

## SYNTHESIS

# COMPREHENSIVE GERIATRIC CARE IN HOSPITALS: THE ROLE OF INPATIENT GERIATRIC CONSULTATION TEAMS





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# COMPREHENSIVE GERIATRIC CARE IN HOSPITALS: THE ROLE OF INPATIENT GERIATRIC CONSULTATION TEAMS

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## ■ FOREWORD

As already frequently mentioned, the ageing of our population is foremost good news: it means we all live longer, and live longer in good health. Not surprisingly, also the mean age of patients in hospitals is rising. People aged 75 and older account for almost half of all hospital days on non-geriatric nursing units.

Frail older people are preferably admitted on a geriatric nursing unit, that is completely oriented and skilled in the so called 'comprehensive geriatric approach' meaning that besides the medical problems also the physical, psychosocial and functional problems of the patient are taken into account.

However, the capacity of such geriatric nursing units is not large enough and it cannot be avoided that, already now and even more in the future, frail older patients stay on general, more organ specific, nursing units as well. Although this may be perfectly appropriate reasoning from the specific problem for which these patients are admitted to the hospital, these frail older persons also need and deserve a comprehensive geriatric approach.

Hereto, the Belgian legislator opted since 2007 to create and develop mobile intern geriatric consultation teams. These teams have geriatric expertise and make it available for other professionals working in non-geriatric nursing units. Legislation and a funding system have been put in place to implement these teams.

How do we look back upon these teams, almost 10 years after implementation started? Are the planned effects reached? Are there, in the meantime, other (this time carefully tested and evaluated) models emerging? Is the legislation perceived as supportive or rather as restrictive? Wouldn't it be better to tackle the geriatric problem in advance of the hospital stay?

All those questions were posed to the KCE by the hospital sector, supported by the Federal Public Service (FPS) Health, Food Chain Safety and Environment.

We hope that this KCE study is helpful for the public authorities, hospital administrators/managers and for the healthcare professionals in clinical practice to further develop and improve the care for all frail older persons, tailored to their individual needs no matter where they reside.

In this study we could count on enthusiastic support and comments from many experts (Clinicians, managers, policy makers). This support was of utmost importance to us: thanks to all.

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## ■ ABSTRACT

- The ageing population coincides with an increasing prevalence of older hospitalised patients with a geriatric profile. Evidence suggest that these patients should be treated according to the principles of ‘comprehensive geriatric care’. Several organisational models were developed to implement these principles in the care for hospitalized patients: acute geriatric units; inpatient geriatric consultation teams; co-management models (i.e. shared decision making between geriatrician and other physicians about patients admitted on non-geriatric nursing units). Only for acute geriatric units there is a sound evidence base for its effectiveness. Therefore this model is considered the gold standard.
- Despite the limited of evidence about its effectiveness and the relatively low use of this model worldwide, the Belgian authorities continue to invest in ‘inpatient geriatric consultation teams’. What’s more this model is since 2014 structurally embeded in the hospital payment system and the expectations about how and what these teams should do are listed in the law that regulates the care programme for geriatric patients in a rather explicit and prescriptive way.
- Investing in models that aim to increase the availability of geriatric expertise on non-geriatric units is required given that the prevalence of older patients with a geriatric profile is on the rise. The more so because there is currently already a low capacity of G-units and a shortage of geriatricians to run these G-units. The option to choose for ‘inpatient geriatric consultation teams’ is further supported by its high face validity to offer a ‘holistic approach’ to older patients and to disseminate the geriatric expertise throughout the hospital.
- Despite the prescriptive character of the law, the implementation of inpatient geriatric consultation teams varies across Belgian hospitals (e.g. case-finding methods, role of these teams on emergency departments). A potential explanation is that hospitals are forced to make operational choices since the demand for geriatric expertise clearly outweighs the supply of available financial and human resources (geriatricians and specialised nurses). The (failure) adherence of the treating team to the recommendations is identified as a major shortcoming due to (a.o. factors) the solely advisory role of these teams and the lack of sensitivity/expertise in geriatric care among these treating teams.
- In addition, alternative care models (e.g. transcending the boundaries of the ‘classic hospital’, shared decision making between treating team and geriatric team) and workforce innovations (e.g. advanced practice nurses in geriatric care) emerge. Since the evidence do not support one best model for providing care outside the ‘acute geriatric unit’ according to the ‘comprehensive geriatric care’ principles, it will be important to provide a knowledge exchange platform to share and disseminate best-practices as well as to monitor (e.g. quality indicators) and follow-up (e.g. accreditation) the quality of care for geriatric patients.



## ■ SYNTHESIS

### TABLE OF CONTENTS

■	<b>FOREWORD</b> .....	1
■	<b>ABSTRACT</b> .....	2
■	<b>SYNTHESIS</b> .....	3
1.	<b>BACKGROUND</b> .....	4
1.1.	AN AGEING (HOSPITAL) POPULATION .....	4
1.2.	THE GERIATRIC CARE CONCEPT .....	4
1.3.	OBJECTIVE .....	5
2.	<b>THE ORGANISATION OF HOSPITAL CARE FOR GERIATRIC PATIENTS IN BELGIUM</b> .....	6
3.	<b>INPATIENT GERIATRIC CONSULTATION TEAMS: CHALLENGES AHEAD</b> .....	9
3.1.	THE BELGIAN INPATIENT GERIATRIC CONSULTATION TEAMS DO NOT RELY ON EVIDENCE ABOUT THEIR EFFECTIVENESS .....	9
3.2.	A HETEROGENEOUS CARE MODEL WITH BARRIERS FOR IMPLEMENTATION .....	11
	3.2.1. Application of the geriatric comprehensive care approach .....	11
	3.2.2. Organisational aspects .....	13
3.3.	ALTERNATIVE CARE MODELS EMERGE .....	15
3.4.	EVALUATION OF QUALITY OF GERIATRIC CARE STILL IN ITS INFANCY .....	16
4.	<b>CONCLUDING REMARKS</b> .....	17
■	<b>RECOMMENDATIONS</b> .....	18
■	<b>REFERENCES</b> .....	20



## 1. BACKGROUND

### 1.1. An ageing (hospital) population

#### General demographic trend

The growing life expectancy and the decline in fertility result in an ageing population throughout Europe. The European population of older persons (65 years or older), represented 17.9% of the EU-27's population in 2012 and would account for 29.3 % by 2060.<sup>1</sup>

A similar trend is expected in Belgium: 17.9% of the Belgian population is now (anno 2014) 65 years or older, a share that will increase to 25.8% by 2060.<sup>2</sup> Although the majority of persons in the age group 65-74 years report to be in good health (i.e. 72% report the self-perceived health status as good),<sup>3</sup> there is also a growing burden of (multiple) conditions.<sup>4</sup> What's more in the age group of 75 years and older, only 57% of the persons rate their health status as good.<sup>3</sup>

This evolution will challenge our healthcare system: not only there will be an increasing number of older persons that need health-care services but the healthcare services will also have to be re-designed to accommodate the needs of the persons with chronic conditions and multi-morbidity.<sup>4</sup>

#### Ageing hospital population

The proportion of patients older than 75 years hospitalised on non-geriatric acute care units<sup>a</sup> (non G-units) is already relatively high (i.e. 27.24% of the patients in 2011). In addition, this patient group accounts for 43% of all hospitalisation days on acute non geriatric units. The group aged  $\geq 85$  years accounts (in 2011) for 9.19% and 16.25% of the patient and hospitalisation days, respectively. It is expected that this proportion of (very) old hospitalised persons will continue to grow in the next decades.<sup>5</sup>

