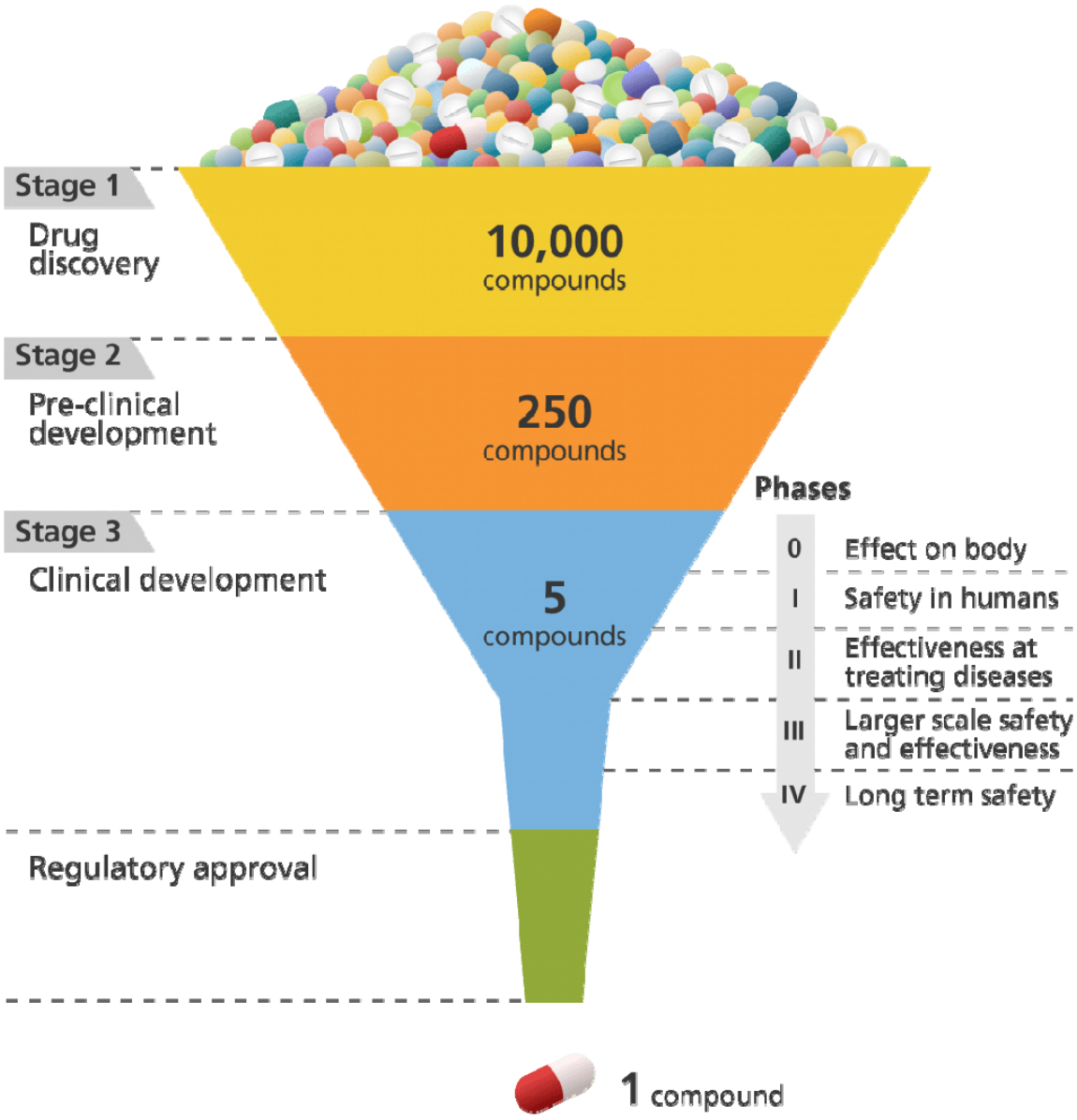
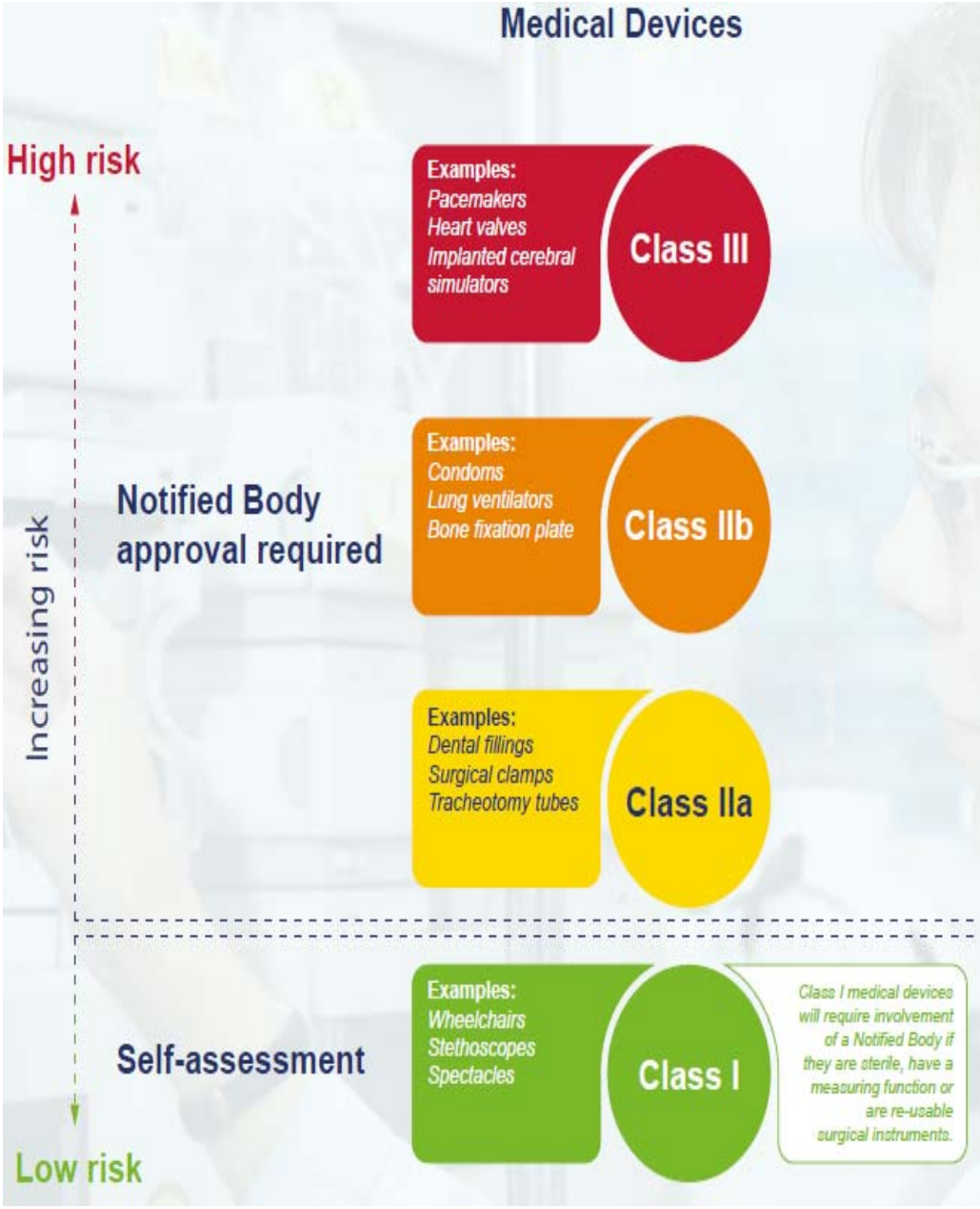
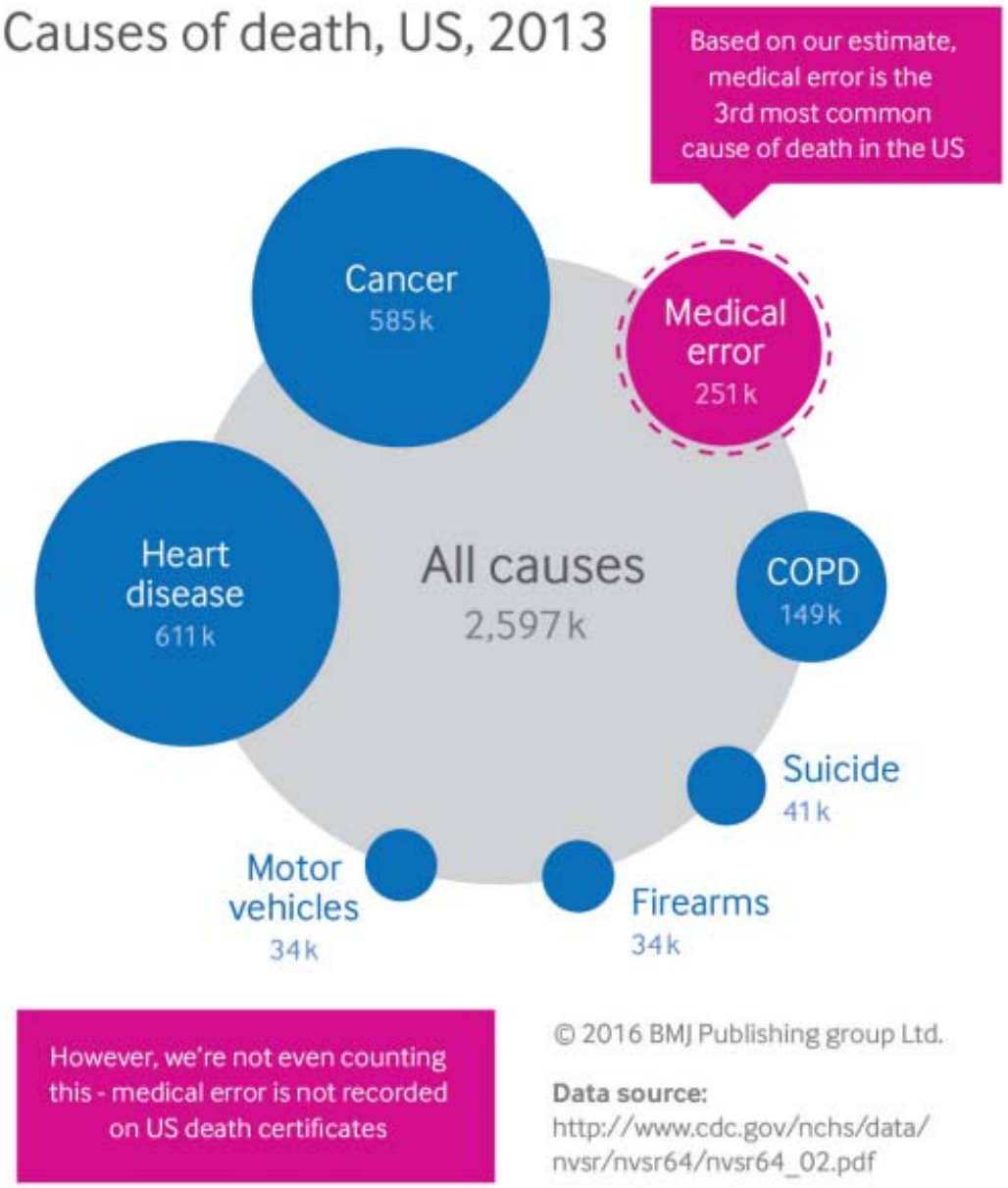
8 - 10 AUGUST 2019
DURBAN
Leadership & Quality
in Healthcare
Let's close the gap

Quality in Health Care


STATIN
28
Tablets
STATIN
Tablets
28
Tablets


Stage 1
Drug discovery
10,000 compounds
Stage 2
Pre-clinical development
250 compounds
Stage 3
Clinical development
5 compounds
Regulatory approval
1 compound
Phases
0 Effect on body
I Safety in humans
II Effectiveness at treating diseases
III Larger scale safety and effectiveness
IV Long term safety


Medical Devices
High risk
Increasing risk
Low risk
Notified Body approval required
Self-assessment
Examples: Pacemakers Heart valves Implanted cerebral simulators
Class III
Examples: Condoms Lung ventilators Bone fixation plate
Class IIb
Examples: Dental fillings Surgical clamps Tracheotomy tubes
Class IIa
Examples: Wheelchairs Stethoscopes Spectacles
Class I
Class I medical devices will require involvement of a Notified Body if they are sterile, have a measuring function or are re-usable surgical instruments.



