

## Low-value care within German hospitals: A first attempt to systematically quantify its extent and trends

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## Problemstellung

- Überversorgung gewinnt weltweit zunehmend an Aufmerksamkeit – das genaue Ausmaß wurde jedoch noch nicht beziffert
- Angaben zu dem Anteil der durch Überversorgung entstandenen Kosten schwanken für die USA zwischen **6 % bis 8 %** (Berwick & Hackbarth 2012) und **29 %** (Wennberg et al. 2002)

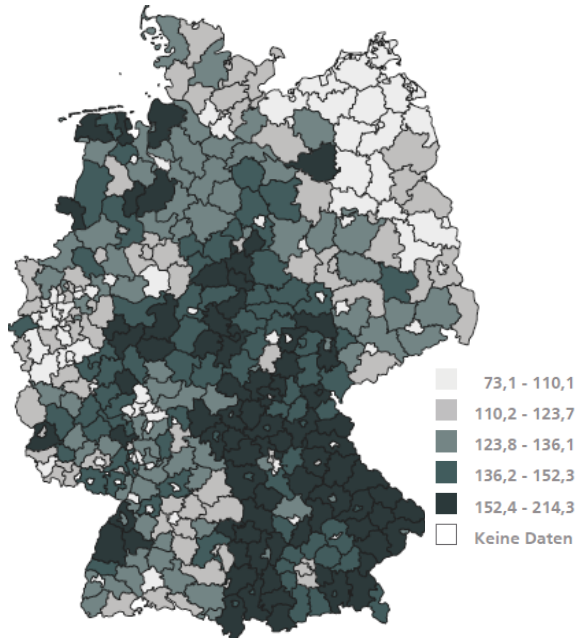
### Herausforderungen:

- Unterschiedliche Messmethoden (direkt vs. indirekt)
  - Operationalisierung von angemessener bzw. nicht angemessener Versorgung
- Bedarf nach umfassender /systematischer Berichterstattung zu Überversorgung

# Indirekte vs. direkte Erfassung von Überversorgung

## Indirekt

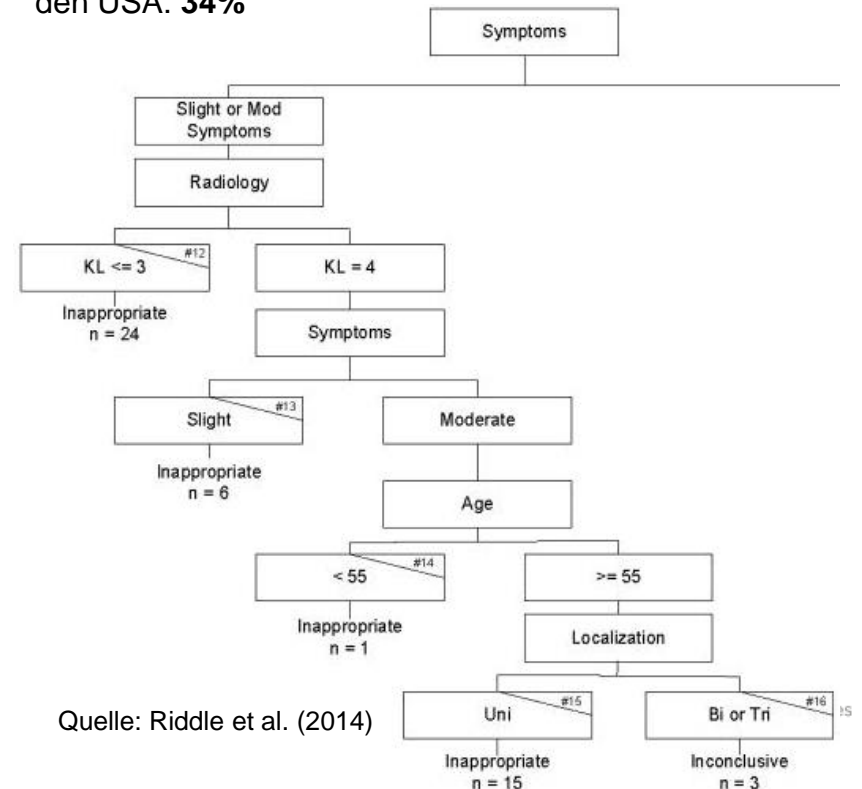
Kniegelenkersatz-Operationen pro 100.000 EW (2005-2011)



Quelle: Bertelsmann Stiftung (2013)

