



## 7. EFFICIENCY OF THE HEALTHCARE SYSTEM

### 7.1. One Day surgical hospitalisations (E-1)

#### 7.1.1. Documentation sheet

<b>Description</b>	Surgical day care admissions as a percentage of all hospital admissions for surgery
<b>Calculation</b>	Numerator: number of stays in surgical day care ('one day surgery') Denominator: number of surgical stays
<b>Rationale</b>	<p>Carrying out elective procedures as day cases where clinical circumstances allow (e.g. inguinal hernia repair, circumcision, cataract surgery, etc.) saves money on bed occupancy and nursing care. It is therefore considered an indicator of efficiency. Since the surgical day case rate has an influence on the system's capacity to provide and maintain infrastructure, it is also considered an indicator of sustainability.</p> <p>The majority of Belgian hospitals have a dedicated one-day surgical unit. The recognition of these units is regulated by a Royal Decree. Two KCE reports examined the financing of one-day surgical units, and proposed some recommendations, specifically for one-day surgery<sup>1</sup> and more generally for the financing system of hospitals.<sup>2</sup></p>
<b>Primary data source</b>	RHM – MZG (FPS Health, Food Chain Safety and Environment)
<b>Technical definitions</b>	<p>Numerator: Surgical day care were selected using the type of hospitalisation.</p> <p><u>Before 2008</u>, HOSPTYP1 (file STAYHOSP) = 'D' (for Day care) and the flag for surgical stay in APR-DRG, RPOFM (file STAYXTRA) = 'P' (for procedure).</p> <p><u>From 2008</u>, A2_HOSPTYPE_FAC (file STAYHOSP) = 'D' or 'C' and MorS_15 (file STAYXTRA) = 'P'</p> <p>Denominator: Stays with a surgical APR-DRG were selected with the flag for surgical APR-DRG.</p>
<b>Limitations</b>	Change from ICD-9 to ICD-10 classification has resulted in a break in the series of RHM – MZG data from 2016 on (and no 2015 data available).
<b>International comparability</b>	<p>OECD presents the % of day care cases for a selection of surgical interventions.<sup>3</sup> A <i>surgical day case</i> is defined as a patient who is given invasive surgical treatment (elective surgeries only) which is carried out in a dedicated surgical unit or part of a hospital and which leads to discharge on the day of the operation.</p> <p>Caution is needed when comparing results across countries, as not all OECD countries use exactly the same definition to select the surgical intervention.</p> <p>Another source for international comparison is the International Association for Ambulatory Surgery (IASS) which publishes surveys of day surgery rates across countries.<sup>4</sup></p>
<b>Performance dimensions</b>	Efficiency; Sustainability;
<b>Related indicators</b>	Number of acute care bed days per inhabitant.



### 7.1.2. Results

The Belgian surgical day case rate grew from 34.8% in 2000 to 47.2% in 2016 (Figure 91). Wallonia shows lower rates (42.9% in 2016), compared to Flanders (49.5%) and Brussels (45.3%). There is also large variability across the interventions: while some interventions almost reach 95% of cases performed in day surgery (such as cataract), some other interventions remain relatively low (compared to other countries, for instance laparoscopic cholecystectomy) (Table 58).

An international comparison has been performed in KCE report 192 on one day surgery.<sup>1</sup> This report concluded that Belgium has one day surgery rates comparable to other countries for a selection of interventions. It also showed that rates are highly dependent on which interventions are on the “A list” and hence benefit from a one day lump sum. Laparoscopic cholecystectomy, for instance, which is not on the A list, has one day surgery rates much lower than other countries (see Table 58). For some surgical treatments, a more recent international comparison is available in KCE report 282<sup>5</sup>, with the same conclusions.

