

RESPONSIBLE USE OF HIGH-RISK MEDICAL DEVICES: THE EXAMPLE OF 3D PRINTING

APPENDIX 2



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NANCY THIRY, MATTIAS NEYT



Title:	Responsible use of high-risk medical devices: the example of 3D printing – Appendix 2
Authors:	Nancy Thiry (KCE), Mattias Neyt (KCE)
Project coordinator:	Nathalie Swartenbroeckx (KCE)
Reviewers:	Irina Cleemput (KCE), Chris De Laet (KCE)
External experts:	Ward Callens (Materialise), Augustin Coppee (Kabinet Volksgezondheid en Sociale Zaken – Cabinet Santé Publique et Affaires Sociales), Bernard Debbaut (Christelijke Mutualiteit (CM)), Marc Doods (UZ Leuven), Vincent Duchenne (Europese Commissie DG RTD), Erik Everaert (FAGG – AFMPS), Gerrit Faelens (FAGG – AFMPS), Bart Falter (UZ Leuven), Hans Hellinckx (BeMedTech), Alexandre Jauniaux (FAGG – AFMPS), Luc Joren (AZ Herentals), Christophe Lahorte (FAGG – AFMPS), Frédéric Lecomte (RIZIV – INAMI), Marleen Louagie (RIZIV – INAMI), Katrien Martens (FAGG – AFMPS), Bart Mersseman (Notified Body), Ethel Mertens (FAGG – AFMPS), Greet Musch (FAGG – AFMPS), Stefaan Nijs (Chirurg-traumatoloog), Valerie Noblesse (RIZIV – INAMI), Valérie Nys (FAGG – AFMPS), Pierre Padilla (Idea consult), Wim Penninckx (FAGG – AFMPS), Constantinus Politis (UZ Leuven), Ward Rommel (Kom op tegen kanker), Christophe Sasserath (Centre de Chirurgie Maxillo-Faciale), Jan Schrooten (Regmed platform), Christel Slechten (FAGG – AFMPS), Bram Smits (Materialise), Philip Tack (Ugent), Richard Van den Broeck (FAGG – AFMPS), Olivier Van Obberghen (Quinz), Carla Van Steenberghe (Materialise), Wim Vandenberghe (BeMedTech), Annick Verbiest (UZ Leuven), Pieter Vergaert (Visible Patient), Bruno Verlee (Ingenieur - specialist ISO certificatie), Kevin Weatherwax (Michigan State University), Dominique Wouters (UCL)
External validators:	Robert Geertsma (Rijksinstituut voor Volksgezondheid en Milieu (RIVM)), Mieke Goossens (MiGo Consulting), Stefan Sauerland (Institut für Qualität und Wirtschaftlichkeit im Gesundheitswesen (IQWiG))
Other reported interests:	<p>Membership of a stakeholder group on which the results of this report could have an impact: Ward Rommel (Kom op tegen kanker), Jan Schrooten (Flanders Bio), Pieter Vergaert (Industrie: firma Visible Patient), Bernard Debbaut (Christelijke Mutualiteiten), Bram Smits (Materialise N.V. – BeMedTech V.Z.W.), Dominique Wouters (Commission for reimbursement of implants and invasive medical devices INAMI – RIZIV, Frederic Lecomte (INAMI – RIZIV), Augustin Coppee (Policy framework)</p> <p>Owner of subscribed capital, options, shares or other financial instruments: Ward Callens (Materialise N.V.), Jan Schrooten (Antheron B.V.B.A.), Bram Smits (Optis Materialise N.V.)</p> <p>Holder of intellectual property (patent, product developer, copyrights, trademarks, etc.): Jan Schrooten (IP of Antheron B.V.B.A.), Pieter Vergaert (Industry: firm Visible Patient)</p> <p>Participation in scientific or experimental research as an initiator, principal investigator or researcher: Philip Tack (IWT Project 'Roadmap' about medical 3D Printing (part Health economy: PHD traject), Jan Schrooten (Projects KU Leuven – generative medicine / VLAIO feasibility assessment Antheron BV.B.A.), Stefaan Nijs (3D modelling in shoulder althea prof. (UZ Leuven – KU Leuven))</p>



A grant, fees or funds for a member of staff or another form of compensation for the execution of research described above: Jan Schrooten (VLAIO feasibility assessment, Interreg VL-NL)

Consultancy or employment for a company, an association or an organisation that may gain or lose financially due to the results of this report: Ward Callens (Materialise N.V.), Jan Schrooten (Antheron B.V.B.A.), Pieter Vergaert (Industry: firm Visible Patient), Bram Smits (Materialise N.V)

