-4.

21. van Winkelen P, van Denderen JS, Vossen CY, Huizinga TW, Dekker FW. How evidence-based are advertisements in journals regarding the subspecialty of rheumatology?. Rheumatology. 2006;45(9):1154-7.

22. Christo GG, Balasubramaniam R. Commentary: advertising adversities. Bmj. 1997;315(7106):460.

23. Lal A, Moharana AK, Chandra P, Ray A. Critical evaluation of references in drug advertisements: an Indian experience. Journal of the Association of Physicians of India. 1996;44(11):778-9.

24. Lal A, Moharana AK, Srivastava S. Comparative evaluation of drug advertisements in Indian, British and American medical journals. Journal of the Indian Medical Association. 1997;95(1):19-20.

25. Lal A. Information contents of drug advertisements: an Indian experience. Ann Pharmacother. 1998;32(11):1234-8.

26. Rohra DK, Gilani AH, Memon IK, Perven G, Khan MT, Zafar H, et al. Critical evaluation of the claims made by pharmaceutical companies in drug promotional material in Pakistan. J Pharm Pharm Sci. 2006;9(1):50-9.

27. Gilad J, Moran L, Schlaeffer F, Borer A. Antibiotic drug advertising in medical journals. Scandinavian Journal of Infectious Diseases. 2005;37(11-12):910-2.

28. Carandang ED, Moulds RF. Pharmaceutical advertisements in Australian medical publications--have they improved? Medical Journal of Australia. 1994;161(11-12):671-2.

29. Loke TW, Koh FC, Ward JE. Pharmaceutical advertisement claims in Australian medical publications. see comment. Medical Journal of Australia. 2002;177(6):291-3.

30. Cooper RJ, Schriger DL, Wallace RC, Mikulich VJ, Wilkes MS. The quantity and quality of scientific graphs in pharmaceutical advertisements. see comment. Journal of General Internal Medicine. 2003;18(4):294-7.

31. Cooper RJ, Schriger DL. The availability of references and the sponsorship of original research cited in pharmaceutical advertisements. see comment. CMAJ Canadian Medical Association Journal. 2005;172(4):487-91.

32. Gutknecht DR. Evidence-based advertising? A survey of four major journals. see comment. Journal of the American Board of Family Practice. 2001;14(3):197-200.

33. Neumann PJ, Zivin Bambauer K, Ramakrishnan V, Stewart KA, Bell CM. Economic messages in prescription drug advertisements in medical journals. Medical Care. 2002;40(9):840-5.

34. Nelson CP, Bloom DA. Sales and science: changing patterns of pharmaceutical and medical device advertising in peer reviewed urology publications, 1975-2000. Journal of Urology. 2001;166(6):2317-20.

35. Mastroianni Pde C, Galduroz JC, Carlini EA. Psychoactive drug advertising: a comparison of technical information from three countries: Brazil, United States and United Kingdom. Sao Paulo Med J. 2005;123(5):209-14.

36. Herxheimer A, Lundborg CS, Westerholm B. Advertisements for medicines in leading medical journals in 18 countries: a 12-month survey of information content and standards. International Journal of Health Services. 1993;23(1):161-72.

37. de Laat E, Windmeijer F, Douven R. How does pharmaceutical marketing influence doctors' prescribing behaviour? 2002. Available from: www.cpb.nl

38. Committee HoCH. The Influence of the Pharmaceutical Industry. 2005. Available from: www.parliament.uk/parliamentary_committees/health_committee.cfm

39. Norris P, Herxheimer A, Lexchin J, Mansfield P. Drug promotion. What we know, what we have yet to learn. Reviews of materials in the WHO/HAI database on drug promotion. 2005. Available from: www.drugpromo.info

40. Moynihan R, Heath I, Henry D. Selling sickness: the pharmaceutical industry and disease mongering. Bmj. 2002;324(7342):886-91.

41. Grilli R, Ramsay C, Minozzi S. Mass media interventions: effects on health services utilisation. Cochrane Database Syst Rev. 2002(1):CD000389.

42. O'Brien M, Oxman A, Davis D, Haynes R, Freemantle N, Harvey E. Educational outreach visits: effects on professional practice and health care outcomes. Cochrane Database Syst Rev. 2007(4):CD000409.

43. Doumit G, Gattellari M, Grimshaw J, O'Brien MA. Local opinion leaders: effects on professional practice and health care outcomes. Cochrane Database Syst Rev. 2007(1):CD000125.

44. Ferner RE, Scott DK. Whatalotwegot--the messages in drug advertisements. Bmj. 1994;309(6970):1734-6.

45. Scott T, Stanford N, Thompson DR. Killing me softly: myth in pharmaceutical advertising. Bmj. 2004;329(7480):1484-7.

9 APPENDICES

APPENDIX FOR CHAPTER 1 - INTRODUCTION (NOT SUBMITTED FOR VALIDATION)

REGULATORY FRAMEWORK IN THE UNITED KINGDOM

The relevant United Kingdom legislation on drug advertising is the Medicines (Advertising) Regulations 1994 [f] and the Medicines (Monitoring of Advertising) Regulations 1994[g], which implement title VIII of the European Directive. The first one states that the requisite information should be presented clearly and legibly. Mention of licensed indications, dosage and method of use, side-effects, precautions, contra-indications, warnings, route of administration when not obvious, actual product name (using the common name placed immediately adjacent to the most prominent display of the name), active ingredients, licence number, supply classification, name and address of the licence holder and cost are required. At least key messages from the SPC statements should be clearly conveyed in a way that the reader should know who should and should not be given the medication, how to prescribe it and what effects may be observed. The particulars in relation to side-effects, precautions and contra-indications, dosage and method of use and warnings should be clearly printed, legible and be placed in such a position in the advertisement to allow the reader to associate the various benefits and risks of using the product without difficulty. If an advertisement is directed at treatment of a particular group of patients, for example, where a product is being promoted for use in children, the particulars should convey all the information in the SPC relevant to that group. This means greater detail than would be required in an advertisement for a more general patient population. Abbreviated advertisements (no larger than 420 cm^2) may only appear in professional publications as an integral part of the publication. They cannot be issued in the form of a loose insert. They must include an indication, warnings, product name (using the common name placed immediately adjacent to the most prominent display of the name), active ingredients, supply classification, name and address of the holder, an indication that further information is available on request to the licence holder or in the summary of product characteristics, or, if there is no summary of product characteristics, the data sheet, relating to the product. The Medicines (Advertising) Regulations 1994 also states that messages in advertising should not use the term "safe" or implies that a product is safe. Promotional claims which refer to the tolerability of a medicine should be factual and based on the available evidence from clinical trials and surveillance. Also suggestion that a particular product is safer than an alternative medicine should be supported by evidence. The regulations (advertising and monitoring of advertising) have been amended, without any change in the above-mentioned information.

The Medicines and Healthcare products Regulatory Agency (MHRA) has published a guide for advertising and promotion of medicines.

The control of medicines is based on a system of self-regulation. The MHRA supports this system, which is permitted under European legislation on advertising, by providing a means of enforcement should self-regulation fail. The MHRA has the power to require sight of advertisements in advance of publication. It also monitors medicines advertising and investigates complaints about advertising.

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f http://www.opsi.gov.uk/SI/si1994/Uksi_19941932_en_1.htm consulted on 30 May 2007

g http://www.opsi.gov.uk/SI/si1994/Uksi_19941933_en_1.htm consulted on 30 May 2007

REGULATORY FRAMEWORK OVERSEAS

Canada

Overseas, Health Canada is the national regulatory authority for health product advertisements that oversees regulated advertising activities. Health Canada is committed to ensuring that information in a health product advertisement is not false, misleading or deceptive. Health Canada may intervene when an advertisement poses a significant safety concern, in the event that resolution is not achieved through the independent agencies' complaints mechanism, or when an unauthorized health product is promoted.

Health product advertisements are reviewed and precleared by independent agencies dealing with nonprescription drugs directed to consumers, or with educational material and messages to consumers for prescription drugs, or to health products directed to health professionals.

This latter agency is the Pharmaceutical Advertising Advisory Board (PAAB) and is recognized by Health Canada for the review and preclearing of advertising material for health products directed to health professionals. It ensures that advertising of prescription drugs is accurate, balanced (benefits versus risk information) and evidence-based. Companies may ask the PAAB to review their advertisements on a voluntarily basis. The scope of its code of advertising acceptance includes advertising of prescription and OTC products to health professionals in all media. Claims must meet the code standards and this preclearing of advertising occurs prior to publication. If the advertisement meets the requirements of its code, the PAAB authorizes the use of the PAAB logo on the advertisement. The PAAB not only monitors advertisements, but also adjudicates complaints, reports infractions and administers penalties.

The United States

In the United States, the Federal Food, Drug and Cosmetic Act of 1938 established the Food and Drug Administration (FDA) to regulate food and drugs in the United States. The Act requires that manufacturers, packers, and distributors ("sponsors") who advertise prescription drugs, including biological products, disclose certain information about the advertised product's uses and risks. Advertisements must contain fair-balanced information in brief summary relating to side effects, contra-indications, and effectiveness. Though the Act does not specifically define what constitutes a prescription drug advertisement, the FDA generally interprets the term to include information (other than labeling) that is sponsored by the manufacturer and is intended to supplement or explain a product. This includes, for example, advertisements in published journals, magazines, other periodicals, and newspapers, and advertisements broadcast through media such as radio, television, and telephone communication systems. The act and regulations specify that drugs are deemed to be misbranded if their labeling or advertising is false or misleading in any particular way, or fails to reveal material facts.

The Association of Medical Publications (AMP), a non-profit organization composed of publishing firms in the medical field has also a code of ethics on advertising in publications.

APPENDIX TO CHAPTER 2 – LITERATURE SEARCH

SEARCH STRATEGY

Synonyms were searched for each search term. Combinations were then performed.

Search strategy in Medline

Search strategy 1: all terms (MeSH and mp) of four groups with AND

Group 1

Pamphlets/
OR pamphlet?
OR booklet?
OR brochure?
OR Periodicals/
OR periodical?
OR journal?
OR Documentation/
OR documentation?
OR Information Dissemination/
OR information dissemination
OR information distribution
OR Drug Information Services/
OR Communications Media/
OR (written adj information)
OR (written adj communication)
AND

Group 2

Drug Industry/
OR ((drug or pharmaceutic$) adj (industr$ or compan$))
AND

Group 3

Marketing/
OR marketing
OR Advertising/
OR advertis$
AND

Group 4

exp Physicians/

OR physician?