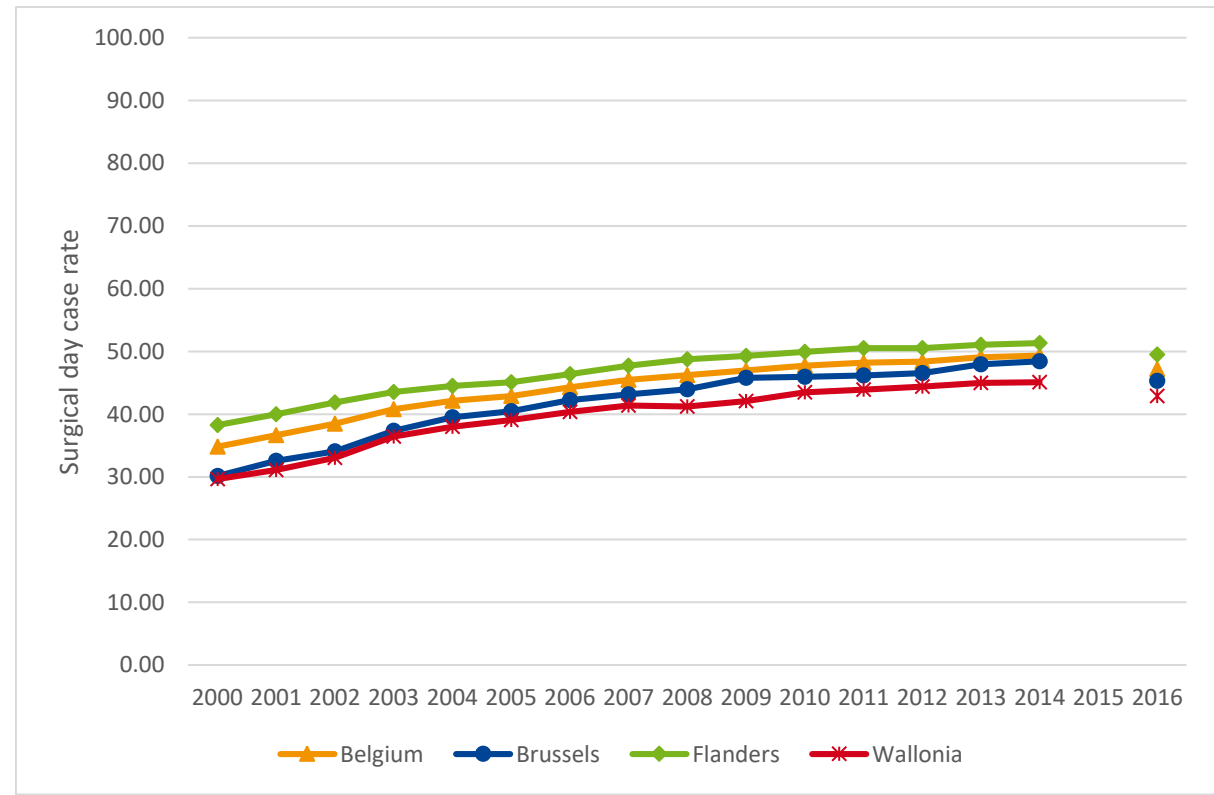

**Table 57 – Percentage of surgical day cases amongst all surgical hospitalisations by year and hospital region (2016)**

Variable	Category	Numerator: all surgical day cases	Denominator: all surgical cases	Percentage
<b>Year</b>	2000	341968	981869	34.8%
	2001	377172	1029730	36.6%
	2002	411132	1068783	38.5%
	2003	445706	1092424	40.8%
	2004	476501	1131439	42.1%
	2005	488666	1139603	42.9%
	2006	515791	1165039	44.3%
	2007	543933	1196287	45.5%
	2008	567255	1227856	46.2%
	2009	588532	1252883	47.0%
	2010	613926	1286543	47.7%
	2011	631249	1308576	48.2%
	2012	635738	1314103	48.4%
	2013	647324	1319213	49.1%
	2014	653543	1324619	49.3%
	2015			
2016	622599	1318561	47.2%	
<b>Data 2016 by region</b>				
<b>Region</b>	Brussels	78722	173773	45.3%
	Flanders	394044	795566	49.5%
	Wallonia	149833	349222	42.9%

Source: RCM-MKG and RHM-MZG



Figure 91 – Percentage of surgical day cases amongst all surgical hospitalisations by hospital region (2000-2016)