Payments to speak, training remuneration, subsidised travel or payment for participation at a conference: Ward Callens (Speaker for MEDPHARMPLAST – Conference Strasbourg 2016), Jan Schrooten (Regmed platform subventions)

Presidency or accountable function within an institution, association, department or other entity on which the results of this report could have an impact: Wim Vandenberghe (Adviseur BeMedTech), Jan Schrooten (Manager Antheron B.V.B.A.), Augustin Coppee (Policy framework), Luc Joren (Hospital)

Layout:

Ine Verhulst

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- **The external experts were consulted about a (preliminary) version of the scientific report. Their comments were discussed during meetings. They did not co-author the scientific report and did not necessarily agree with its content.**
- **Subsequently, a (final) version was submitted to the validators. The validation of the report results from a consensus or a voting process between the validators. The validators did not co-author the scientific report and did not necessarily all three agree with its content.**
- **Finally, this report has been approved by the Executive Board.**
- **Only the KCE is responsible for errors or omissions that could persist. The policy recommendations are also under the full responsibility of the KCE.**

Publication date:

16 January 2018

Domain:

Health Technology Assessment (HTA)

MeSH:

Printing, Three-Dimensional, Device Approval ; Equipment and Supplies ; European Union ; Government regulation

NLM Classification:

W82 (Biomedical technology)

Language:

English

Format:

Adobe® PDF™ (A4)

Legal depot:

D/2018/10.273/05

ISSN:

2466-6459



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How to refer to this document?

Thiry N, Neyt M. Responsible use of high-risk medical devices: the example of 3D printing – Appendix 2. Health Technology Assessment (HTA) Brussels: Belgian Health Care Knowledge Centre (KCE). 2017. KCE Reports . D/2018/10.273/05.

This document is available on the website of the Belgian Health Care Knowledge Centre.



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SEARCH STRATEGIES

Database Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) <1946 to Present>			
Date		26/01/2017	
Date covered		1946 to present	
Search strategy	#	Searches	Results
	1	Economics/	29857
	2	Costs and Cost Analysis/	48889
	3	Value of Life/ec [Economics]	256
	4	pharmacoeconomi*.ti,ab,kw.	3610
	5	(economic adj1 evaluati*).ti,ab,kw.	10032
	6	budget*.ti,ab,kw.	25565
	7	cost-effectiveness.ti,ab,kw.	51989
	8	cost-utility.ti,ab,kw.	3882
	9	cost-mini*.ti,ab,kw.	1375
	10	cost-benefit*.ti,ab,kw.	10543
	11	letter.pt.	1017545
	12	editorial.pt.	462611
	13	historical article.pt.	515354
	14	Animals/	6809447
	15	or/1-10	167141
	16	or/11-14	8639677
	17	15 not 16	152135
	18	Printing, Three-Dimensional/	1215

19	((3D or 3-dimension* or three-dimension*) adj1 print*).ti,ab,kw.	2671
20	(3D or 3-dimension* or three-dimension*).ti,ab,kw. and Printing/	204
21	((3D or 3-dimension* or three-dimension*) adj1 model*).ti,ab,kw.	11789
22	((3D or 3-dimension* or three-dimension*) and (surgical adj1 simulat*).ti,ab,kw.	400
23	(3D adj3 implan*).ti,ab,kw.	377
24	(custom-made adj5 reconstruct*).ti,ab,kw.	115
25	stereolithography.ti,ab,kw.	633
26	reverse engineering.ti,ab,kw.	1156
27	patient-specific implant*.ti,ab,kw.	151
28	rapid prototyp*.ti,ab,kw.	2080
29	or/18-28	18565
30	17 and 29	50

Database Econlit <1886 to December 2016>	
Date	
26/01/2017	
Date covered	
1886 to present	



Search strategy	#	Searches	Results
	1	[Economics/]	0
	2	["Costs and Cost Analysis"/]	0
	3	["Value of Life"/ec [Economics]]	0
	4	pharmacoeconomi*.ti,ab,kw.	244
	5	(economic adj1 evaluati*).ti,ab,kw.	1266
	6	budget*.ti,ab,kw.	20594
	7	cost-effectiveness.ti,ab,kw.	2303
	8	cost-utility.ti,ab,kw.	169
	9	cost-mini*.ti,ab,kw.	787
	10	cost-benefit*.ti,ab,kw.	3024
	11	letter.pt.	0
	12	editorial.pt.	0
	13	historical article.pt.	0
	14	[Animals/]	0
	15	or/1-10	27644
	16	or/11-14	0
	17	15 not 16	27644
	18	[Printing, Three-Dimensional/]	0
	19	((3D or 3-dimension* or three-dimension*) adj1 print*).ti,ab,kw.	10
	20	[(3D or 3-dimension* or three-dimension*).ti,ab,kw. and Printing/]	0
	21	((3D or 3-dimension* or three-dimension*) adj1 model*).ti,ab,kw.	48