OR family physician?.mp. [mp=title, original title, abstract, name of substance word, subject heading word]

OR general practitioner?.mp. [mp=title, original title, abstract, name of substance word, subject heading word]

OR (general practice and physician?).mp. [mp=title, original title, abstract, name of substance word, subject heading word]

OR generalist?.mp. [mp=title, original title, abstract, name of substance word, subject heading word]

OR primary care physician?.mp. [mp=title, original title, abstract, name of substance word, subject heading word]

OR family doctor?.mp. [mp=title, original title, abstract, name of substance word, subject heading word]

OR family practitioner?.mp. [mp=title, original title, abstract, name of substance word, subject heading word]

OR ((primary healthcare or primary health care) adj (physician? or practitioner? or doctor?)).mp. [mp=title, original title, abstract, name of substance word, subject heading word]

Search strategy 2: [All about information (MeSH)] AND [Advertising (MeSH) OR Marketing (MeSH)] AND Drug industry (MeSH)

Pamphlets/

OR Periodicals/

OR Documentation/

OR Information Dissemination/

OR Drug Information Services/

OR Communications Media/

AND

Drug Industry/

AND

Marketing/

OR Advertising/

Search strategy 3: [Advertising (MeSH) OR Marketing (MeSH)] AND Drug industry (MeSH) AND Physicians (Explode MeSH)

Drug Industry/

AND

Marketing/

OR Advertising/

AND

exp Physicians/

Search strategy 4: [All about information (MeSH)] AND [Avertising (MeSH) OR Marketing (MeSH)] AND Pharmaceutical Preparations (MeSH)

Pamphlets/

OR Periodicals/

OR Documentation/

OR Information Dissemination/

OR Drug Information Services/

OR Communications Media/

AND

Marketing/

OR Advertising/

AND

Pharmaceutical Preparations/

Search strategy 5: [All about information (MeSH)] AND [Drug Industry (MeSH)] AND Pharmaceutical Preparations (MeSH)

Pamphlets/

OR Periodicals/

OR Documentation/

OR Information Dissemination/

OR Drug Information Services/

OR Communications Media/

AND

Drug Industry/

AND

Pharmaceutical Preparations/

Search strategy 6: [All about information (MeSH)] AND [physicians (explode MeSH) AND Pharmaceutical Preparations (MeSH)

Pamphlets/

OR Periodicals/

OR Documentation/

OR Information Dissemination/

OR Drug Information Services/

OR Communications Media/

AND

exp Physicians/

AND

Pharmaceutical Preparations/

Search strategy in Embase

Combination of all terms (EMTREE and mp) of four groups with AND

Group 1

[Medical literature]
OR Medical literature
OR Pamphlet*
OR booklet*
OR brochure*
OR [publication]
OR publication*
OR Periodical*
OR [medical documentation]
OR medical documentation
OR [Information Dissemination]
OR information dissemination
OR [Drug Information]
OR Drug Information
OR [mass medium]
OR mass medium
OR written information
OR written communication
AND

Group 2

[Drug Industry]
OR Drug Industry
OR drug compan*
OR pharmaceutical industry
OR pharmaceutical compan*
AND

Group 3

[Marketing]
OR marketing
OR [drug marketing]
OR drug marketing
OR [Advertizing]
OR Advertizing
OR advertis*

AND

Group 4

[Physician]
OR physician*
OR family physician*
OR [general practitioner]
OR general practitioner*
OR [general practice] and [physician]
OR general practice and physician*
OR generalist*
OR [primary medical care]
OR primary medical care
OR [primary health care]
OR primary health care
OR primary care physician*
OR [general practitioner]
OR general practitioner*
OR family doctor*
OR family practitioner*
OR primary healthcare physician
OR primary healthcare practitioner
OR primary healthcare doctor

DESCRIPTIVE TABLES OF ARTICLES FOUND

Table 1: Number of articles according to publication year (5-yr range)

Publication year of article	Number of articles
1990-1994	6
1995-1999	9
2000-2004	12
>2004	9

Table 2: Number of articles according to year of study (5-yr range)

Year of study	Number of articles
<1990	1
1990-1994	9
1995-1999	8
2000-2004	5,5[h]
>2004	0,5
Several periods	10
Not mentioned	2

Table 3: Number of articles according to duration of study

Duration of material collection	Number of articles
<1 year	7
1 year	14
>1 year	6
Not applicable (number of issues)	8
Not mentioned	1

Table 4: Number of articles according to setting

Setting	Number of articles
Physicians (type not mentioned)	14
Specialist(s) + GPs	7
Specialists alone	8
GPs alone	2
Patients	3
Physicians + patients	1
Physicians + pharmacists	1

[h] Not integer number because study across two 5-year ranges.

APPENDIX FOR CHAPTER 3 – EXPLORATORY INVENTORY

LETTER TO PARTICIPANTS

Valeur EBM des informations écrites provenant de l'industrie pharmaceutique : analyse de contenu dans le secteur de la médecine générale.

Instructions pour le recueil des documents

Suite à votre accord de participer à l'étude **« Valeur EBM des informations écrites provenant de l'industrie pharmaceutique : analyse de contenu dans le secteur de la médecine générale »** menée par la SSMG, Domus Medica et le Centre Fédéral d'Expertise des Soins de Santé (KCE), vous trouverez ci-dessous les directives de récolte des documents.

L'objectif est d'analyser la documentation que vous recevrez entre le 28 avril 2006 et le 26 mai 2006 inclus. Il s'agit de **toutes** les informations écrites en provenance de **l'industrie pharmaceutique** ayant trait aux médicaments : brochures, prospectus, dépliants, lettres d'information, presse médicale, tirés à part, publicités diverses, etc.

Pour collecter toute cette documentation, le KCE vous fournit quatre caisses :

- Deux grandes caisses pour rassembler toutes les publicités, la documentation relative aux médicaments et les journaux médicaux gratuits qui arrivent par la poste.
- Une caisse moyenne pour rassembler tous les documents distribués par les délégués médicaux lors de leur passage au cabinet médical. Merci de prendre tous les documents proposés par ces délégués même si habituellement vous ne le faites pas. Si vous participez à des études post-marketing, veuillez ajouter les documents qui s'y rapportent mais **pas** de versions imprimées de sites Web ou de CD-ROMs éventuels.
- Une petite caisse pour rassembler tous les documents reçus ou glanés aux séances de formations complémentaires telles que les GLEMs, les dodécagroupes, les séminaires, etc. Merci de prendre tous les documents présentés même si habituellement vous ne le faites pas.

Il est important pour cette étude de réaliser **un tri correct** de la documentation. Nous vous demandons de collecter entre le 28 avril 2006 et le 26 mai 2006 **toute** la documentation concernée pour la placer dans les boîtes correspondantes.

Le secrétariat de la SSMG vous appellera chaque semaine pour évaluer avec vous l'évolution de la récolte et répondre à vos questions éventuelles. Vous pouvez aussi téléphoner à Madame Thérèse Delobeau, au secrétariat de la SSMG au 02/533 09 87 pour toute demande de renseignement complémentaire.

En vous remerciant beaucoup pour votre collaboration !

Bien confraternellement.

Pour la SSMG,

Dr Sylviane Carbonnelle Dr Serge Boulanger Dr Michel Vanhalewyn

EBM-waarde van geschreven informatie afkomstig van farmaceutische industrie: inhoudsanalyse bij huisartsen.

Instructies voor de verzameling van de documenten

U gaf uw toestemming om deel te nemen aan de studie "**EBM-waarde van geschreven informatie afkomstig van farmaceutische industrie: inhoudsanalyse bij huisartsen**" die uitgevoerd wordt door Domus Medica, de Société Scientifique de Médecine Générale (SSMG) en het Federaal Kenniscentrum voor de Gezondheidszorg (KCE). Hieronder vindt u de richtlijnen voor de verzameling van de documenten.

De documentatie die u tussen 28 april 2006 tot en met 26 mei 2006 ontvangt, zal geanalyseerd worden. Het gaat om **alle** schriftelijke informatie m.b.t. geneesmiddelen afkomstig uit **de farmaceutische industrie**: brochures, folders, informatiebrieven, medische pers, apart gedrukte exemplaren van artikels uit tijdschriften, diverse advertenties, enz.

Om al deze documentatie te verzamelen zal het KCE u daartoe vier dozen afleveren:

- Twee grote dozen om alle reclame, documentatie over geneesmiddelen en gratis medische tijdschriften ontvangen per post, te verzamelen. *Persoonlijk betaalde abonnementen worden **uitgesloten** van de verzameling.*
- Een middelgrote doos om alle documenten te verzamelen die de medische vertegenwoordigers tijdens hun passage in de praktijk uitdelen. Gelieve alle documenten aangeboden door deze vertegenwoordigers aan te nemen, zelfs wanneer u dat gewoonlijk niet doet. Mocht u deelnemen aan post-marketing studies, gelieve dan de desbetreffende documenten toe te voegen, maar geen geprinte versies van eventuele websites of CD-ROMs.
- Een kleine doos om alle documenten gekregen of meegenomen op sessies van bijkomende vormingen zoals LOKs, seminaries, enz. te verzamelen. Gelieve alle aangeboden documenten mee te nemen, zelfs wanneer u dat gewoonlijk niet doet.

Voor deze studie is het belangrijk een goede sortering van de documentatie uit te voeren. We vragen u om alle documentatie ontvangen tussen 28 april 2006 en 26 mei 2006 te verzamelen en in de overeenkomstige dozen te steken.

Het secretariaat van Domus Medica zal u elke week opbellen om de evolutie van de verzameling met u te evalueren en uw eventuele vragen te beantwoorden. Voor bijkomende informatie kan u steeds terecht bij Dr. Dieleman op 03/281 16 16.

Hartelijk dank voor uw medewerking !

Met collegiale groeten.