BMJ 2016;353:i2139 doi: 10.1136/bmj.i2139 (Published 3 May 2016)

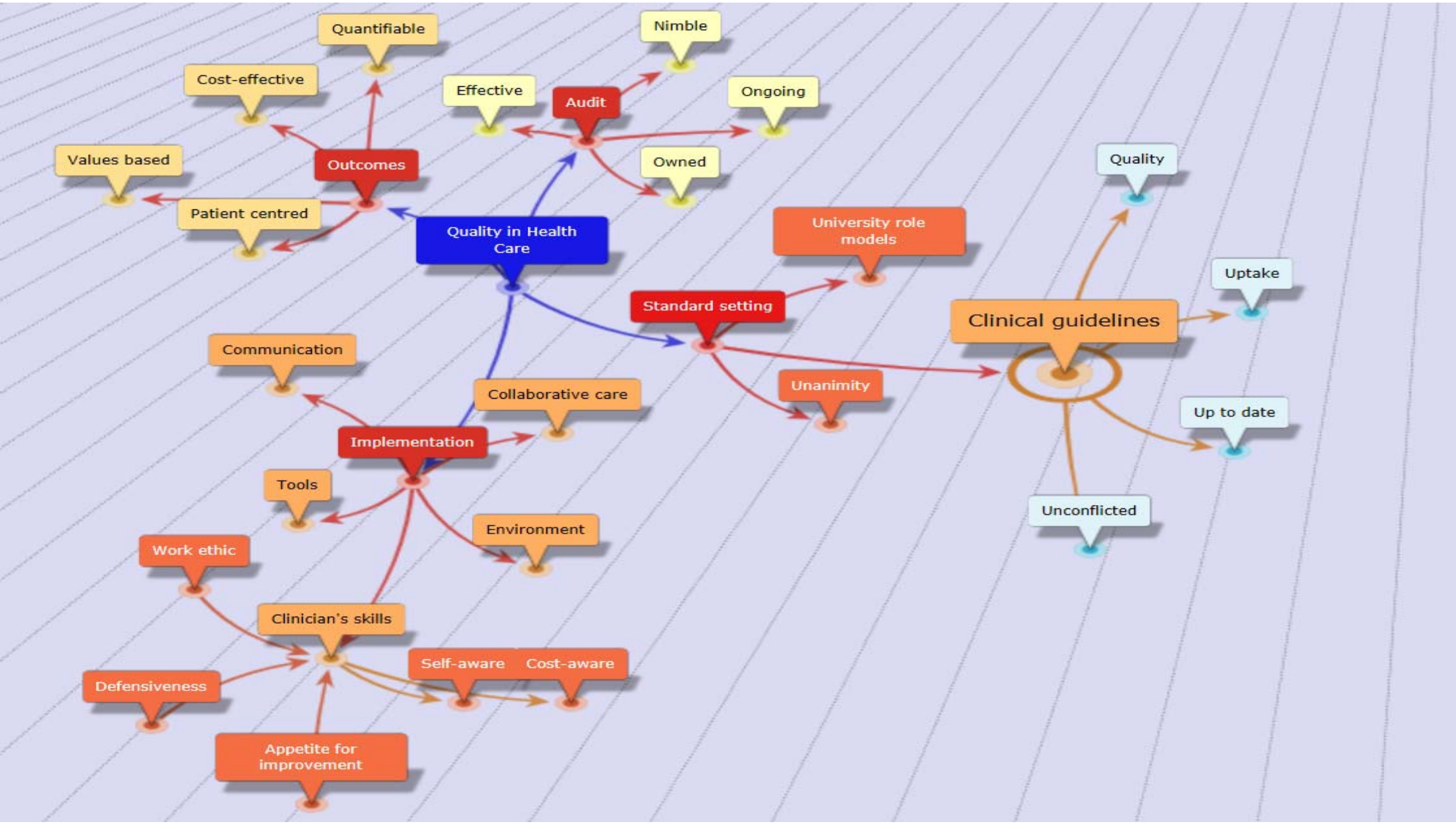
ANALYSIS

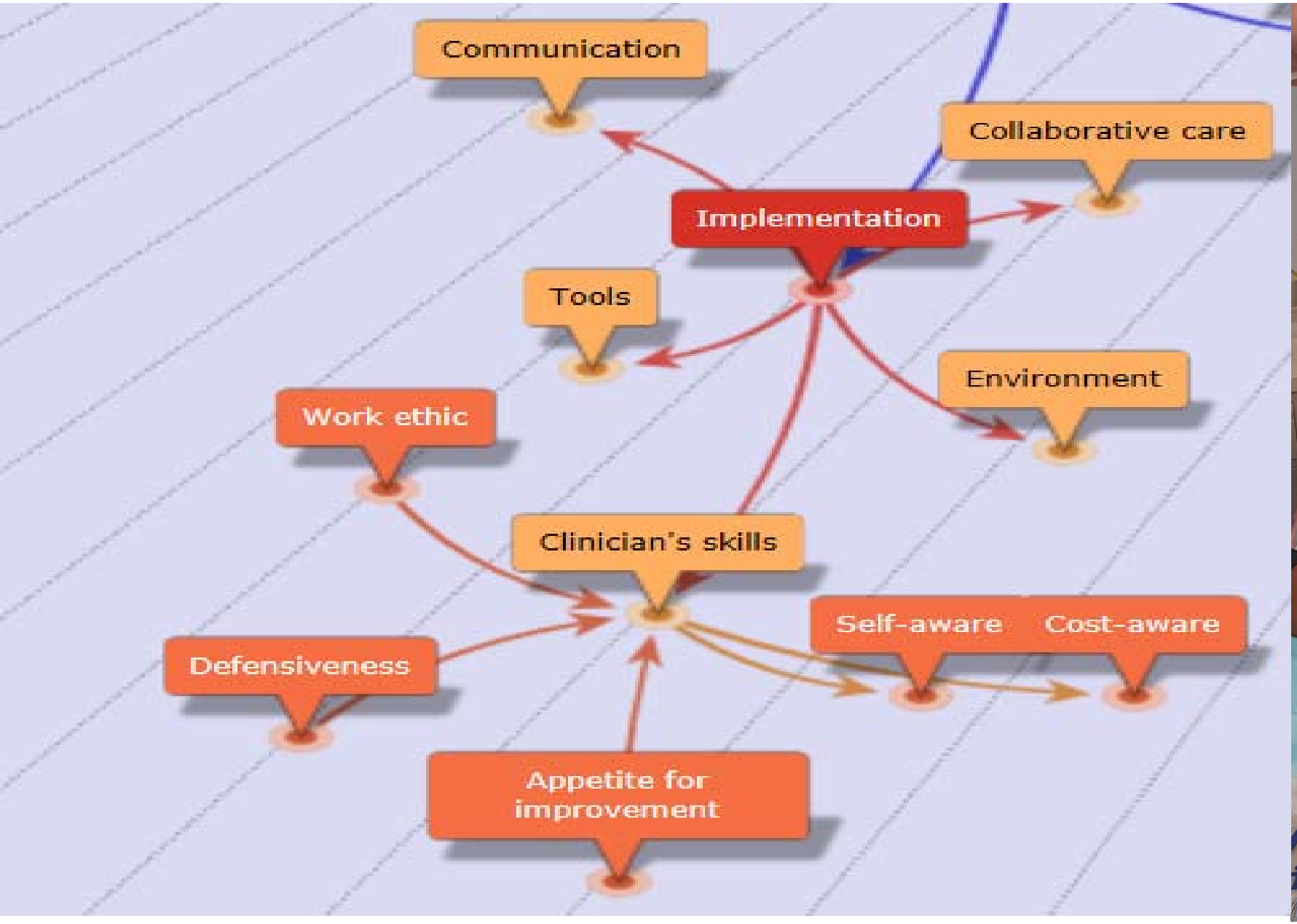
Medical error—the third leading cause of death in the US

Medical error is not included on death certificates or in rankings of cause of death. **Martin Makary** and **Michael Daniel** assess its contribution to mortality and call for better reporting

Martin A Makary *professor*, Michael Daniel *research fellow*

Department of Surgery, Johns Hopkins University School of Medicine, Baltimore, MD 21287, USA


Quantifiable
Nimble
Cost-effective
Effective
Audit
Ongoing
Values based
Outcomes
Owned
Quality
Patient centred
Quality in Health Care
University role models
Uptake
Standard setting
Clinical guidelines
Communication
Collaborative care
Unanimity
Up to date
Implementation
Tools
Unconflicted
Environment
Work ethic
Clinician's skills
Self-aware
Cost-aware
Defensiveness
Appetite for improvement


Communication
Collaborative care
Implementation
Tools
Environment
Work ethic
Clinician's skills
Self-aware
Cost-aware
Defensiveness
Appetite for improvement

ober habits

oday: c/o mild P.V.B

Comfortable @ rest. -JACCOL

esp: GAEB ⊖ Adverse sounds

VS: S1 ✓ S2 ✓ ⊖m Well perfuse

odo: +++ adipose tissue

SNT

NS: Orientated T+P GCS 15

Papillary serous Endometrial

or TAH + BSO + PLND

↑↑↑ BMI ⊖ palpable nodes

Thyroid + breasts b NAD

chest b clear

CVS b NAD

abd b

NAD

Gyn Exam b • Vulva + Vag

• Cx b NA

PR b NAD

BP 152/98 HGT 5.8 HGT 5.8 Gots after Bol

chest: tachypnoeic

CVS: S1S2 ⊖ murmurs

abd: ↑ BMI

no palpable masses

PV: deferred

CNS: GCS 15; pupils; 10

CXR (10/6/19): Cardiomegaly

Cardiomyopathy

NB: TO CONTINUE ON

CVS: regular pulse, unab

S1 ✓ S2 ✓ GS3 ⊖m

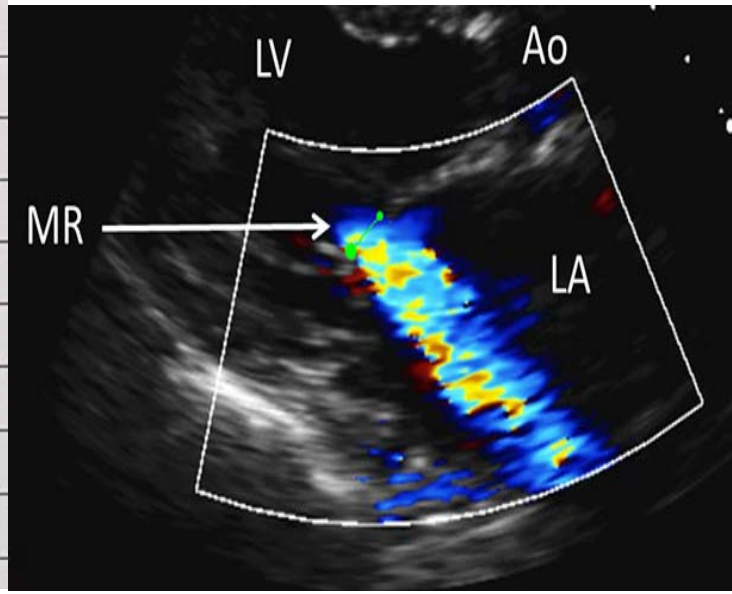
Abdo: ↑ adipose tissue

soft tender

CNS: Awake + alert

ulmonary oedema improved

BP still uncontrolled



A Autor sing
[illegible]
Laus in
Cuyo 1/2 [illegible]

Voorskrifbesonderhede Details of prescription	Hoeve uifg Qua is
1) Actraphane 12u mane 6u noche	
2) Furosemide 120mg mo mane 80mg mo noch	
3) Perindopril 4mg mo diy	
4) Aspirin 150mg mo diy	

HISTORY SHEET

DATE 2011-07-12 17:59

BP = 140/70 mmHg HGT = 10,7 mmol/L

9/7 Dm on Qu for repeat

Acetaphane 124 morne - 64 nocte

Aspirin 150mg dly

Perindopril 4mg dly

Furosemide. ~~80 dly~~ 160mg morn

80mg nocte.

