OECI Accreditation & Designation and Minimum Volumes

Prof. Wim H. van Harten

Athens June 2025

NETHERLANDS CANCER INSTITUTE
ANTONI VAN LEEUWENHOEK

Volume matters, sufficient evidence

- Mechanisms presumed, but not known in detail
- Statistical variation confuses the discussion
- Strong alliances needed to enforce concentration decisions (Denmark, Ireland, Princess Maxima, Literature)
- Case Netherlands norms established for 5 tumor types
- To early for quantitative A&D norms.

The Effect of Provider Case Volume on Cancer Mortality: Systematic Review and Meta-Analysis. *Cancer 2009*

Russell L. Gruen MBBS, PhD, Veronica Pitt PhD, Sally Green PhD, Anne Parkhill MBIT, GradDipLib, Donald Campbell MMedSci (ClinEpi), MD, Damien Jolley MSc (Epidemiol), MSc (Stats), DipEd, AStat

- 101 publications involving greater than 1 million patients with esophageal, gastric, hepatic, pancreatic, colon, or rectal cancer, of whom more than 70,000 died
- A significant volume effect was evident for the majority of gastrointestinal cancers; with each doubling of hospital case volume, the odds of perioperative death decreased by 0.1 to 0.23
- Between 10 and 50 patients per year, depending on cancer type, needed to be moved from a “low-volume” hospital to a “high-volume” hospital to prevent 1 additional volume-associated perioperative death.
- One-third of all analyses did not find a significant volume effect on mortality
- More direct quality measures and the validity of their use to inform policy should also be explored

Cancer
An International Interdisciplinary Journal of the American Cancer Society

Effect of hospital volume on processes of breast cancer care: A National Cancer Data

Base study: 573,571 women,1755 different hospitals

E. Pezzin PhD et. Al.,

- On multivariate analysis controlling for patient characteristics, treatment year and geographic location, hospital volume was a significant predictor for cancer diagnosis by initial biopsy negative surgical margins, and appropriate locoregional treatment

Volume matters, sufficient evidence, G. Beets Brussels 2025

Quality of surgeon/surgery matters

- Quality is difficult to measure – some surrogate markers
- Volume, with all its shortcomings, is consistently related to quality

JAMA Surgery | Original Investigation

Low-Volume Elective Surgery and Outcomes in Medicare Beneficiaries Treated at Hospital Networks

Stanley Kalata, MD, MS; Sara L. Schaefer, MD; Ushapoorna Nuliyahu, MPH; Andrew M. Ibrahim, MD, MSc; Hari Nathan, MD, PhD

PRESIDENTIAL ADDRESS

The Volume-Outcome Relationship in Cancer Surgery
A Hard Sell

Ingemar Ihse, MD

The NEW ENGLAND JOURNAL of MEDICINE

SPECIALTIES TOPICS MULTIMEDIA CURRENT ISSUE LEARNING/CME AUTHOR CENTER

EDITORIAL

The Volume–Outcome Conundrum

Author: Kenneth W. Kizer, M.D., M.P.H. Author Info & Affiliations

OECI meeting 12-02-25, Brussels

Volume matters, sufficient evidence

Training matters

esso
The European Society of Surgical Oncology

Review > Cochrane Database Syst Rev. 2012 Mar 14:(3):CD005391.
doi: 10.1002/14651858.CD005391.pub3.

Workload and surgeon's specialty for outcome after colorectal cancer surgery

David Archampong [1], Da

Comparative Study > Br J Cancer. 2004 May 17;90(10):1920-5. doi: 10.1038/sj.bjc.6601846.