Source: RCM – MKG and RHM – MZG

**Table 58 – Proportion of day care cases for selected surgeries (2005-2016)**

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Cataract surgery	90.8	92	92.4	93.1	93.7	94.2	94.4	94.6	95	95.4		95.5
Tonsillectomy	66.1	66.5	68	67.8	69.8	70.8	70.8	70.6	70.4	70.8		69.7
Transluminal coronary angioplasty	6.1	6.9	6.9	8.2	8.6	8.7	9	9	9	8.1		8.2
Coronary artery bypass graft	0	0	0	0	0	0	0.1	0	0	0		0
Stem cell transplantation	3.8	2	0.7	0.6	1.2	2.1	2.9	1.6	2.9	1.6		1.4
Appendectomy	0.3	0.2	0.3	0.4	0.6	0.7	0.7	0.7	0.8	0.8		1.2
- Laparoscopic appendectomy	0.3	0.3	0.4	0.5	0.7	0.8	0.8	0.8	1	0.9		1.3
Cholecystectomy	1.2	1.4	1.6	2	2.2	3	3	3.5	4.3	4.6		5.7
- Laparoscopic cholecystectomy	1.3	1.7	1.8	2.2	2.5	3.3	3.3	3.8	4.7	4.9		5.3
Repair of inguinal hernia	19.8	22.3	23.9	25.5	26.8	29.6	30.4	33.7	36	38.1		41.1
- Laparoscopic repair of inguinal hernia	15.4	19.2	20.9	..	(B) 24.1	28.6	29.2	34	36.8	39.9		44.5
Open prostatectomy	0.4	0.4	0.6	0.5	0.6	0.5	0.4	0.6	0.8	0.6		0.2
Transurethral prostatectomy	0.5	0.6	0.4	0.3	0.4	0.3	0.3	0.5	0.5	0.4		1.4
Hysterectomy	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.4	0.5	0.4		3.6 <sup>(1)</sup>
- Laparoscopic hysterectomy	0	0	0	0.2	0.2	0.1	0.3	0.7	0.8	0.7		2.7 <sup>(1)</sup>
Caesarean section	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		0.4
Hip replacement	0	0	0	0	0	0.1	0	0	0	0		0.1
Total knee replacement	0	0.1	0	0.1	0.1	0.1	0	0	0	0		0.1
Partial excision of mammary gland	28.5	28	29.2	29.3	27.7	29.2	28.3	27.2	28.2	27.8		23.3
Total mastectomy	2.1	2.1	2.3	3	3.3	2.8	3.8	3.1	3.3	3.9		17.3 <sup>(1)</sup>

Source: OECD health statistics 2018<sup>3</sup>

<sup>(1)</sup> There is a break in the series from 2016 on following the transition from ICD-9 to ICD-10; some mappings still need to be improved.



Table 59 – One day surgery rates, for a selection of procedures: international comparison (2009)

Procédure	Belgique	France	Angleterre	Pays-Bas	Danemark	U.S.A. (2007)
Myringotomie (drainage transtympanique prothétique)	96%	96%	87%	98%(2007)	75%	98%
Amygdalectomie	74%	63%	30%	32%	38%	90%
Chirurgie de la cataracte	93%	78%	97%	99%	99%	99%
Correction du strabisme	93%	33%	92%	97%	84%	84%
Stérilisation endoscopique de la femme	75%	57%	85%	94%	91%	92%
Dilatation + curetage	85%	63%	85%	70%	94%	86%
Ménissectomie arthroscopique	90%	74%	81%	93%	96%	98%
Libération du canal carpien	95%	84%	95%	94%	93%	98%
Cholécystectomie par laparoscopie	3%	1%	20%	6%	58%	53%
Réparation d'une hernie inguinale	35%	20%	59%	67%	81%	86%
Excision d'un kyste pilonidal	45%	19%	58%	91%	92%	91%
Circoncision	95%	90%	83%	95%	94%	91%
Panel IAAS*	78%	45%	77%	68%	86%	85%

\* Liste de 37 procédures

Source: International Association for Ambulatory Surgery (IASS), cited in report <sup>1</sup>

### Key points

- The percentage of surgical hospitalisations that were performed in one day hospital grew from 34.8% in 2000 to 47.2% in 2016.
- Belgium is in the international average for a series of interventions, except for some specific “low range” surgeries, which are currently not financed in day surgery, and hence are still performed in classic hospitalisation.

### References

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