1) Senokot ii stat.
thereafter i after
every loose stool.
(not more than
12mg/day p.o.) (10)

2. Coral sachets x 2. (2)


10
F
C -3
W: 18

REVIEW ARTICLE

COACTION

Tools used to assess medical students competence in procedural skills at the end of a primary medical degree: a systematic review

Marie C. Morris*, Tom K. Gallagher and Paul F. Ridgway

Department of Surgery, Trinity Centre for Health Sciences, Tallaght Hospital, Dublin, Ireland

Assessing musculoskeletal training in South Africa

Dr R Dachs* MBChB(UCT), MMed(Orth)UCT, FCS(SA)Orth
Dr S Roche* MBChB(UCT), FCS(SA) Orth, LMCC(Canada), Consultant
Dr B Vrettos* MBChB(UCT), FCS(SA)Orth, FRCS(Eng), MMed(Orth)UCT, Consultant
Dr K MacIntyre, MBChB(Stel), MMed(Orth)Stel, FCS(SA)Orth, Arthroplasty Fellow, Groote Schuur and Life Orthopaedic Hospitals
Dr B Currin, MBChB(Wits), Intern, Groote Schuur Hospital 2010/2011
Dr N Kruger* MBChB(UCT), FCS(SA)Orth, FRCS(Ed), Consultant
Prof J Walters* MBChB(UCT), FCS(SA)Orth, Previous Head of Department
Prof R Dunn* MBChB(UCT), MMed(Orth)UCT, FCS(SA)Orth, Head of Department
*Department of Orthopaedic Surgery, University of Cape Town

Correspondence:
Dr Robert Dachs
H49 Old Main Building

British doctors' experiences of working in rural South Africa: The London GP Out of Programme Experience

Authors:
Candice Reardon[1]
Oluwatobi Enigbokan[1]
Gavin George[1]

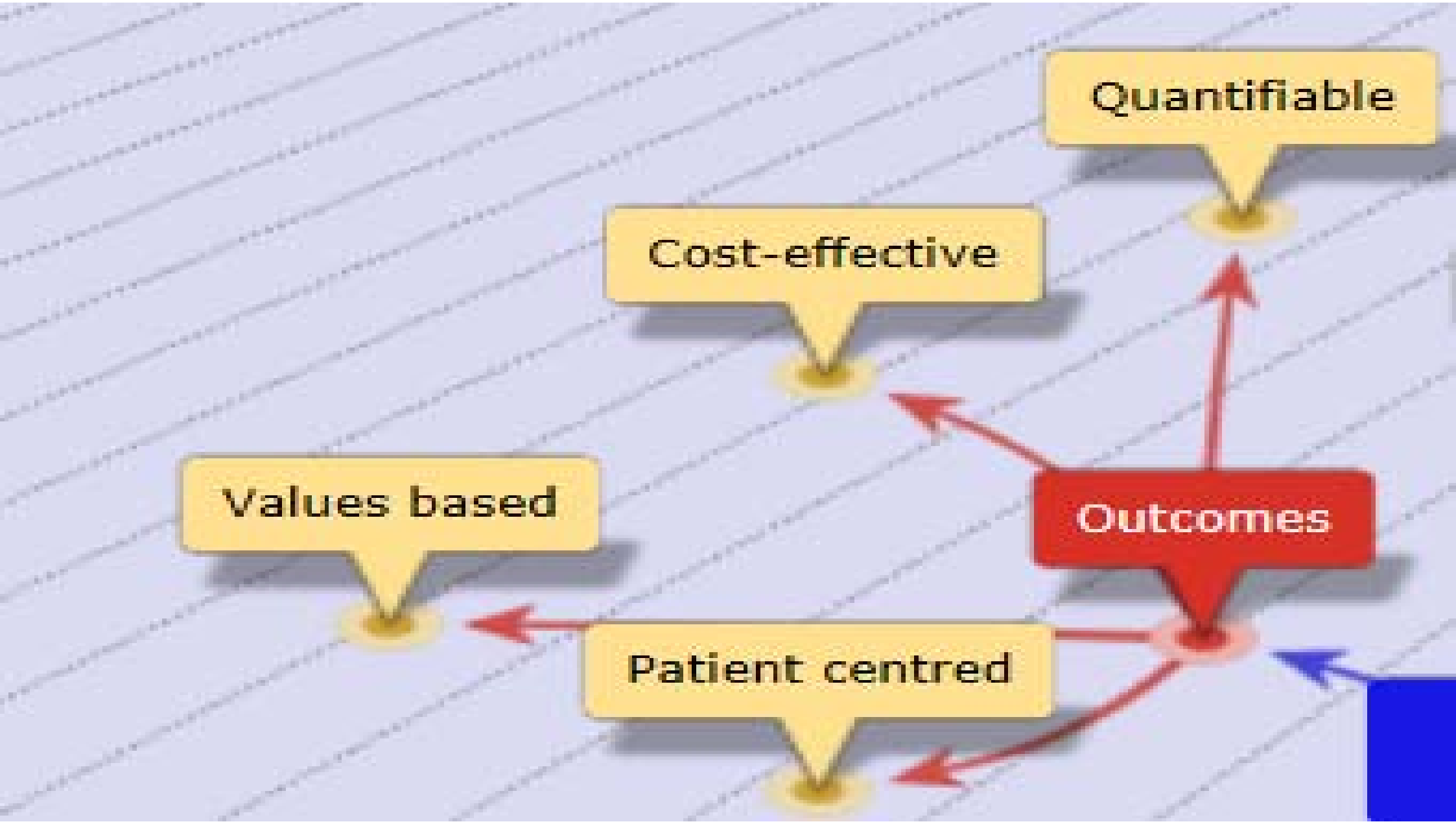
Background: A paucity of research exists that has examined temporary placements of foreign health professionals in South Africa (SA) as a possible strategy for addressing health worker shortages. The Out of Programme Experience (OOPE) initiative, run by the London GP Deanery, aims to provide a sustainable inflow of British, trainee GP doctors into rural public

The UK doctors were more inclined to want each individual to accept personal responsibility for their mistakes or problems, whilst they believed that their South African colleagues had a culture of collective responsibility and a tendency to shift blame, and that frustrated them endlessly. In addition, three doctors stated that the poor work ethic demonstrated by some of the staff at their facilities was 'quite depressing' and that the focus on patient care was not as high as it should be. This latter belief was based on observations of health staff keeping the wards as low as possible and failing to include patients in their treatment decisions.

Poor work ethic versus burnout
Measuring professionalism
Quality without quantity

Incoherent care

- Why are we doing this?
  - Medicolegal concerns
  - Collegial opinion
  - Perverse incentives
  - Tradition
  - Inertia and linear thinking
  - Insulation from consequences (costs, harms)
- Clinical leadership – can we please step up?


Quantifiable
Cost-effective
Values based
Outcomes
Patient centred

Journal of Multidisciplinary Healthcare

Dovepress
open access to scientific and medical research

Open Access Full Text Article

ORIGINAL RESEARCH

Health care quality from the patients' perspective: a comparative study between an old and a new, high-tech hospital

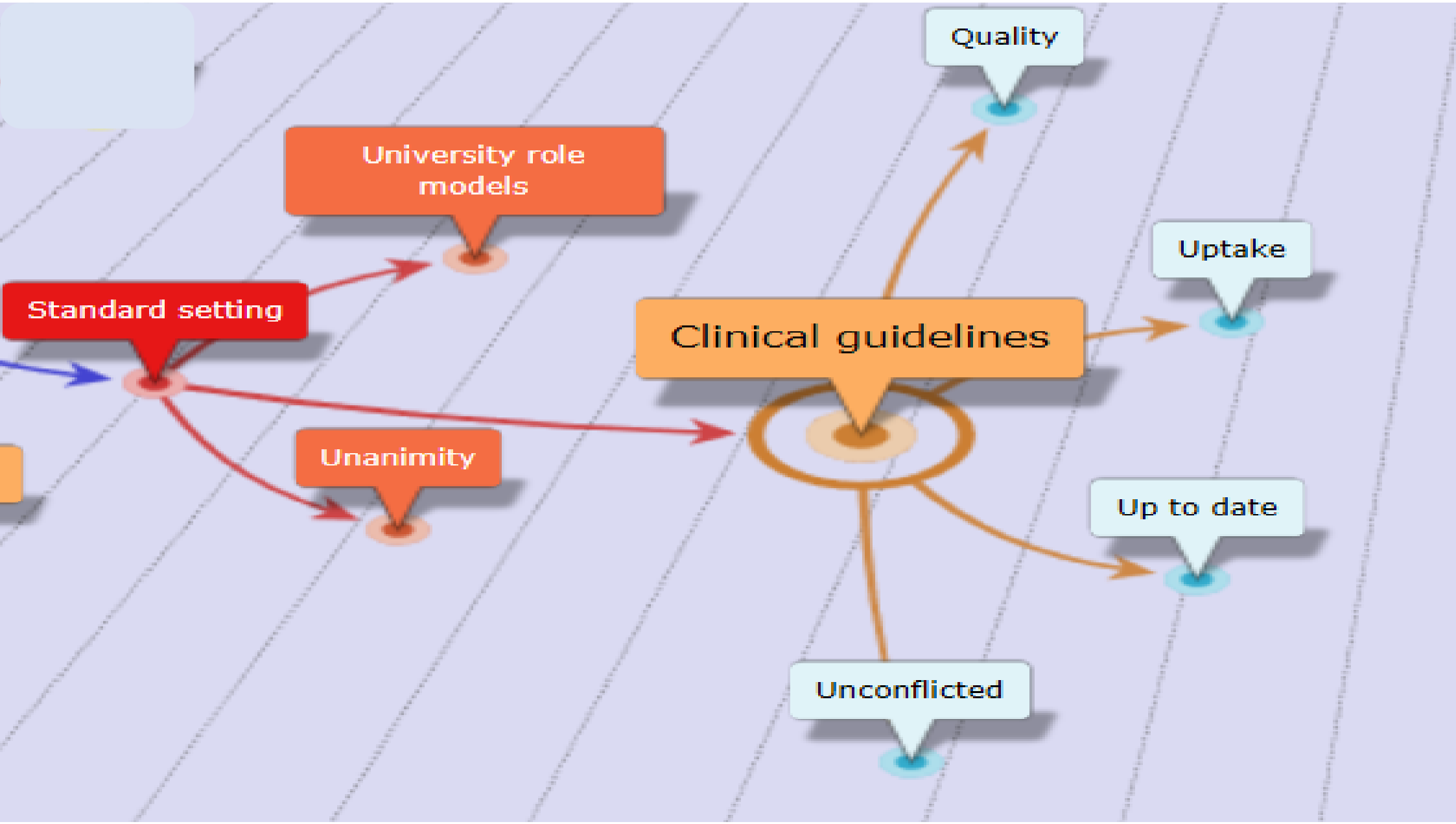
Journal of Multidisciplinary Healthcare 2018:11 591–600

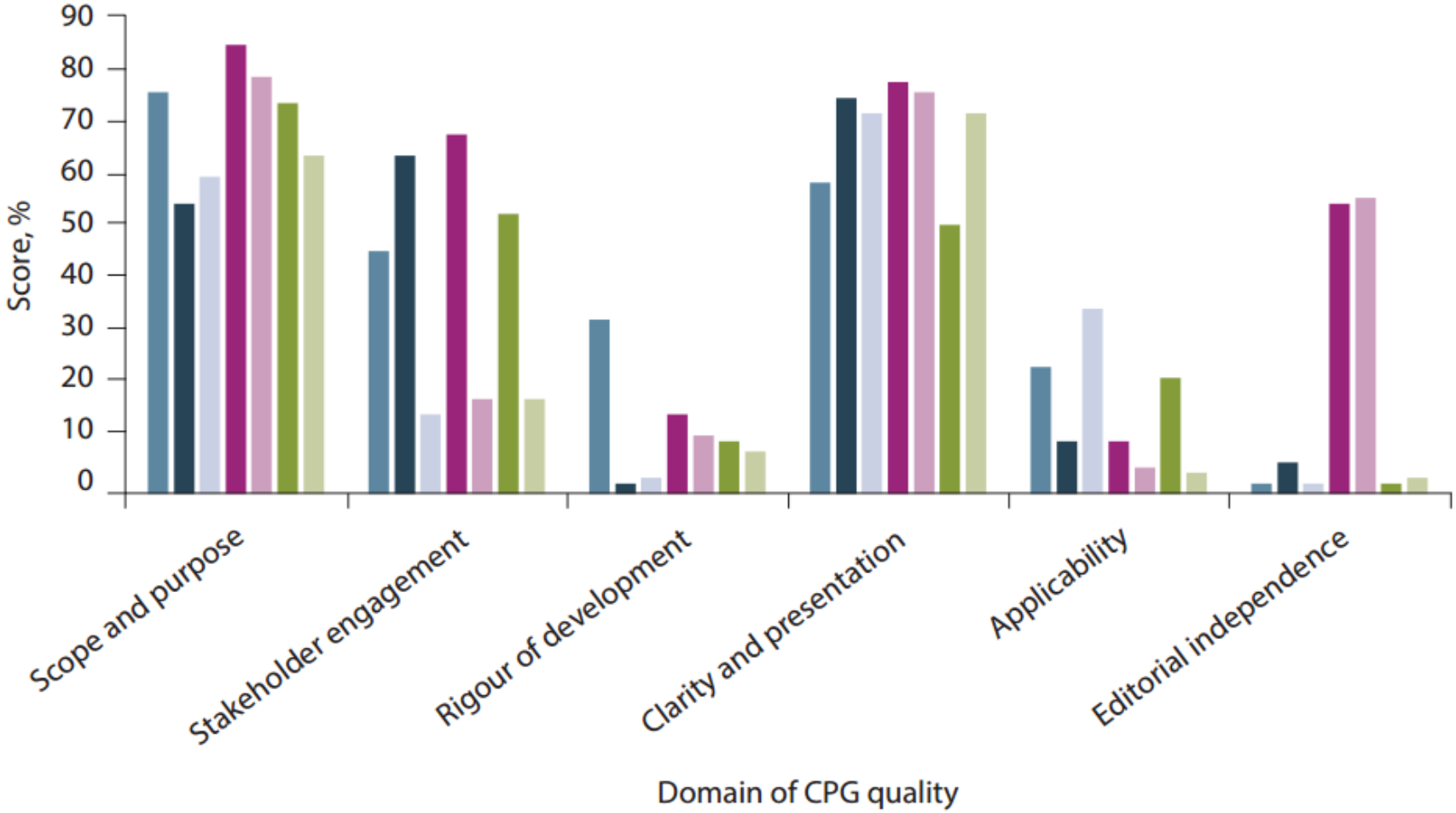
What patients really wanted:

- Effective pain relief
- Being seen and treated without waiting too long
- Knowing who their doctor was
- Having a comfortable bed…

Quality outcome measures

Objective	Intermediate	Efficiency
• Mortality • MACE • Nosocomial infection rate	• Surrogate (e.g. HbA1c) • Readmission rates	• Process • Cost saving – test ordering


Quality
University role models
Uptake
Standard setting
Clinical guidelines
Unanimity
Up to date
Unconflicted


90
80
70
60
50
40
30
20
10
0
Score, %
Scope and purpose
Stakeholder engagement
Rigour of development
Clarity and presentation
Applicability
Editorial independence
Domain of CPG quality

Trial evidence:

- controlled environment
- homogeneous subjects

Care bundle/QI intervention:

- Cocktail
- Unpredictable interactions
- Real world
- Different patients

Research

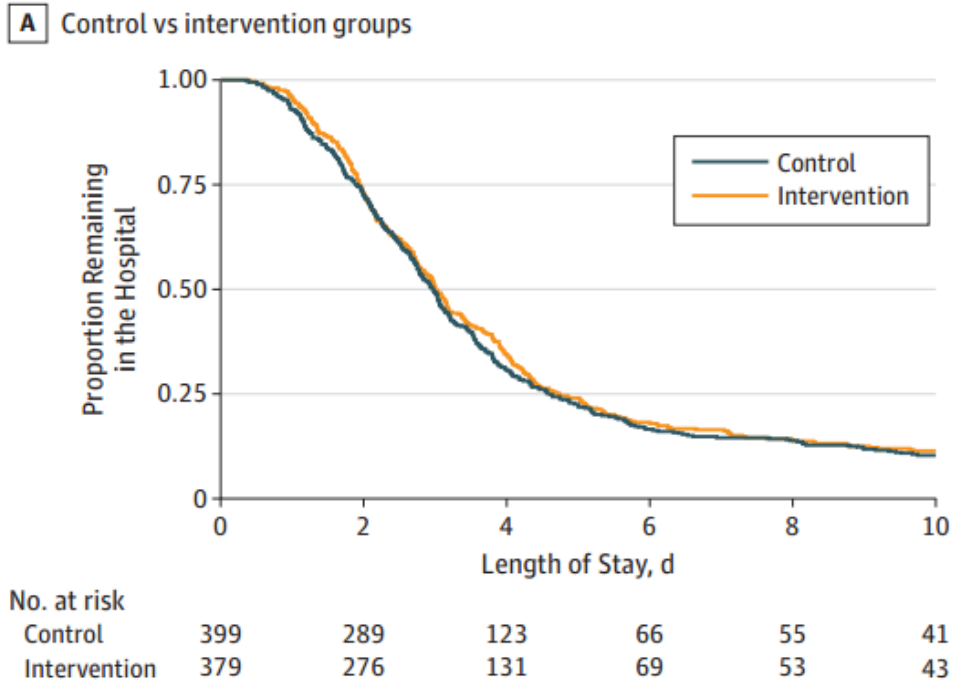
JAMA Internal Medicine | Original Investigation

Effectiveness of a Bundled Intervention Including Adjunctive Corticosteroids on Outcomes of Hospitalized Patients With Community-Acquired Pneumonia

A Stepped-Wedge Randomized Clinical Trial

Melanie Lloyd, MPhtySt; Amalia Karahalios, PhD; Edward Janus, MD, PhD; Elizabeth H. Skinner, PhD; Terry Haines, PhD; Anurika De Silva, PhD; Stephanie Lowe, MPH; Melina Shackell, BPty; Soe Ko, MBBS; Lucy Desmond, MD; Harin Karunajeewa, MBBS, PhD; for the Improving Evidence-Based Treatment Gaps and Outcomes in Community-Acquired Pneumonia (IMPROVE-GAP) Implementation Team at Western Health

JAMA Intern Med. 2019;179(8):1052-1060. doi:10.1001/jamainternmed.2019.1438



Corticosteroids for pneumonia

Anat Stern[1], Keren Skalsky[2], Tomer Avni[2], Elena Carrara[3], Leonard Leibovici[2], Mical Paul[1]

Cochrane Library

2017

Outcomes	Anticipated absolute effects* (95% CI)		Relative effect (95% CI)	№ of participants (studies)	Quality of the evidence (GRADE)	Comments
	Risk with control	Risk with corticosteroids				
Mortality - adults	Study population		RR 0.66 (0.47 to 0.92)	1863 (11 RCTs)	⊕⊕⊕○ MODERATE [1]	
	82 per 1000	53 per 1000 (38 to 74)				
Mortality - adults - severe CAP	Study population		RR 0.58 (0.40 to 0.84)	995 (9 RCTs)	⊕⊕⊕○ MODERATE [1]	
	131 per 1000	76 per 1000 (52 to 110)				
Mortality - adults - non-severe CAP	Study population		RR 0.95 (0.45 to 2.00)	868 (4 RCTs)	⊕⊕⊕○ MODERATE [2]	
	29 per 1000	28 per 1000 (13 to 58)				

[Original Research Chest Infections]

CHEST

Efficacy and Safety of Corticosteroids for Community-Acquired Pneumonia

A Systematic Review and Meta-Analysis

You-Dong Wan, MD; Tong-Wen Sun, MD, PhD; Zi-Qi Liu, MD; Shu-Guang Zhang, MD; Le-Xin Wang, MD, PhD; and Quan-Cheng Kan, MD, PhD

BACKGROUND: Corticosteroids are an option in the treatment of community-acquired pneumonia (CAP). However, the benefits and adverse effects of corticosteroids, especially in severe CAP, have not been well assessed.

METHODS: PubMed, Embase, and Cochrane library databases from inception to May 2015 were searched. Randomized controlled trials (RCTs) and cohort studies that evaluated use of corticosteroids in adult patients with CAP were included. The quality of outcomes was evaluated using Grading of Recommendations Assessment, Development and Evaluation methodology. The Mantel-Haenszel method with random-effects modeling was used to calculate pooled relative risks (RRs) and 95% CIs.

RESULTS: Nine eligible RCTs (1,667 patients) and six cohort studies (4,095 patients) were identified. The mean corticosteroid dose and treatment duration were 30 mg/day methylprednisolone for 7 days. Corticosteroids did not have a statistically significant effect on mortality (RR, 0.72; 95% CI, 0.43-1.21; evidence rank, low) in patients with CAP and patients with severe CAP (RCTs: RR, 0.72; 95% CI, 0.43-1.21; evidence rank, low; cohort studies: RR, 1.00; 95% CI, 0.86-1.17). Corticosteroids treatment was associated with a decreased risk of ARDS (RR, 0.21; 95% CI, 0.08-0.59) and may reduce lengths of hospital and ICU stay, duration of IV antibiotic treatment, and time to clinical stability. Corticosteroids were not associated with increased rates of adverse events.

CONCLUSIONS: Short-term treatment with corticosteroids is safe and may reduce the risk of ARDS, shortening the length of the disease in patients with CAP.

CHEST 2016; 149(1):209-219

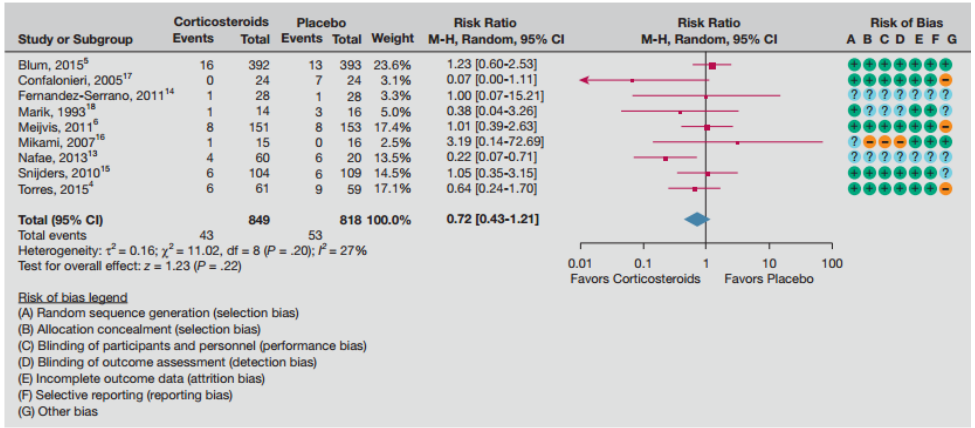
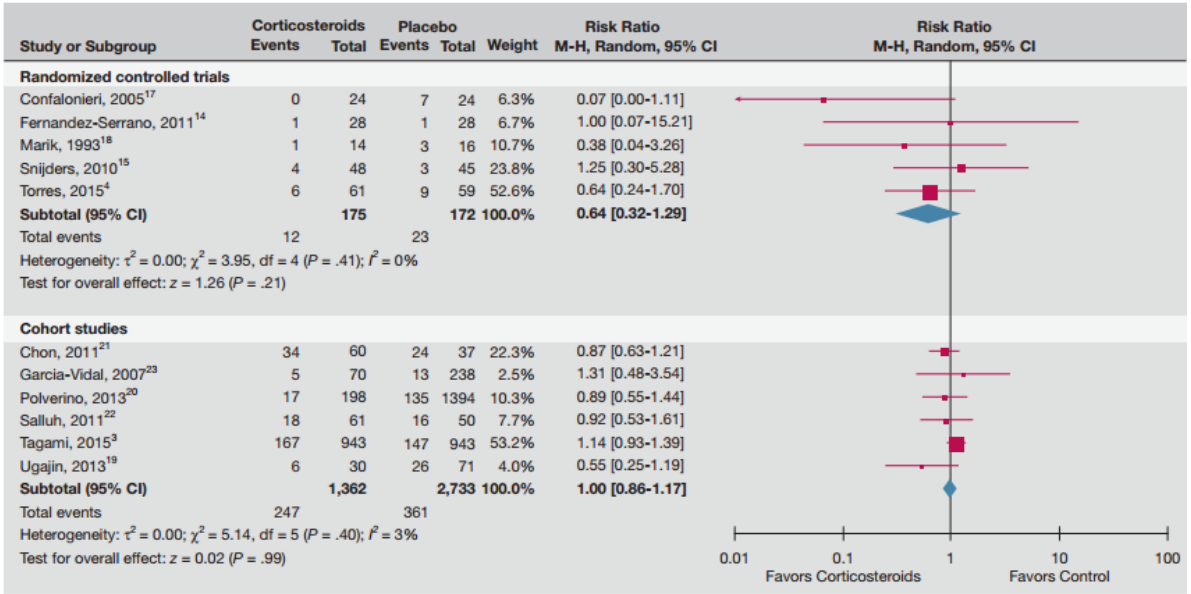


Figure 1 – *Mortality of patients with CAP according to treatment arm. The sizes of the squares denoting the point estimate in each study are proportional to the weight of the study. The diamonds represent the overall findings in each plot. For all study names, see the cited references. CAP = community-acquired pneumonia; M-H = Mantel-Haenszel.*