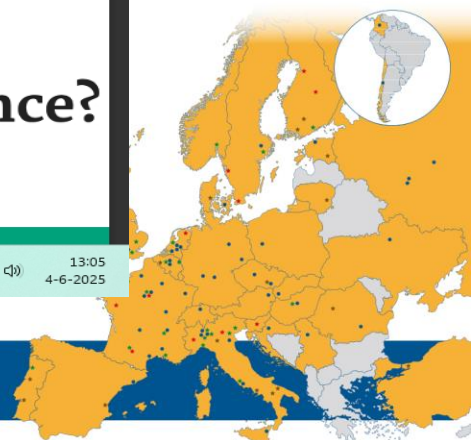
Why does specialist treatment of breast cancer improve survival? The role of surgical management

D Kingsmore [1], D Hole, C Gillis

> Ann Surg Oncol. 2003 Jul;10(6):606-15. doi: 10.1245/aso.2003.06.017.

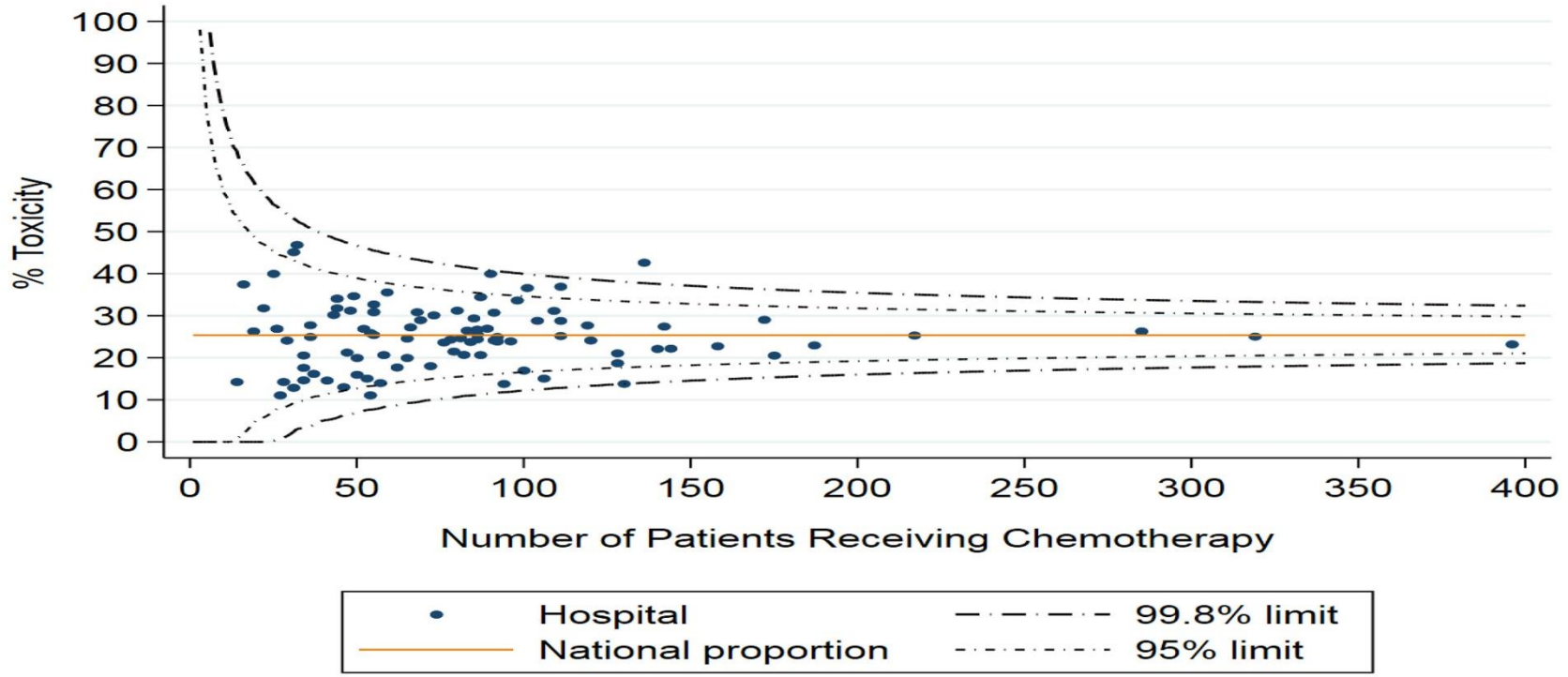
Breast cancer: do specialists make a difference?

