



Federaal Kenniscentrum voor de Gezondheidszorg
Centre Fédéral d'Expertise des Soins de Santé
Belgian Health Care Knowledge Centre

Administrative databases and clinical expertise: a synergy to detect hurdles in Belgian day-surgery practice

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Federaal Kenniscentrum voor de Gezondheidszorg - Centre fédéral d'Expertise des soins de santé

Mission: on the basis of scientific analysis and research, to advise policymakers on decisions relating to healthcare and health insurance.



Day-surgery study (HSR)

Commissioned by the Minister of Health, within the scope of the current reform of hospital payment system.

1. Which **elective** surgical interventions can **safely** be performed in a day-care approach, as an alternative for inpatient care?
2. How can the day-care share for these procedures be increased?

Methods

Literature review

- Systematic review on risks and safety of day surgery
- International comparison

On-line survey

- Validation of surgical procedures list by **145 specialists**

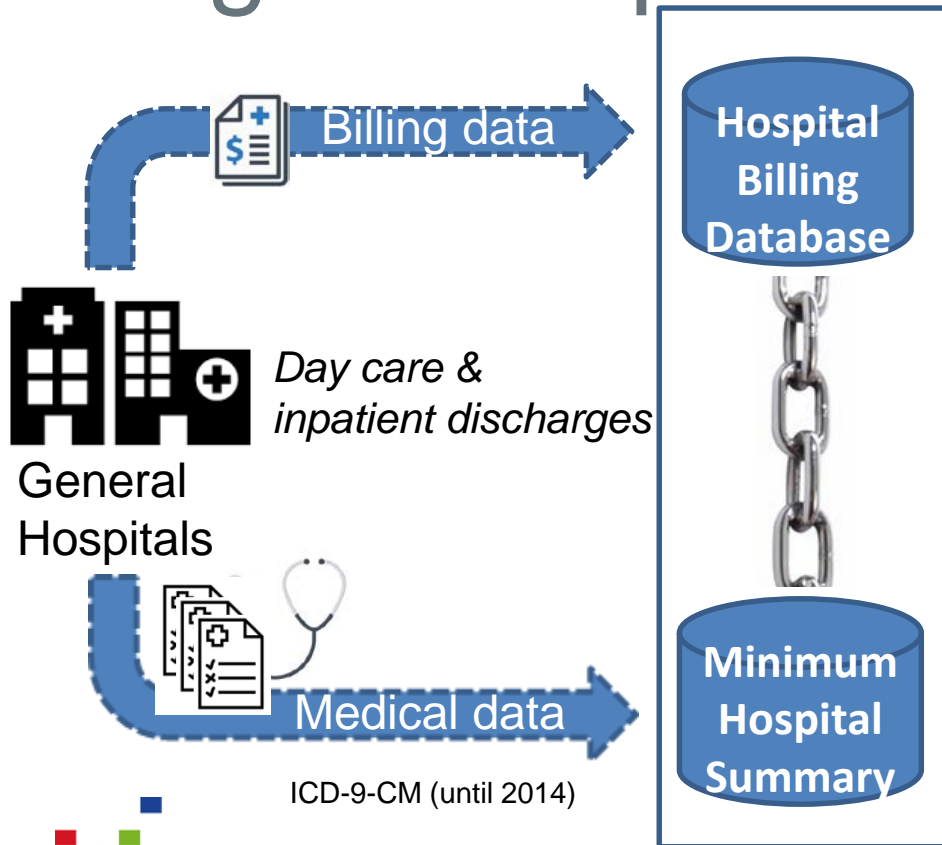
ADMINISTRATIVE DATA ANALYSIS

- Algorithm based on ICD-9-CM, APR-DRGs
- Hospital benchmarking using bubble charts