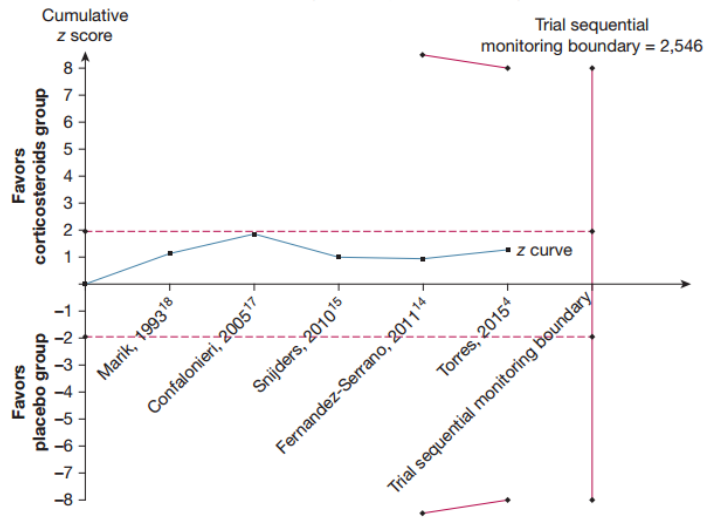
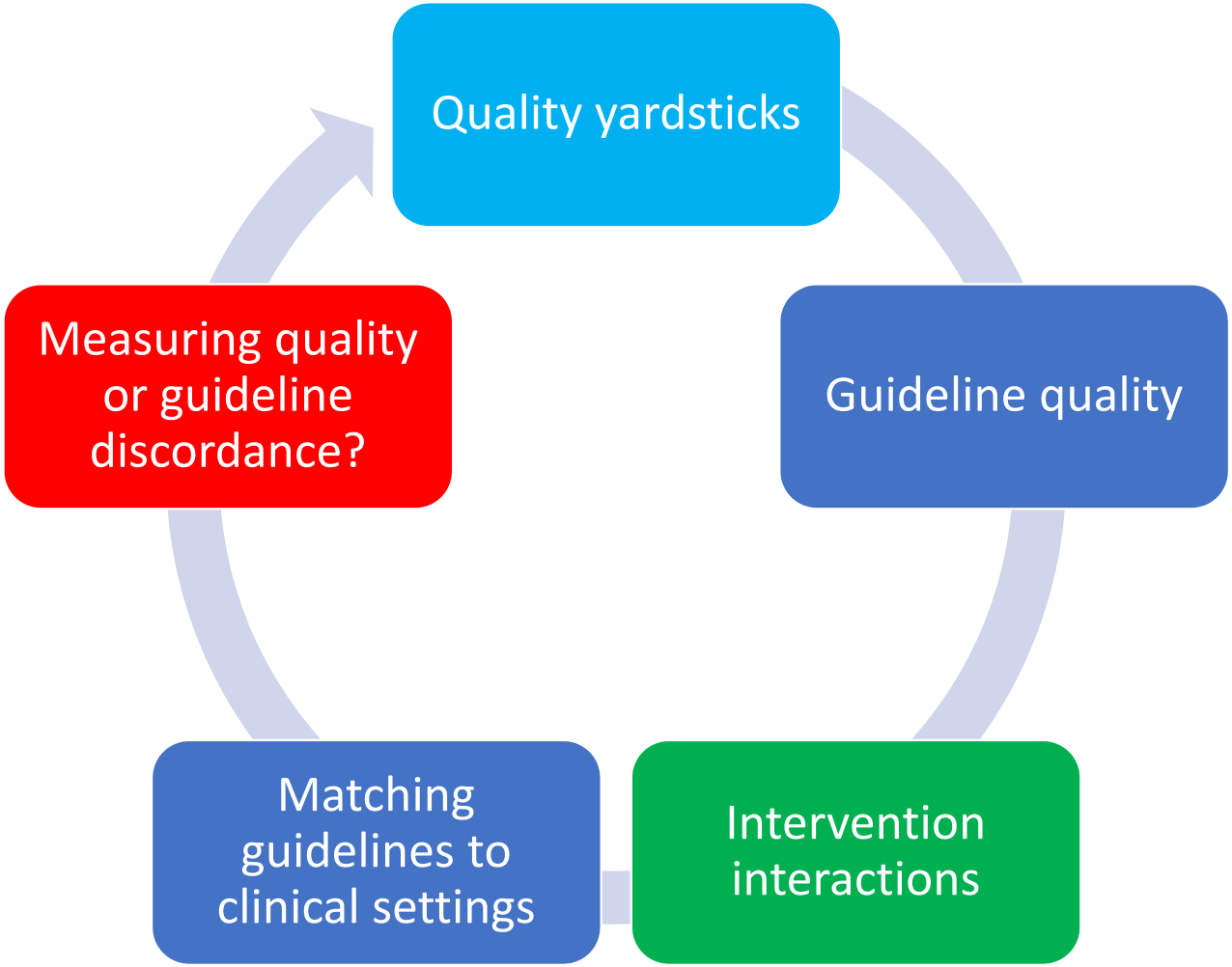
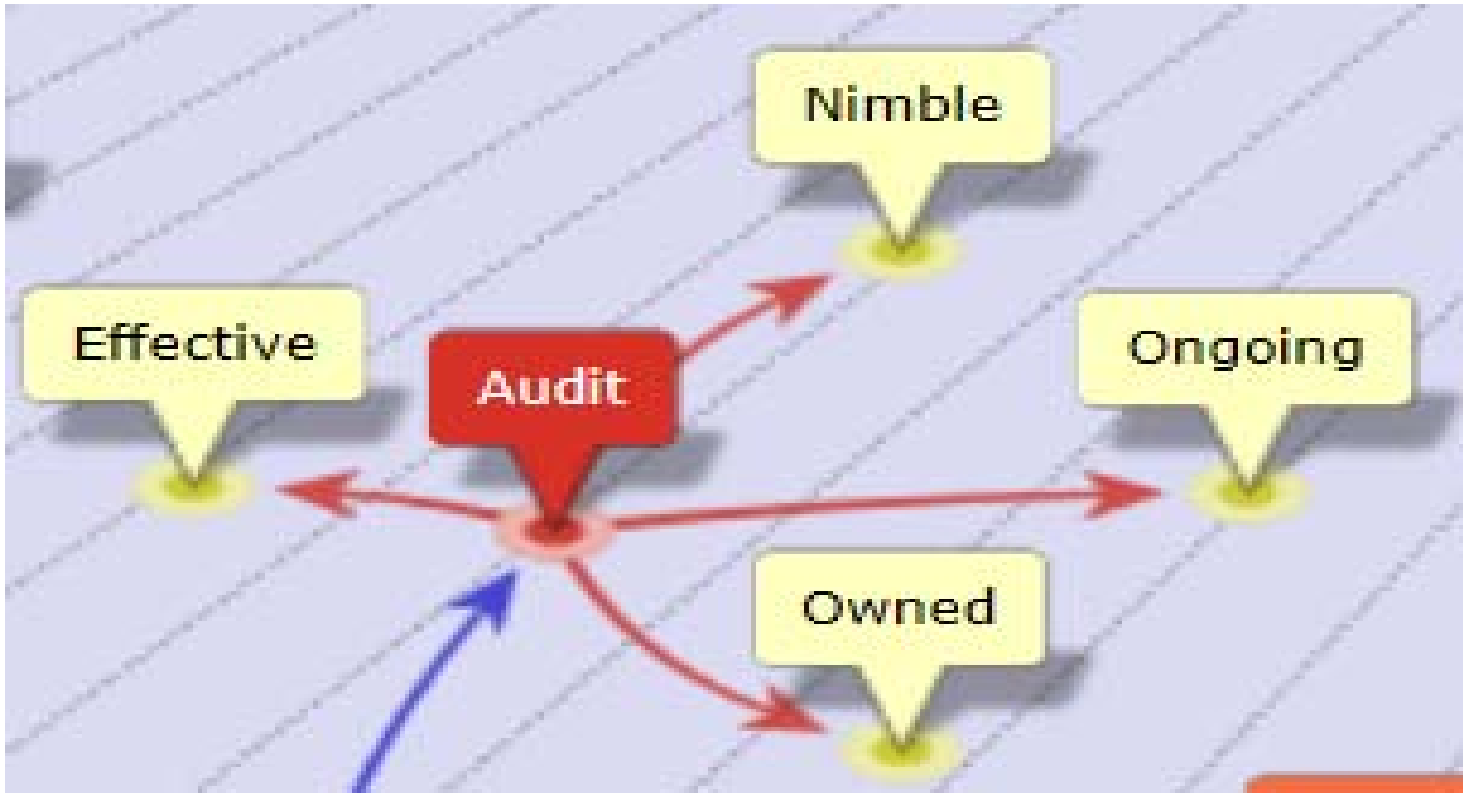


Figure 4 – *Trial sequential analysis of studies with patients with severe CAP. Trial sequential analysis, assuming a 15% mortality rate in the control group and a 25% relative risk reduction with 80% power and a two-sided α of 0.01, found that the optimal sample size needed to reliably detect a plausible effect of treatment on the mortality of patients with severe CAP was 2,546 patients. The sequential monitoring boundary has not been crossed, indicating that the cumulative evidence is unreliable and inconclusive. See Figure 1 legend for expansion of abbreviations.*


Quality yardsticks
Guideline quality
Intervention interactions
Matching guidelines to clinical settings
Measuring quality or guideline discordance?