The proportion of older patients in the hospital with a geriatric profile is high. A geriatric profile is operationalised across studies in various ways. In a

<sup>a</sup> Source: linked database MZG/RHM and AZV/SHA by the TCT including all hospitalised patients (inpatient stays only, with exclusion of stays on N\*, E, M, NIC, K, K1, K2 units)

Belgian study, for instance, it was found that 39% of the hospitalised patients aged  $\geq 75$  years had functional decline 30 days post-discharge.<sup>6</sup> Another Belgian study in a subgroup of oncology patients aged 70 years and older from 10 hospitals revealed that 70% of them scored positive on initial screening and further geriatric assessment detected unknown geriatric problems in 51% of the patients.<sup>7</sup> A Dutch multi-centre study<sup>8</sup> found prevalence rates of Instrumental Activities Daily Living (IADL) impairment (83%), polypharmacy (61%), mobility difficulty (59%), high levels of primary caregiver burden (53%), and malnutrition (52%). In a UK study<sup>9</sup> it was shown that 56% of the patients aged  $\geq 75$  years who were admitted to an acute unit in a district general hospital fulfilled the frailty criteria.

### 1.2. The geriatric care concept

#### Definition geriatric patients

Only a part of the population  $\geq 75$  years is defined as geriatric patients according to the definition of the Belgian care programme for geriatric patients: *"the care programme for geriatric patients targets patients with an average age  $\geq 75^b$  years who need a specific approach for the following reasons: a frailty profile, active multi-pathology, a limited homeostasis, atypical clinical appearances of diseases; disturbed pharmaco-kinetics, risk for functional decline; risk for malnutrition; trend to be inactive and bedridden, with an increased risk for institutionalisation and for dependency in activities of daily living; psychosocial problems."*<sup>10</sup>

#### Comprehensive geriatric care: a multidisciplinary approach for older persons with a geriatric profile

The geriatric profile requires a different approach than other patients, the so-called "comprehensive geriatric assessment (CGA)", often described as: *"a multidimensional interdisciplinary process focusing on determining a frail older person's medical, psychosocial and functional capabilities in order to develop a coordinated and integrated plan for treatment and long-term follow-up"*.<sup>11, 12</sup> The CGA-approach includes both a diagnostic (i.e.

<sup>b</sup> It should be noted that the age criterion in the care program is 'on average' older than 75 years. This implies that the care programme also applies to younger patients if they have a vulnerable profile as specified in the description of geriatric patients.





identification of the care needs) and a therapeutic process (i.e. the delivery of interventions to meet those needs).<sup>11, 12</sup> According to Deschodt et al. (2013)<sup>11</sup>, this process includes three consecutive steps:

- Case-finding or screening with standardised screening instruments to identify high-risk populations for which a geriatric approach is needed.<sup>11, 13</sup>
- Assessment. High-risk patients undergo a comprehensive assessment focusing on the multiple needs of geriatric patients (e.g. functional performance, cognitive performance, nutritional status, medical status, social issues) in order to develop recommendations for the patients' care plan.<sup>12</sup>
- Implementing. If geriatric syndromes or care problems are identified, appropriate evidence-based interventions need to be implemented.<sup>11</sup>

The CGA-care process was evaluated by robust meta-analysis<sup>12, 14</sup> that showed beneficial effects compared with conventional care: decreased hospital mortality, higher proportion of hospitalised patients returning to home, improved cognitive functioning.

### Acute geriatric units remain the gold standard but demographic evolutions demand complementary geriatric care models

In the literature three broad models of care are described to implement the CGA-approach in practice for hospitalised patients<sup>12</sup>:

- Acute geriatric unit. CGA is delivered in a discrete unit with a coordinated specialist multidisciplinary team. Different names are used to label these units, depending on their scope on acute and/or rehabilitation care (e.g. acute care for elders or ACE units; geriatric evaluation and management units or GEMU; ; post-emergency geriatric units or PEGU).<sup>12, 15</sup> It has been shown that such units have beneficial effects on the outcomes of geriatric patients compared to conventional care, including: fewer falls;<sup>16</sup> less delirium;<sup>16</sup> less institutionalisation;<sup>12, 14, 16</sup> lower in-hospital mortality;<sup>12, 14</sup> less functional decline;<sup>17, 18</sup> and less new admissions in nursing homes.<sup>18</sup>
- Inpatient geriatric consultation teams. A mobile team visits high-risk patients (e.g. identified by a screening procedure) who are admitted in a non-geriatric unit. The team performs the assessment and makes recommendations to the treating physician/care team. These inpatient

geriatric consultation teams (IGCT) are, in the literature, also interchangeably referred to as 'geriatric liaison team', 'geriatric assessment team', 'interdisciplinary geriatric consultation teams'. A recent review by Deschodt et al. (2013)<sup>19</sup> showed that there is currently no evidence for the clinical effectiveness of inpatient geriatric consultation teams on patient's functional status, readmission rates and length of stay. The effect on mortality was significant at 6 and 8 months follow-up but not at the other measurement time points (1month, 3 months, 1 year). Study limitations can partly explain the lack of significant results: limited control of the implementation of the proposed interventions<sup>11</sup>, heterogeneity of interventions (e.g. composition of teams, frequency of interdisciplinary meetings and patient visits), reported outcomes (measurement after discharge versus short term effects: delirium; poly-medication...<sup>11</sup>).

- Co-management model. This model was only recently introduced, mainly for ortho-geriatric patient populations (i.e. orthopaedic patients with a geriatric care profile).<sup>20</sup> It can be described as *'the most far-reaching model of shared care between a general treating physician and a geriatrician since they manage the patient together from admission until discharge and are both responsible for the process and outcome of provided care'*.<sup>20</sup> The first meta-analyses<sup>21, 22</sup> on shared care models for geriatric patients are being published including few and often small studies with inconclusive results about their effectiveness.

### 1.3. Objective

In Belgium the legislator opted to implement the CGA-process for **hospitalised patients** via two models:

- Acute geriatric units (G-beds).
- Inpatient geriatric consultation teams: advice to healthcare professionals during the hospitalisation (i.e. inpatient liaison function: 'interne liaison'/'liaison interne').

In addition, the geriatric care programme also includes advice to healthcare professionals outside the hospital boundaries (**external liaison**: 'externe liaison'/'liaison externe'), **one day hospitalisation** (i.e. geriatric day hospitals) and **ambulatory care** (i.e. ambulatory consultations).

**This study focuses on inpatient geriatric consultation teams (IGCT).**

We aimed to:

- Evaluate the strengths and weaknesses of the current organisation of the inpatient geriatric consultation;
- Draw lessons regarding the organisation of inpatient geriatric consultation teams from an analysis of international (best-)practices.

**This study combined various methods:**

- **A description of the organisation of inpatient geriatric consultation teams (IGCT)** using the following data sources: Belgian studies about this topic, legal documents, policy papers, data provided by the FOD/SPF, RIZIV/INAMI and administrative databases (linked Hospital Discharge Dataset: MZG – RHM and Hospital Billing Records: AZV – SHA).
- **A SWOT-analysis** with two waves of respectively 4 and 2 focus groups including geriatricians (n=9), nurses (n=24) and other healthcare professionals (n=4) working in inpatient geriatric consultation team (n=4), healthcare professionals working on other units that consult these teams (n=5) and hospital management (n=11).
- **A literature review to identify (inter-)national best practices**, supplemented with a survey of geriatric teams and hospital management in France (n=14 hospitals) and in The Netherlands (n=11 hospitals) and semi-structured interviews with US-researchers (n=4) within the study domain.