Kristin A Skinner [1], James T Helsper, Dennis Deapen, Wei Ye, Richard Sposto



Volume matters? Sufficient reason also to look into medical treatment, Jemma Boyle EJC 2023

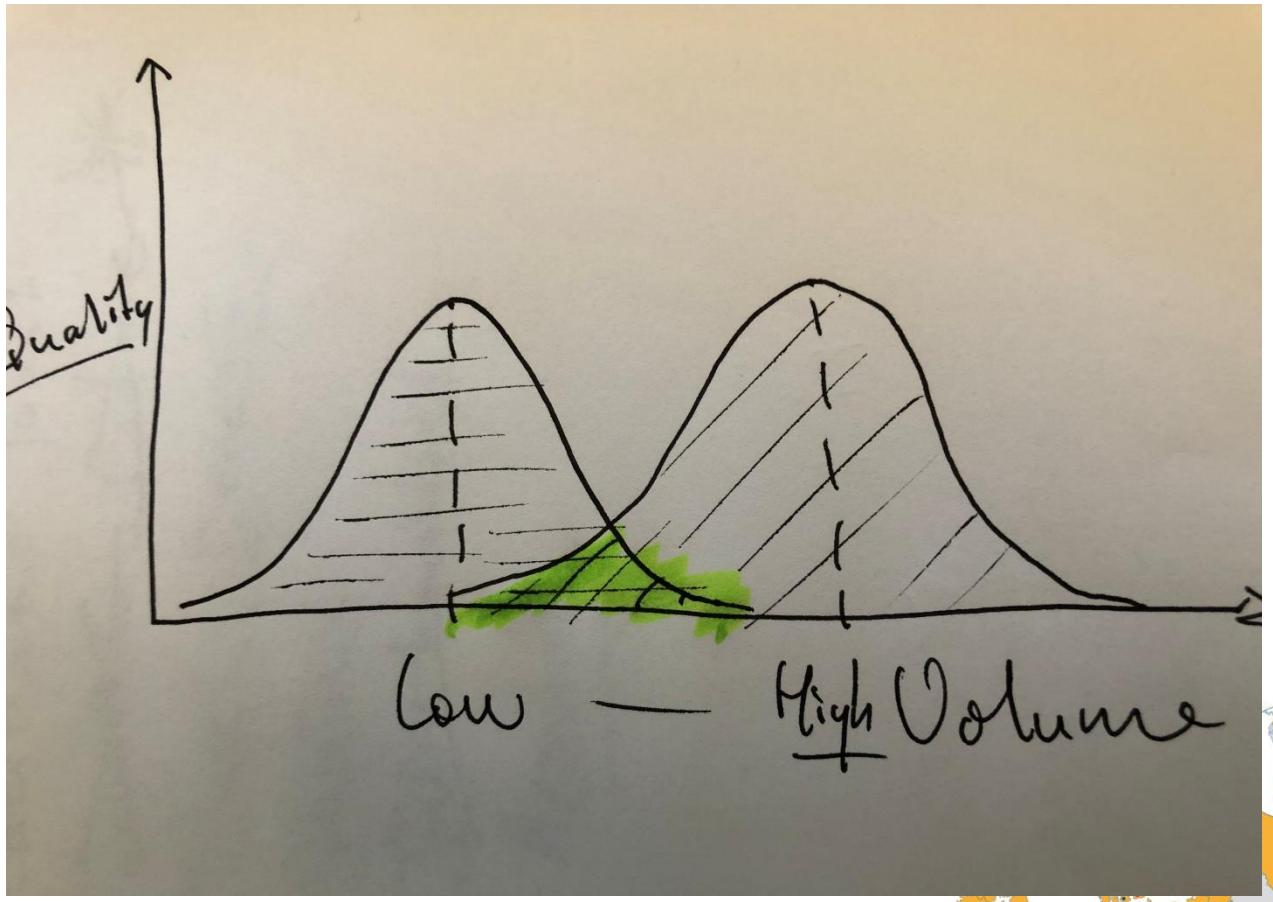
a)



b)