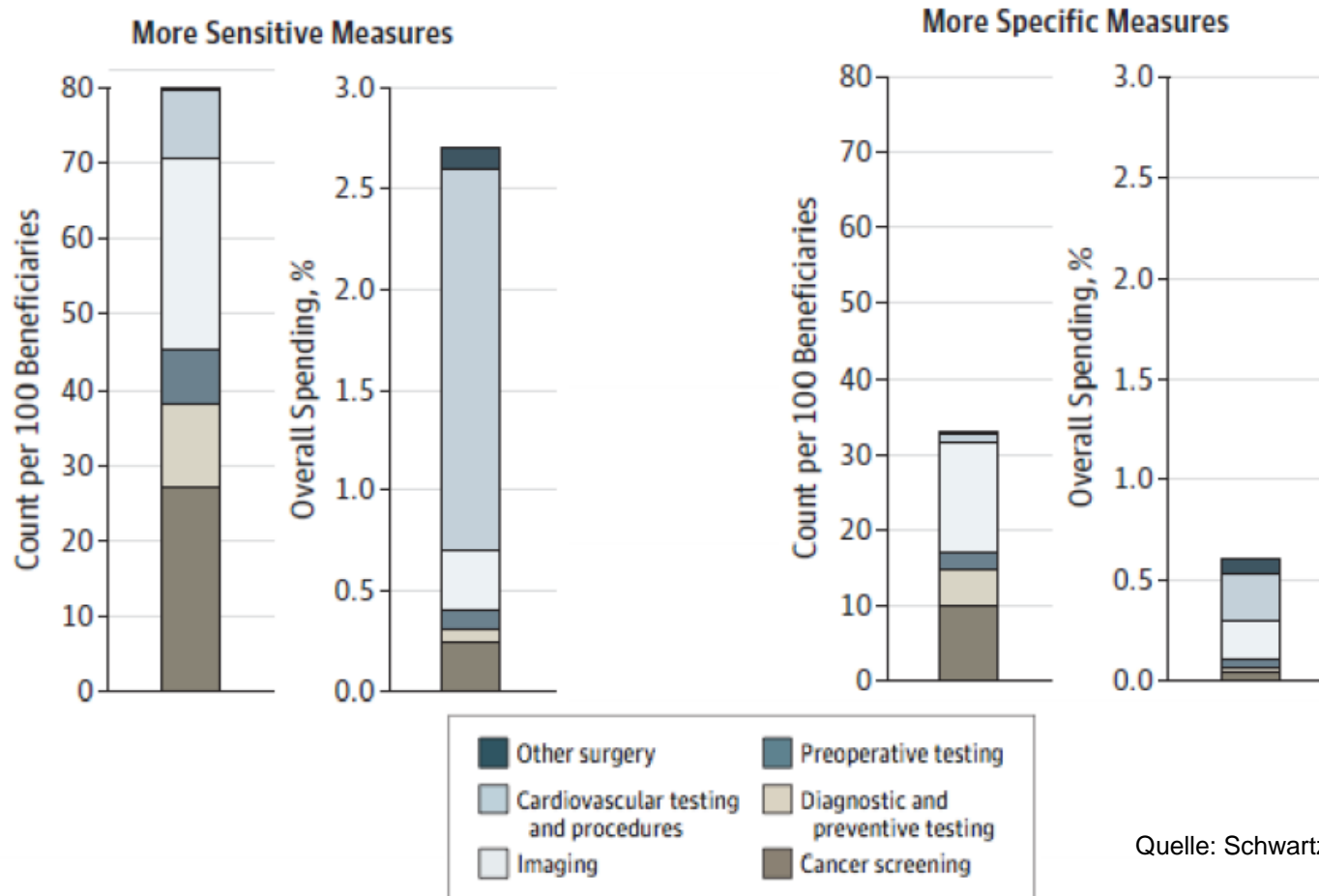
## Direkt

→ Anteil der unangemessenen Knie-TEPs in den USA: **34%**



Quelle: Riddle et al. (2014)

# Systematische (direkte) Messung von Überversorgung



Quelle: Schwartz et al. 2014

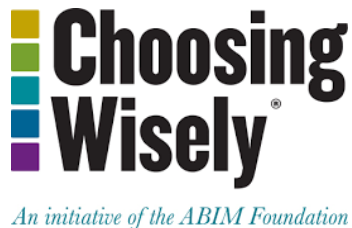
## Fragestellungen und Ziel der Studie

- Welche internationalen „low-value care“- Indikatoren (hier: NSW, Australien) können in deutschen Routinedaten gemessen werden?
- Wie hoch ist der Anteil an unangemessenen Versorgungsleistungen im stationären Sektor?
- Wie hat sich der Anteil über die Zeit entwickelt?

### Langfristiges Ziel:

- Identifikation von Indikatoren, die sich für ein langfristiges Monitoring und den internationalen Vergleich eignen
- Identifikation von Determinanten systematischer Überversorgung