## 2. THE ORGANISATION OF HOSPITAL CARE FOR GERIATRIC PATIENTS IN BELGIUM

The organisation of hospital care for geriatric patients (definition, see 1.2) in Belgium started formally in 1985 with the regulation of geriatric units (Royal Decree 1985). Later the organisation was broadened and regulated via **the care programme for geriatric patients** (Royal Decree 2007, updated in April 2014).<sup>10</sup> It is specified that each acute hospital with an acute geriatric unit<sup>c</sup> (n=99) should have a care programme for geriatric patients and that each acute hospital<sup>d</sup> without an acute geriatric unit (n=5) should make a functional collaboration agreement with the nearest acute hospital with a recognised care programme for geriatric patients. The agreements for the geriatric consult (including the geriatric day hospital) the inpatient geriatric consultation teams (IGCT) and the external geriatric liaison function are to be specified in a multidisciplinary manual.

**Geriatric care programme: a range of initiatives to improve the care for older patients**

The **main aim** of the care programme for geriatric patients is to “*pursue, via a multidisciplinary diagnostic, treatment and rehabilitation approach, an optimal level of functional performance and an as high as possible level of self-care and quality of life*”. It is specified that each hospitalised patient aged ≥75 years should be **screened** by a staff member of the unit on which the patient stays via a scientifically validated screening tool. If patients are screened as being at risk, the multidisciplinary geriatric team (IGCT) should be consulted (or the reason for not consulting this team should be documented). Patients younger than 75 years are also eligible for this care programme, in case they have a geriatric profile.

The Royal Decree specifies several accreditation standards (e.g. composition and educational level of the multidisciplinary geriatric team

<sup>c</sup> Exception: geriatric hospitals. However, these hospitals specialized in geriatric care (with/without rehabilitation beds) should make a functional collaboration agreement with the nearest acute hospital with an accredited care program for geriatric patients.

<sup>d</sup> Exception: specialized hospitals with only the following accredited beds: Sp-beds (rehabilitation) with or without general hospitalisation units (H-beds) or units for neuropsychiatric treatment of adult patients (T-beds),



members, role and profile of the care programme coordinators, architectural norms) but the essence is that the care programme structures geriatric care in Belgian Hospitals around 5 components (See Chapter 2 of the [scientific report](#) for details):

1. **Geriatric unit.**<sup>23</sup> There is a norm to determine the number of geriatric beds in Belgian hospitals (i.e. 6 G-beds per 1 000 inhabitants of ≥65 years). However, in 2013, there were 11 755 programmed G-beds and only 7 341 (62.45%) accredited G-beds

The G-beds are financed via the hospital budget, the so-called Budget of Financial Means (BFM/BMF). The number of 'justified G-beds' (i.e. the beds for which the hospital budget allocates money to the hospitals) is, however, higher than the 'accredited G-beds' (i.e. the hospital beds that are legally accredited by the public authorities).

In other words, the public authorities define a number of required G-beds which are for numerous reasons (e.g. shortage of geriatricians, financial incentives) not implemented by the Belgian hospitals. An evaluation of the reasons and possible solutions for this shortcoming are beyond the scope of the current study and should be included in a broader reform of the hospital landscape.<sup>24</sup>

2. **Inpatient geriatric consultation teams** The main aim of inpatient geriatric consultation teams (IGCT) is to share the core geriatric principles and multidisciplinary expertise to all medical staff and care teams and for all hospitalized persons ≥ 75 years of age (including day hospitalisations) with a geriatric profile who are admitted in non-geriatric units. An inpatient geriatric consultation team is a multidisciplinary team including geriatricians (mostly part-time), nurses specialised in geriatric care, and occupational therapists, as well as in some cases physiotherapists and speech and language therapists and psychologists. At least 2 FTE's<sup>e</sup> are foreseen for this multidisciplinary team but the precise size of the staff is calculated based on the annual number of patients aged of 75 years and older who are admitted in non-geriatric units of the hospital. The role of the multidisciplinary inpatient geriatric consultation team includes the following elements:

- Evaluation of the geriatric profile of patients that were flagged as being 'at risk' by a screening performed by staff members of non-geriatric units;
- A multidisciplinary geriatric assessment of the patient with a geriatric profile;
- Formulation of recommendations to the care team and to the treating physician during the hospitalisation period;
- Formulation of recommendations to the general practitioner (GP) on the care of the patient seen by the IGCT and discharged from hospital with the aim to prevent hospital readmissions;
- Dissemination of the geriatric approach in hospital. Activities are related to systematically screening, detection of a geriatric profile, organisation of training and continuous education on the main geriatric topics for the nurses and allied health professionals.

The funding evolved from a pilot-funding that was the same for all participating hospitals (i.e. 4 FTE per hospitals) towards a variable budget (i.e. between 2 and 6 FTE based on the number of patients aged ≥75 years hospitalised on non G-units) that is structurally embedded in the hospital payment system.

The multidisciplinary inpatient geriatric consultation team does not provide direct patient care. The team has to meet at least once a week to discuss the team's interventions. All observations are recorded in the patient records and are communicated to the treating care team. There are two specific reimbursement codes for geriatricians, one for a consultation in a non-geriatric unit (maximum two per hospital stay) and one for the participation in a multidisciplinary team meeting of the IGCT (with a maximum of two per week).<sup>25</sup>

3. **External geriatric consultation function.** The external geriatric consultation function aims to make the geriatric principles and expertise available to general practitioners and primary caregivers. The purpose is to optimize the continuity of care, to avoid inappropriate (re-)admissions, to create synergy and to develop networking between care givers before and after hospitalisation.

<sup>e</sup> Geriatrician not included



4. Geriatric **ambulatory consultations**. These consultations are run by geriatricians and target patients that are preferably referred by a GP. The aim of this mono-disciplinary consultation is the formulation of a geriatric advice or the delivery of an intervention that does not require a multidisciplinary approach.
5. **Geriatric day hospitals**. The purpose of an admission in a geriatric day hospital is to organise the geriatric evaluation and rehabilitation in a multidisciplinary way. Patients are admitted on request of a GP, specialist or after an above mentioned geriatric consultation. After several years of pilot-testing, the payment for geriatric day hospitals is structurally embedded in the hospital budget since 1 July 2014.<sup>26</sup>

Although the geriatric care programme strongly focuses on hospitalised patients, it also aims to make the geriatric expertise of hospital staff available for non-hospitalised patients.

#### **Geriatricians: supply does not meet the demand**

Specialists in internal medicine could work since 1986 as geriatricians via a 'special competency in geriatric care'. A title of "specialist in geriatric care" exists since 2005.<sup>27</sup> In 2013, 284<sup>f</sup> geriatricians (trainees excl.) could bill prestations via the nomenclature, 278 of them (trainees excl.) billed at least one prestation for patients admitted in a hospital. Moreover, only 210 geriatricians billed activities in the context of 'inpatient geriatric consultation teams'.

