

Use of “success indicators” in clinical practice

Michael Bretthauer MD, PhD

Professor of Medicine

Dep. of Gastroenterology and

Dep. of Health Management and Health
Economy

Oslo University Hospital and
University of Oslo

Oslo, Norway



www.quality-in-endoscopy.org

QUALITY IN ENDOSCOPY

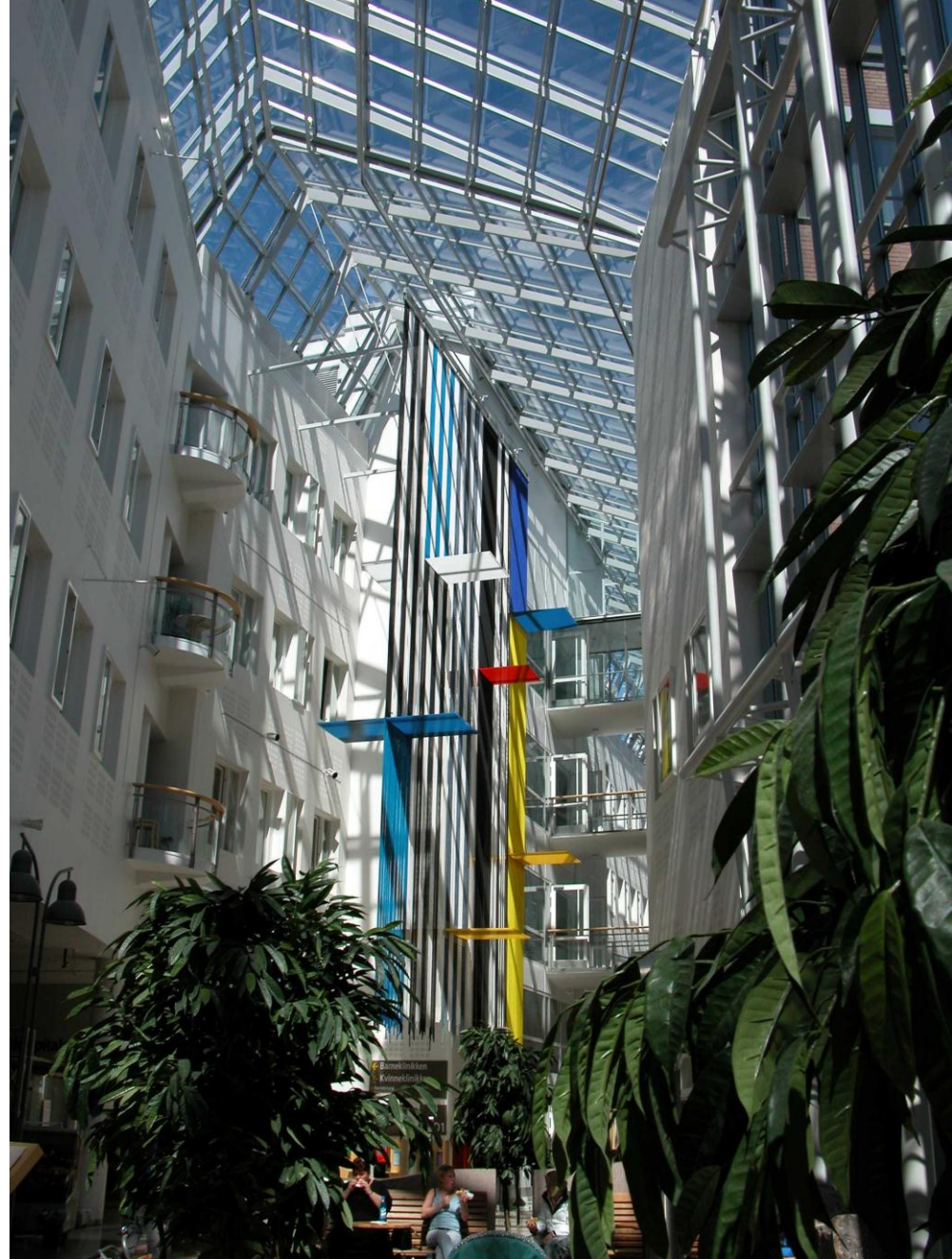
COLONOSCOPY &
COLONIC NEOPLASMS

Berlin, Germany May 4 - 5, 2012

COI's

PI, Nordic-European Initiative on Colorectal Cancer (NordICC) study

Group research support from Olympus, Fujinon, Falk, Ferring



Measuring Quality

Measurable outcomes

- Qualitative (interviews, meetings)
- Quantitative (numeric variables)