11 EXPERT MEETINGS

- To discuss variability – identify barriers – propose solutions

Belgian hospital administrative data



National Institute
for Health and Disability
Insurance



TCT
Technical
cell



Ministry of Health

APR-DRG assignement



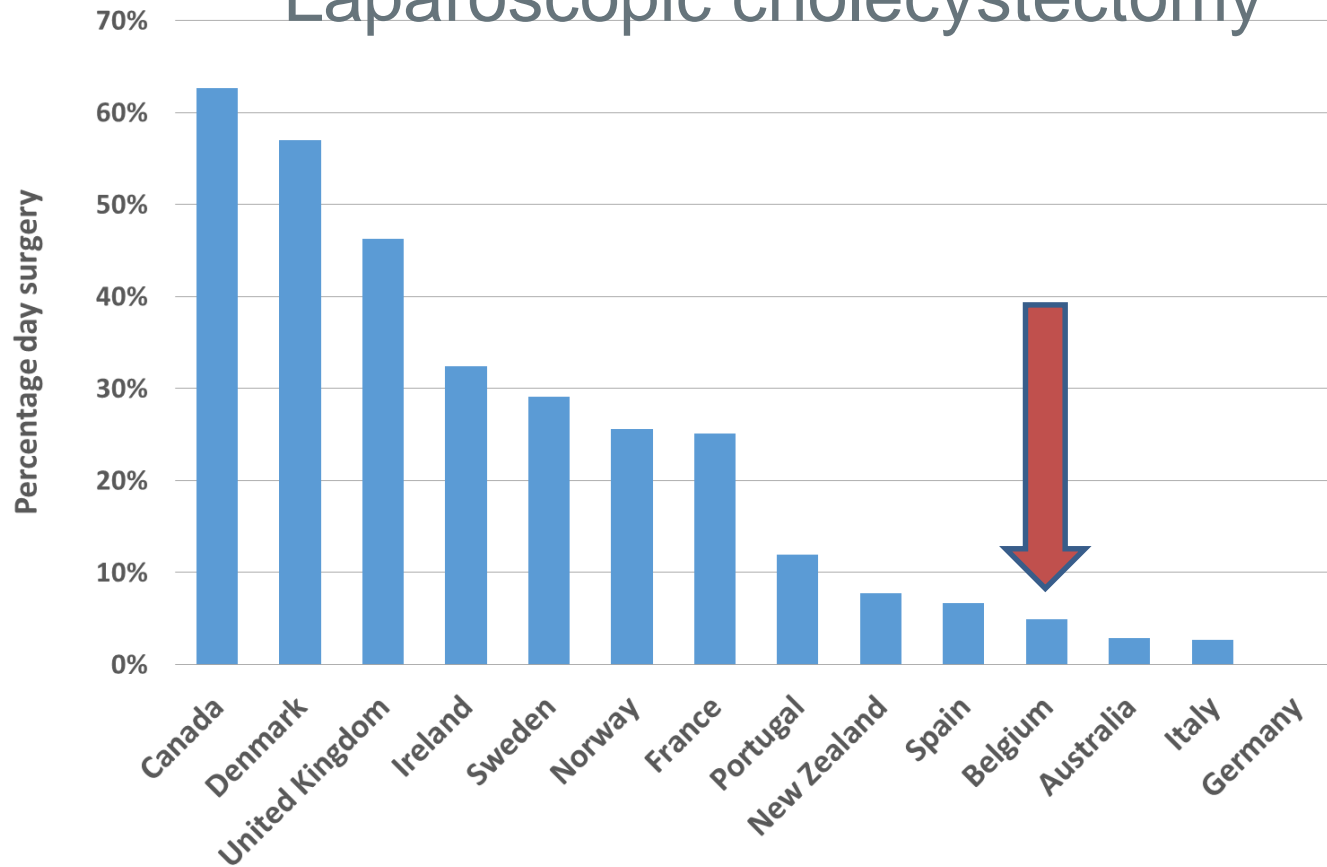
service public fédéral - federale overheidsdienst
SANTÉ PUBLIQUE, VOLKSGEZONDHEID,
SECURITE DE LA CHAÎNE ALIMENTAIRE ET ENVIRONNEMENT EN LEEFMILIEU

Data selection 2011-2013



- **3 registration years pooled**
- **No psychiatric stays**
- **No admission through Emergency Department**
- **Severity of illness 1 (minor) - 2 (moderate)**
- **Patient alive on discharge**