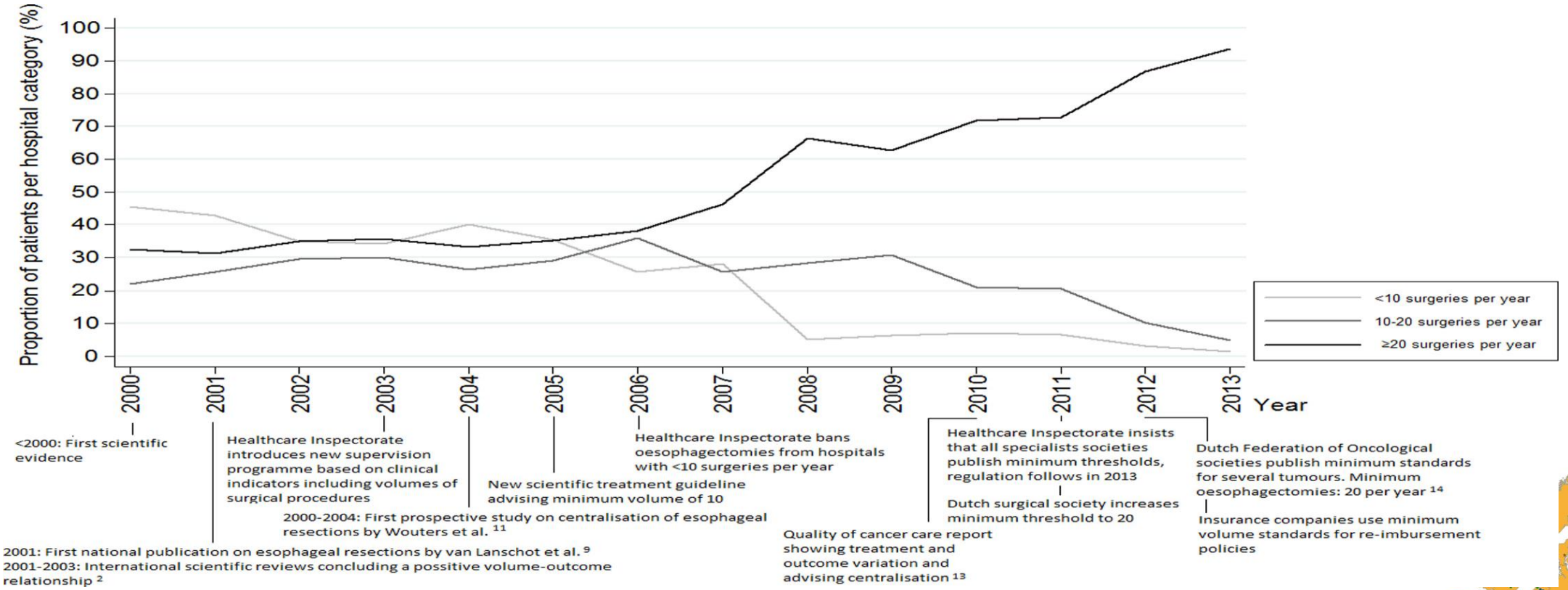
Complex discussion

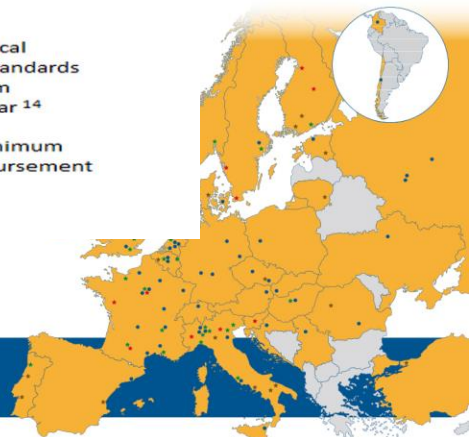
- Low volume center natural variation and high volume center natural variation almost always lead to some low volume centers scoring better than some high volume centers.
- Mix of different arguments and interests: individual, group, institutional, patients, politicians etc.