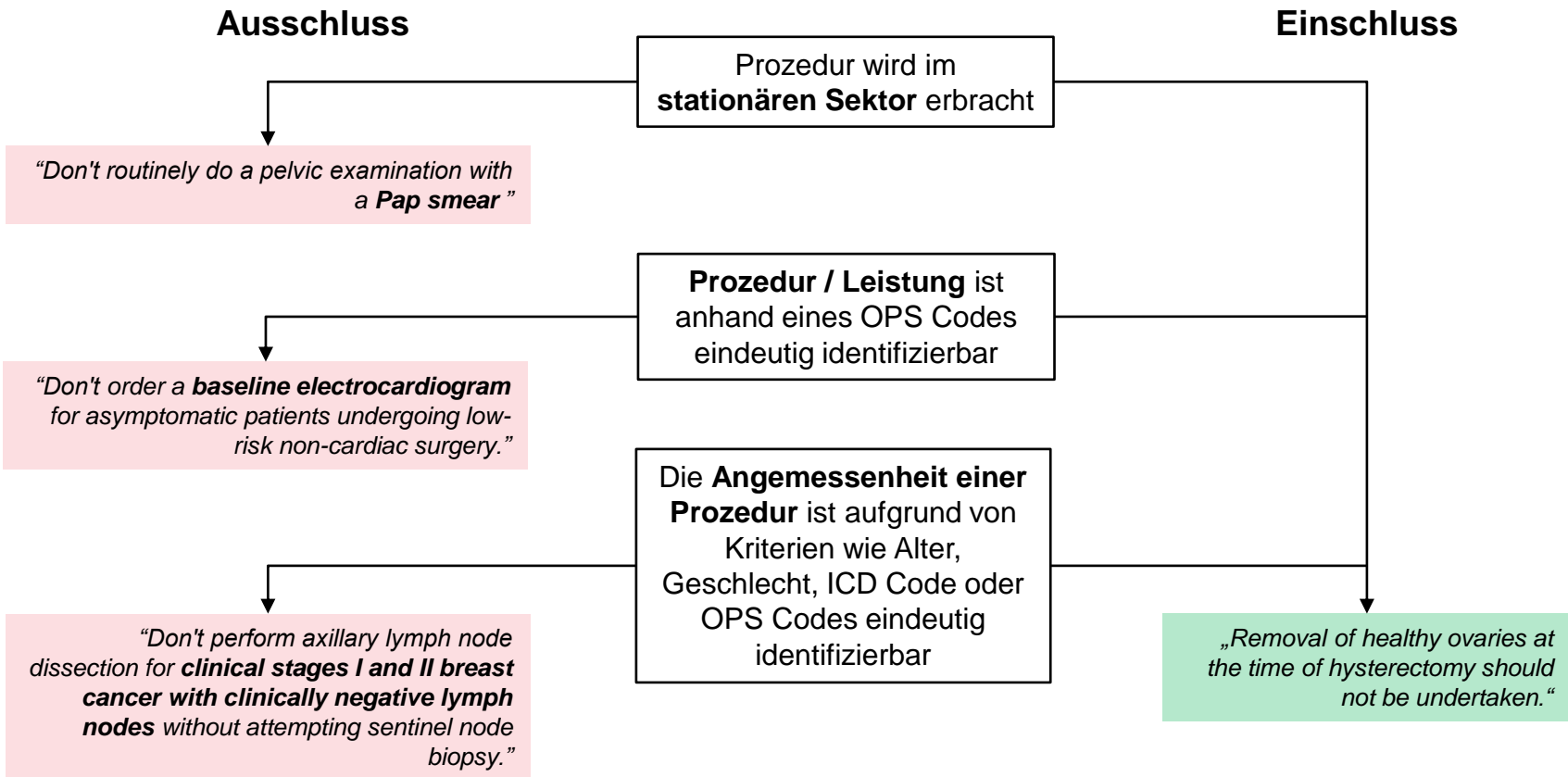
## Woher kommt die Evidenz?