Quality improvement
System strengthening

QI exponential growth

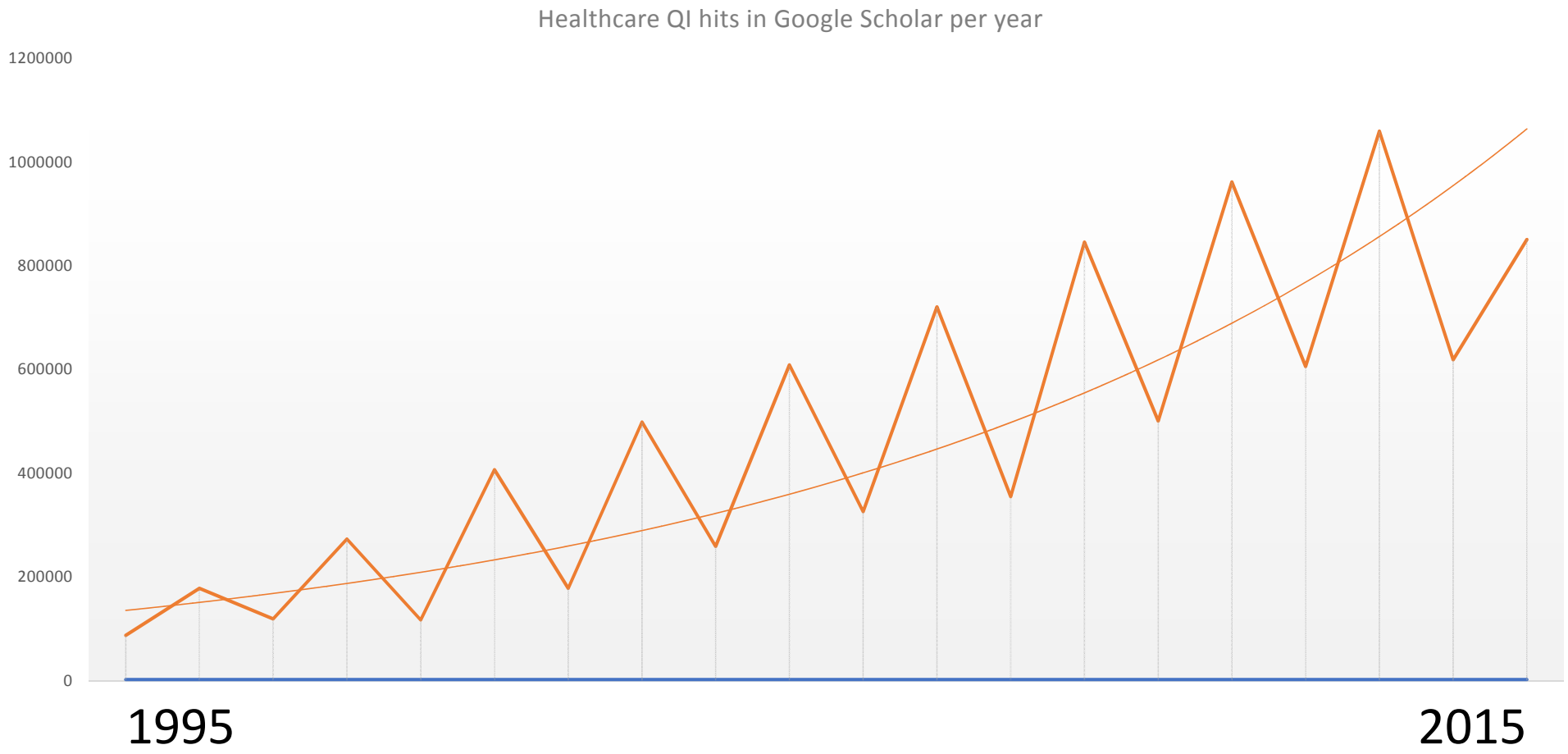
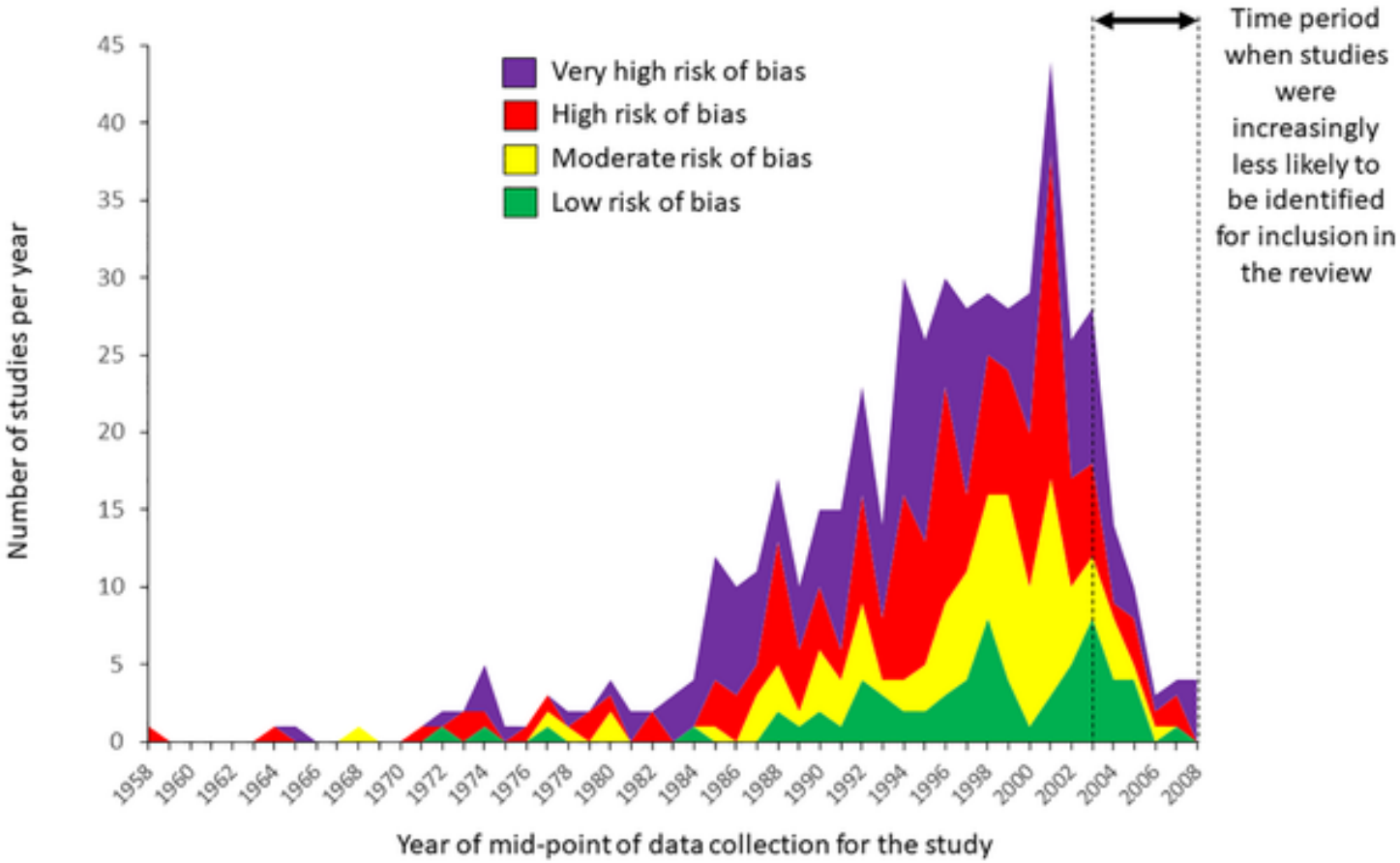
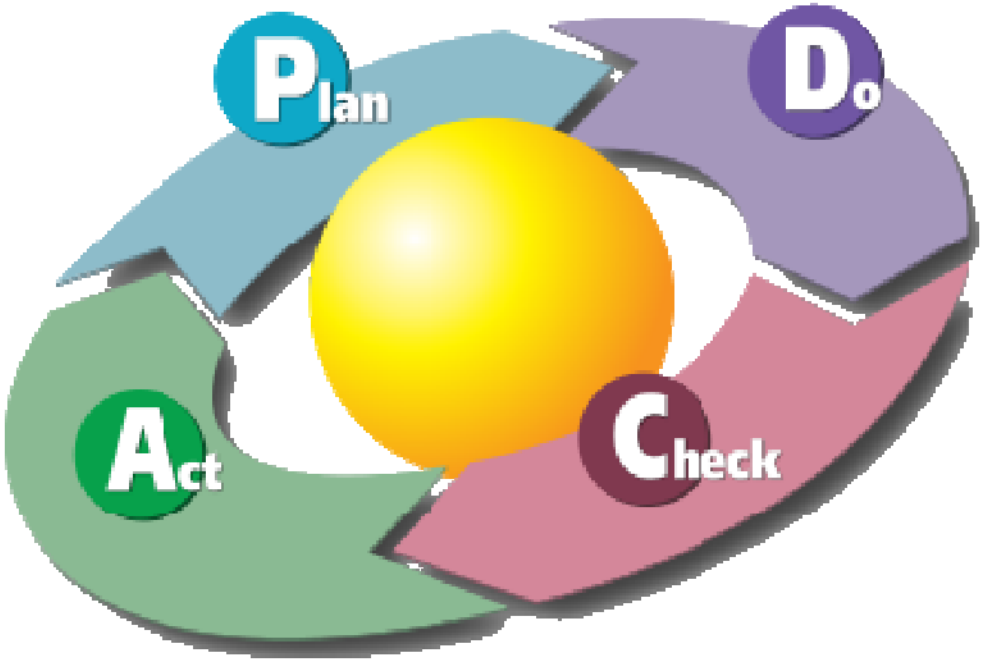


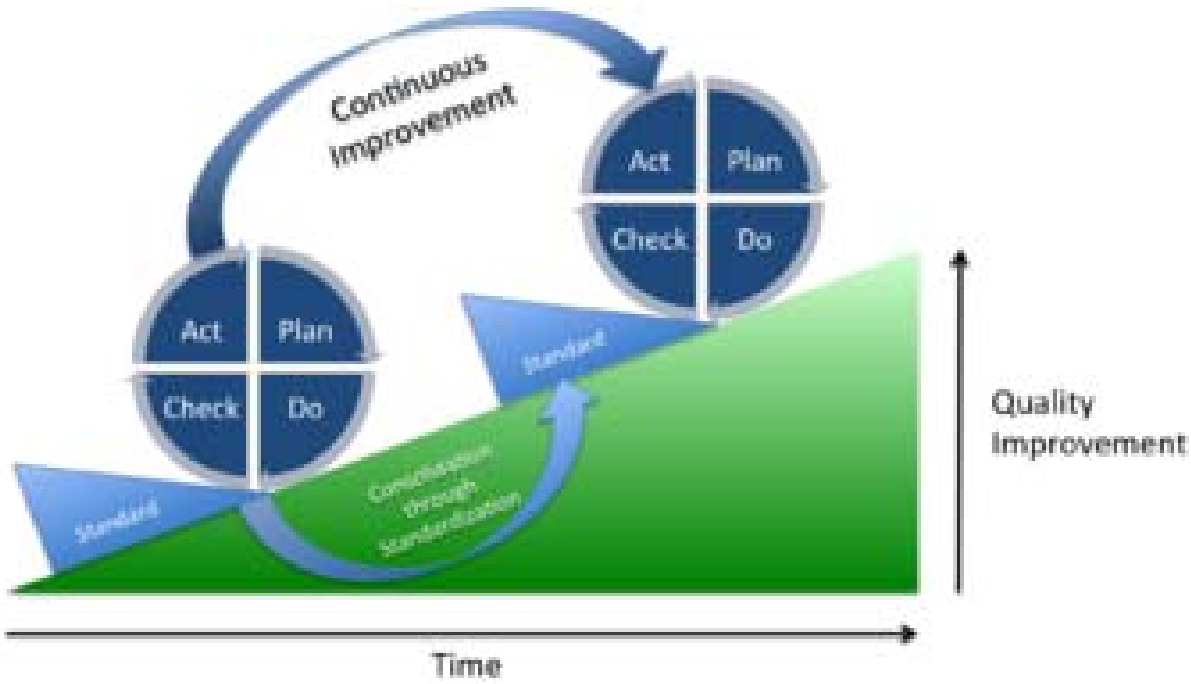
Fig 3. Number and risk of bias of studies with acceptable research designsa over time.



Rowe SY, Peters DH, Holloway KA, Chalker J, Ross-Degnan D, et al. (2019) A systematic review of the effectiveness of strategies to improve health care provider performance in low- and middle-income countries: Methods and descriptive results. PLOS ONE 14(5): e0217617. https://doi.org/10.1371/journal.pone.0217617
https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0217617

Do quality improvement initiatives work?





Deming
Shewhart cycles
PDCA
PDSA
Lean manufacturing
Performance jumps vs Kaizen
Analysis paralysis

Effectiveness of a national quality improvement programme to improve survival after emergency abdominal surgery (EPOCH): a stepped-wedge cluster-randomised trial

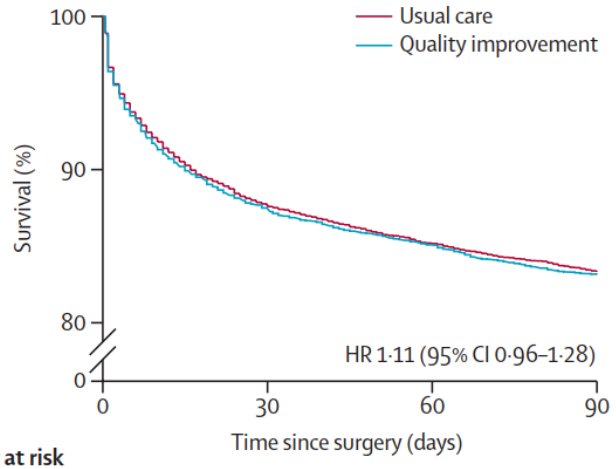
*Carol J Peden, Tim Stephens, Graham Martin, Brennan C Kahan, Ann Thomson, Kate Rivett, Duncan Wells, Gerry Richardson, Sally Kerry, Julian Bion, Rupert M Pearse, on behalf of the Enhanced Peri-Operative Care for High-risk patients (EPOCH) trial group**

Lancet 2019; 393: 2213–21

Published Online
April 25, 2019

Summary

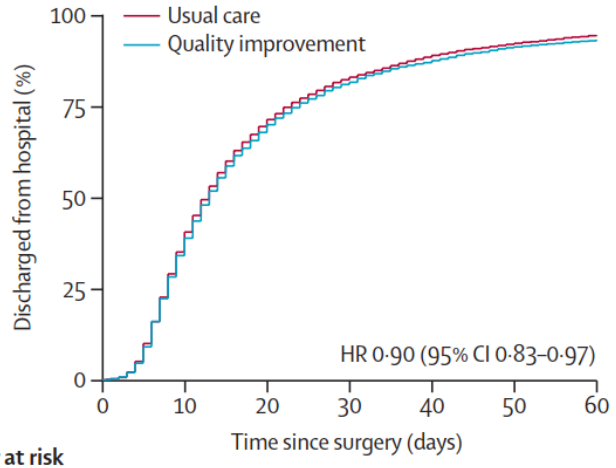
Background Emergency abdominal surgery is associated with poor patient outcomes. We studied the effectiveness of a national quality improvement (QI) programme to implement a care pathway to improve survival for these patients.