Voor Domus Medica,

Dr. Annelies Van Linden Dr. Peter Dieleman

EXCLUDED DOCUMENTS

When sorting documents, the following were excluded:

- Advertisements not sent by pharmaceutical companies (e.g. posters on clothes or TVs …)
- Documents not sent by pharmaceutical companies (e.g. Folia, documents from the government, insurance companies, invitations to conferences by universities or non pharmaceutical companies …)
- Documents sent by pharmaceutical companies with an invitation to a conference, a meeting, a training… without mentioning any medication. Also reports of conferences without mentioning any medication.
- Documents sent by firms / shops to advertise on medical equipment, bandages, technical devices, support for managing a practice (e.g. secretary, information systems,…), food …
- Documents or advertisements meant for patients
- Advertisements on medication for animals
- Reprints of articles from scientific journals (mostly delivered by delegates), but without mentioning a specific medication
- Documents sent or sponsored by pharmaceutical companies on a specific topic with a clear logo of the pharmaceutical firm, but without mentioning the medication: Summer loving, je paspoort (Organon), Contraceptie (Organon), menopauze (Organon), Premium Pain Club Magazine (Grünenthal), VaxInfo (GSK)
- Advertisements received by electronic mail.
- The new edition of the Medex-Medasso compendium.
- File with several brochures on inflammatory bowel disease: description of the disease, food, folders for patients … Only one folder with explanation on medication was kept.
- Journals sent (bi-)weekly with a publication date earlier or later than the period the journals had to be collected
- Envelopes
- Drug order forms from wholesalers
- Advertisements about veterinary drugs or cosmetics (but advertisements on nutritional supplements were kept)
- Advertisements with name and logo of firma without any reference of a medication, e.g. sponsoring of a sporting event.
- Articles written from information from a company but articles from press releases were taken.

FIELDS TO FILL OR TO TICK FOR EACH DOCUMENT/ADVERTISEMENT

Fields to fill in or to tick for each document were:

- Number of the document (automatically given by order of filling in)
- Kind of document:
  - Letter
  - Folder including its size
  - Brochure including its size
  - Magazine including its name and date of publication
  - Journal including its name and date of publication
- Code of health professionals who received it
- Box code indicating the document was received by post, from a representative or at a meeting

Fields to fill in or to tick for each advertisement in a document were:

- SPC (containing the following drug information: name, content, galenical pharmacology, clinical data, pharmaceutical data, owner of the permit to market the drug, number of the permit to market the drug, date of text revision) included?
  - Yes
  - No
- Reference(s) included (concerning clinical statements)?
  - Yes, with at least one reference to a journal
  - Yes, but no reference to a journal (reference to a leaflet, consensus guide, symposium, poster at a congress, book, journal supplement)
  - No : no reference or reference to the website of the company or to the Belgian Monitor
- Pharmaceutical company name (can be more than one
- Message (explicitly mentioned –e.g. new drug with mention of low price: only low price as message an not new drug, possibly more than one; if no text, then look at the picture, if present –a picture can also give a message)
  - New medication (= putting on the market)
  - New indication
  - New presentation, new way of administration, new packaging (including new formula), new galenical pharmacology
  - Marketing withdrawal/putting again on the market or end of marketing
  - Information on indication (e.g. “first intention treatment of …”, “shift treatment after …”, “without pain” or medication group like atypical antipsychotics …), excluding new indication or vague indication like “homocysteine” or not real indication like “little energy ?”)

- Information on presentation (from picture if no text, or no information on presentation in the text), way of administration, new packaging, galenical pharmacology (but not new)
- Generic medication
- Information on price
- Information on reimbursement
- Drug name only (possibly with dose and/or leaflet and/or constituents). If a picture is present, this has to be mentioned separately.
- Information on dose/dosage
- Information on mechanisms (physiopathology) / effects (pharmacology including tolerance…) / medication group (if link with mechanism of action : IPP, AII receptor antagonist)
- Explicitly mentioning of ingredients
- Clinical efficacy: it works (explicitly mentioned or terms like "the reference", "quality", "no concession in …", "the first reaction", "optimal protection" but deduction not allowed e.g. "timeless" not considered as efficacy)
- Clinical efficacy: better than (comparison to another drug/treatment explicitly mentioned)
- Clinical efficacy: less or fewer side effects
- General information (other than the above mentioned)

- Size of advertisement (for folders, size of document as received by the health professionals i.e. folded; for A4 periodicals, A4 choice is not possible)
  - Double page
  - One page
  - A4
  - ≥ ½ page
  - < ½ page
  - < ½ page and present once (in this case: square in a corner or a banner headlines in the bottom), twice, thrice, four times, five times, more than five times
- Place of the advertisement
  - Front-, back or thick-glossy or page (in the latter case, if other pages not thick-glossy)
  - Other page (all other cases)
- Name of medication (The drug is either a drug from the Anatomical Therapeutic Chemical Classification System (ATC Classification System) either a non registered product.
- Presentation of the advertisement:
  - For letters:
    - Text only
    - Text with tables – with any type of content: price, dosage form…

- Text with pictures
- Text with tables and pictures

o For other documents:

- Only medication name
- Slogan (statement, supported or not)
- Text
- Picture: pill or box (photo of the real pill or box, graph, schematisation excluded)

physician

professor

emotion

table or graphic

pathophysiology

other

NUMBER OF DOCUMENTS

Not all participants received their documents once.

A participant received 13 documents (2,7%) twice.

Another two participants received two documents (0,4%) three times : a general practitioner who received three times the same invitation for a meeting about depression disorders, and a general practitioner who received three times a letter about an antibiotic.

A pharmacist received six times a document (0,2%) –a folder (which can be used as information for patients, explaining the amount of this document) about an antibacterial.

RELIABILITY OF GATHERING

Count of Artsenkrant/le Journal du médecin

	GPs (n=8)								Specialists (n=5)					Total (n=13)
28/04	**0**	**0**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**0**	**1**	**0**	**9**
05/05	**0**	**1**	**1**	**1**	**1**	**0**	**1**	**1**	**0**	**1**	**0**	**1**	**1**	**9**
09/05	**0**	**1**	**1**	**0**	**1**	**1**	**1**	**1**	**0**	**1**	**0**	**1**	**1**	**9**
12/05	**0**	**1**	**1**	**1**	**0**	**1**	**1**	**1**	**0**	**1**	**0**	**1**	**1**	**9**
16/05	**0**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**0**	**0**	**0**	**1**	**1**	**9**
19/05	**0**	**1**	**1**	**0**	**0**	**1**	**1**	**1**	**1**	**0**	**0**	**1**	**1**	**8**
23/05	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**1**	**5**
Total	0	5	7	5	4	5	6	7	2	4	0	7	6	
	Mdn= 5 **Q1= 4,75** **Q3 = 6,25**								**Mdn= 4** **Q1 = 2,00** **Q3 = 6,00**					

RANKING OF COMPANIES (N°11-END) ACCORDING TO NUMBER OF UNIQUE ADVERTISEMENTS

11	Janssen-Cilag	21	2,34
12	Merck	19	2,12
13	Sandoz	19	2,12
14	Roche	17	1,90
15	Madaus	16	1,79
16	Merck Generics	16	1,79
17	Astellas	14	1,56
18	Therabel	14	1,56
19	Altana	13	1,45
20	Bristol-Myers Squibb	13	1,45
21	Metapharma	13	1,45
22	Organon	13	1,45
23	Abbott	12	1,34
24	Sanofi-Aventis	12	1,34
25	Novo Nordisk	11	1,23
26	Pharma Nord	11	1,23
27	Wolfs	11	1,23
28	MSD	10	1,12
29	Wyeth	10	1,12
30	FuncioMed	9	1,00
31	Lundbeck	8	0,89
32	Norgine	7	0,78
33	Bio-Fyt	6	0,67
34	Ferring	6	0,67
35	Leo	6	0,67
36	Novartis CH	6	0,67
37	Sanofi Pasteur MSD	6	0,67
38	Teva	6	0,67
39	Biodiphar	5	0,56
40	Boiron	5	0,56
41	Grünenthal	5	0,56
42	Schering	5	0,56
43	Unda	5	0,56
44	Almirall Prodesfarma	4	0,45
45	Kela	4	0,45
46	Minami Nutrition	4	0,45
47	Qualiphar	4	0,45
48	Revogan	4	0,45
49	Sankyo	4	0,45
50	SMB	4	0,45
51	UCB	4	0,45
52	Will-Pharma	4	0,45
53	Besins	3	0,33
54	Calxx Laboratories	3	0,33
55	Danone	3	0,33
56	MSD / Schering-Plough	3	0,33
57	Pharco	3	0,33
58	Ratiopharm	3	0,33

59	Solvay	3	0,33
60	VitaFytea	3	0,33
61	VSM	3	0,33
62	Bexal	2	0,22
63	Bio Fyt Pharma	2	0,22
64	Docpharma	2	0,22
65	Forté Pharma	1	0,11
66	Fournier	2	0,22
67	Ipsen	2	0,22
68	Lilly	2	0,22
69	Meda	2	0,22
70	Melisana	2	0,22
71	NutriPhyt	2	0,22
72	Oclam	2	0,22
73	Schering-Plough	2	0,22
74	Trenker	2	0,22
75	Zambon	2	0,22
76	3DDD	1	0,11
77	Actelion	1	0,11
78	Addax	1	0,11
79	Baxter	1	0,11
80	Cantabria	1	0,11
81	Centrapharm	1	0,11
83	Cerftmedica International	1	0,11
84	Christiaens	1	0,11
85	Gaba	1	0,11
86	Galderma	1	0,11
87	HERBAXT	1	0,11
88	Hermal	1	0,11
89	ixX pharma	1	0,11
90	NeoCare	1	0,11
91	Nycomed	1	0,11
92	Ogilvy Healthcare	1	0,11
93	Omega	1	0,11
94	Phacobel	1	0,11
95	Proteiform	1	0,11
96	Salus Benelux	1	0,11
97	Superphar	1	0,11
98	Tilman	1	0,11
99	Tramedico	1	0,11
100	Valeant	1	0,11
101	Vesale	1	0,11

APPENDIX FOR CHAPTER 4 – CONTENT ANALYSIS

TABLES FOR CLAIMS, OUTCOME MEASURES AND REFERENCES

Table for 4.4.51: Number of claims

	Number of analyses	Non-clinical claims	Clinical claims	Total
A02B	6	11	0	**11**
B01A	4	11	2	**13**
C08C	3	7	1	**8**
C09A	2	3	1	**4**
C09B	3	3	2	**5**
C09C	6	7	9	**16**
C10A	8	19	9	**28**
M01A	4	7	4	**11**
N06A	4	15	12	**27**
Total	**40**	**83**	**39**	**123**