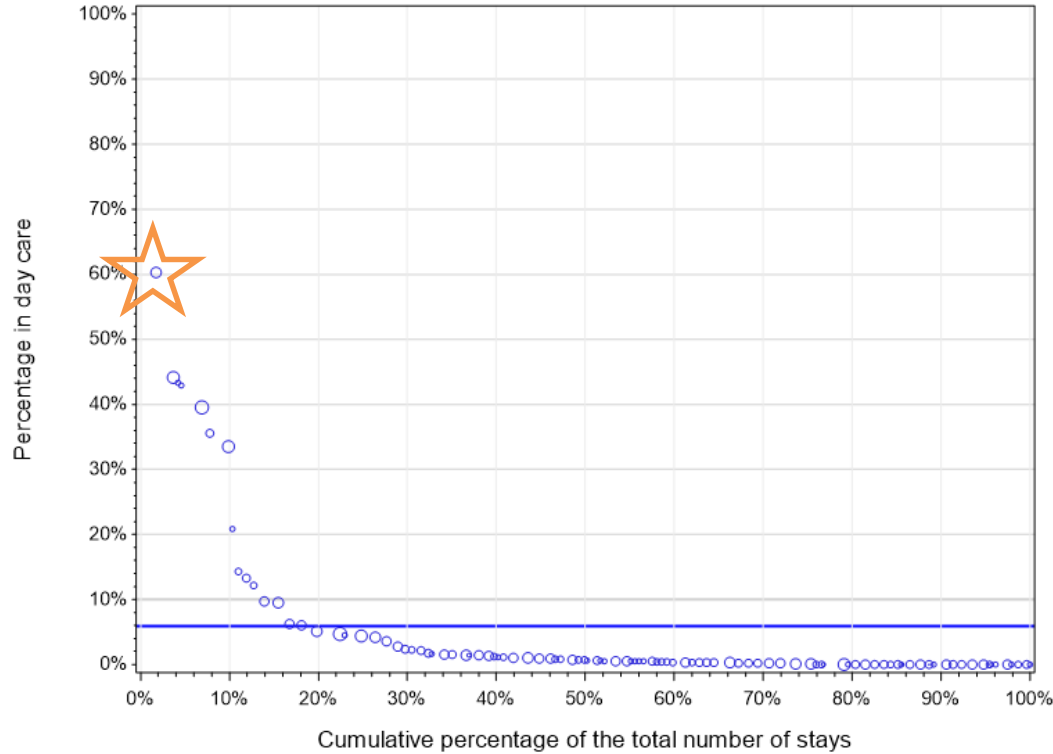
Laparoscopic cholecystectomy



Source: OECD Health Statistics 2017 (2015 or 2014 if most recent)