Number at risk

Usual care	8482	7216	6968	6811
Quality improvement	7374	6098	5881	5730

Figure 2: **All-cause mortality within 90 days of emergency abdominal surgery**



Number at risk

Usual care	8320	4929	2171	1180	734	482	324
Quality improvement	7353	4397	2015	1115	731	485	371

Figure 3: **Duration of hospital stay after emergency abdominal surgery**

Cadogan *et al. Implementation Science* (2015) 10:167
DOI 10.1186/s13012-015-0356-4

Implementation Science

SYSTEMATIC REVIEW

Open Access

The effectiveness of interventions to improve laboratory requesting patterns among primary care physicians: a systematic review

Sharon L. Cadogan[1*], John P. Browne[1], Colin P. Bradley[2] and Mary R. Cahill[3]

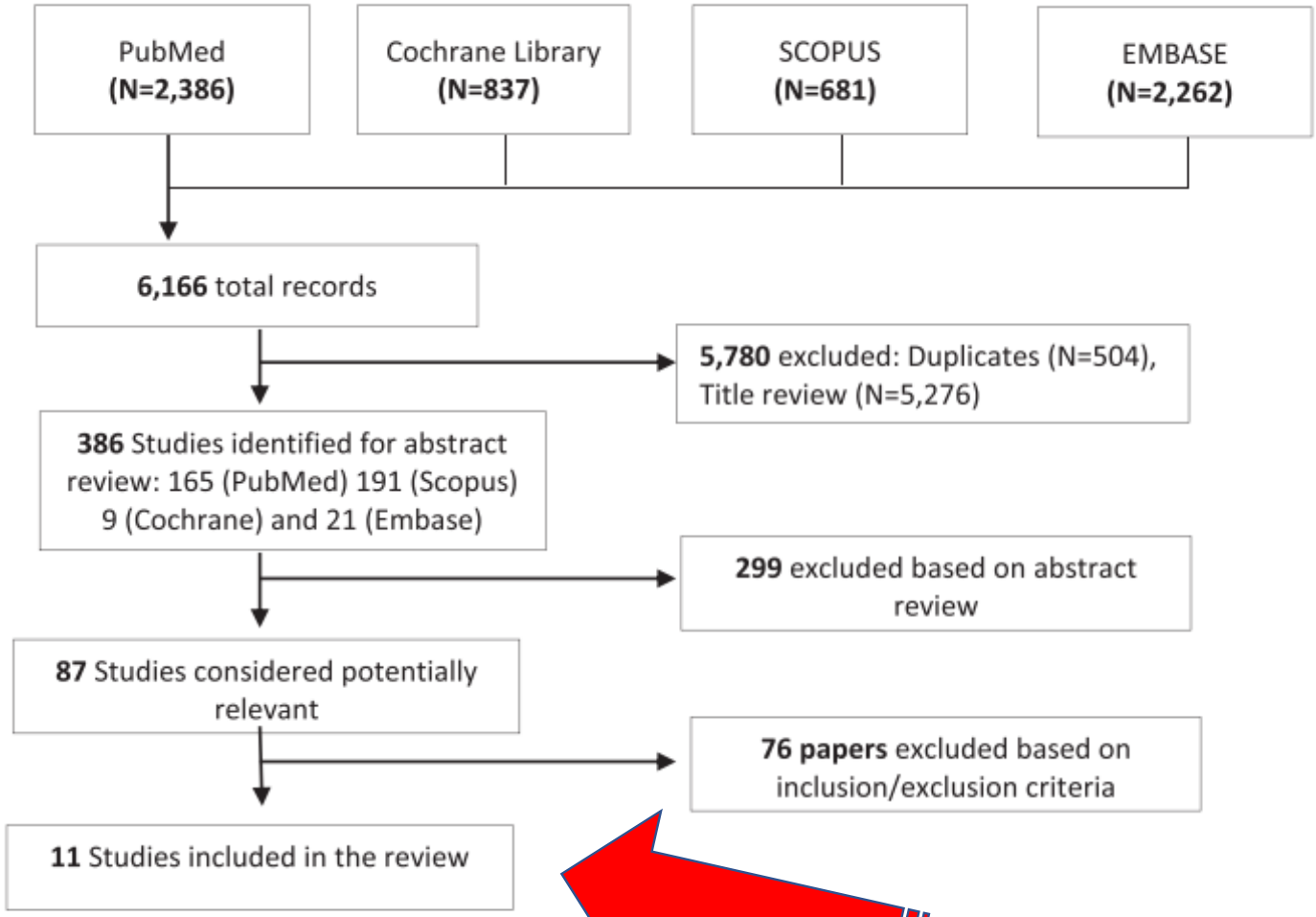
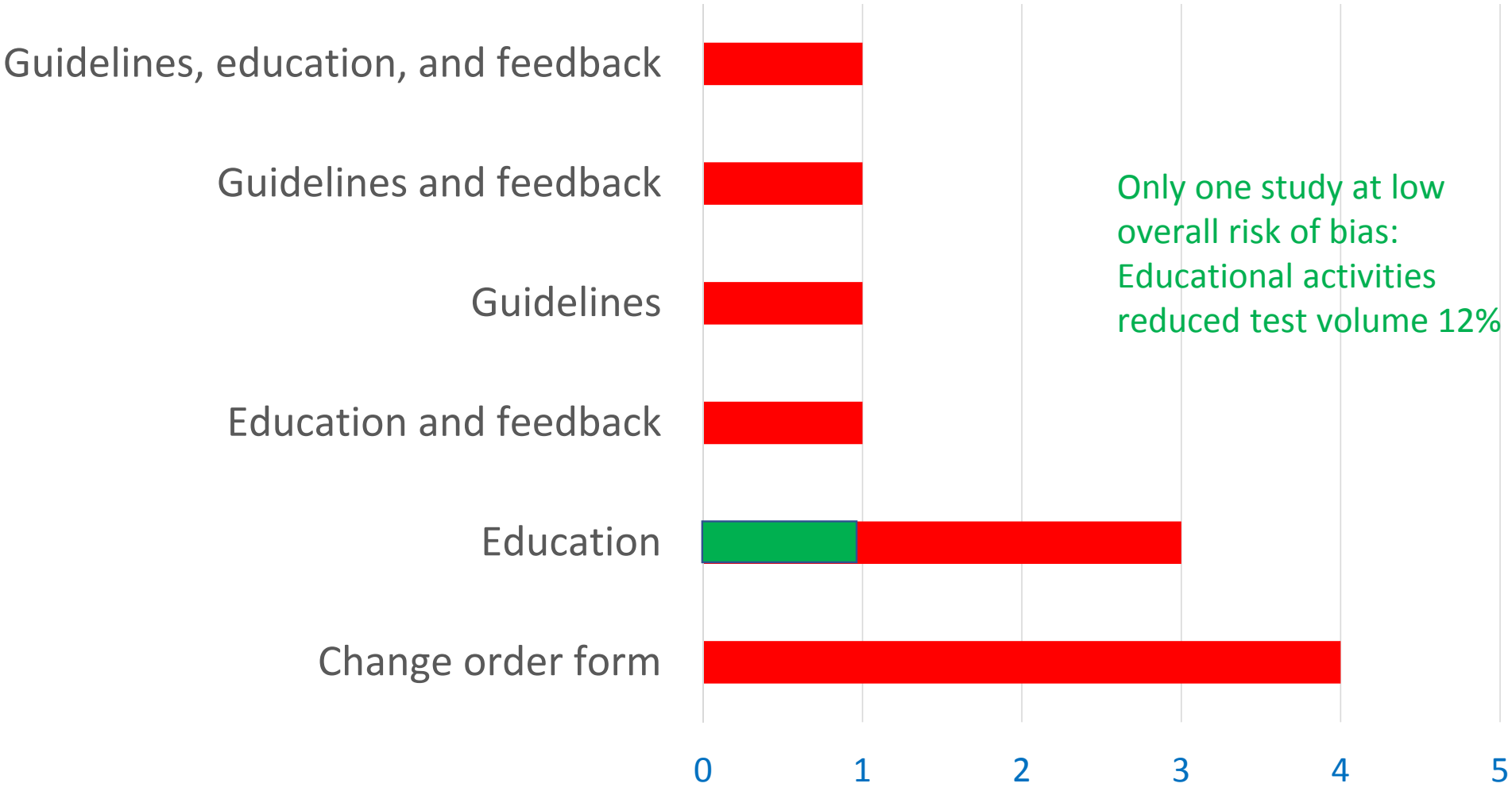


Fig. 1 Flow diagram of the search strategy for review

Study type	Low risk of bias	High risk of bias
Interrupted time series		1
Controlled before after		6
Randomised controlled trial	1	3

Interventions



International Journal for Quality in Health Care 2009; Volume 21, Number 4: pp. 225–232
Advance Access Publication: 24 April 2009
10.1093/intqhc/mzp019

A hospital-randomized controlled trial of a formal quality improvement educational program in rural and small community Texas hospitals: one year results

GIOVANNI FILARDO[1], DAVID NICEWANDER[1], JEPH HERRIN[2], JANINE EDWARDS[3], PERCY GALIMBERTTI[3], MARI TIETZE[4], SUSAN MCBRIDE[4], JULIE GUNDERSON[1], ASHLEY COLLINSWORTH[1], ZIAD HAYDAR[1], JOSIE WILLIAMS[3] AND DAVID J. BALLARD[1]

[1]Institute for Health Care Research and Improvement, Baylor Health Care System, 8080 N. Central Expressway, Suite 500, Dallas, TX 75206, USA, [2]Section of Cardiovascular Medicine, Yale University School of Medicine, 333 Cedar Street, New Haven, CT 06510, USA, [3]Texas A&M University Health Science Center, 3833 Texas Avenue, Suite 150, Bryan, TX 77802, USA, and [4]Dallas Fort Worth Hospital Council, 250 Decker Drive, Irving, TX 75062, USA

Abstract

Objective. To investigate the effectiveness of a quality improvement educational program in rural hospitals.

Design. Hospital-randomized controlled trial.

Setting/Participants. A total of 47 rural and small community hospitals in Texas that had previously received a web-based benchmarking and case-review tool.

Intervention. The 47 hospitals were randomized either to receive formal quality improvement educational program or to a control group. The educational program consisted of two 2-day didactic sessions on continuous quality improvement techniques, followed by the design, implementation and reporting of a local quality improvement project, with monthly coaching conference calls and annual follow-up conclaves.

Main Outcome Measures. Performance on core measures for community-acquired pneumonia and congestive heart failure were compared between study groups to evaluate the impact of the educational program.

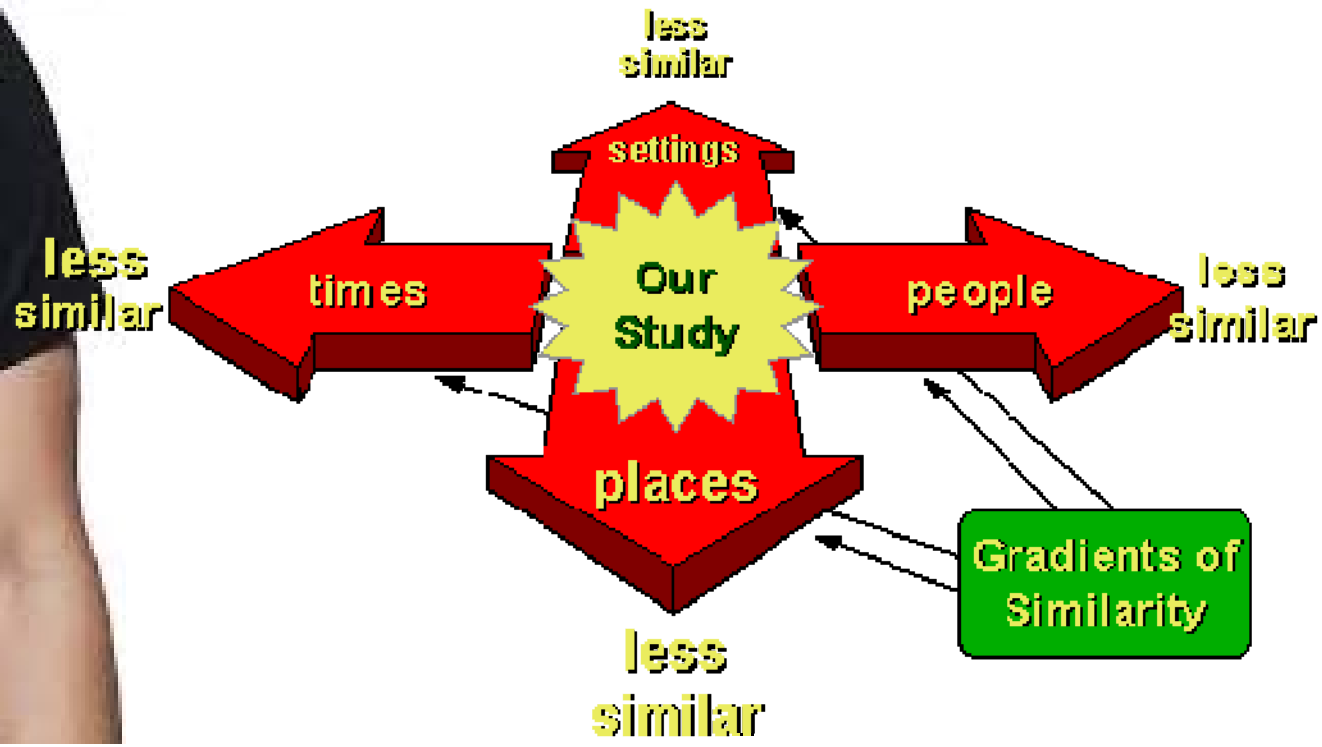
Results. No significant differences were observed between the study groups on any measures. Of the 23 hospitals in the intervention group, only 16 completed the didactic program and 6 the full training program. Similar results were obtained when these groups were compared with the control group.