Table for 4.4.6.1: outcome measures in the claims

	Number of analyses	Outcome measures			
		Quantitative	Qualitative	Not present	Not applicable
A02B	6	0	0	0	6
B01A	4	0	2	1	1
C08C	3	0	0	1	2
C09A	2	0	0	1	1
C09B	3	0	0	2	1
C09C	6	1	2	1	3
C10A	8	4	4	1	3
M01A	4	0	1	1	2
N06A	4	0	1	3	0
Total	**40**	**5**	**10**	**11**	**19**

Table for 4.4.7.1: Number of references

	Number of analyses	Number of ads with references	Number of ads with … references				Number of references
			1	2	3	>3	
A02B	6	1	0	0	0	1	10
B01A	4	1	0	1	0	0	2
C08C	3	1	0	0	0	1	9
C09A	2	1	0	0	1	0	3
C09B	3	1	1	0	0	0	1
C09C	6	5	1	3	0	1	12
C10A	8	4	3	1	0	0	5
M01A	4	0	NA	NA	NA	NA	0
N06A	4	2	0	1	1	0	5
Total	**40**	**16**	**5**	**6**	**2**	**3**	**47**

Table for 4.4.7.2: Retrievability of references

	Number of analyses	Number of ads with references	Number of references	Retrievability			
				Medline		Non-Medline	Not
				Direct	Indirect		
A02B	6	1	10	9	0	0	1
B01A	4	1	2	2	0	0	0
C08C	3	1	9	9	0	0	0
C09A	2	1	3	0	3	0	0
C09B	3	1	1	1	0	0	0
C09C	6	5	12	11	0	1	0
C10A	8	4	5	5	0	0	0
M01A	4	NA	NA	NA	NA	NA	NA
N06A	4	2	5	2	0	1	2
Total	40	16	47	39	3	2	3

Table for 4.4.7.5: Financial source of the referenced article

	Number of analyses	Number of ads with references	Number of references	Financial source of study		
				Not stated	Other than pharma-ceutical company	Pharma-ceutical company
A02B	6	1	10	4	0	5
B01A	4	1	2	1	1	0
C08C	3	1	9	0	1	8
C09A	2	1	3	0	0	3
C09B	3	1	1	1	0	0
C09C	6	5	12	3	2	7
C10A	8	4	5	1	0	4
M01A	4	0	0	NA	NA	NA
N06A	4	2	5	0	0	3
Total	**40**	**16**	**47**	**10**	**4**	**30**

EXCEL SHEET FOR CLASSIFICATION

Steps	Variable 1	Variable 2	Var3	Code
1. DESCRIPTION	Number of ad			xxx xx
	Productname			Alfanumerical
	Generic name			Alfanumerical
	ATC			C09-YYxx
	Pharmac.Company			Alfanumerical
	Frequency			x (0-12)
	Presentation	Text		0 (No) - 1 (Yes)
		Freq of verbal claims on biomedical outcomes	1	0 (No) - 1 (Yes)
			2	0 (No) - 1 (Yes)
			>2	0 (No) - 1 (Yes)
		Tables/graphs		0 (No) - 1 (Yes)
	Remarks			Alfanumerical
2. ANALYSING TABLES	Sufficient info			NA - 0 (No) - 1 (Yes)
	Remarks			Alfanumerical
3. ANALYSING CLAIMS	Emotive			0 (No) - 1 (Yes)
	Vague			0 (No) - 1 (Yes)
	Pathoph			0 (No) - 1 (Yes)
	Surrog			0 (No) - 1 (Yes)
	Clinical	Efficacy		0 (No) - 1 (Yes)
		Risk		0 (No) - 1 (Yes)
	Remarks			Alfanumerical
4. OUTCOME in CLINICAL CLAIMS	Quantitative			0 (No) - 1 (Yes)
	Qualitative			0 (No) - 1 (Yes)
	Not present			0 (No) - 1 (Yes)
	Not applicable			0 (No) - 1 (Yes)
5. ANALYSING REFERENCES	N° of refs			x (0-10)
	Retrievability			0 (No) - 1 (Yes)
	Clinical trial			0 (No) - 1 (Yes)
	Quality of evidence			1 = high, 0=low, NA
	Funding independent			0 (No) - 1 (Yes)
	Remarks			Alfanumerical
6. LINKING REFS WITH CLINICAL CLAIMS	Correct			0 (No) - 1 (Yes)
	Inadequate			0 (No) - 1 (Yes)
	Incorrect			0 (No) - 1 (Yes)
7. CHECKING WITH EVIDENCE	Checking evidence			0 (NA) - 1 (done)
	Remarks			Alfanumerical
8. FINAL CLASSIFICATION OF THE AD	1. Well supported	1A. By evidence		x (0-6)
		1B. By instructions leaflet		x (0-6)
	2. Partially supported	a. Emotive		x (0-6)
		b. Vague		x (0-6)
		c. Pathophysiological		x (0-6)
		d. Surrogate		x (0-6)
	3. Not supported or ambiguous	e. Controversial		x (0-6)
		f. Extrapolated		x (0-6)
		g. Misleading use EBM-terms		x (0-6)
		h. Inadequate references		x (0-6)
	4. Evidence against			x (0-6)

APPENDIX FOR CHAPTER 5 – QUALITATIVE APPROACH

CHECKLIST FOR GPS AND EXPERTS (FR+NL)

Temps (+ formulation des questions *)	**Questions**	**Aide aux questions**
15 min.	**Quart d'heure académique**	
10 min.	**Introduction aux focus groupes** - bienvenue + remerciement pour la présence - présentation + fonction des modérateur / rapporteur / observateur - but de l'étude - attentes vis-à-vis des participants * ne pas parler en même temps * le modérateur pose les questions, mais la discussion se fait à l'intérieur du groupe et non avec le modérateur * il n'y a pas de bonnes ou mauvaises réponses: la vision de chacun est importante - confidentialité (entre autres matériel d'enregistrement, notes) - résultats des focus groupes: voir site du KCE début juillet - répondre à une liste de questions courtes - pas de recherche de consensus ni de conclusion	**Objectifs de l'étude** - Sujet: information écrite reçue des firmes pharmaceutiques - Recherche exploratoire déjà réalisée - Focus sur le contenu, moins sur la forme - Information écrite seulement (pas les représentants!) - Information de l'industrie pharmaceutique - Voir ce qui manque dans l'offre actuelle de l'information écrite - Pas de position pour ou contre l'industrie pharmaceutique
5-10 min.	**Question d'ouverture** Pourriez-vous vous présenter en donnant votre nom et en précisant où vous travaillez ?	

***Formulation des questions**

1. Les généralistes ont-ils besoin d'informations écrites de l'industrie pharmaceutique pour poser un choix thérapeutique adéquat ?
2. Les généralistes ont-ils besoin d'autres informations que l'information EBM ?
3. Comment cette information peut-elle être le mieux présentée et amenée du point de vue du contenu ?

20 min	**Question introductive**	
1-2	Quelles informations écrites connaissez-vous ? Quelles informations écrites lisez-vous ? Lesquelles ne lisez-vous pas ? Pourquoi ?	* Qu'est-ce qui rend une annonce publicitaire robuste ?
1-2	Quelle est l'utilité des informations écrites pour vous et pour votre pratique ?	* Quelle est la place de l'information à l'intérieur de l'annonce publicitaire ? * Proportion éducation / marketing?
1-2	A votre avis, quelles différences pourraient être faites parmi ces informations écrites ? • lettres • brochures / folders • magazines • journaux	* Qu'est-ce qui rend une annonce publicitaire utile ? * Proportion information indépendante ? [remarque: Il vaut mieux ne pas employer "info indépendante". Cela fait trop référence à Folia et Farmaka. Alternative: Connaissez-vous des informations fiables qui ne proviennent pas de l'industrie pharmaceutique ? Ou: information non commerciale]
1	Passons maintenant aux « annonces publicitaires » en tant que telles. Quelles décisions thérapeutiques pourraient devenir difficiles ou impossibles pour vous sans ces annonces publicitaires ?	
45-55 min.	**Questions centrales**	
3	**Analyse de la présentation de l'information** Quels éléments identifiez-vous dans les annonces publicitaires ? Que pensez-vous du contenu des : - Slogan - Tableaux et graphiques "scientifiques" - Texte d'accompagnement - (notice: nous y venons immédiatement)	
1	**Exactitude de l'information** Quels éléments considérez-vous pour vérifier la crédibilité d'une annonce publicitaire ?	* Quelle est la « définition » d'une information correcte? Quelle information doit être (au minimum) restituée pour évaluer l'exactitude ? * Vous posez-vous des questions sur les annonces publicitaires ? * Allez-vous voir les chiffres ?
1	Dans quelle mesure les annonces publicitaires que vous recevez remplissent-elles ces conditions ?	* Acceptez-vous tout ce qu'il y a ? * Quelles sources utilisez-vous pour cela ?
1	**Utilité de la notice dans les annonces publicitaires**	

	Quel est l'intérêt d'une notice dans une annonce publicitaire?	[Recherche exploratoire: la moitié des annonces publicitaires environ contient une notice] * Lisez-vous la notice ? Si oui, quels éléments ? * La présentation de la notice (petits caractères) constitue-t-elle pour vous un obstacle à la lecture ? * Nécessité d'une notice ?
1	**Utilité des références dans les annonces publicitaires** S'il y a des références dans une annonce publicitaire, quel est pour vous leur intérêt ?	[Recherche exploratoire: une ou plusieurs références sont mentionnées dans environ 17 % des annonces publicitaires] * Avez-vous déjà recherché des références ? Si oui, les avez-vous trouvées ? Qu'en avez-vous fait ? * Nécessité des références?
3		
1-2	**Que manque-t-il aux informations ?** En ce qui concerne les annonces publicitaires, que manque-t-il aux … - Slogans - Tableaux et graphiques - Texte d'accompagnement	
	Quels sont les éléments nécessaires pour pouvoir choisir le meilleur médicament ? Information sur …. - Prix, remboursement - Emballage, voie d'administration - Indications - Posologie	
1	- Effets secondaires, contre-indications, interactions	* Y a-t-il une gradation dans l'importance ? → Qu'est-ce qui est le plus important ? → Quel est le minimum ? * Qu'est-ce qui ne doit PAS être mentionné dans une annonce publicitaire ?
1-2-3	- Information complémentaire comme NNT, RR, sensibilité et spécificité…? Chiffres des études d'origine?	
	- Chiffres: dans tableaux, graphiques ? Chiffres de comparaison ?	
3	- Références - Notice	
	Quel serait l'intérêt pour vous de comparer différents médicaments entre eux? Qu'aimeriez-vous voir comme élément pour pouvoir comparer des produits ?	
	Suggestions d'amélioration Vous venez de parler de ce qui manque peut-être dans les annonces publicitaires actuelles. Si vous pouviez apporter des améliorations, faudrait-il les appliquer à toutes les annonces publicitaires ? Ou est-il utile de faire une distinction spécifique?	* Prix coûtant * Dose * Emballage * …
	Canaux d'information D'après vous, comment un message écrit peut-il être	Type de canaux d'information: * Oralement