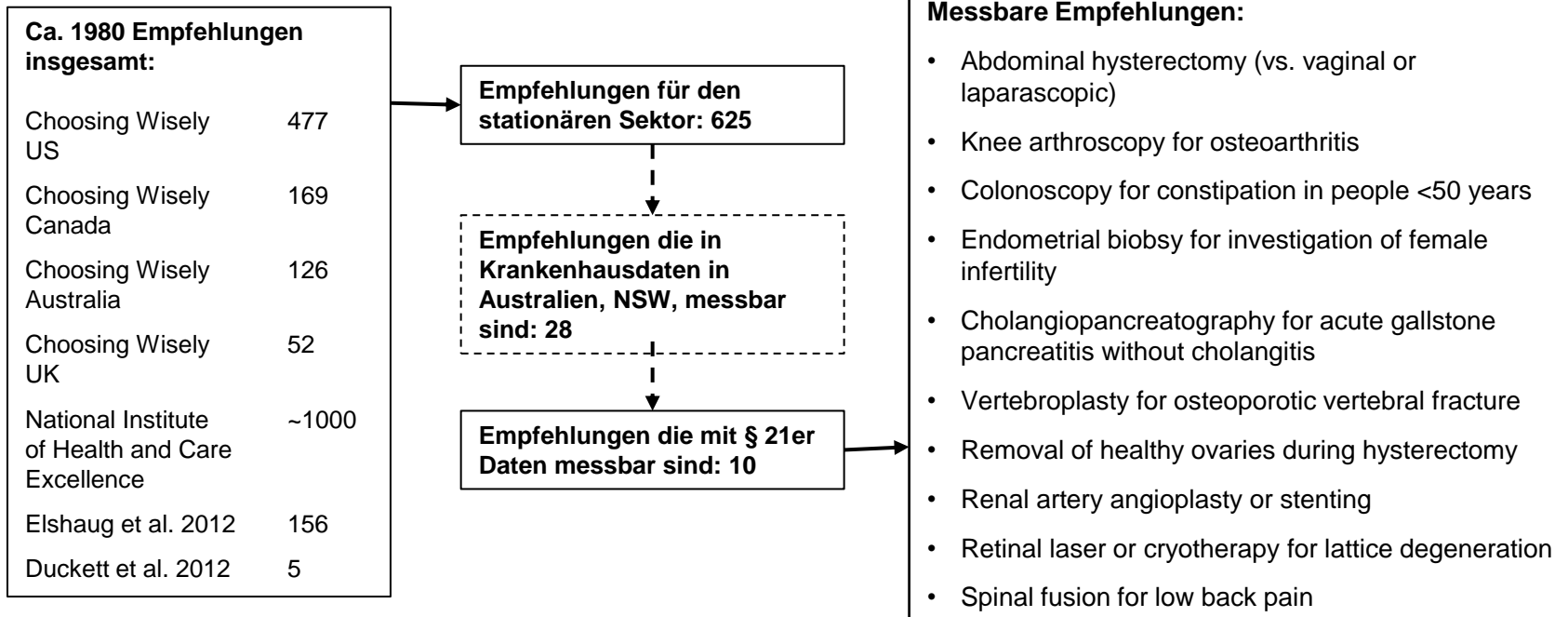
**Research**

**NICE** National Institute for  
Health and Care Excellence

# Einchlusskriterien

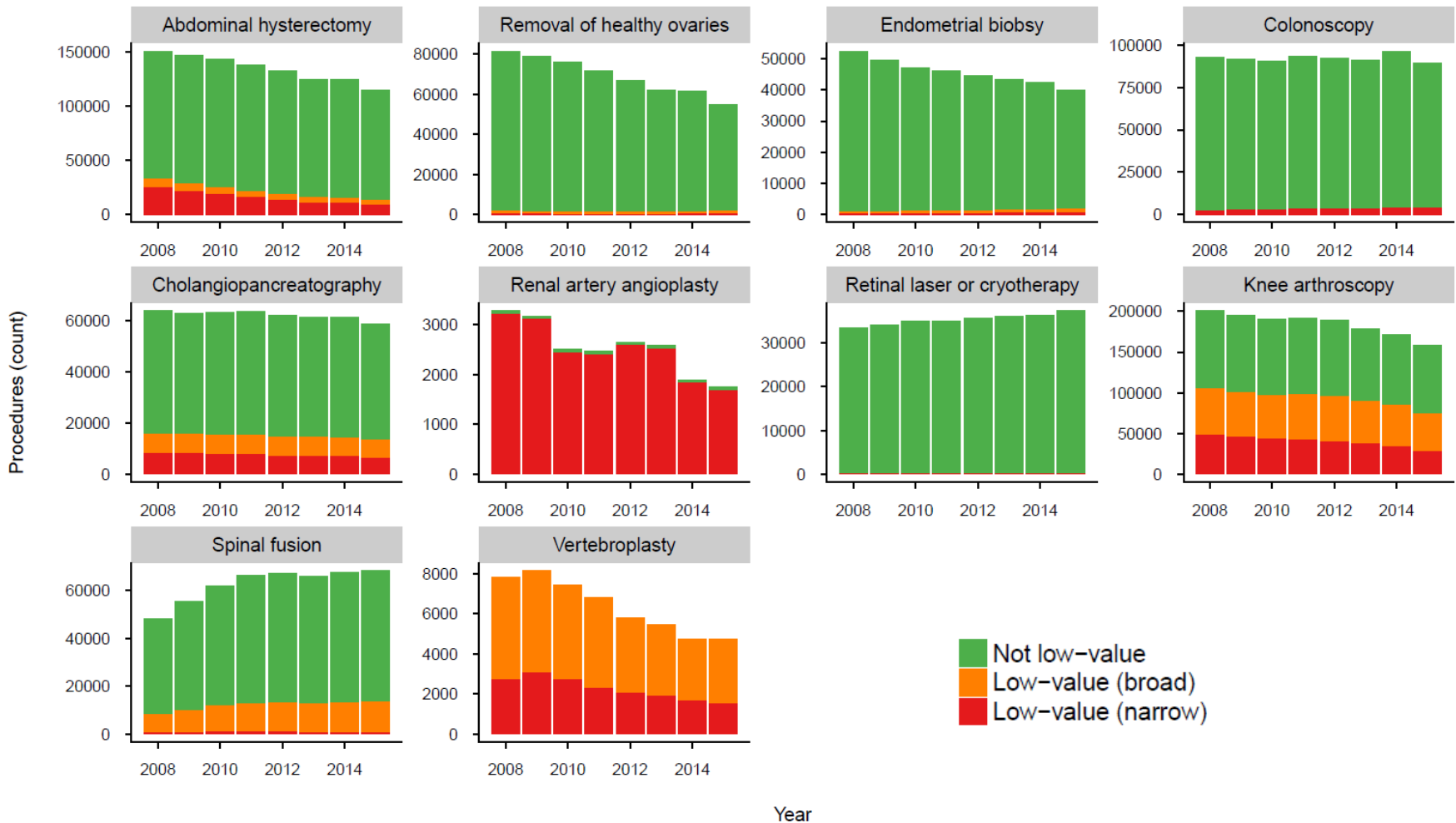


## Auswahl der messbaren Empfehlungen

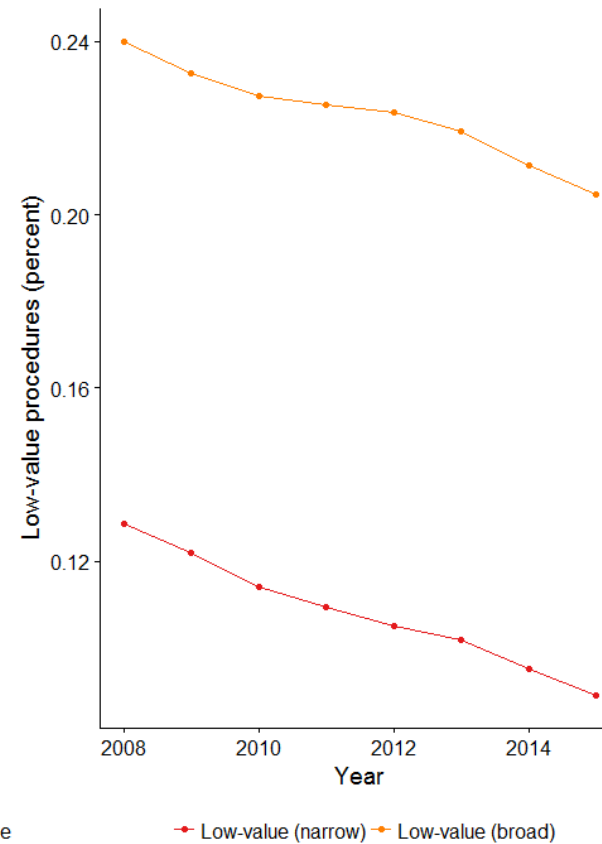
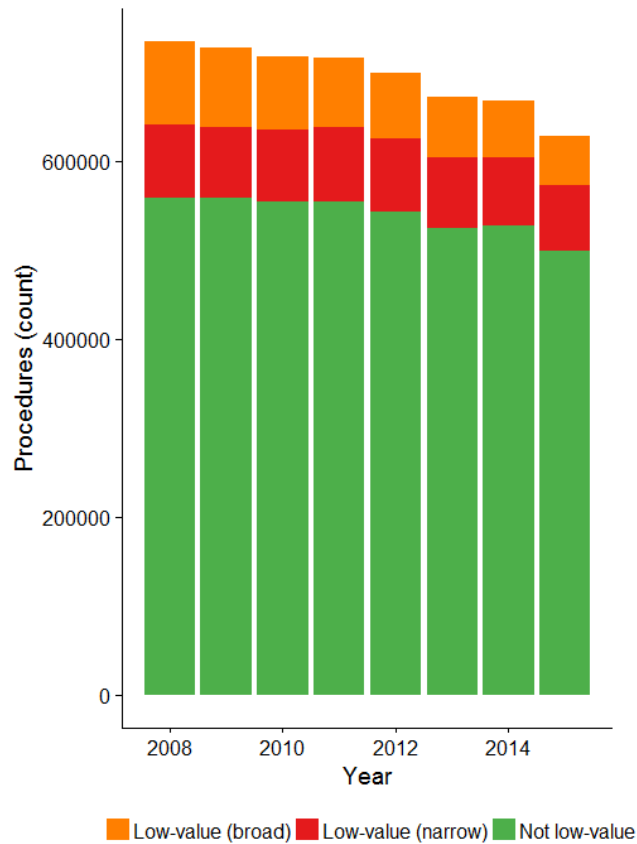




# Ergebnisse



# Ergebnisse



## Diskussion: Herausforderungen und Limitationen

- Choosing Wisely Empfehlungen als Indikatoren für Überversorgung
  - Nur ein geringer Teil der Empfehlungen lässt sich mit administrativen Daten messen
  - Wording der Empfehlungen (z.B. „routinely“, „do not recommend“)
  - Akzeptanz und (methodische) Qualität der Empfehlungen (vgl. Horvath et al. 2016)
- Trade-off zwischen Spezifität und Sensitivität
- Limitationen der Routinedaten
- Berücksichtigung von Unterversorgung

## Literatur

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Vielen Dank für Ihre Aufmerksamkeit!