22	((3D or 3-dimension* or three-dimension*) and (surgical adj1 simulat*).ti,ab,kw.	0
23	(3D adj3 implan*).ti,ab,kw.	0
24	(custom-made adj5 reconstruct*).ti,ab,kw.	0
25	stereolithography.ti,ab,kw.	0
26	reverse engineering.ti,ab,kw.	71
27	patient-specific implant*.ti,ab,kw.	0
28	rapid prototyp*.ti,ab,kw.	7
29	or/18-28	135
30	17 and 29	3

Database			Embase
Date			26/01/2017
Date covered			No restriction
Search strategy	#	Searches	Results
	#1	'cost benefit analysis'/exp	72220
	#3	'cost effectiveness analysis'/exp	120532
	#4	'cost utility analysis'/exp	7275
	#5	'cost consequence analysis'/exp	13
	#6	'cost minimization analysis'/exp	2915
	#7	'cost control'/exp	57551
	#8	'cost of illness'/exp	16150
	#9	'economic evaluation'/exp	250847
	#10	'pharmacoeconomics'/exp	181101
	#11	'health care cost'/exp	241115



#12	#1 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11	526559
#13	#12 AND ([editorial]/lim OR [letter]/lim OR [note]/lim)	88407
#14	#12 NOT #13	438152
#15	'three dimensional printing'/exp	1806
#16	((3d OR '3 dimension*' OR 'three dimension*' NEAR/1 print*):ti,ab	2567
#21	3d:ti,ab OR '3 dimension*':ti,ab OR 'three dimension*':ti,ab AND 'printing'/exp	845
#22	((3d OR '3-dimension*' OR 'three-dimension*' NEAR/1 model*):ti,ab	12173
#23	3d:ti,ab OR '3-dimension*':ti,ab OR 'three-dimension*':ti,ab AND (surgical NEAR/1 simulat*):ti,ab	455
#24	(3d NEAR/3 implan*):ti,ab	453
#25	('custom made' NEAR/5 reconstruct*):ti,ab	134
#26	stereolithography:ti,ab	560
#28	(reverse NEAR/1 engineering):ti,ab	1012
#29	('patient specific' NEAR/1 implant*):ti,ab	151
#30	('rapid' NEAR/1 prototyp*):ti,ab	2013
#31	#15 OR #16 OR #21 OR #22 OR #23 OR #24 OR #25 OR #26 OR #28 OR #29 OR #30	18751
#32	#31 AND ([editorial]/lim OR [letter]/lim OR [note]/lim)	242
#33	#31 NOT #32	18509
#34	#14 AND #33	167

Database CRD HTA and CRD NHS EED			
Date		26/01/2017	
Date covered		No restriction	
Search strategy	#	Searches	Results
	1	MeSH DESCRIPTOR Printing, Three-Dimensional EXPLODE ALL TREES	0
	2	((3D or 3-dimension* or three-dimension*) adj1 print*)	0
	3	((3D or 3-dimension* or three-dimension*) and Printing/) IN NHSEED, HTA	0
	4	((3D or 3-dimension* or three-dimension*) adj1 model*) IN NHSEED, HTA	3
	5	((3D or 3-dimension* or three-dimension*) and (surgical adj1 simulat*)) IN NHSEED, HTA	0
	6	((3D adj3 implan*)) IN NHSEED, HTA	0
	7	((custom-made adj5 reconstruct*)) IN NHSEED, HTA	0
	8	(stereolithography) IN NHSEED, HTA	0
	9	(reverse engineering) IN NHSEED, HTA	0
	10	(patient-specific implant*) IN NHSEED, HTA	1
	11	(rapid prototyp*) IN NHSEED, HTA	0
	12	#1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11	4



2 SELECTION PROCEDURE

The electronic searches returned 224 citations in total (50 in Medline(OVID), 3 in Econlit(Ovid), 167 in Embase and 4 in CRD HTA & CRD NHS EED). No additional publication was identified via manual search. After exclusion of 14 duplicates, 210 unique citations were left. The flow chart of the selection process is presented below.

Figure 1 – Flowchart of the economic literature review process