I	renforcé / soutenu (qu'il provienne de l'industrie pharmaceutique ou pas) ? **Sources d'information** Quelles informations écrites ne provenant pas de l'industrie pharmaceutique vous aideraient pour un choix thérapeutique adéquat ?	▪ Tête-à-tête, commercial (représentant) ▪ Tête-à-tête, collégial ▪ Groupe, commercial (formation par une firme) ▪ Groupe, collégial (p.ex. GLEM) * Publications * Internet ▪ Sites web ▪ Newsletters électroniques (non personnalisé) ▪ E-mail (personnalisé) * Qu'est-ce qu'une information indépendante pour vous ? * Exemples d'information indépendante

15-20 min.	**Questions de clôture** [demander au rapporteur s'il y a encore quelque chose qui n'est pas clair] [Choix d'une question ou les deux si temps suffisant:] 1) Pour terminer cet entretien de groupe, pouvez-vous résumer en une minute ce que vous avez retenu ce soir comme point le plus important? Ce que nous devons certainement retenir dans notre étude ? 2) [Le modérateur résume l'objectif de l'étude et demande alors:] - Avons-nous encore oublié quelque chose d'important pendant cet entretien? Ou y a-t-il encore quelque chose d'important que vous voudriez dire, mais qui n'a pas encore pu être formulé ?	
1 min.	**Clôture et remerciement des participants**	

Remarque générale: s'il y a trop de généralistes qui ne lisent pas d'annonces publicitaires et donc disent à chaque fois qu'ils ne peuvent pas répondre aux questions, la formulation des questions peut alors être élargie aux "informations écrites en général".

Résultats de la recherche exploratoire

Organisation : En mai de l'année passée, huit généralistes (et cinq spécialistes et 4 pharmaciens) ont tout rassemblé trout ce qui arrivait comme matériel de l'industrie pharmaceutique. Nous avons aussi bien examiné les documents (nombre et type) que les annonces publicitaires dans ces documents. Nous avons aussi analysé quels médicaments venaient le plus souvent en tête au mois de mai 2006.

Résultats:

- Les généralistes recevaient en moyenne une quarantaine de documents.
- Les généralistes étaient en moyene "exposés" à 460 annonces publicitaires par mois.
- 85% des annonces publicitaires traite d'un seul médicament, 10 % de 2 médicaments dans une annonce publicitaire.
- Médicaments pour lesquels le plus de publicité a paru:
  - Système cardiovasculaire: 27 % de toutes les annonces publicitaires
  - Système nerveux: 14 %
  - CAM (complementary and alternative medication = médicament sans classification ATC = pas enregistré): 15 %
  - Système digestif et métabolisme: 11 %
- Une référence est mentionnée dans 17 % des annonces publicitaires.
- Il y a une notice dans environ la moitié des annonces publicitaires.

Temps (+ formulation des questions*)	**Questions**	**Aide aux questions**
15 min.	**Quart d'heure académique**	

10 min.	**Introduction aux focus groupes**
	- bienvenue + remerciement pour la présence
	- présentation + fonction des modérateur / rapporteur / observateur
	- but de l'étude + mentionner 1er focus avec MG déjà réalisé
	- attentes vis-à-vis des participants
	  * ne pas parler en même temps
	  * le modérateur pose les questions, mais la discussion se fait à l'intérieur du groupe et non avec le modérateur
	  * il n'y a pas de bonnes ou mauvaises réponses: la vision de chacun est importante
	- confidentialité (entre autres matériel d'enregistrement, notes)
	- résultats des focus groupes: voir site du KCE début juillet
	- répondre à une liste de questions courtes
	- pas de recherche de consensus ni de conclusion
		Objectifs de l'étude
		- Sujet: information écrite reçue des firmes pharmaceutiques
		- Recherche exploratoire déjà réalisée
		- Focus sur le contenu, moins sur la forme
		- Information écrite seulement (pas les représentants!)
		- Information de l'industrie pharmaceutique
		- Voir ce qui manque dans l'offre actuelle de l'information écrite
		- Pas de position pour ou contre l'industrie pharmaceutique

5-10 min.	**Question d'ouverture** Pourriez-vous vous présenter en donnant votre nom et en précisant où vous travaillez ?	

***Formulation des questions**

1. Les généralistes ont-ils besoin d'informations écrites de l'industrie pharmaceutique pour poser un choix thérapeutique adéquat ?
2. Les généralistes ont-ils besoin d'autres informations que l'information EBM ?
3. Comment cette information peut-elle être le mieux présentée et amenée du point de vue du contenu ?

!!! Pour les experts : plutôt partir du point de vue « Les médecins généralistes disent que… Quelle est votre opinion sur… »

!!! Ne pas regarder seulement les annonces publicitaires, mais aussi l'information de manière plus générale.

20 min 1-2 1-2 1-2 2 1	**<u>Question introductive</u>** Quelles informations écrites provenant de l'industrie pharmaceutique lisez-vous ? Lesquelles ne lisez-vous pas ? Pourquoi ? Quelle est l'utilité des informations écrites provenant de l'industrie pharmaceutique pour les médecins généralistes ? A votre avis, quelles différences pourraient être faites parmi ces informations écrites ? • lettres • brochures / folders • magazines • journaux Où les médecins généralistes peuvent-ils trouver de l'information pour la prise de décisions thérapeutiques ? Passons maintenant aux « annonces publicitaires » en tant que telles. Quelles décisions thérapeutiques pourraient devenir difficiles ou impossibles pour les médecins généralistes sans ces annonces publicitaires ?	* Qu'est-ce qui rend une annonce publicitaire robuste ? * Quelle est la place de l'information à l'intérieur de l'annonce publicitaire ? * Proportion éducation / marketing? * Qu'est-ce qui rend une annonce publicitaire utile ? * Proportion information indépendante ? [remarque: Il vaut mieux ne pas employer "info indépendante". Cela fait trop référence à Folia et Farmaka. <u>Alternative: Connaissez-vous des informations fiables qui ne proviennent pas de l'industrie pharmaceutique</u> ? Ou: information non commerciale]
45-55 min. 3	**<u>Questions centrales</u>** **Analyse de la présentation de l'information** Quels éléments identifiez-vous dans les annonces publicitaires ? Que pensez-vous du contenu des : - Slogans - Tableaux et graphiques "scientifiques" - Texte d'accompagnement - (notice: nous y venons immédiatement) **Exactitude de l'information**	

1	Quels éléments considérez-vous pour vérifier la crédibilité d'une annonce publicitaire ?	* Quelle est la « définition » d'une information correcte? Quelle information doit être (au minimum) restituée pour évaluer l'exactitude ? * Vous posez-vous des questions sur les annonces publicitaires ? * Allez-vous voir les chiffres ? * Acceptez-vous tout ce qu'il y a ? * Quelles sources utilisez-vous pour cela ?
1	Dans quelle mesure les annonces publicitaires que vous recevez remplissent-elles ces conditions ?	
1	**Utilité de la notice dans les annonces publicitaires** Quel est l'intérêt d'une notice dans une annonce publicitaire?	[Recherche exploratoire: la moitié des annonces publicitaires environ contient une notice] * Lisez-vous la notice ? Si oui, quels éléments ? * La présentation de la notice (petits caractères) constitue-t-elle pour vous un obstacle à la lecture ? * Nécessité d'une notice ?
1	**Utilité des références dans les annonces publicitaires** S'il y a des références dans une annonce publicitaire, quel est pour vous leur intérêt ?	[Recherche exploratoire: une ou plusieurs références sont mentionnées dans environ 17 % des annonces publicitaires] * Avez-vous déjà recherché des références ? Si oui, les avez-vous trouvées ? Qu'en avez-vous fait ? * Nécessité des références?
3	**Que manque-t-il aux informations ?** En ce qui concerne les annonces publicitaires, que manque-t-il aux … - Slogans - Tableaux et graphiques - Texte d'accompagnement	
1-2	Quels sont les éléments nécessaires pour pouvoir choisir le meilleur médicament ? Information sur …. - Prix, remboursement	* Y a-t-il une gradation dans l'importance ? → Qu'est-ce qui est le plus important ?

	- Emballage, voie d'administration - Indications - Posologie - Effets secondaires, contre-indications, interactions - Information complémentaire comme NNT, RR, sensibilité et spécificité…? Chiffres des études d'origine? - Chiffres: dans tableaux, graphiques ? Chiffres de comparaison ? - Références - Notice	→ Quel est le minimum ? * Qu'est-ce qui ne doit PAS être mentionné dans une annonce publicitaire ?
1	Quel serait l'intérêt pour vous de comparer différents médicaments entre eux ? Qu'aimeriez-vous voir comme éléments pour pouvoir comparer des produits ?	
	Suggestions d'amélioration de l'information écrite provenant de l'industrie pharmaceutique	* Prix coûtant, dose, emballage…
1-2-3	Vous venez de parler de ce qui manque peut-être dans les annonces publicitaires actuelles. Si vous pouviez apporter des améliorations, faudrait-il les appliquer à toutes les annonces publicitaires ? Ou est-il utile de faire une distinction spécifique?	* Expérience du médecin (débutant ou non) * Type de pratique (solo, duo, groupe)
3	Quelle serait selon vous l'utilité de personnaliser l'information selon l'expérience du médecin ou le type de pratique du médecin ?	Type de canaux d'information: * Oralement ▪ Tête-à-tête, commercial (représentant) ▪ Tête-à-tête, collégial ▪ Groupe, commercial (formation par une firme) ▪ Groupe, collégial (p.ex. GLEM) * Publications * Internet ▪ Sites web ▪ Newsletters électroniques (non personnalisé) ▪ E-mail (personnalisé)
3	**Canaux d'information** D'après vous, comment un message écrit peut-il être renforcé / soutenu (qu'il provienne de l'industrie pharmaceutique ou pas) ?	

