Verbesserung des onkologischen Outcome unter ERAS

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I.S.D.S International Society for Digestive Surgery

TAGUNGSPROGRAMM

19. Frühjahrstagung vom 26.05 - 02.06.2018

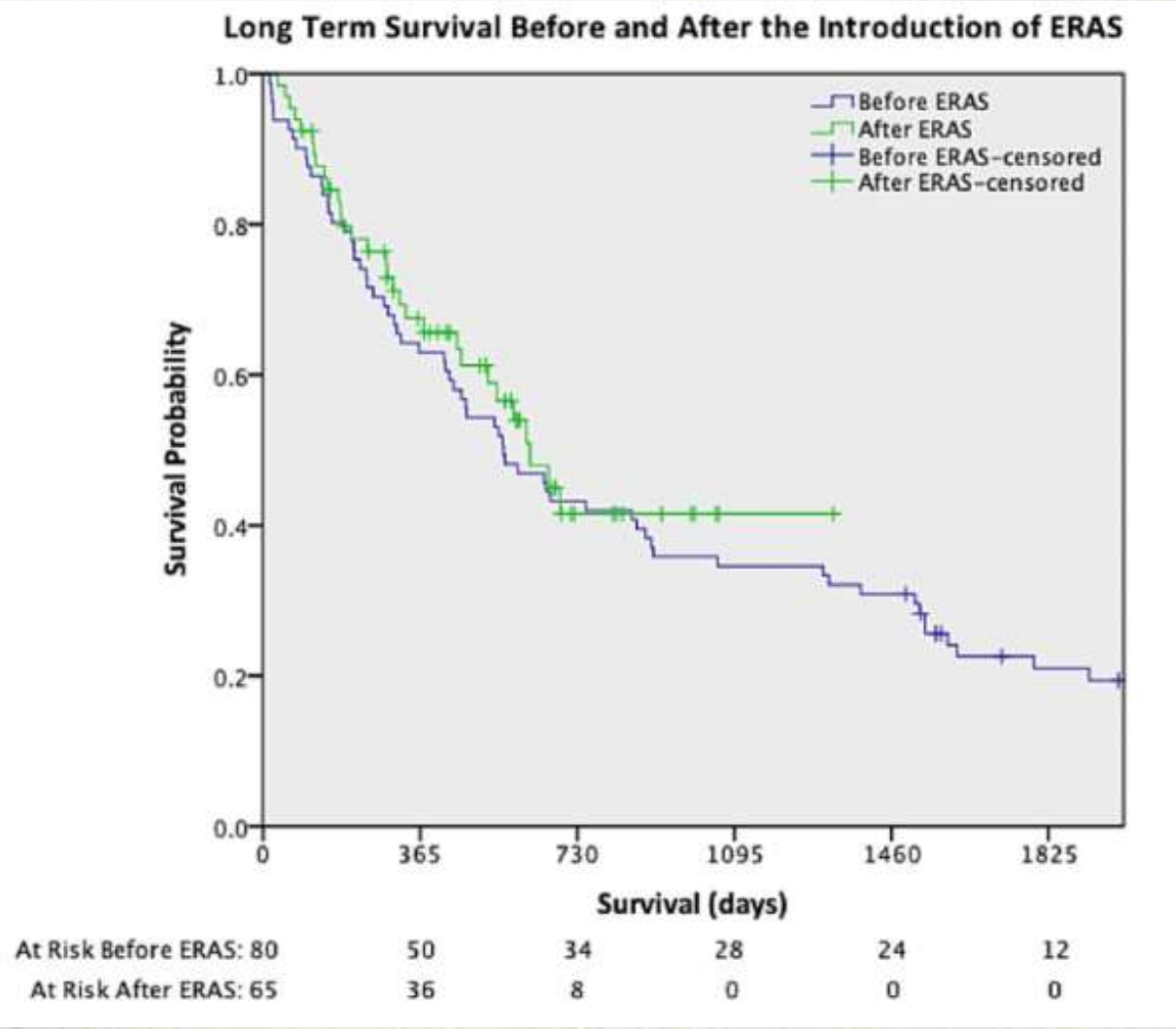
Adherence to the ERAS protocol is Associated with 5-Year Survival After Colorectal Cancer Surgery: A Retrospective Cohort Study

Results

In patients with ≥70 % adherence to ERAS interventions (*N* = 273,), the risk of 5-year cancer-specific death was lowered by 42 %, HR 0.58 (0.39–0.88, cox regression) compared to all other patients (<70 % adherence).

Significant independent perioperative predictors of increased 5-year survival were avoiding overload of intravenous fluids, HR 0.53 (0.32–0.86); oral intake on the day of operation, HR 0.55 (0.34–0.78); and low CRP levels on postoperative day 1.

Gustafsson, U.O., Oppelstrup, H., Thorell, A. et al. World J Surg (2016) 40: 1741. https://doi.org/10.1007/s00268-016-3460-y



Achieving long term survival in oesophagectomy patients aged over 75. August 2016Annals of Medicine and Surgery 9(C):15-21Ben Oakley, Christopher M Lamb et al.

Enhanced recovery after surgery pathway for oesophagectomy patients [10].