Process indicators

- Withdrawal time, Adenoma detection rate

Outcome indicators

- Interval cancer rate, Death within 30 days

Evidence for quality

Quality Indicators

- “Enough evidence to be strongly recommended as a quality standard”

Auditable Outcomes

- “Should be measured, but not enough evidence for recommending it as quality standard”

Jover et al. Quality of colonoscopy in colorectal cancer screening. *Endoscopy* 2012;44:444-51

Quality control vs. Quality Improvement

Description	vs.	Intervention
Monitoring	vs.	Certification

Defined threshold for indicators (benchmarking)

Defined intervention for poor performance

“Improvement, not punishment”

Continuous validation of indicators

– “Quality of Quality control”

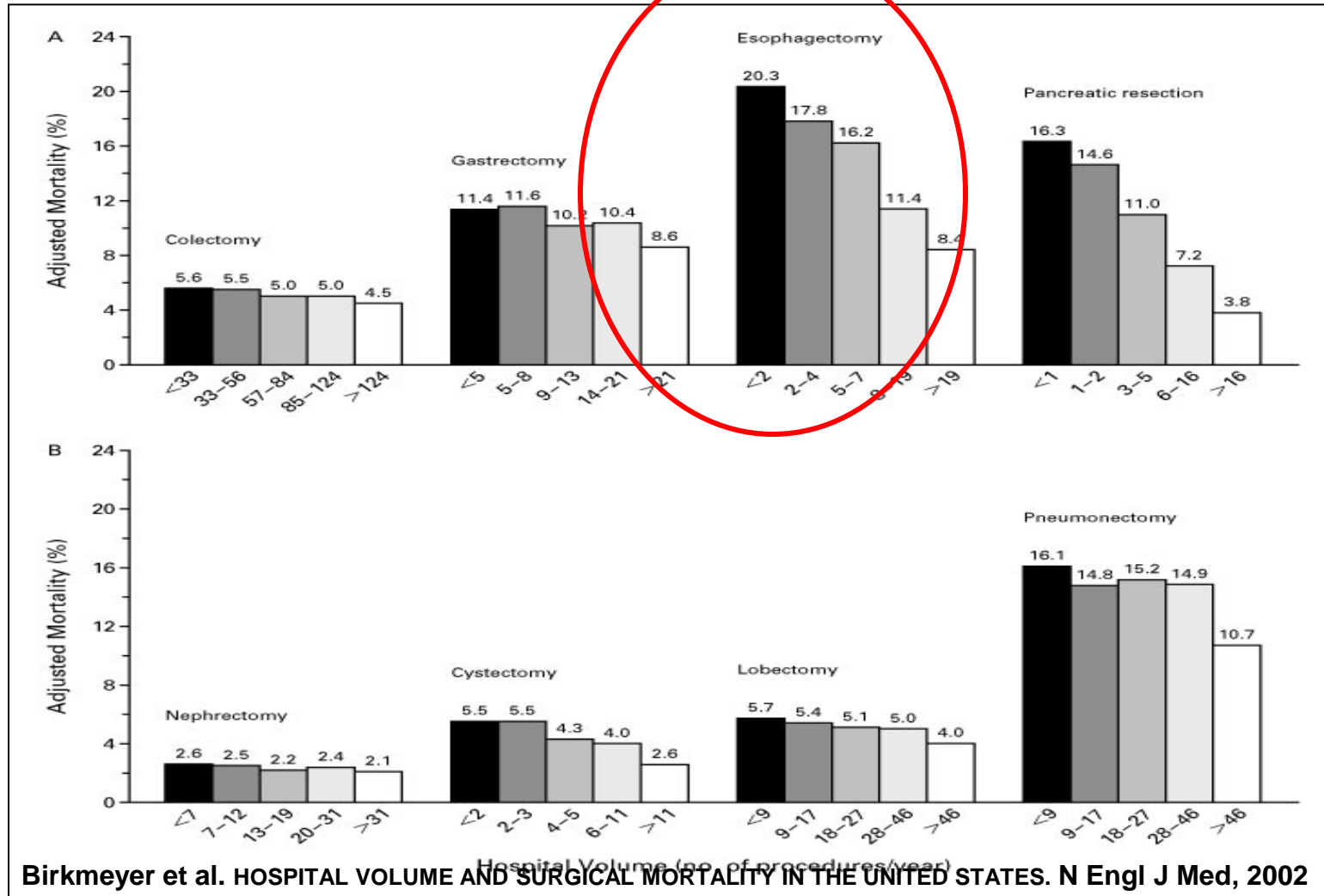
Measuring quality (“success”)– Why should I bother?