		* Qu'est-ce qu'une information indépendante pour vous ? * Exemples d'information indépendante * Importance de l'enseignement * Quels exemples connaissez-vous qui sont efficaces?
	Sources d'information	
1	Quelles informations écrites ne provenant pas de l'industrie pharmaceutique aideraient les médecins généralistes pour un choix thérapeutique adéquat ?	
2-3	De renseignements précédents il semble que les médecins généralistes ont besoin d'informations pratiques et d'informations concernant les prix sous la forme de Qu'en pensez-vous ?	
	Que sont de bonnes sources d'information pour vous ?	
2	Quelles sources d'information sont trop peu employées par les médecins généralistes ? Quelles sources d'information sont trop employées par les médecins généralistes ? Quelle en est la raison ?	
	Suggestions d'amélioration de l'information écrite sur les médicaments	
2-3	Pouvez-vous apporter des suggestions de l'étranger pour fournir de l'information aux médecins afin qu'ils puissent prendre des décisions thérapeutiques correctes ?	
2-3	Quelles suggestions avez-vous pour les autorités pour améliorer l'information aux médecins généralistes ?	

15-20 min.	**Questions de clôture** [demander au rapporteur s'il y a encore quelque chose qui n'est pas clair] [Choix d'une question ou les deux si temps suffisant:] 3) Pour terminer cet entretien de groupe, pouvez-vous résumer en une minute ce que vous avez retenu ce soir comme point le plus important? Ce que nous devons certainement retenir dans notre étude ? 4) [Le modérateur résume l'objectif de l'étude et demande alors:] - Avons-nous encore oublié quelque chose d'important pendant cet entretien? Ou y a-t-il encore quelque chose d'important que vous voudriez dire, mais qui n'a pas encore pu être formulé ?	
1 min.	**Clôture et remerciement des participants**	

Résultats de la recherche exploratoire

Organisation : En mai de l'année passée, huit généralistes (et cinq spécialistes et 4 pharmaciens) ont tout rassemblé trout ce qui arrivait comme matériel de l'industrie pharmaceutique. Nous avons aussi bien examiné les documents (nombre et type) que les annonces publicitaires dans ces documents. Nous avons aussi analysé quels médicaments venaient le plus souvent en tête au mois de mai 2006.

Résultats:

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- Il y a une notice dans environ la moitié des annonces publicitaires.

Tijd (+ vraagstelling*)	**Vragen**	**Hulp bij vragen**
15 min.	**Wachten op iedereen** (academisch kwartiertje)	
10 min.	**Inleiding op de focusgroep** - welkom + dank voor aanwezigheid - voorstelling + functie moderator / rapporteur / observator - doel van de studie + melding 1ste focus groep met huisartsen al uitgevoerd is - verwachtingen naar deelnemers * niet door elkaar spreken * moderator stelt vragen, maar er wordt gediscuteerd in de groep en niet met de moderator. * er bestaan geen goede of foute antwoorden: ieders visie is belangrijk - vertrouwelijkheid (oa opname-materiaal, nota's) - resultaten uit focusgroepen: zie site KCE vanaf juli 2007 (?) - invullen korte vragenlijst - geen nabespreking (consensus is niet doel)	**Doel van de studie** - Onderwerp: geschreven informatie, ontvangen van farmaceutische firma's. - Reeds exploratief onderzoek gedaan. - Focus op inhoud, minder op vorm. - Enkel geschreven informatie (niet de focus op vertegenwoordigers! <-> uitnodigingsbrief) - Informatie vanuit farmaceutische industrie - Achterhalen welke tekorten bestaan in huidige aanbod van geschreven informatie. - Geen standpunt voor of tegen farmaceutische industrie.
5-10 min.	**Openingsvraag** Kan iedereen zichzelf voorstellen? Zeg uw naam en vertel waar u werkt en of u voltijds huisarts bent of niet.	

***Vraagstelling**

1. Hebben huisartsen geschreven EBM-informatie vanuit de farmaceutische industrie nodig om een adequate therapeutische keuze te maken?
2. Hebben huisartsen andere informatie dan EBM-informatie nodig?
3. Hoe kan deze informatie inhoudelijk best gepresenteerd en aangebracht worden?

20 min	**<u>Inleidende vragen</u>**	
1-2	Welke geschreven informatie die van de farmaceutische industrie komt of waarin informatie vanuit de farmaceutische industrie staat, leest u? Welke niet? Waarom?	
1-2	Wat is het nut van geschreven informatie voor u en uw praktijk?	* Wat maakt een advertentie sterk? * Wat is aandeel van informatie binnen advertentie? * Verhouding educatie / marketing? * Wat maakt een advertentie nuttig?
1-2	Welke verschillende vormen bestaan merkt u op binnen deze geschreven informatie? Bijvoorbeeld: - Brieven - Folders / brochures - Magazines / tijdschriften - Kranten	
1-2	Waar kan u informatie vinden voor het nemen van therapeutische beslissingen?	* Aandeel onafhankelijke informatie? [opmerking: beter niet "onafhankelijke info" gebruiken. Dit verwijst te veel naar: Folia en Farmaka. <u>Alternatief: kent u nog betrouwbare info die niet van de industrie komt</u>? Of: non-commerciële informatie]
	Vanaf nu spreken we niet meer over geschreven informatie in het algemeen, maar expliciet over advertenties.	
1	Welke therapeutische beslissingen zouden voor u moeilijk of onmogelijk worden zonder het gebruik van advertenties?	

45-55 min.	**<u>Kernvragen</u>** **Analyse van de presentatie van de informatie** Welke verschillende onderdelen ziet u binnen advertenties?	
3	Wat denkt u van de inhoud van: - Slogan - "Wetenschappelijke" figuren en grafieken - Bijkomende tekst - (bijsluiter: komen we zo dadelijk op terug)	
	Juistheid van informatie	
1	Wat zijn de elementen die u nagaat om de geloofwaardigheid / juistheid van een advertentie te checken?	* Wat is de "definitie" van correcte informatie? Welke informatie moet (minimaal) weergegeven worden om in te schatten of dit correct is? * Stelt u zich vragen bij advertenties? * Ga je getallen nagaan? * Accepteer je alles wat er staat? * Welke bronnen gebruikt u hiervoor?
	In welke mate voldoen de advertenties die u ontvangt aan deze voorwaarden?	
	Nut van bijsluiter in advertentie	
1	Wat is het belang van een bijsluiter in een advertentie?	[Exploratief onderzoek: in ongeveer de helft van de advertenties is de bijsluiter opgenomen.]
1		* Leest u de bijsluiter? Zo ja, welk onderdeel? * Verhindert de presentatie van de bijsluiter (kleine druk) u tot lezen? * Noodzaak van bijsluiter?
	Nut van referenties in advertentie	
	Welk belang hebben referenties – als die er al zijn - binnen een advertentie?	[Exploratief onderzoek: in ongeveer 17% van de advertenties worden één of meerdere referenties vermeld.]
1		* Hebt u ooit referenties gezocht? Zo ja, dan ook gevonden? * Noodzaak van referenties?
	Wat ontbreekt er binnen de informatie?	
	Wat ontbreekt er binnen de advertenties? Wat ontbreekt bij … - Slogan - Tabellen en grafieken	

	- Bijkomende tekst Welke elementen zijn noodzakelijk om de beste medicatie te kunnen kiezen?	
3	Informatie over …. - Prijzen, terugbetaling - Verpakking, toedieningsvorm - Indicaties - Posologie - Neveneffecten, contra-indicaties, interacties	* Is er hier een gradatie in belangrijkheid? → Wat is belangrijkste? → Wat is minimum? * Wat moet NIET vermeld staan in advertentie?
1-2	- Bijkomende informatie, zoals NNT, RR, sensitiviteit en specificiteit,…? Cijfers oorspronkelijke studies? - Cijfers: in tabellen, grafieken? Vergelijkend? - Referenties - Bijsluiter	
	Wat zou het nut zijn van vergelijkende componenten tussen verschillende medicaties op te nemen? Welke elementen wilt u opgenomen zien om producten te kunnen vergelijken?	
	Suggesties ter verbetering	
	U hebt zojuist besproken wat er mogelijk ontbreekt binnen de huidige advertenties. Als u verbeteringen zou aanbrengen, moet dit dan toegepast worden op alle advertenties? Of dient hier een bepaald onderscheid gemaakt te worden?	* Kostprijs * Dosis * Verpakking * …
	Informatiekanalen	
1	Hoe kan een geschreven boodschap (al dan niet vanuit farmaceutische industrie) versterkt / ondersteund worden?	Type informatiekanalen: * Mondeling ▪ 1 op 1, commercieel (vertegenwoordiger) ▪ 1 op 1, collegiaal ▪ Groep, commercieel (opleiding van firma) ▪ Groep, collegiaal (vb. LOK) * Publicaties * Internet ▪ Websites ▪ Elektronische niewsbrieven (niet persoonlijk) ▪ E-mail (persoonlijk) * Wat is onafhankelijke informatie voor u? * Voorbeelden van onafhankelijke informatie
1-2-3		
	Informatiebronnen	
3	Welke schriftelijke informatie die niet vanuit de farmaceutische industrie komt, zou u (bijkomend) helpen in het maken van een juiste therapeutische keuze?	
1		

15-20 min.	**Eindvragen** [Vragen aan rapporteur of er nog iets onduidelijk is] [Keuze tussen / of beide indien voldoende tijd:] 5) Als besluit van dit groepsgesprek: kan je in 1 minuut samenvatten wat jij onthouden hebt als belangrijkste onderwerp deze avond? Wat wij zeker moeten opnemen in onze studie? 6) [De moderator vat doel van studies samen en vraagt dan:] - Hebben we nog iets belangrijks gemist tijdens deze bespreking? Of is er nog iets dat je wou zeggen, maar dat nog niet aan bod is kunnen komen?	
1 min.	**Afsluiten en deelnemers bedanken**	

Algemene opmerking: indien er teveel huisartsen geen advertenties lezen en dus telkens zeggen dat ze op de vragen niet kunnen antwoorden, dan kan de vraagstelling breder getrokken worden naar "geschreven informatie in het algemeen"

Resultaten exploratief onderzoek

Opzet : In mei van dit jaar hebben 8 huisartsen (en 5 specialisten en 4 apothekers) alles verzameld wat er binnenkwam van geschreven materiaal vanuit de farmaceutische industrie. Wij hebben zowel gekeken naar de documenten (aantal en soort), als naar de advertenties binnen deze documenten. We analyseerden ook welke medicatie het meest aan bod kwam in de maand mei 2006.