The Federal platform for the geriatric care programme calculated several scenarios to predict the required number of graduating geriatricians per year. An expert panel estimated that at least 1.5 FTE geriatrician per 24 accredited G-beds would be required to run the care programme for geriatric patients in a hospital which is higher than the legal minimal criteria (i.e. 1 geriatrician full-time affiliated with the hospital)<sup>28,9</sup> Based on this minimal scenario, it was calculated that there was, in 2010, a shortage of 143 FTE geriatricians. This would require at least 30 graduating geriatricians per year to solve this shortage in a time span of 5 years.<sup>29</sup>

<sup>f</sup> RIZIV/INAMI-codes 180 & 184: 'Geneesheer specialist voor geriatrie'/'Médecin spécialiste en gériatrie' & 'Geneesheer specialist voor geriatrie en F.P'/'Médecin spécialiste en gériatrie et F et P'

The commission responsible for the planning of the medical workforce recommended a yearly minimal quatum of 20 geriatricians between 2010-2018 and to even abandon the maximal quatum of graduating geriatricians from 2020 onwards. However, they also noted that this pace could not be realised with the number of available training settings.<sup>30</sup> Between 2010 and 2013 only 28 physicians started with a training in geriatric care resulting in a difference of 52 geriatricians compared to the planned minimal number (i.e. 80 places planned during these four years while only 28 started).<sup>31</sup>

This shortage of geriatricians is expected to worsen in the near future.<sup>32</sup> It is clear that the attempts to tackle this shortage by imposing a minimal number (i.e. n=20) of medical specialists to enroll in the geriatric discipline each year and by prompting the deans of the medical faculties to give more attention to the principles of aging and geriatric medicine in the training of medical students are insufficient.<sup>33</sup> More policy measures will be needed to increase the attractiveness of this medical specialism such as an increase of the number of available training settings<sup>30</sup> as well as the recalibration of the physician fees to ensure that the activities of geriatricians (e.g. assessment, consultation) are sufficiently rewarded.<sup>24</sup>

#### **Nurses with special expertise in geriatric care**

Since 2007, nurses with a special expertise in geriatric care (special education and experience, working in the geriatric field such as G-units) can receive a special title<sup>h</sup> or competency in geriatric care which results in a yearly bonus.<sup>28</sup> In 2010, the recognised number of nurses with a special title and competency in geriatric care was 668 and 628, respectively. According to the Belgian Nursing Minimum Dataset on the 1<sup>st</sup> of December 2010 there was an equivalent of 321 FTEs and 139 FTEs nurses with a special title and special competency in geriatric care employed in Belgian hospitals suggesting that many of these nurses work part-time or are employed outside the hospital setting.<sup>34</sup> In 2013, the number of nurses with a special title (n= 1 960) or competency (n= 3 020) in geriatric care had already drastically grown.

<sup>g</sup> This is not an official norm. In the care program for geriatric patients there is no norm for the number of geriatricians per 24 beds.

<sup>h</sup> Bachelor-prepared nurses



Yet, it is unclear how many of these nurses (some of them work outside the hospital setting: since 2012 the recognition is enlarged from hospital nurses towards nurses working in nursing homes) at which employment rate (no figures about employment rate) work in the geriatric care programmes of acute hospitals<sup>35, 36</sup>

The majority of nurses working in G-units or within the geriatric care programme do, however, not hold a special title or competency in geriatric care.<sup>11, 37</sup> This is perceived as problematic by the interviewed healthcare professionals since they indicate that 'geriatric care' competencies are insufficiently available among nurses with a 'general training'. This assertion is supported by an audit of Flemish nursing education programmes regarding 'geriatric care' pointing out large heterogeneity between nursing schools in terms of dedicated hours in the curriculum, clinical placements and available expertise.<sup>38</sup> In this context, it should be noted that the system of 'resource nurses in geriatric care' on non-geriatric nursing units was abandoned with the revision of the care programme for geriatric patients in April 2014.<sup>10</sup> Although, this function (a nurse of a general unit with special interest/training in geriatric care) aimed to increase the dissemination of geriatric expertise on non-geriatric units, the interviewed healthcare professionals acknowledged that this system failed due to a lack of dedicated resources as well as interest and expertise in geriatric care among the nurses working on non-geriatric units.

### 3. INPATIENT GERIATRIC CONSULTATION TEAMS: CHALLENGES AHEAD

Belgian acute geriatric nursing units fail to accommodate the increasing prevalence of older persons with a geriatric profile. The acute geriatric unit is still the organizational model considered to be the gold standard to implement the 'CGA-approach' but **it is deemed unrealistic nowadays that all older patients with a geriatric profile can be treated on G-units** in the foreseeable future, given the high number of patients with this profile present in non-geriatric units.<sup>6, 8, 9</sup> There are indications that the current bed capacity already fails to meet the demand (e.g. more justified beds than accredited G-beds; less accredited than programmed G-beds). A problem that is not easy to solve in light of the shortage of geriatricians and nurses with expertise in geriatric care and the increasing prevalence of the target group of patients.

Consequently, it will be required (in the future even more than today) **that patients with a geriatric profile who are treated on general acute hospitalization units receive care in non-geriatric units according to the principles of the 'CGA-concept'**. Yet, the interviewed healthcare professionals doubt that the same standards of care can be reached outside a dedicated unit. Therefore, they consider alternative organisational models (compared to G-units) as suboptimal, not necessary solutions to the problem.

#### 3.1. The Belgian inpatient geriatric consultation teams do not rely on evidence about their effectiveness

There is no evidence about the effectiveness of inpatient geriatric consultation teams in the literature. Furthermore the contextual evidence (e.g. composition of teams, use of case-finding methods, scope of practice) is limited as well. Only 24 different inpatient geriatric consultation teams (30 publications) in 7 different countries spanning a timeframe of 30 years (1983-2012) could be identified during the scoping review of the peer reviewed literature. The majority of the studies were published before 1999 and pre-dominantly conducted in the US and Canada. Recent studies mostly originated from Europe. Other models were described as well (see further in 3.3).





### From pilot projects towards strictly regulated teams

Despite the limited evidence on its effectiveness Belgian healthcare professionals continue to support 'inpatient geriatric consultation teams (IGCT)' as a model to increase the geriatric expertise in the hospital care of 'older persons with a geriatric profile' admitted on non-geriatric nursing units.

The concept of 'inpatient geriatric consultation teams' was introduced in Belgium via pilot-projects and temporary funding (via B4 of the BFM-BMF) since 2007. In 2013 funding of inpatient geriatric consultation teams corresponded to a budget of € 16 884 208 for 92 hospitals. Each hospital received the same budget of about € 184 000 to finance a team of four FTE's (nurse, occupational therapist, speech therapist, dietician, and psychologist) that is supported and supervised by a geriatrician.<sup>25</sup> Since 1 January 2014, this project funding is structurally embedded in the hospital budget. Every acute hospital with a recognised geriatric department (in addition to general surgery and internal medicine departments) is funded to develop and implement an inpatient geriatric consultation team. The budget guarantees a minimum of 2 FTEs (1 FTE equals € 58 000) but is limited to a maximum of 6 FTEs. The number of FTEs depends on the number of inpatient hospital stays of patients of 75 years or older in non-geriatric units: minimum 2 FTE-maximum 6 FTE.<sup>26</sup> As such, in 2014, some hospitals received a higher budget compared to the pilot funding while other hospitals received a lower budget.<sup>25</sup>

This shift from pilot projects to structurally funded teams is regarded as a positive evolution by the interviewed healthcare professionals. Nevertheless, they also point out that the legislator is far more ambitious about the role of these teams than the payer is in allocating funds to it. This concerns both the compensations via the fee-for-service system (e.g. time of geriatricians to perform an assessment or to perform rounds on the nursing units insufficiently rewarded; or time of physiotherapists to assist to multidisciplinary IGCT meetings not rewarded; nomenclature for geriatric consultation teams not applicable to patients <75 years) as well as the limited budgets for the inpatient geriatric liaison teams. As such, hospitals make choices (and in contradiction with the legal obligations) to make the workload of these teams feasible (e.g. selection of nursing units on which these teams work, increasing the threshold of the screening instruments to consider the older patient as a geriatric patient).