Poor quality has immediate effect on patient care, safety and satisfaction

You don't know “**your quality**” before you have measured it

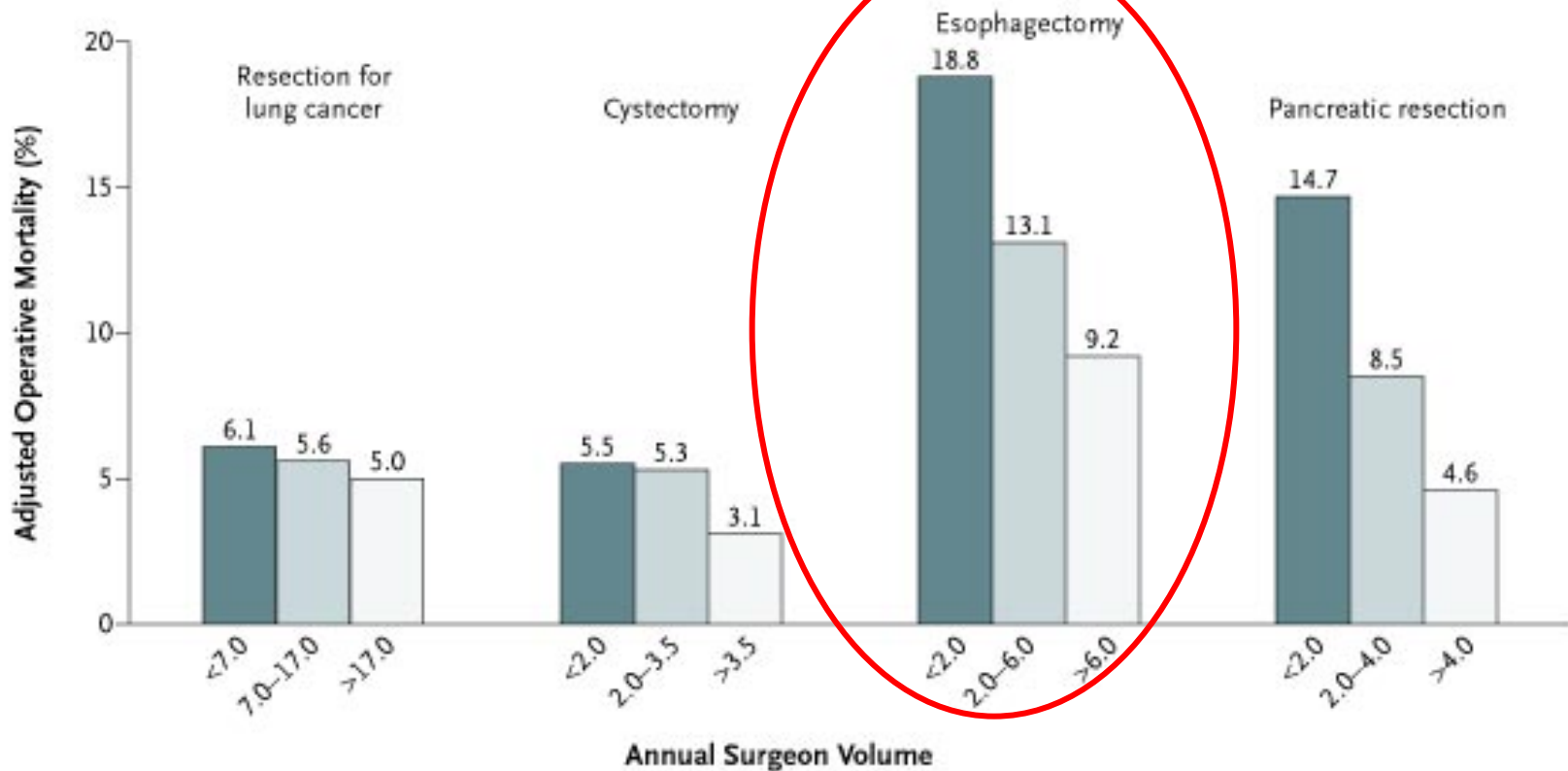
Believe is not enough!