Resultaten:

- Huisartsen ontvingen gemiddeld een 40-tal documenten.
- Huisartsen werden gemiddeld "blootgesteld" aan een 460-tal advertenties per maand.
- 85% van de advertenties behandelt één geneesmiddel. 10% 2 geneesmiddelen in 1 advertentie.
- Medicatie waarvoor meeste publiciteit is verschenen:
    - Cardiovasculair systeem: 27% van alle advertenties
    - Zenuwstelsel: 14%
    - CAM (complementary and alternative medication = medication without ATC-classification = not registrated): 15%
    - Spijsverteringsstelsel en metabolisme: 12%
- In 17% van de advertenties wordt een referentie vermeld.
- In ongeveer de helft van de advertenties is een bijsluiter opgenomen.

Tijd (+ vraagstelling*)	Vragen	Hulp bij vragen
15 min.	**Wachten op iedereen** (academisch kwartiertje)	
10 min.	**Inleiding op de focusgroep** - welkom + dank voor aanwezigheid - voorstelling + functie moderator / rapporteur / observator - doel van de studie - verwachtingen naar deelnemers * niet door elkaar spreken * moderator stelt vragen, maar er wordt gediscuteerd in de groep en niet met de moderator. * er bestaan geen goede of foute antwoorden: ieders visie is belangrijk - vertrouwelijkheid (oa opname-materiaal, nota's) - resultaten uit focusgroepen: zie site KCE vanaf juli 2007 (?) - invullen korte vragenlijst - geen nabespreking (consensus is niet doel)	**Doel van de studie** - Onderwerp: geschreven informatie, ontvangen van farmaceutische firma's. - Reeds exploratief onderzoek gedaan. - Focus op inhoud, minder op vorm. - Enkel geschreven informatie (niet de focus op vertegenwoordigers! <-> uitnodigingsbrief) - Informatie vanuit farmaceutische industrie - Achterhalen welke tekorten bestaan in huidige aanbod van geschreven informatie. - Geen standpunt voor of tegen farmaceutische industrie.
5-10 min.	**Openingsvraag** Kan iedereen zichzelf voorstellen? Zeg uw naam en vertel waar u werkt en of u zelf praktiserend huisarts bent .	

***Vraagstelling**

1. Hebben huisartsen geschreven EBM-informatie vanuit de farmaceutische industrie nodig om een adequate therapeutische keuze te maken?
2. Hebben huisartsen andere informatie dan EBM-informatie nodig?
3. Hoe kan deze informatie inhoudelijk best gepresenteerd en aangebracht worden?

!!! Voor ervaringsdeskundigen: Vanuit vragen zelf vertrekken. Nadien vanuit standpunt "Huisartsen zeggen dat…. Wat is uw mening over…."

!!! Niet enkel naar advertenties kijken, ook naar informatie algemener.

20 min	**<u>Inleidende vragen</u>**	
1-2	Welke geschreven informatie die van de farmaceutische industrie komt of waarin informatie vanuit de farmaceutische industrie staat, leest u? Welke niet? Waarom?	
1-2	Wat is het nut van geschreven informatie voor huisartsen?	* Wat maakt een advertentie sterk? * Wat is aandeel van informatie binnen advertentie? * Verhouding educatie / marketing? * Wat maakt een advertentie nuttig?
1	Welke verschillende vormen bestaan merkt u op binnen deze geschreven informatie? Bijvoorbeeld: - Brieven - Folders / brochures - Magazines / tijdschriften - Kranten	
2	Waar kunnen artsen informatie vinden voor het nemen van therapeutische beslissingen?	* Aandeel onafhankelijke informatie? [opmerking: beter niet "onafhanke-lijke info" gebruiken. Dit verwijst te veel naar: Folia en Farmaka. <u>Alternatief: kent u nog betrouwbare info die niet van de industrie komt</u>? Of: non-commerciële informatie]
1	Vanaf nu spreken we niet meer over geschreven informatie in het algemeen, maar expliciet over advertenties.	
	Welke therapeutische beslissingen zouden voor huisartsen moeilijk of onmogelijk worden zonder het gebruik van advertenties?	

45-55 min.	**<u>Kernvragen</u>**	
3	**Analyse van de presentatie van de informatie** Welke verschillende onderdelen ziet u binnen advertenties? Wat denkt u van de inhoud van: - Slogan - "Wetenschappelijke" figuren en grafieken - Bijkomende tekst - (bijsluiter: komen we zo dadelijk op terug)	
1	**Juistheid van informatie** Wat zijn de elementen die u nagaat om de geloofwaardigheid / juistheid van een advertentie te checken?	* Wat is de "definitie" van correcte informatie? Welke informatie moet (minimaal) weergegeven worden om in te schatten of dit correct is? * Ga je hierbij nadenken? * Ga je getallen nagaan? * Accepteer je alles wat er staat? * Welke bronnen gebruikt u hiervoor?
1	In welke mate voldoen advertenties ontvangen door huisartsen aan deze voorwaarden?	
1	**Nut van bijsluiter in advertentie** Wat is het belang van een bijsluiter in een advertentie?	[Exploratief onderzoek: in ongeveer de helft van de advertenties is de bijsluiter opgenomen.] * Leest u de bijsluiter? Zo ja, welk onderdeel? * Verhindert de presentatie van de bijsluiter (kleine druk) u tot lezen? * Noodzaak van bijsluiter?
1	**Nut van referenties in advertentie** Welk belang hebben referenties – als die er al zijn - binnen een advertentie?	[Exploratief onderzoek: in ongeveer 17% van de advertenties worden één of meerdere referenties vermeld.] * Hebt u ooit referenties gezocht? Zo ja, dan ook gevonden? * Noodzaak van referenties?

3	**Wat ontbreekt er binnen de informatie?** Wat ontbreekt er binnen de advertenties? Wat ontbreekt bij … - Slogan - Figuren en tabellen - Bijkomende tekst	
1-2	Welke elementen zijn noodzakelijk om de beste medicatie te kunnen kiezen? Informatie over …. - Prijzen, terugbetaling - Verpakking, toedieningsvorm - Indicaties - Posologie - Neveneffecten, contra-indicaties, interacties - Bijkomende informatie, zoals NNT, RR, sensitiviteit en specificiteit,…? Cijfers oorspronkelijke studies? - Cijfers: in tabellen, grafieken? Vergelijkend? - Referenties - Bijsluiter	* Is er hier een gradatie in belangrijkheid? → Wat is belangrijkste? → Wat is minimum? * Wat moet NIET vermeld staan in advertentie?
1		* Verschil tussen nodig, bruikbaar, gebruikt (utile, utilisable, utilisé)
1-2-3	Wat zou volgens u het nut zijn van vergelijkende componenten tussen verschillende medicaties op te nemen?	
3	Welke elementen wilt u opgenomen zien om producten te kunnen vergelijken?	
	Suggesties ter verbetering van advertenties	
3	U hebt zojuist besproken wat er mogelijk ontbreekt binnen de huidige advertenties. Als u verbeteringen zou aanbrengen, moet dit dan toegepast worden op alle advertenties? Of dient hier een bepaald onderscheid gemaakt te worden?	* Kostprijs, dosis, verpakking * …
	Wat zou volgens u het nut zijn van informatie te personaliseren naargelang de ervaring van de arts of het type praktijk van de arts?	* Ervaring van arts (beginnend of niet) * Type praktijk (solo, duo, groep,…)
	Informatiekanalen Hoe kan een geschreven boodschap (al dan niet vanuit farmaceutische industrie) versterkt / ondersteund worden?	Type informatiekanalen: * Mondeling ▪ 1 op 1, commercieel (vertegenwoordiger) ▪ 1 op 1, collegiaal ▪ Groep, commercieel (opleiding van

		firma) ▪ Groep, collegiaal (vb. LOK) * Publicaties * Internet ▪ Websites ▪ Elektronische niewsbrieven (niet persoonlijk) ▪ E-mail (persoonlijk)
1		
2-3		
2		
2-3	**Informatiebronnen** Welke schriftelijke informatie, die niet vanuit de farmaceutische industrie komt, kan huisartsen (bijkomend) helpen in het maken van een juiste therapeutische keuze?	
2-3	Uit vorige bevraging blijkt dat deze huisartsen nood hebben aan… onder de vorm van… Wat denkt u daarvan?	* Wat is onafhankelijke informatie voor u? * Voorbeelden van onafhankelijke informatie
	Wat zijn volgens u goede informatiebronnen door huisartsen? Welke informatiebronnen worden te weinig gebruikt door huisartsen? Welke informatiebronnen worden te veel gebruikt door huisartsen? Wat is volgens u de reden hiervan?	[aanvullen met resultaten uit FG1] * Belang van opleiding? * Welke voorbeelden kent u die efficiënt zijn?
	Welke suggesties kan u leveren vanuit het buitenland om artsen te voorzien van informatie om juiste therapeutische beslissingen te nemen?	
	Welke suggesties hebt u voor de overheid om de informatie voor huisartsen te verbeteren?	

15-20 min.	**Eindvragen** [Vragen aan rapporteur of er nog iets onduidelijk is] [Keuze tussen / of beide indien voldoende tijd:] 7) Als besluit van dit groepsgesprek: kan je in 1 minuut samenvatten wat jij onthouden hebt als belangrijkste onderwerp deze avond? Wat wij zeker moeten opnemen in onze studie? 8) [De moderator vat doel van studies samen en vraagt dan:] - Hebben we nog iets belangrijks gemist tijdens deze bespreking? Of is er nog iets dat je wou zeggen, maar dat nog niet aan bod is kunnen komen?	
1 min.	**Afsluiten en deelnemers bedanken**	

Resultaten exploratief onderzoek

Opzet : In mei van dit jaar hebben 8 huisartsen (en 5 specialisten en 4 apothekers) alles verzameld wat er binnenkwam van geschreven materiaal vanuit de farmaceutische industrie. Wij hebben zowel gekeken naar de documenten (aantal en soort), als naar de advertenties binnen deze documenten. We analyseerden ook welke medicatie het meest aan bod kwam in de maand mei 2006.