### High face-validity: holistic approach and dissemination of geriatric expertise

This investment in IGCT teams is in line with the recommendations published by several Belgian institutions and organisations (e.g. the Federal Public Service of Public Health (FOD/SPF), the National Council of Hospital Services (NRZV/CNEH) and the Belgian Association for Gerontology & Geriatrics (BVGG/SBGG)). The recommendations are mainly based on the fact that the prevalence of older persons with a geriatric profile is on the rise and that IGCT have high face validity for clinical practice. This high face validity was confirmed during the SWOT-analysis of the current study. The respondents stressed the importance of inpatient geriatric consultation teams to enable a multidisciplinary and holistic approach for geriatric patients as well as to disseminate the geriatric expertise and culture throughout the hospital and to orient patients towards the most appropriate units. They are, despite the absence of evidence, according to the interviewed healthcare professionals believed to decrease readmission rates and improve functional outcome of the older persons with a geriatric profile. Several of these strengths, such as the 'holistic and multidisciplinary approach',<sup>39</sup> spreading of geriatric culture<sup>39</sup> are in line with previously published reports.

### Inpatient geriatric consultation teams are internationally not a widespread concept

Notwithstanding the fact that most Western countries face similar demographic challenges), the inpatient geriatric consultation team care model has no widespread use. Apart from Belgium, a widespread implementation was only found in France and the Netherlands. It should be noted that although the model (as many other geriatric care models) originated from the US, it has never been implemented on a large scale over there. The implementation in the US was hindered by a lack of research interest, lack of support of health administrators and logistics. Hospitals that implemented this model faced barriers such as financial rendability (no specific funding allocated to this model) and a shortage of geriatricians. In addition, it should be noted that the prevalence of older people is lower in the US than in most European countries. While in 2014 17.9% of the Belgians was 65 years or older, this exact same proportion of older people is estimated to be present by 2025 in the United States.<sup>40, 41</sup>



### 3.2. A heterogeneous care model with barriers for implementation

The implementation of IGCTs in Belgian hospitals is highly heterogeneous, for instance with regard to case-finding and assessment methods and the hospital units targeted for intervention. The explanation seems to be that hospitals are forced to make operational choices since the demand for geriatric expertise clearly outweighs the supply of available financial and human resources (geriatricians and specialised nurses) in the whole geriatric care programme. Similar heterogeneity appeared in the international context (e.g. results of scoping review and international survey).

In this section we first describe the heterogeneity in the application of the 'geriatric comprehensive care' principles by the geriatric consultation teams (in Belgium and abroad). Next, we discuss the heterogeneity in the organisational aspects of geriatric consultation teams.

#### 3.2.1. Application of the geriatric comprehensive care approach

##### Case-finding of older persons with a geriatric profile: various methods but which one should be used?

Several screening tools to detect hospitalised older persons with a geriatric profile are reported in the literature, but none of these tools are fully satisfactory.<sup>42-45</sup> Also Belgian research shows that all studied screening tools (i.e. 'Triage Risk Screening tool' or TRST; 'Variable Indicative of Placement Risk' or VIP; 'Identification of Senior At Risk' or ISAR) used at a sensitive cutoff result in very low specificity (i.e. a high number of false positive cases) which hampers targeted interventions.<sup>46</sup>

Despite the absence of a gold standard tool, the use of standardized screening tools may be useful to identify hospitalised patients with a geriatric profile and several elements can influence the choice for the screening tool such as the user-friendliness, the face validity, the purpose of screening (e.g. predict functional decline or nursing home admission).<sup>43</sup> Nevertheless, the choice of the case finding method can have serious implications on the IGCT-functioning. It is important to find a good balance between sensitivity and specificity (e.g. too many false positive cases can unnecessary burden the workload of these teams), but none of the existing tools offer such a balance.

The most frequently used screening tools in Belgian hospitals are the Triage Risk Screening Tool (TRST) and the Identification of Seniors At Risk (ISAR).<sup>47</sup> Yet, several hospitals reported to use other thresholds than recommended by the scientific literature.<sup>47</sup> Teams try to reduce the number of false-positive cases (and the workload that they generate) at the expense of a lower sensitivity (i.e. risk that more true cases with a geriatric profile are missed).<sup>47</sup> Despite the (recent) legal obligation to screen all patients of  $\geq 75$  years for a geriatric profile, an additional selection may precede the decision to screen (e.g. type of unit, clinical characteristics).

Also internationally, there appears much heterogeneity in the case-finding method used. In some cases (e.g. surveyed Dutch hospitals) a systematic use of validated screening instruments could be identified. In other cases (e.g. surveyed French hospitals), the case finding method was limited to a set of self-defined parameters (e.g. Hip fracture patients older than 75 years). The fact that Dutch hospitals report to use screening tools systematically may be explained by the fact that 'screening older patients for a geriatric profile' is one of the quality criteria that is evaluated in Dutch hospitals.

##### High-risk patients: a positive screening does not always result in a visit by the inpatient geriatric consultation team

Apart from patient selection, an appropriate intervention based on screening outcomes needs to be delineated.

Only half of the French and Dutch responding IGCTs in the survey automatically initiated IGCT interventions, e.g. comprehensive geriatric assessment, after a positive screening potentially due to imbalances between capacity and workload. In contrast with these countries, a positive screening resulted automatically in a request of a geriatric consultation team in the majority of Belgian hospitals; however it is questionable if the number of patients with a positive screening is adequate, given the earlier presented prevalence numbers (see 1.1) and the fact that for only 6% of patients aged  $\geq 75$  years an IGCT consultation was billed. Response time of these consultation teams was, in 2010, 1.5 days on average.<sup>47</sup> Since the legal changes in April 2014, all patients that are positively flagged after an initial screening performed by the staff of the non-geriatric units, should be seen by the 'inpatient geriatric consultation team' (or the reason to not comply with this rule should be documented in the patient record).



Figures about the adherence to the legal obligation to screen all patients  $\geq 75$  years who are hospitalised on non-geriatric units and to follow-up the positively screened cases by a visit of the 'inpatient geriatric consultation team' are missing and the opinion of the interviewed healthcare professionals diverged on the compliance with this legal obligation.

They also reported that the quality of the screening, when done, is not always up to standard. Making the 'screening results' a mandatory field in the electronic patient record is only a partial solution as there is no warranty of quality. The interviewed healthcare professionals suggested that the quality of the screening could be improved by creating a culture that is 'open for geriatric care' on non-geriatric nursing units which requires continuous training as well as support by the hospital management.

#### **Assessment of older persons with a geriatric profile: not always as comprehensive as it should be**

CGA is a multidimensional process, indicating that the medical, functional, mental and social dimension of an old inpatient should be taken into account in the baseline IGCT assessment. Many identified peer-reviewed publications included statements on the performance of a comprehensive baseline assessment but only slightly over half of all identified IGCTs in the peer-reviewed literature addressed all four aforementioned dimensions. Moreover, most IGCTs only assessed a limited number of topics within each dimension. As such, this important aspect of the IGCT care process likely warrants substantial improvements in both daily clinical practice and future research regarding the IGCT care model. The results of our international survey (The Netherlands, France) were more positive, meaning that all domains and all of the items within each domain were assessed by most of the included IGCTs. Patient assessment within the Netherlands is supported by the 'CGA guidelines for geriatric co-management'.