Operative Mortality Rates and Their Association Hospital Volume



Operative Mortality Rates and Their Association with Surgeon Volume

B Cancer Resections

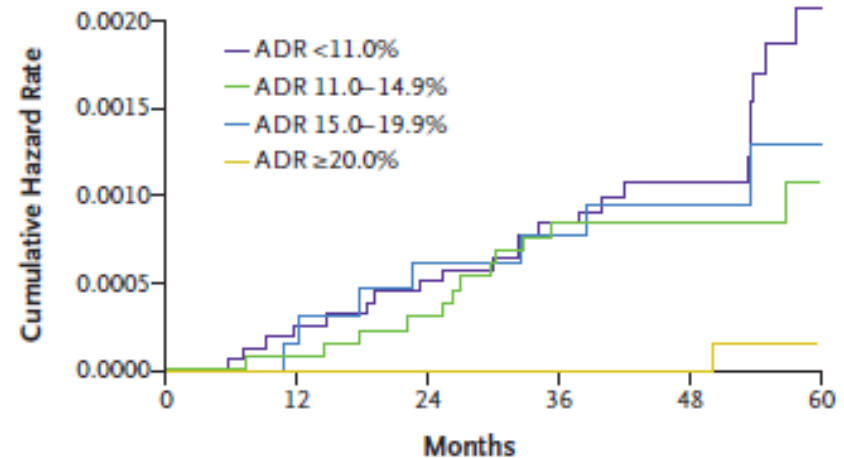


BIRKMEYER et al. SURGEON VOLUME AND OPERATIVE MORTALITY IN THE UNITED STATES.. N Engl J Med, 2003

It matters for us too!

Polish CRC screening program
 45,000 c'scopes, 45 hospitals,
 168 endosocpists
 F-up 52 months
 "Interval cancer rate"

- CRC after screening and before next c'scopy
- 5 y after screening (normal, low grade, family)
- 3 y after screening (high grade)



No. at Risk	0	12	24	36	48	60
ADR <11.0%	15,883	15,805	15,744	15,669	9355	4717
ADR 11.0-14.9%	13,281	13,223	13,182	13,120	7571	4003
ADR 15.0-19.9%	6,607	6,582	6,562	6,539	4022	2529
ADR ≥20.0%	9,255	9,235	9,202	9,166	7155	5548

Figure 2. Cumulative Hazard Rates for Interval Colorectal Cancer, According to the Endoscopist's Adenoma Detection Rate (ADR).
 The graph shows cumulative hazard rates for interval colorectal cancer among subjects who underwent screening colonoscopy that was performed by an endoscopist with an ADR in one of the following categories: less than 11.0%, 11.0 to 14.9%, 15.0 to 19.9%, and 20.0% or more.

Kaminski M et al. Quality indicators for colonoscopy and the risk of interval cancer. NEJM 2010

Lessons learned

It matters

Interdisciplinary

Individual performance is important for
patient outcome

Quality Improvement

Minimum set of agreed indicators

Validity of indicators (quality of quality)

Easy to measure

- For staff
- For patients

Easy to evaluate

Adjustment (case mix)

How to measure Quality -

Set of variables (indicators)

All: center, individual; comparison

Performance Quality

- Bowel prep.
- Cecum int. rate
- Withdrawal time/
exam time
- Sedation rate
- Polyp/
adenoma detection rate
- Complete resection rate

Patient experience

- Satisfaction/
Information
- Pain/discomfort
during c'scopy
- Discomfort/
leakage/
bloating after c'scopy
(24 h)

• Safety

- Hypoxia/
Hypotension
- Perforation
- Bleeding
- Admission
- 30 day death

Long-term: Interval cancer, surveillance

Borgaonkar et al 2012; Hoff et al 2008; Stebbing 2011; Rex et al 2006; www.grs.nhs.uk; de Jonge and Sint Niolas 2012

How to measure Quality - Gathering data

Continuous registration

Paper-based or digital

Avoid double entries

Uniform, categorized reports

Endoscopy software; an underused resource!

Challenge; compliance, ownership (punishment)

How to measure Quality - Monitor performance

Continuous updated reports

Individual and center

Comparisons

Software is critical!

Integration in units' report system necessary for success

How to measure Quality - Improvement

"The difficult part"

Setting standards for variables (threshold)

Suboptimal performance

– Caution: adjustment (ADR)?

Pre-Agreement important

Improvement system must be in place

Responsibility is with service, not employee

Summary

Quality has immediate consequences for patient outcome

Individual quality important

Start with core set of variables

Secure easy data entry, monitoring

Improvement, not punishment