# Backup

## Operationalisierung (Beispiel)

### Indication: Arthroscopic lavage and debridement of knee for osteoarthritis or degenerative meniscal tears

#### Empfehlungen

“Avoid recommending knee arthroscopy as initial/management for patients with degenerative meniscal tears and no mechanical symptoms.” – Choosing Wisely US

“Referral for arthroscopic lavage and debridement should not be offered as part of treatment for osteoarthritis, unless the person has knee osteoarthritis with a clear history of mechanical locking” – NICE

#### Operationalisierung

	Numerator	Denominator
<b>Broad</b>	Knee arthroscopy in patients with diagnosis of gonarthrosis <b>or meniscal derangements</b> and no diagnosis of ligament strain or damage and no diagnosis of septic (pyogenic) arthritis. Minimum age: 18. Sex: both.	Episodes of knee arthroscopy in people aged 18 or older.
<b>Narrow</b>	Knee arthroscopy in patients with diagnosis of gonarthrosis and no diagnosis of ligament strain or damage and no diagnosis of septic (pyogenic) arthritis. <b>Minimum age: 55.</b> Sex: both.	

# Operationalisierungen

Numerator	Denominator
<b>Abdominal hysterectomy for benign disease (vs laparoscopic or vaginal)</b>	
<b>Broad</b> Women aged 18 and older having abdominal hysterectomy, with no codes for caesarean or cancer.	All women aged 18 and older with hysterectomy (including laparoscopic or vaginal)
<b>Narrow</b> Women aged 18 and older having abdominal hysterectomy, with no codes for caesarean, cancer, <b>endometriosis or pelvic peritoneal adhesions</b>	
<b>Arthroscopic lavage and debridement of knee for osteoarthritis or degenerative meniscal tears</b>	
<b>Broad</b> Knee arthroscopy in patients with diagnosis of gonarthrosis <b>or meniscal derangements</b> and no diagnosis of ligament strain or damage and no diagnosis of septic (pyogenic) arthritis. Minimum age: 18. Sex: both.	Episodes of knee arthroscopy in people aged 18 or older.
<b>Narrow</b> Knee arthroscopy in patients with diagnosis of gonarthrosis and no diagnosis of ligament strain or damage and no diagnosis of septic (pyogenic) arthritis. <b>Minimum age: 55.</b> Sex: both.	
<b>Colonoscopy for constipation in people &lt; 50 years</b>	
<b>Broad</b>	Episodes involving colonoscopy in a person aged 18-49.
<b>Narrow</b> Colonoscopies involving patients aged 18-49 with diagnosis of constipation, and no diagnoses of anaemia, weight loss, family or personal history of cancer of digestive system, or personal history of other diseases of the digestive system in the episode.	
<b>Endometrial biopsy for investigation of infertility</b>	
<b>Broad</b> Endometrial biopsy involving women aged 18 or older with a diagnosis of infertility and no cancer diagnosis codes.	Episodes involving endometrial biopsy in women aged 18 or older.
<b>Narrow</b> Endometrial biopsy involving women aged 18 or older with infertility <b>as principal diagnosis</b> and no cancer diagnosis codes.	
<b>Endoscopic retrograde cholangiopancreatography (ERCP) for acute gallstone pancreatitis without cholangitis</b>	
<b>Broad</b> ERCP in patients with diagnosis of calculus of bile duct or biliary acute pancreatitis, and cholangitis and obstruction not recorded. Minimum age: 18. Sex: both.	Episodes involving ERCP in patients aged 18 or older.
<b>Narrow</b> ERCP in patients with diagnosis of calculus of bile duct or biliary acute pancreatitis, and cholangitis and obstruction are not recorded. Minimum age: 18. Sex: both. <b>Exclude emergency admissions and admissions from the emergency department.</b>	



# Operationalisierungen

## Removal of healthy ovaries during hysterectomy

**Broad** Removal of ovaries during hysterectomy involving women aged 18 to 50 with no diagnosis justifying removal of ovaries in the episode.

**Narrow** Removal of ovaries during hysterectomy involving women aged 18 to 50 **with diagnosis of heavy menstrual bleeding** and no diagnosis justifying removal of ovaries in the episode.

Episodes involving hysterectomy in women aged 18 to 50.

## Renal artery angioplasty or stenting

**Broad**

**Narrow** Episodes involving patients aged 18 or older with diagnosis of renovascular hypertension or atherosclerosis of renal artery in the episode, and no diagnosis of fibromuscular dysplasia or pulmonary oedema.

Episodes involving patients aged 18 or older having angioplasty/stenting with diagnosis of renovascular hypertension or atherosclerosis of renal artery.

## Retinal laser or cryotherapy for lattice degeneration

**Broad** Episodes involving patients aged 18 or older with diagnosis of lattice degeneration and no procedure code indicating repair of retinal detachment, or history of diagnosis of retinal detachment in the episode.

**Narrow** Episodes involving patients aged 18 or older with diagnosis of lattice degeneration and no procedure code indicating repair of retinal detachment, or history of diagnosis of retinal detachment **in previous 12 months**.