In Belgium, survey results appear to be more positive than the peer-reviewed literature. In 2010, 87% of the Belgian hospitals with an 'inpatient geriatric consultation team' reported to use a structured geriatric assessment to evaluate high-risk patients. In most cases this was done on general acute nursing units only, not in the emergency department. Only in 11% of the hospitals also the emergency departments were in the scope of practice of 'inpatient geriatric consultation teams'.<sup>47</sup> The role of IGCT on emergency departments should, according to the interviewed healthcare

professionals, be further evaluated. They stress the importance to screen and assess older patients for a geriatric profile as early as possible (e.g. non-elective admissions on the emergency department, elective patients on pre-hospital consultations) in order to enable to start up the multidisciplinary care plan promptly and to direct the patient towards the most appropriate type of units (e.g. general unit or G-unit). In France, for instance, the implication of IGCTs on the emergency department is mandated by French law, which was adapted after the 2003 heatwave. This is in contrast to the Netherlands where IGCTs rarely intervene in the emergency care department.

#### **Adherence to recommendations: too low to have impact?**

A CGA-process should lead to the development of a coordinated and integrated plan for treatment, based on the results and discussion of baseline patient assessment. Within the IGCT care model, this is done through formulating recommendations regarding the care for the consulted patient. In accordance with previous overview studies,<sup>12, 19</sup> the scoping review showed that the adherence rates to IGCT recommendations varied widely and that this lack of adherence was a main operational problem across IGCTs.

This is also a known problem in the Belgian context with the majority of surveyed teams reporting problems with adherence rates.<sup>47</sup> The non-adherence to recommendations was also identified as a major weakness during the SWOT-analysis. The fact that IGCT teams have a solely advisory role is seen as an important reason of non-adherence to the recommendations made by IGCT.<sup>25, 39</sup> Other reasons are, for instance, the lack of follow-up of recommendations by IGCT,<sup>39</sup> the lack of openness for 'geriatric care' among medical specialists and the lack of time to implement the recommendations during the hospitalization (because of the shorter length-of-stay).

This finding is in contrast with the international survey results in which almost all included IGCTs rated the overall adherence 'good', as subjectively perceived by the IGCT. However, this sample targeted best-practice hospitals and therefore can be considered to be biased. In the Netherlands, for example, only hospitals with a good performance (scoring at least 75% for the item 'geriatric expert team' in the Senior Friendly Hospital Quality Label) were included in the sample. In addition, there could have been a tendency





of positive self-evaluations. This notion is confirmed by the French grey literature where a low adherence to IGCT recommendations was observed. Non-adherence has been identified as an important factor contributing to the lack of effectiveness of IGCTS interventions on outcomes such as (unplanned) hospital readmission and functional status.<sup>19</sup>

The adherence is often hampered by a variety of barriers at the provider-level (e.g. attitudes of the staff working on general units), at hospital-, and healthcare system-level (e.g. support from hospital management, financing, staffing levels and education). As a consequence, there is a need to further map and subsequently address these barriers in clinical practice. For example, almost all Dutch surveyed hospitals reported taking actions to improve adherence to IGCT recommendations, such as education sessions and coaching of the care teams. Also, a hybrid role of IGCTs (e.g. allowing teams to directly order or implement part of their recommendations in patient care) has been proposed as a possible solution.<sup>19</sup> Yet, the latter model would increase the workload of the already burdened IGCT teams.

Problems regarding adherence were most often mentioned in studies on IGCTs with a solely advisory role. Therefore the impact of a role adjustment of the 'inpatient geriatric consultation teams' should be further explored. The semi-structured interviews with US experts reveal, for instance, an increasing interest in the co-management model in order to combat non-adherence to recommendations.

#### **Follow-up of recommendations during and after the hospitalisation period is too limited**

A CGA-process includes the development of a coordinated and integrated plan for long-term follow-up. However, interviewed healthcare professionals reported many problems with the provision of in-hospital patient follow-up but even more with the collaboration with the primary care setting. Since April 2014, it is compulsory to submit the recommendations of the IGCT to the GP. Yet, the implementation in clinical practice is not yet (or far from being) realized. One of the barriers, according to the interviewed healthcare professionals, is the resistance of the hospital physicians to include these recommendations in the discharge letter for the general practitioner. Some even state that this resistance is induced by the fact that this would not only make these recommendations visible to the GP but also the non-adherence of the treating team to these recommendations. In any case, the KCE-

position paper on chronic care<sup>4</sup> insisted on the need for more efforts to ensure a smooth transition of patients between the primary care setting and the hospital setting (e.g. payment models that stimulate collaboration, uniform electronic patient record accessible for all relevant care providers, training multidisciplinary skills of care providers).

In the French surveyed hospitals almost all IGCTs communicated both assessment and recommendations to the primary care setting. Despite the Dutch guideline detailing the importance of transitional care, only half of the surveyed hospitals communicated IGCT-recommendations with primary care professionals.

#### **3.2.2. Organisational aspects**

##### **Is the supply sufficient to meet the demand?**

During the implementation phase of the Belgian pilot-projects 'geriatric consultation teams' included on average 4.3 FTE's (range: 1.9 – 10.1 FTE's). This means that some hospitals funded the IGCT by other resources than the funds provided for the pilot projects (i.e. restricted to 4 FTE per hospital). This was also confirmed during the SWOT-analysis. Hospital managers indicated to invest resources from the general hospital budget in these teams because of their acknowledged contribution to high-quality patient care. Nevertheless, also the opposite was reported when IGCT-budgets were used for other purposes (e.g. to increase the number of nurses on the G-units or to hire a psychologist without involving him/her in the IGCT).

Interviewed healthcare professionals stated that the demand for geriatric expertise clearly outweighs the supply of available resources (as well as the budgets allocated to IGCT). Furthermore, the shortage of geriatricians as well as (nursing) staff with a specific expertise in geriatric care were identified as major barriers for successful implementation. The increasing number of older persons is expected to sharpen this imbalance between the demand and supply side in the near future. On the other hand, the interviewed healthcare professionals believe that it will also make these teams indispensable. Yet exact figures about the demand and supply of IGCT services are missing (e.g. number of patients flagged as being at high-risk, number of assessments carried out by the IGCT teams). The only available figures are estimated workloads of the IGCT-teams during the implementation of the pilot projects. The median workload per team per year



was estimated on 591 consults (Q1=251; Q3=804) and 423 patients with recommendations (Q1=230; Q3=633).<sup>47</sup> In addition, the proportion of patients aged  $\geq 75$  years admitted on non-geriatric units for which a nomenclature-code is billed in the context of the inpatient geriatric consultation team (i.e. 6% in 2011, with large variability between hospitals) is far lower than what is expected based on the in the literature reported prevalence rates<sup>6, 8, 43 6, 8, 9</sup> of patients with a geriatric care profile hospitalised on non-geriatric units (e.g. impaired Instrumental Activities of Daily Living, polypharmacy, mobility difficulties, perceived burden on caregivers, malnutrition and ADL impairments was simultaneously present in 13% of the patients aged  $\geq 75$  years admitted on non-geriatric units).<sup>8</sup>

### **Team composition varies but nurses and geriatricians are the cornerstone of most teams**

The clinical leadership of most teams is situated with the nurses and geriatricians. Nurses and occupational therapists were core members in more than 90% of the Belgian teams during the pilot project phase.<sup>47</sup> The geriatrician, dietician, psychologist and speech & language therapist were additional core members in more than half of the teams. Social workers, physiotherapists and psychiatrists were more likely to be available on call.<sup>47</sup>

The involvement of physiotherapists in multidisciplinary team meetings were in particular a problem as they are often self-employed. Some hospitals do pay on their own budgets (e.g. physiotherapists receive a compensation for their time spent on multidisciplinary collaboration that equals the compensation that they would receive under the fee-for-service system for that time) to avoid this barrier. Problems to involve geriatricians in these meetings were also reported in Belgium as is the case in France and the Netherlands. Their high workload has as a consequence that they focus on their work in the acute geriatric units. This is also evidenced by the low number of multidisciplinary meetings organised for patients who stay in non-geriatric units'. Still the interviewed healthcare professionals indicated that the presence of IGCT team members during meetings of non geriatric units has a clear added value (e.g. increasing geriatric expertise, visibility of IGCT teams, adherence recommendations, more targeted demands). Yet, the shortening length-of-stay on general units decrease the practical feasibility of the presence of IGCT team members on such meetings.