What drives centralisation in cancer care? Oesophagus

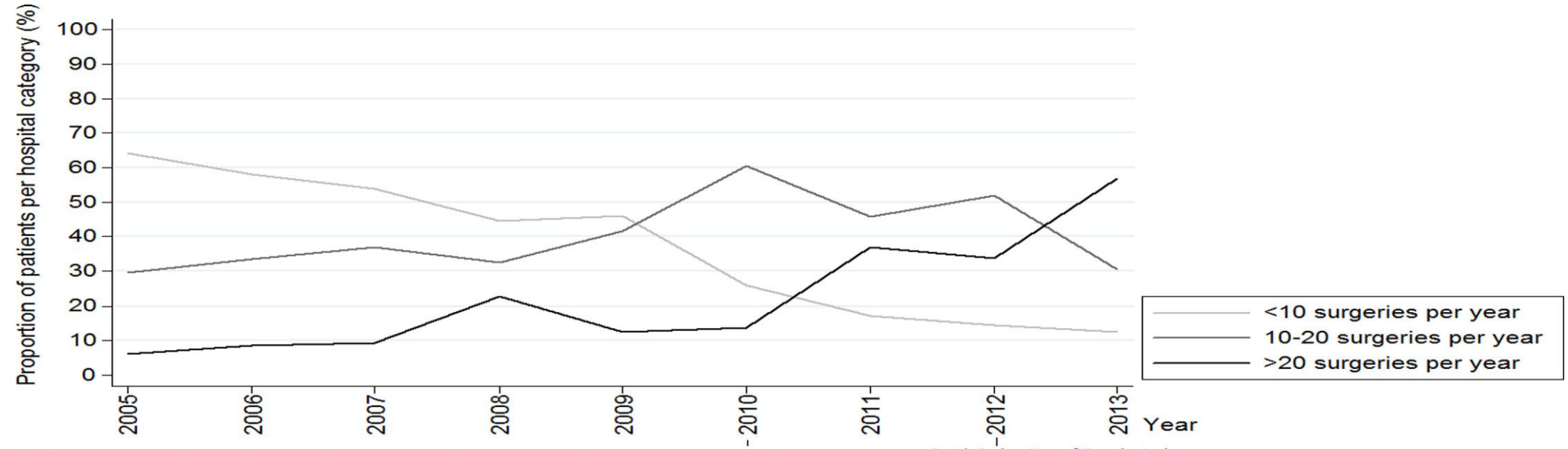
Melvin J Kilsdonk[1,2], Sabine Siesling[1,2], Boukje A C van Dijk[1,3], Michel W Wouters[4], Wim H van Harten[2,4]

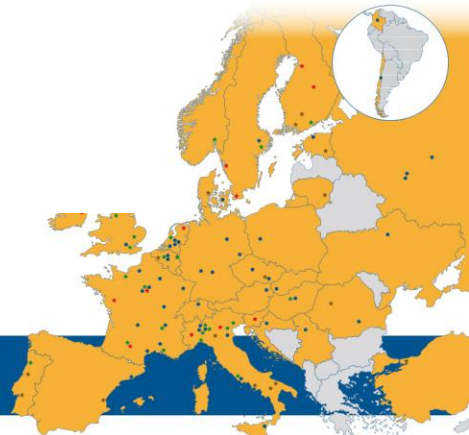




What drives centralisation in cancer care? Cystectomy

Melvin J Kilsdonk [1 2], Sabine Siesling [1 2], Boukje A C van Dijk [1 3], Michel W Wouters [4], Wim H vanHarten