Episodes involving retinal laser or cryotherapy in patients aged 18 or older.

## Spinal fusion for patients with low back pain

**Broad** Episodes involving patients aged 18 or older with diagnosis of low back pain, **spinal stenosis** with no mention of sciatica, spondylolisthesis or spinal deformity, or pain in legs in the episode.

**Narrow** Episodes involving patients aged 18 or older with diagnosis of low back pain with no mention of sciatica, spondylolisthesis or spinal deformity, or pain in legs **in previous 12 months**

Episodes involving spinal fusion in a person aged 18 or older.

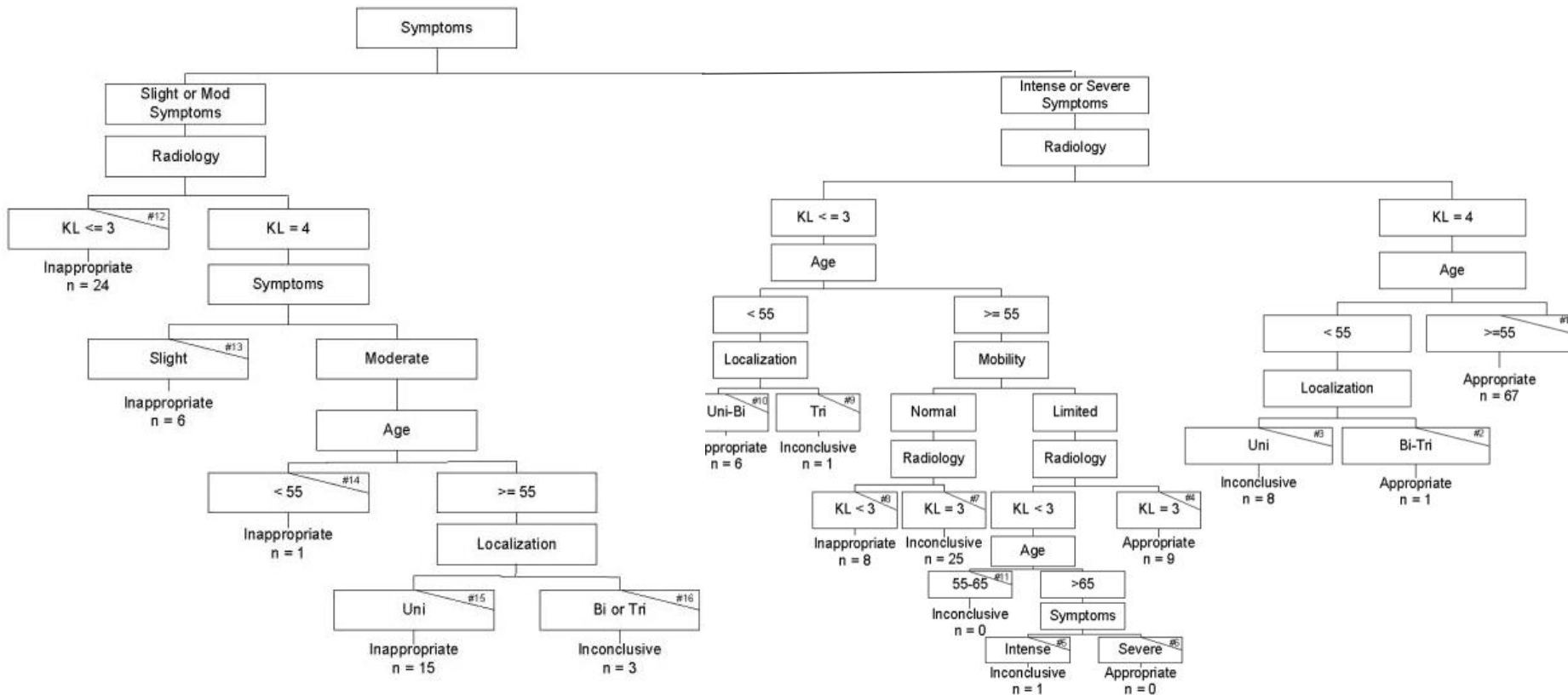
## Vertebroplasty for osteoporotic vertebral fracture