The ICGT composition was heterogeneous in the international literature and in the surveyed countries (e.g. team size, disciplines involved). However, in Belgium as well as in all studied countries, nurses and geriatricians were IGCT core members. Furthermore, the IGCTs appeared to be strongly driven by nurses, in many cases also being experts in geriatrics both in terms of field experience and level of education. Based on the peer-reviewed literature, the majority of IGCT nurses in the US was educated at the Master level and functioned as an advance practice nurse (APN) (e.g. clinical nurse specialist in gerontology/geriatrics, geriatric nurse specialist practitioner). Although the legal and financial framework for this role is missing, a limited number of Belgian hospitals is currently experimenting with the advanced practice nursing role.<sup>48</sup>

### **Call for knowledge exchange**

The implementation of IGCT in Belgian hospitals was initially, during the first batch of pilot-projects (2007), supported by a consortium of academic teams funded by the FOD/SPF. Via a bottom-up approach *a task and function description for IGCT* was developed. This document served as a useful starting point for other hospitals that stepped into the pilot-projects. The approach included an intensive process with information exchange about and reflections on daily practice (organised per geographic region). This resulted in the emergence of a broad consensus about the task description and function of IGCT and, thus, a broad support from the field.<sup>49</sup> This interactive knowledge sharing approach was much appreciated by the participating hospitals. However, without a continued support of the public authorities these efforts diluted over time.

Today, not taking into account the voluntary undertaken initiatives between some hospitals<sup>50</sup>, the interviewed healthcare professionals identified, the absence of a formal 'common knowledge sharing platform' as a major shortcoming since hospitals fail to share experiences and learn from innovative practices elsewhere. Indeed, there are, despite the prescriptive legislation (and failure of hospitals to implement these rules), different pockets of innovations that emerge bottom-up (e.g. case-finding on pre-hospital consultations for elective patients, integration of IGCT recommendations in the discharge letter via the electronic patient record). Yet, they are not sufficiently picked up by other hospitals since there are no knowledge sharing platforms. The past experiences made clear that central



support by the public authorities is required to foster sustainable knowledge exchange between hospitals. Several examples of such 'community of practices' exist in healthcare (also for the older persons) at the level of the federal and federated authorities.<sup>51, 52</sup>

### 3.3. Alternative care models emerge

The lack of evidence about the implementation of IGCT care models calls for the development of other innovative models to provide appropriate in-hospital care of high quality for older adults on non-geriatric units. Examples that emerge in the literature are co-management (i.e. shared decision making between geriatrician and other physician about patients admitted on non-geriatric nursing units), workforce innovations and organizational models that transcend the boundaries of the 'classic hospital'.

#### Consultation or shared decision making?

Within the current international context, a shift towards co-management models has been observed in the Netherlands and US. This **co-management model** described in Dutch guidelines by the NVKG<sup>53</sup> closely resembles the IGCT model implemented in Belgium but goes beyond the solely advisory role. The interest in these shared decision making models was induced by the lack of clinical effectiveness for the consultation model. The semi-structured interviews in the USA point to the potential benefits of a pro-active implementation of geriatric care focusing on specific geriatric problems working complementary to acute medical care compared to a solely advisory role. Yet, as described above, the evidence<sup>21, 22</sup> about co-management care models for geriatric patients is still too pre-mature to be conclusive about its effectiveness. What's more these co-management models will also be confronted with the shortage of geriatricians (and the by the interviewed healthcare professionals reported shortage of geriatric nurses) as a main barrier for widespread implementation. As such, even if evidence for its effectiveness would come available in the near future, this will not be enough to ensure that older patients on non-geriatric units will receive care with sufficient input of caregivers with geriatric expertise.

#### Models outside the hospital boundaries

During the research on international best-practices a trend on **care models encompassing the boundaries of the hospital** was observed. In France, for instance, the ICGT teams are not restricted to the hospital context as they can also deliver outreaching care within the communities (political decision after 2003 heatwave). In addition, the semi-structured interviews with US-based experts also showed that, in the US, models such as 'hospital-at-home' gain importance. However, many more models (e.g. care hotels, tele-health, telephonic consultations, community hospitals, transitional facilities, convalescence units, discharge programs) exist.<sup>54-56</sup> It is expected that these developments in alternative care models will gain importance in Belgium as well. The caregivers of inpatient geriatric consultation teams pointed out that by the decreasing length-of-stay in hospitals the timeframe of a hospital episode is no longer sufficient for a comprehensive intervention. In addition, according to participants in a Belgian project on geriatric oncological care the geriatric screening and assessment already takes place at home, at consultation or in day hospitalization settings, what can be useful in patients with illness-trajectories requiring mainly ambulatory treatment.<sup>57</sup>

#### Workforce innovations

The lack of expertise in geriatric care among medical specialists without specific training in geriatric care was identified as one of the major threats to deliver high-quality hospital care for vulnerable older persons in the future. Yet, it seems unrealistic that the current Belgian policy measures aiming to increase the number of 'geriatricians' will be sufficient to solve this problem. Therefore, it is worthwhile to study the workforce innovations that take place in other countries that face similar problems. The analysis of the international examples showed that, especially in the US, the nurses of the geriatric consultation teams are prepared at the master-level and often have an 'advanced nursing practice' role. A recent review on 'specialised nurses for patients with dementia in acute hospitals' illustrated that this 'advanced nursing practice role' can be part of, but should not be limited to the IGCT care model.<sup>58</sup> With the increasing number of graduating master-prepared nurses in Belgium,<sup>59</sup> it might be worthwhile to put this workforce innovation back on the policy agenda. After all, previous work illustrated that there is room for improvement on this front in Belgian hospitals.<sup>48</sup> Given the 6<sup>th</sup> State



reform (i.e. the transfer of the competency to 'accredit new professional titles' to the federated entities) this will require close collaboration between the federal and federated entities.

### 3.4. Evaluation of quality of geriatric care still in its infancy

A thorough evaluation of the quality of provided care plays an imperative role in current clinical practice, aiming at continuous improvements in care provision.<sup>60</sup> Despite its importance, the evaluation of the quality of IGCT care has to date received little attention in the international literature. This is in line with the findings of the current KCE report, as almost no IGCTs provided data on this topic (e.g. processes applied to evaluate provided care, domains of care that should be included in quality evaluations), neither through the literature review nor the survey method. Hence, the advices to use quality indicators to evaluate IGCT care models included in the grey literature for both France and the Netherlands do not seem to be widely implemented in the practice setting. Since the ambition should be to deliver high quality of care to all (geriatric) patients regardless the hospital unit on which they are treated, further investments in this area are of primary importance. Thereby, several ongoing initiatives for quality assessment and improvement of care for hospitalized geriatric patients should be taken into account. In the Netherlands an accreditation program with a specific focus for the quality of care for 'vulnerable older persons in acute hospitals' exist (e.g. the 'Senior Friendly Hospitals-project'). The Senior Friendly Hospital evaluation criteria include the systematic screening of older patients for a geriatric profile as well as the availability of an inpatient geriatric consultation team on a 24/7 basis.<sup>61</sup> Also in Belgium the concept of 'Senior Friendly hospitals' was recently launched by the King Baudouin Foundation<sup>62</sup> In Flanders, the quality audits of the public authorities also foresee the evaluation of the 'screening of older patients for a geriatric profile' on general surgical and internal medicine nursing units. Furthermore, many Belgian hospitals are in the process of obtaining a hospital-wide accreditation. Yet, these programs (e.g. Joint Commission International (JCI); or 'Nederlands Instituut voor Accreditatie in de Zorg' (NIAZ, part of the international NIAZ-Qmentum programme) have no specific focus on geriatric care.<sup>24</sup>