Laparoscopic cholecystectomy

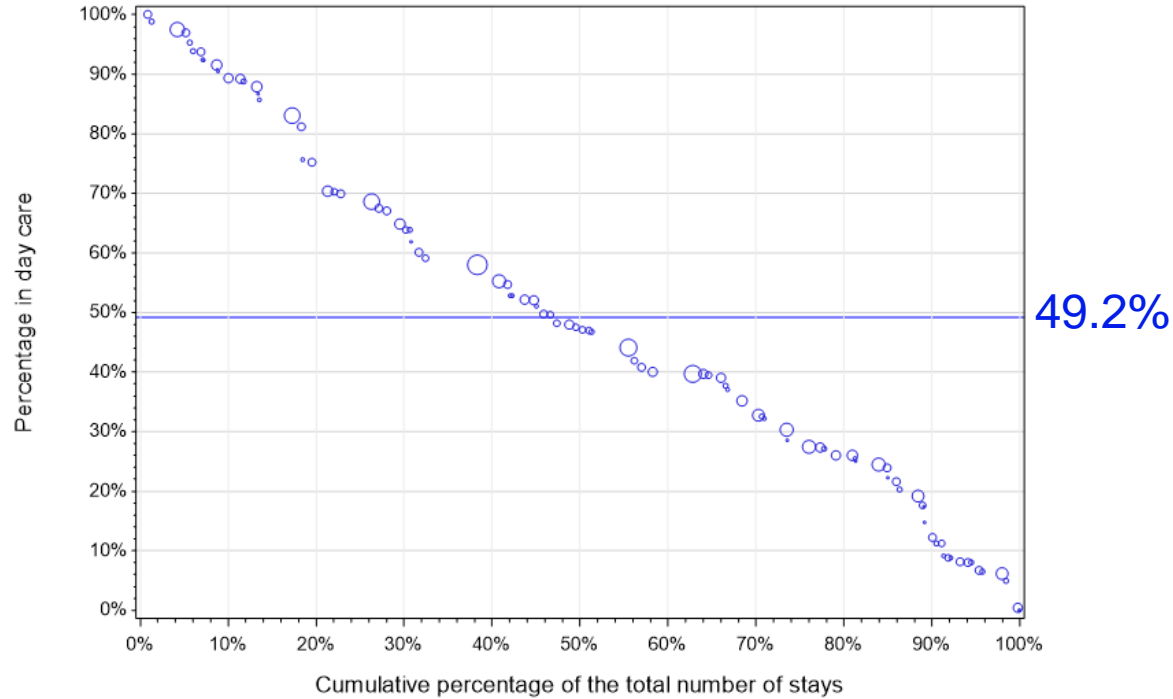
Survey on safety & eligibility



Horizontal line drawn at National %: 5.9 %
Number of hospitals with 0% in Day care: 31

Turbinectomy

Survey on safety & eligibility



Horizontal line drawn at National %: 49.2 %
Number of hospitals with 0% in Day care: 2

Hurdles to day surgery

Financial issues

Obsolete « A » list of promoted procedures

Single rooms availability (fee supplements)

Anaesthetists payment

Hospital / ambulatory organisation

Timing & schedule

Link with Ambulatory care

Medico-legal responsibility

Medical team culture

Traditions

Lack of innovation knowledge

Lack of good clinical practice guidelines

Patient characteristics

Lack of social support
Unfavourable socio-economic status

Preferences

Proposals to support day surgery

Financing system

Yearly list review

Modulate by cluster
(low/medium/high variability)

Hospital - ambulatory organisation

Dedicated DS unit

Medical Team

Medical training

Patient

Information

Process optimization
(before admission till (after) discharge)

Benchmarking and Monitoring System



Patient costs

Benchmarking and Monitoring System



Feedback benchmarking

- Hospital level
- Surgeon level

Monitor quality & safety

- Quality indicators
Day Surgery Data Project 2009-2012

Auditing system

- Coding
- Billing practice

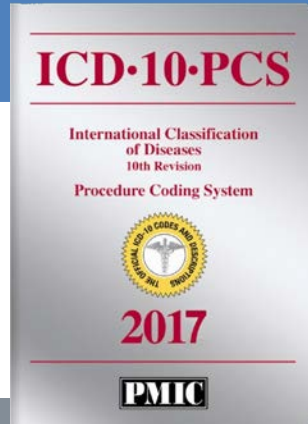
Data limitations

ICD-9-CM procedure codes scope

- Upcoding
- Variation of indications, procedures, & complexity
- Primary ≠ revision surgery
- Open ≠ MIT

Unregistered Patient social determinants of health

- Social support
- Education, health literacy
- Socio-economic status



Full report available on-line

<https://www.kce.fgov.be/en/proposals-for-a-further-expansion-of-day-surgery-in-belgium>

Proposals for a further expansion of day surgery in Belgium

International comparison, payment system,

Algorithm, codes, literature research, experts consultations

Results: Tables & 486 bubble charts

DOCUMENTS

Download the report in English (132 p.) (1.67 MB)



Download the synthesis in English (44 p.) (567 KB)



Download the supplement 1 in English (164 p.) (782 KB)



Download the supplement 2 in English (631 p.) (7.61 MB)



Leroy R, Camberlin C, Lefèvre M, Van den Heede K, Van de Voorde C, Beguin C. *Variability in elective day-surgery rates between Belgian hospitals - Analyses of administrative data explained by surgical experts.*

Int J Surg. 2017 Jul 19;45:118-124.

Thank you for your attention

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