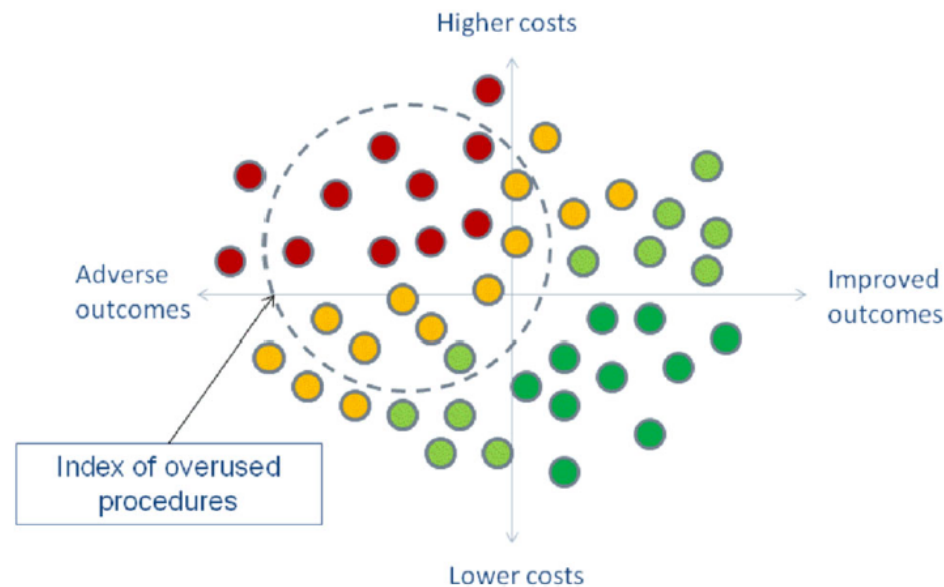
**Broad** Procedure of vertebroplasty. Minimum age: 18. Sex: both.

**Narrow** Procedure of vertebroplasty **with a diagnosis of osteoporotic vertebral fracture in the episode, and no evidence of bone cancer, myeloma or hemangioma in the previous 12 months**. Minimum age: 18. Sex: both.

Episodes involving vertebroplasty in people aged 18 or older.

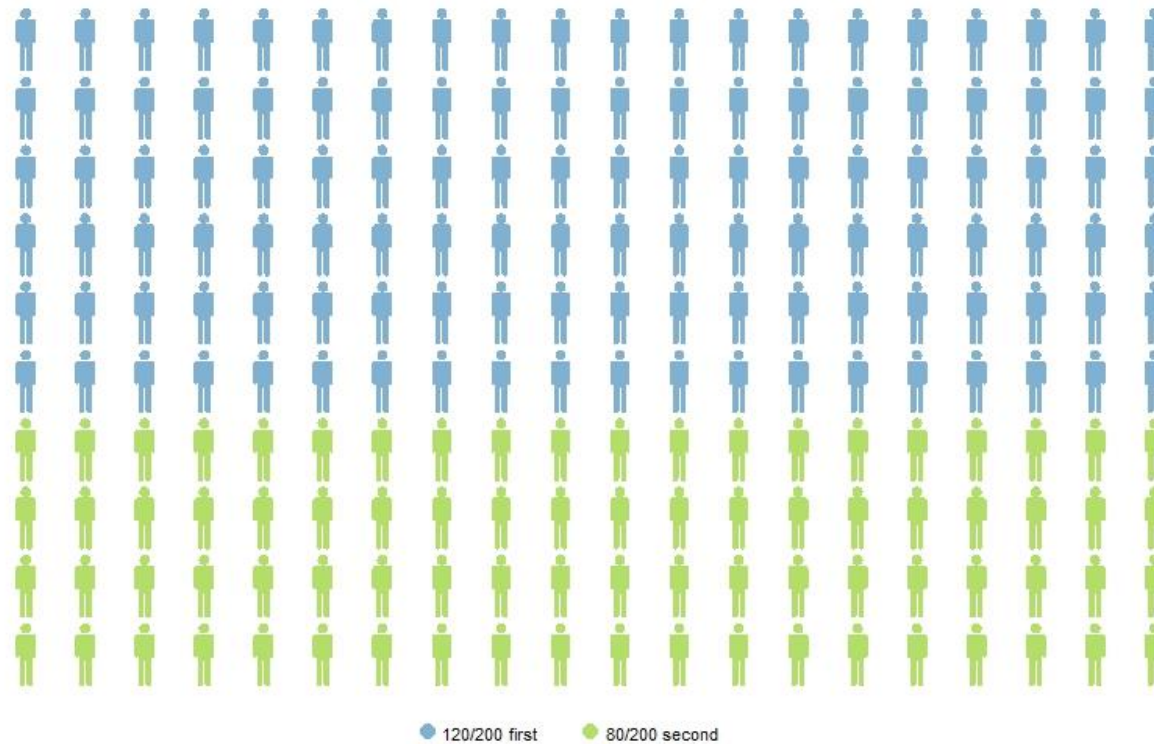
# Beispiel: Direkte Messung von Überversorgung





**Fig. 1** A conceptual model of systematic overuse. The figure demonstrates how an index of overused procedures can be created to represent systematic overuse. If we consider all possible procedures, we would have those that are desirable (southeast quadrant), some that are not desirable (northwest quadrant) and those that would depend on a specification of an acceptable tradeoff between costs and outcomes (northeast and southwest quadrants). An index of procedures may contain a combination of interventions that may or may not be desired. If the index in aggregate is associated with higher cost and no health benefit (including adverse outcomes), then it would be consistent with the conceptualization of systematic overuse

## Narrow vs. broad definition of low-value care



## Narrow vs. broad definition of low-value care