In addition, a bulk of international studies and reports exist on the development of indicators to evaluate the quality of care for hospitalized geriatric patients. In part, these indicators are also relevant to evaluate the care for geriatric patients treated on non-G nursing units as delivered through the IGCT model. Moreover, several initiatives for the evaluation of healthcare quality are ongoing (e.g. Flemish Quality Indicators Projects). It is recommended to integrate a set of indicators with the specific aim to monitor the quality of hospital care for older patients with a geriatric profile in these current initiatives.<sup>24, 63</sup>



## 4. CONCLUDING REMARKS

Acute geriatric units remain the gold standard inpatient organisational model to provide 'comprehensive geriatric care' to older persons with a geriatric profile. However, with the substantial share of older patients admitted on hospital acute general units, there is also **a clear need to invest** in models that aim to ensure that patients with a geriatric care profile are treated according to the CGA-principles, a challenge that will continue to grow given the ageing population. Yet, there is **no one 'gold standard' organisational model for successfully providing care** according to these principles **for geriatric patients admitted outside acute geriatric units** emerging from the literature. Furthermore given the shortage of geriatric beds, geriatricians and nurses with a specific geriatric expertise, it is currently not feasible to admit all these patients on acute geriatric units.

**Belgium invested in the implementation of 'inpatient geriatric consultation teams'** (IGCT) resulting in a prescriptive legislation and dedicated (but by many perceived as too limited) funding which is structurally embedded in the hospital budget. Still the high face validity is not backed up by scientific evidence, this model is not widespread in other countries (apart from France and the Netherlands) and several alternative models (e.g. co-management, advanced practice nurses in geriatric care working on non-geriatric units) could be envisaged as well.

Despite the rather prescriptive legislation the **'inpatient geriatric consultation teams' are implemented in various ways potentially reflecting different priorities across hospitals**. Healthcare professionals stressed the need to be able to adapt this model to the local context. What's more, they stressed that the contextual changes (e.g. shortening length-of-stay, increasing prevalence of patients with multiple chronic conditions) will challenge organizational models that are exclusively hospital-oriented.

The interviewed healthcare professionals identified the **absence of a formal 'common knowledge sharing platform'** as a major shortcoming. They pointed out that such a community of practice existed at the start<sup>64</sup> and was much appreciated. However, without a continued support of the public authorities these efforts diluted over time and only some (rather small scale) voluntary initiatives remained. The need for experimentation with alternative care models without knowing in advance which models works best stresses the importance of the re-installment of such a community of practice that is supported by the public authorities and accompanied by academic support to evaluate the initiatives on the field.

In addition to the investment in organizational models that aim to increase geriatric expertise on non-geriatric units, several other policy measures can be taken. A first example is increasing the geriatric expertise of all healthcare providers by providing more room for geriatric education in the **basic curricula** in medicine, nursing and other health-related programs. A second example is to increase the attractiveness of the geriatric disciplines in nursing and medicine. An important element in increasing the attractiveness of the geriatric medical discipline is to start with a recalibration of the tariff catalogue ('nomenclature') for physicians to ensure an **income equilibrium** between the different medical disciplines. Also, investments in new training places are needed when an increase in the number of geriatricians is envisaged. Ultimately, the quality of hospital care should be independent from the type of unit (general unit versus geriatric unit). Therefore it is important to ensure that quality assurance procedures are put in place by integrating a 'geriatric focus' in **hospital-wide quality audits** (or accreditation programs) and by including **indicators** that enable the evaluation of care to older patients with a geriatric profile in existing quality indicator initiatives.





## ■ RECOMMENDATIONS<sup>i</sup>

Acute geriatric units remain the gold standard organisational model for older inpatients with a geriatric profile. However, investments (within Belgian hospitals) in geriatric expertise outside the acute geriatric units are needed to ensure that all patients with a geriatric care profile receive care according to the 'comprehensive geriatric care (CGA)' principles. Yet, the current body of evidence does not allow to put forward neither the internal liaison model nor any other geriatric care model. Therefore, the KCE recommends:

### *To the Minister of Social Affairs and Public Health*

- To take policy-measures with a long-term-perspective, including:
  - To revise the capacity of geriatric units in Belgian hospitals in the context of a larger reform of the Belgian hospital landscape.
  - To increase the attractiveness of the geriatric specialisation for physicians. This requires, a.o. measures, a recalibration of the tariff catalogue ('nomenclature') to ensure an income equilibrium between the different medical disciplines.
  - To study feasibility of and conditions for the creation of advanced practice nurses in geriatric care in order to enable a task shift between geriatricians and nurses prepared at the Master's level.
- To continue the investments in the geriatric care programme including the resources made available to hospitals to disseminate the geriatric expertise on non-geriatric units. However, to adapt this policy on the short-term:
  - To allow flexibility to hospitals in allocating these resources to experiment with innovative care models that are adapted to the local context. The testing of co-management models (i.e. shared decision making between geriatrician and other physicians about patients admitted on non-geriatric nursing units) should be considered in this context. The implementation of these experiments should be linked with a design of their evaluation. Also models focusing on the alignment of the internal and external liaison function and with a stronger focus on ambulatory patients should increasingly gain attention.
  - To install a knowledge platform to share best-practices across hospitals. This will require a continuous investment in a dedicated expert team that is responsible for knowledge sharing in order to disseminate best practices between hospitals. This knowledge exchange process can be further developed by the dedicated centrally

<sup>i</sup> The KCE has sole responsibility for the recommendations.



organised expert team (e.g. site visits by peers). This initiative could be funded by a very small part of the resources that are currently invested in inpatient geriatric consultation teams.

- To allow geriatricians to bill the nomenclature-codes regarding internal geriatric consultation team (IGCT) consultation and multidisciplinary team meetings (i.e. 599045 & 597623) for patients aged 75 or younger if they fulfill the criteria of a geriatric profile as specified in the care programme for geriatric patients.
- To make geriatric specialisation for nurses a special point of attention in the existing federal plan that aims to improve the attractiveness of the nursing profession without losing sight of the general attractiveness of the nursing profession at large.

*To the Federated entities:*

- To integrate (or develop) indicators that allow to evaluate the quality of care for (hospitalised) geriatric patients in both general and geriatric units. This should be done in collaboration with the the College of Physicians for Geriatrics.
- To design a 'geriatric training (i.e. courses and clinical placements) component' in basic curricula of physicians, nurses and allied health professionals.
- To ensure that 'quality of geriatric care' is a specific focus in hospital-wide quality audits (e.g. specific focus in the hospital-wide accreditation programs).

*To the schools of medicine, nursing and allied health professionals:*

- To integrate compulsory basic geriatric care training (i.e. courses and clinical placements) in all curricula.

*To the hospitals:*

To adopt a culture where all health professionals are sensitive for 'geriatric care' (e.g. knowledge sharing, multidisciplinary meetings). This will require sustained efforts and support from the hospital administrators.



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