Conclusions. While the observed results suggest no incremental benefit of the quality improvement educational program following implementation of a web-based benchmarking and case-review tool in rural hospitals, given the small number of hos-

No significant difference
On ANY measure

“It worked for me” and the epidemic of reporting site-specific QI interventions

But does it travel well?



International Journal for Quality in Health Care 2007; **Volume 19, Number 1**: pp. 8–10
Advance Access Publication: 16 November 2006
10.1093/intqhc/mzl059

The challenge of explaining why quality improvement has not done better

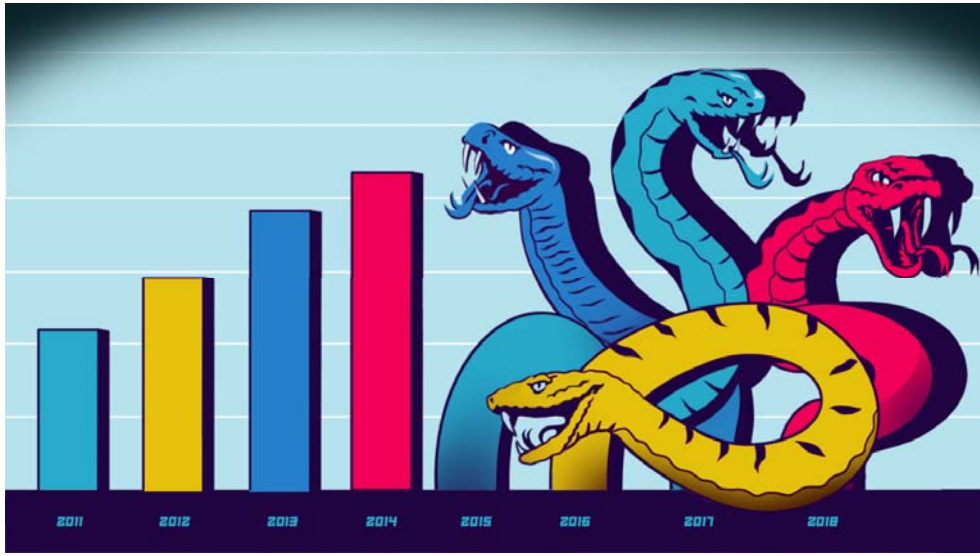
ROBERT L. KANE AND GORDON MOSSER

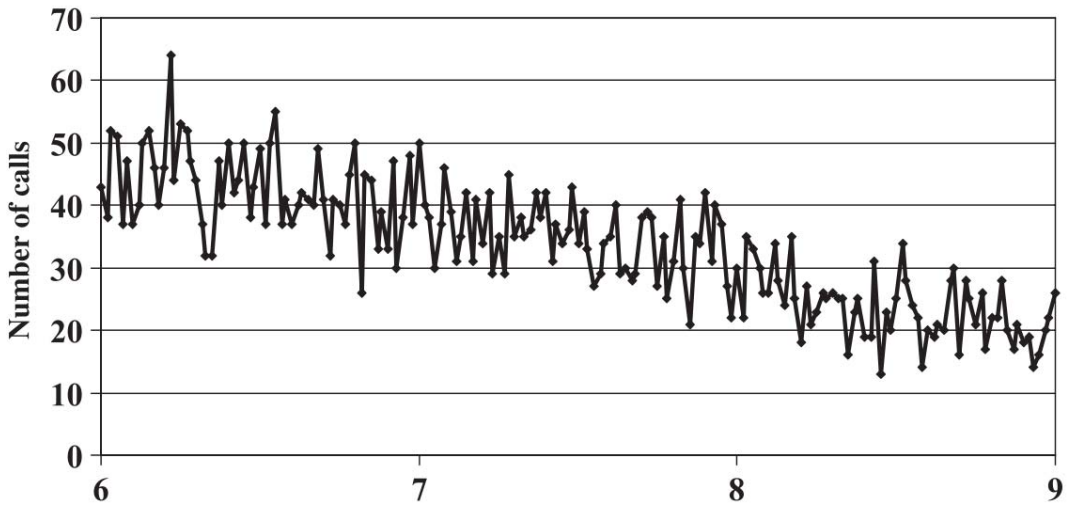
University of Minnesota, School of Public Health, MMC 197, Minneapolis, MN, USA

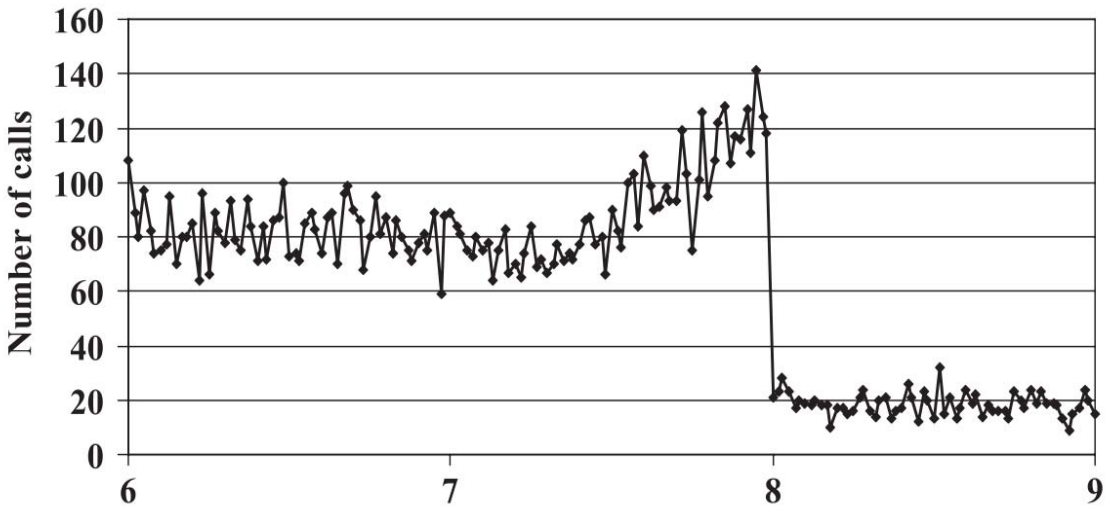
"Health care is characterized by optimistic reliance on the excellence of individual performers, an attitude that tends to underestimate the possibility or failure and fails to think of operational changes as protective against poor outcomes."

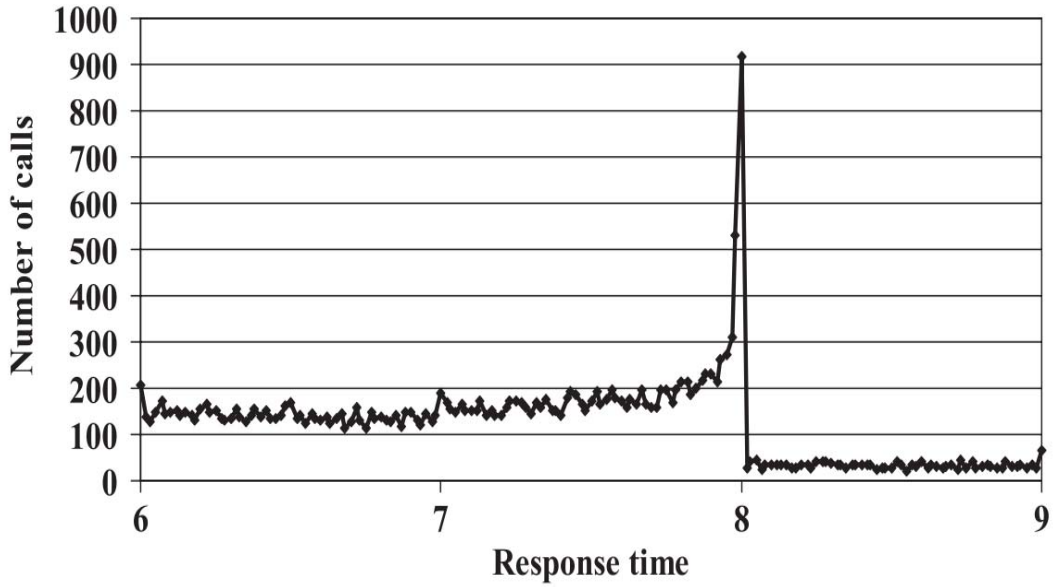
Knock on harms of projects versus system approaches – gaming the system

- Waiting times – fewer patients/day – longer time to appt – higher attrition rate/emergency unit presentation rate
- Ambulance response times
- Most ‘successes’ are limited projects rather system wide improvements
- Counting HbA1cs…









Gaming the system:

1/3 'corrected' their data

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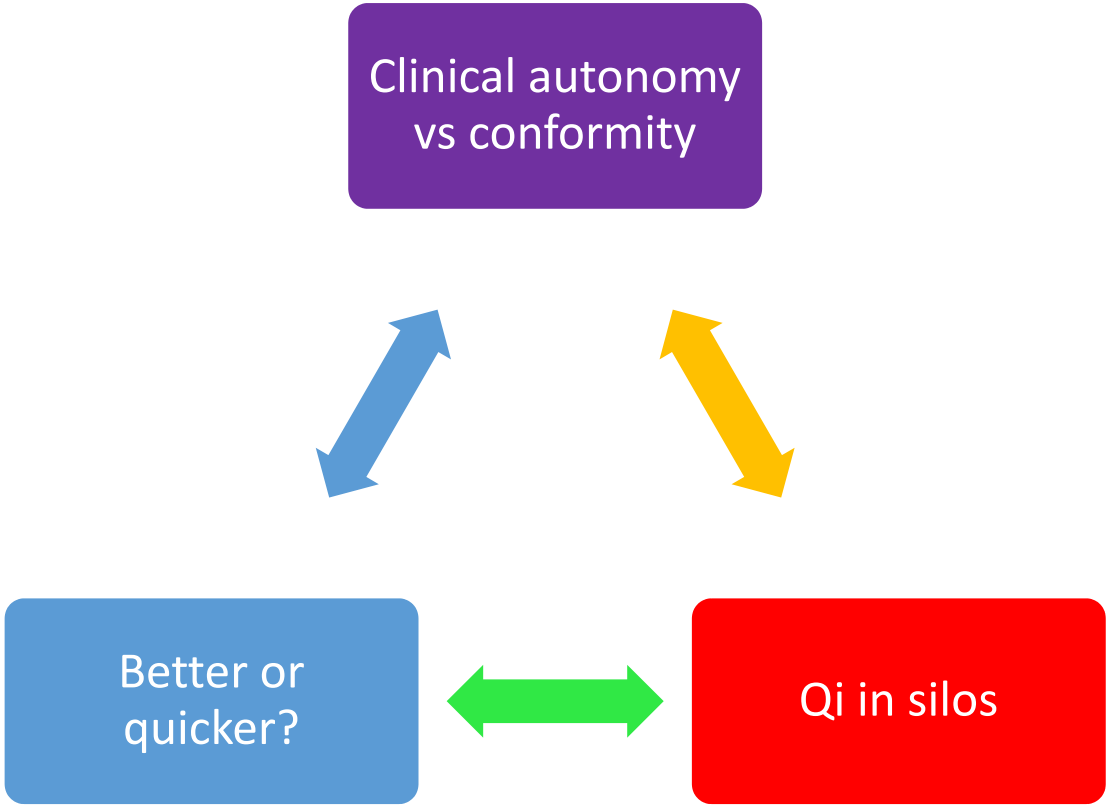
The moderate success of quality of care improvement efforts: three observations on the situation

TAL KATZ-NAVON[1], EITAN NAVEH[2] AND ZVI STERN[3]



Doctors aren’t pilots

- High reliability versus multi-variable uncertainty
- SoPs versus flexibility and responsiveness
- Professional versus organizational norms

Organisations preach quality but practice productivity

- Do it excellently, but do it really, really fast (and cheaply)

QI in silos

- “Only applies to our area”
- No time to share
- Not placed in a strategy of improvement

“Cosmetic QI”

- First movers want technical efficiency
  - Find and solve problems
- Second movers want legitimacy
  - Formulaic adoption of ‘best practice’
  - Conform to institutional pressures

What characterizes useful interventions?

- Interest and enthusiasm and support from leaders/organisation
- Sustainable
- Make a clinically important difference
- Exportable
- Active participation/collaboration of end-users in audit cycle.
- Fosters sense of agency in participants

Quality in Care

- Implementation:
  - Professionalism
  - Taking back clinical leadership
  - Educating for quality in all environments, not just tertiary centres
- Outcomes – are we focusing on the right things?
- Metrics/yardsticks – are our guidelines fit for purpose?
- Quality improvement and audit linked to system change