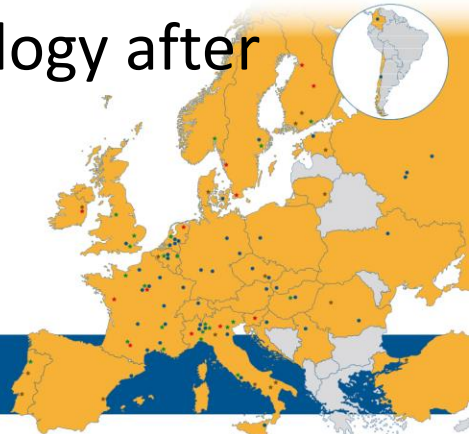


What drives centralisation?

- Scientific Evidence and Key Opinion Leaders: **some effect**
- External pressure (Public, Politicians, Patient groups, Payers) **more effective**
- **Examples of rigorous centralisation in Denmark, Ireland, Netherlands (Princess Maxima).**
- **Discussions ongoing in many countries**

The Netherlands, volume norms proces

- 2010/11 Healthcare Inspectorate and Professional societies (SonCos) decide on minimum volumes of 20 for Pancreatic, Oesophagal and some rare cancers.
- Heamatology A,B,C level centers in a national network
- 2011-2023 gradual implementation of minimum volume norms for many, interventions: Advanced Melanoma, Sarcoma, Gynecological tumors, Lung all 20, Adrenal 10, Breast Cancer and Colorectal 50, Head&Neck 200/80 new patients, Bladder 20 and Prostate 100 (both since 2019!) PLUS guidelines on Staffing, Infrastructure and Networking
- 2017/18 start Prinses Maxima (national) center for pediatric oncology after 5 years of discussion and conflict



The Netherlands, Volume norms proces

- **National agreement forced upon the field by the Ministry, Patient organisations and Insurances; *targeted minimum 50-100 for* Oncologic Surgery 2022:**
- Important changes, *first set after 3 years of discussion with* -Pancreas 150 new pts and 50 resections, 30 systemic therapy, RT 50
- -Lung cancer 60 (later 100) resections, 300 prevalent- & (all) 10 incident systemic therapies, RT 50
- -Oesophagus/Gastric 75 resections, 50 prevalent- & 10 incident systemic therapies, RT 50
- -Renal Cancer: 50 (partial) resections and focal treatments, 50 prevalent- & (all) 10 Incident systemic treatments
- **2025 decision on implementation per 7 Oncol. Networks, translation into financing (and €€-loss compensation) by end 2026.**

Volume matters, sufficient evidence

- Mechanisms presumed, but not known in detail
- Statistical variation and vested interests confuse the discussion
- Strong alliances needed to enforce concentration decisions (Denmark, Ireland, Princess Maxima, Literature)
- Case Netherlands: very gradual, now further norms established for 5 tumor types
- To early for A&D quantitative minimum volume norms

Core standard OECI, Surgical Oncology 47.154: “The cancer centre applies minimum numbers of surgical procedures per tumour type according to National / International guidelines”

Network standard: “Minimum volumes of patients per health care provider per cancer type are defined and monitored within the network.”

- **<u>Center´s responsibility</u>:**

- -Apply minimum volume standards according to international trends and scientific evidence (even above- or in absence of national tresholds!)
- -Produce, monitor and publish data on care quality of both surgical and medical procedures, especially in critical volumes, and participate in benchmark sets.
- -Proactive participation in regional/national discussions on minimum volumes

Set patient interests above vested institutional and -professional interests!

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Thank You

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