Resultaten:

- Huisartsen ontvingen gemiddeld een 40-tal documenten.
- Huisartsen werden gemiddeld "blootgesteld" aan een 460-tal advertenties per maand.
- 85% van de advertenties behandelt één geneesmiddel. 10% 2 geneesmiddelen in 1 advertentie.
- Medicatie waarvoor meeste publiciteit is verschenen:
    - Cardiovasculair systeem: 27% van alle advertenties
    - Zenuwstelsel: 14%
    - CAM (complementary and alternative medication = medication without ATC-classification = not registrated): 15%
    - Spijsverteringsstelsel en metabolisme: 12%
- In 17% van de advertenties wordt een referentie vermeld.
- In ongeveer de helft van de advertenties is een bijsluiter opgenomen.

SOURCES OF INFORMATION MENTIONED DURING FOCUS GROUP INTERVIEWS

Compendium

- The compendium of pharma.be ("Dik blauw compendium") [GP + Expert]
- Medex [GP]

Software / Programme in the Electronic Medical Record of the GP

- Prescribe [GP + Expert]
- Medidoc [Expert]
- Medigest [Expert]
- Pfizer [Expert]

Journals and periodicals

- le Journal du médecin / Artsenkrant [GP + Expert]
- le Généraliste / De Huisarts [GP + Expert]
- Dialoog [GP]
- Folia (pharmacotherapeutica) [GP + Expert]
- Fiches de transparence [Expert]
- Minerva [GP]
- Patient Care [GP + Expert]
- Tijdschrift voor Geneeskunde [Expert]
- La Revue de Médecine Générale [GP + Expert]
- Tempo Medica [GP]
- Louvain Médical [GP]
- Medisch Contact [Expert]
- La Revue Prescrire [GP + Expert]
- Nederlands Tijdschrift voor Geneeskunde [Expert]
- Lancet [GP + Expert]
- NEJM [GP]
- JAMA [Expert]
- BMJ [Expert]
- Geneesmiddelen Bulletin [Expert]
- Australian Prescriber [Expert]
- Arznei Telegramm [Expert]
- Arznei Mittel [Expert]
- Drug and Therapeutics Bulletin [Expert]

Letters

It was never mentioned if these are sent by pharmaceutical companies or the government. [GP + Expert]

Brochures

Folders with summaries, treatment schemes, reminders [GP + Expert]

Books

- Répertoire commenté des médicaments du CBIP / BCFI ("Klein groen boekje") [GP + Expert]
- Farmacotherapeutisch Kompas [Expert]
- Kleine kwalen voor kinderen [Expert]
- Kleine kwalen in de huisartsenpraktijk [Expert]
- Sobotta atlas of anatomy [Expert]
- RVT-formularium [Expert]

Guidelines / Recommendations

- State [Expert]
- SSMG [Expert]
- Domus Medica [GP + Expert]
- Bapcoc [Expert]
- KCE [Expert]

Institutions / websites

- BCFI / CBIP [GP + Expert]
- INAMI [GP]
- Minerva [GP + Expert]
- (Virtuele bibliotheek van) Cebam [Expert]
- Cochrane Library [GP + Expert]
- Clinical Evidence [GP + Expert]
- Uitgaven van Project Farmaka, oa. geneesmiddelenbrief [GP + Expert]
- Hoge Gezondheidsraad [Expert]
- SOJA & Informatrix [Expert]
- SSMG [GP + Expert]
- ANAES [Expert]
- NHG (Nederlands Huisartsgeneeskunde) – files [Expert]
- UNAFORMEC – Bibliomed [Expert]

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Wettelijk depot : D/2007/10.273/12

KCE reports

1. Effectiviteit en kosten-effectiviteit van behandelingen voor rookstop. D/2004/10.273/1.
2. Studie naar de mogelijke kosten van een eventuele wijziging van de rechtsregels inzake medische aansprakelijkheid (fase 1). D/2004/10.273/2.
3. Antibioticagebruik in ziekenhuizen bij acute pyelonefritis. D/2004/10.273/5.
4. Leukoreductie. Een mogelijke maatregel in het kader van een nationaal beleid voor bloedtransfusieveiligheid. D/2004/10.273/7.
5. Het preoperatief onderzoek. D/2004/10.273/9.
6. Validatie van het rapport van de Onderzoekscommissie over de onderfinanciering van de ziekenhuizen. D/2004/10.273/11.
7. Nationale richtlijn prenatale zorg. Een basis voor een klinisch pad voor de opvolging van zwangerschappen. D/2004/10.273/13.
8. Financieringssystemen van ziekenhuisgeneesmiddelen: een beschrijvende studie van een aantal Europese landen en Canada. D/2004/10.273/15.
9. Feedback: onderzoek naar de impact en barrières bij implementatie – Onderzoeksrapport: deel 1. D/2005/10.273/01.
10. De kost van tandprothesen. D/2005/10.273/03.
11. Borstkankerscreening. D/2005/10.273/05.
12. Studie naar een alternatieve financiering van bloed en labiele bloedderivaten in de ziekenhuizen. D/2005/10.273/07.
13. Endovasculaire behandeling van Carotisstenose. D/2005/10.273/09.
14. Variaties in de ziekenhuispraktijk bij acuut myocardinfarct in België. D/2005/10.273/11.
15. Evolutie van de uitgaven voor gezondheidszorg. D/2005/10.273/13.
16. Studie naar de mogelijke kosten van een eventuele wijziging van de rechtsregels inzake medische aansprakelijkheid. Fase II : ontwikkeling van een actuarieel model en eerste schattingen. D/2005/10.273/15.
17. Evaluatie van de referentiebedragen. D/2005/10.273/17.
18. Prospectief bepalen van de honoraria van ziekenhuisartsen op basis van klinische paden en guidelines: makkelijker gezegd dan gedaan.. D/2005/10.273/19.
19. Evaluatie van forfaitaire persoonlijk bijdrage op het gebruik van spoedgevallendienst. D/2005/10.273/21.
20. HTA Moleculaire Diagnostiek in België. D/2005/10.273/23, D/2005/10.273/25.
21. HTA Stomamateriaal in België. D/2005/10.273/27.
22. HTA Positronen Emissie Tomografie in België. D/2005/10.273/29.
23. HTA De electieve endovasculaire behandeling van het abdominale aorta aneurysma (AAA). D/2005/10.273/32.
24. Het gebruik van natriuretische peptides in de diagnostische aanpak van patiënten met vermoeden van hartfalen. D/2005/10.273/34.
25. Capsule endoscopie. D/2006/10.273/01.
26. Medico–legale aspecten van klinische praktijkrichtlijnen. D2006/10.273/05.
27. De kwaliteit en de organisatie van type 2 diabeteszorg. D2006/10.273/07.
28. Voorlopige richtlijnen voor farmaco-economisch onderzoek in België. D2006/10.273/10.
29. Nationale Richtlijnen College voor Oncologie: A. algemeen kader oncologisch kwaliteitshandboek B. wetenschappelijke basis voor klinische paden voor diagnose en behandeling colorectale kanker en testiskanker. D2006/10.273/12.
30. Inventaris van databanken gezondheidszorg. D2006/10.273/14.
31. Health Technology Assessment prostate-specific-antigen (PSA) voor prostaatkankerscreening. D2006/10.273/17.
32. Feedback : onderzoek naar de impact en barrières bij implementatie – Onderzoeksrapport : deel II. D/2006/10.273/19.
33. Effecten en kosten van de vaccinatie van Belgische kinderen met geconjugeerd pneumokokkenvaccin. D/2006/10.273/21.
34. Trastuzumab bij vroegtijdige stadia van borstkanker. D/2006/10.273/23.
35. Studie naar de mogelijke kosten van een eventuele wijziging van de rechtsregels inzake medische aansprakelijkheid (fase III)- precisering van de kostenraming. D/2006/10.273/26.
36. Farmacologische en chirurgische behandeling van obesitas. Residentiële zorg voor ernstig obese kinderen in België. D/2006/10.273/28.
37. HTA Magnetische Resonantie Beeldvorming. D/2006/10.273/32.

38. Baarmoederhalskankerscreening en testen op Human Papillomavirus (HPV). D/2006/10.273/35
39. Rapid assessment van nieuwe wervelzuil technologieën : totale discusprothese en vertebro/ballon kyfoplastie. D/2006/10.273/38.
40. Functioneel bilan van de patiënt als mogelijke basis voor nomenclatuur van kinesitherapie in België? D/2006/10.273/40.
41. Klinische kwaliteitsindicatoren. D/2006/10.273/43.
42. Studie naar praktijkverschillen bij electieve chirurgische ingrepen in België. D/2006/10.273/45.
43. Herziening bestaande praktijkrichtlijnen. D/2006/10.273/48.
44. Een procedure voor de beoordeling van nieuwe medische hulpmiddelen. D/2006/10.273/50.
45. HTA Colorectale Kankerscreening: wetenschappelijke stand van zaken en budgetimpact voor België. D/2006/10.273/53.
46. Health Technology Assessment. Polysomnografie en thuismonitoring van zuigelingen voor de preventie van wiegendood. D/2006/10.273/59.
47. Geneesmiddelengebruik in de belgische rusthuizen en rust- en verzorgingstehuizen. D/2006/10.273/61
48. Chronische lage rugpijn. D/2006/10.273/63.
49. Antivirale middelen bij seizoensgriep en grieppandemie. Literatuurstudie en ontwikkeling van praktijkrichtlijnen. D/2006/10.273/65.
50. Eigen betalingen in de Belgische gezondheidszorg. De impact van supplementen. D/2006/10.273/68.
51. Chronische zorgbehoeften bij personen met een niet- aangeboren hersenletsel (NAH) tussen 18 en 65 jaar. D/2007/10.273/01.
52. Rapid Assessment: Cardiovasculaire Primaire Preventie in de Belgische Huisartspraktijk. D/2007/10.273/03.
53. Financiering van verpleegkundige zorg in ziekenhuizen. D/2007/10 273/06
54. Kosten-effectiviteitsanalyse van rotavirus vaccinatie van zuigelingen in België
55. Evidence based inhoud van geschreven informatie vanuit de farmaceutische industrie aan huisartsen. D2007/10.273/12