Post-operative day	
Day 0	Extubate as soon as possible if on ventilator Analgesia: epidural or paravertebral ± patient controlled analgesia
Day 1	Leave critical care Physiotherapy goal: chest physio and sit out of bed
Day 2	Physiotherapy goal: chest physio, sit out of bed, walk 10 m
Day 3	Chest drain changed to valved bag Physiotherapy: chest physio, sit out of bed, walk the length of the ward ×2
Day 4	Physiotherapy: sit out of bed, walk the length of the ward ×3
Day 5	Commence oral intake if no clinical evidence of leak. Remove nasogastric tube, chest drain, epidural/paravertebral and central line. Start oral analgesia. Physiotherapy: walk freely on ward, shower
Day 6	Physiotherapy: shower, walk independently, climb stairs
Day 7	Full mobilization and activities of daily living. Discharge.

Results

45% of patients were enrolled into an Enhanced Recovery After Surgery program and they demonstrated a significantly reduced length of stay from 18 to 14 days ($p = 0.005$) and 30-day mortality from 6.2% to 0% ($p = 0.04$) compared to the time period before the program. Long-term survival is achievable in patients aged over 75 years.

Achieving long term survival in oesophagectomy patients aged over 75. August 2016Annals of Medicine and Surgery 9(C):15-21Ben Oakley, Christopher M Lamb et al.

Cochrane Database of Systematic Reviews

Enhanced recovery protocols for major upper gastrointestinal, liver and pancreatic surgery (Review)

Bond-Smith G, Belgaumkar AP, Davidson BR, Gurusamy KS

Bond-Smith G, Belgaumkar AP, Davidson BR, Gurusamy KS.
Enhanced recovery protocols for major upper gastrointestinal, liver and pancreatic surgery.
Cochrane Database of Systematic Reviews 2016, Issue 2. Art. No.: CD011382.
DOI: 10.1002/14651858.CD011382.pub2.

Primary outcomes

- 1. Mortality.
  - i) Short-term mortality (in-hospital mortality or mortality within three months).
  - ii) Long-term mortality (for patients undergoing surgery for cancer).
- 2. Serious adverse events (within three months).
  - i) Clavien-Dindo classification (Clavien 2009; Dindo 2004): grade III or higher.
  - ii) International Conference on Harmonisation-Good Clinical Practice (ICH-GCP) guideline (ICH-GCP 1996): serious adverse events defined as any untoward medical occurrences that result in death, are life threatening, require inpatient hospitalisation or prolongation of existing hospitalisation and result in persistent or significant disability/ incapacity.
  - iii) Individual complications that could clearly be classified as grade III or higher by the Clavien-Dindo classification Clavien 2009; Dindo 2004), or as a serious adverse event by the ICH-GCP cl assification.
- 3. Health-related quality of life (using any validated scale).

Secondary outcomes

- 1. Adverse events (within three months). We included all adverse events repor ted by the study authors, irrespective of theirseverity.
- 2. Length of hospital stay (including the index admission for major upper gastrointestinal, liver or pancreatic surgery and any surgical complication-related readmissions).
- 3. Number of hospital readmissions.
- 4. Time to return to normal activity (return to preoperative mobility without additional carer support).
- 5. Time to return to work (for those who were employed previously).
- 6. Costs (however reported by study authors; we converted costs to the single currency of USD based on the existing conversion rate on the day of the analysis).

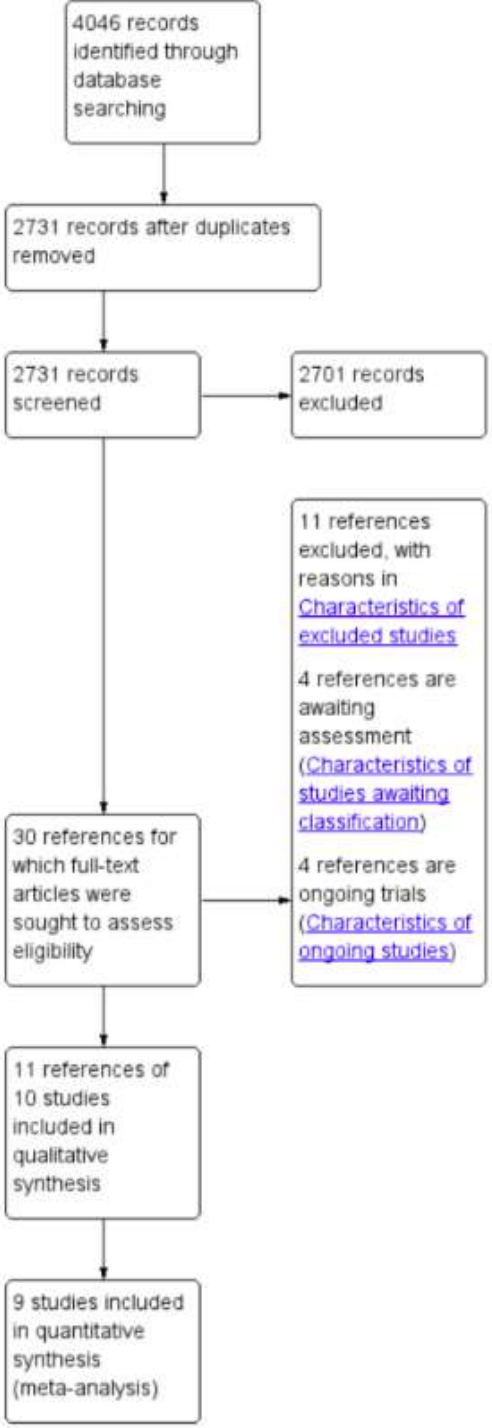
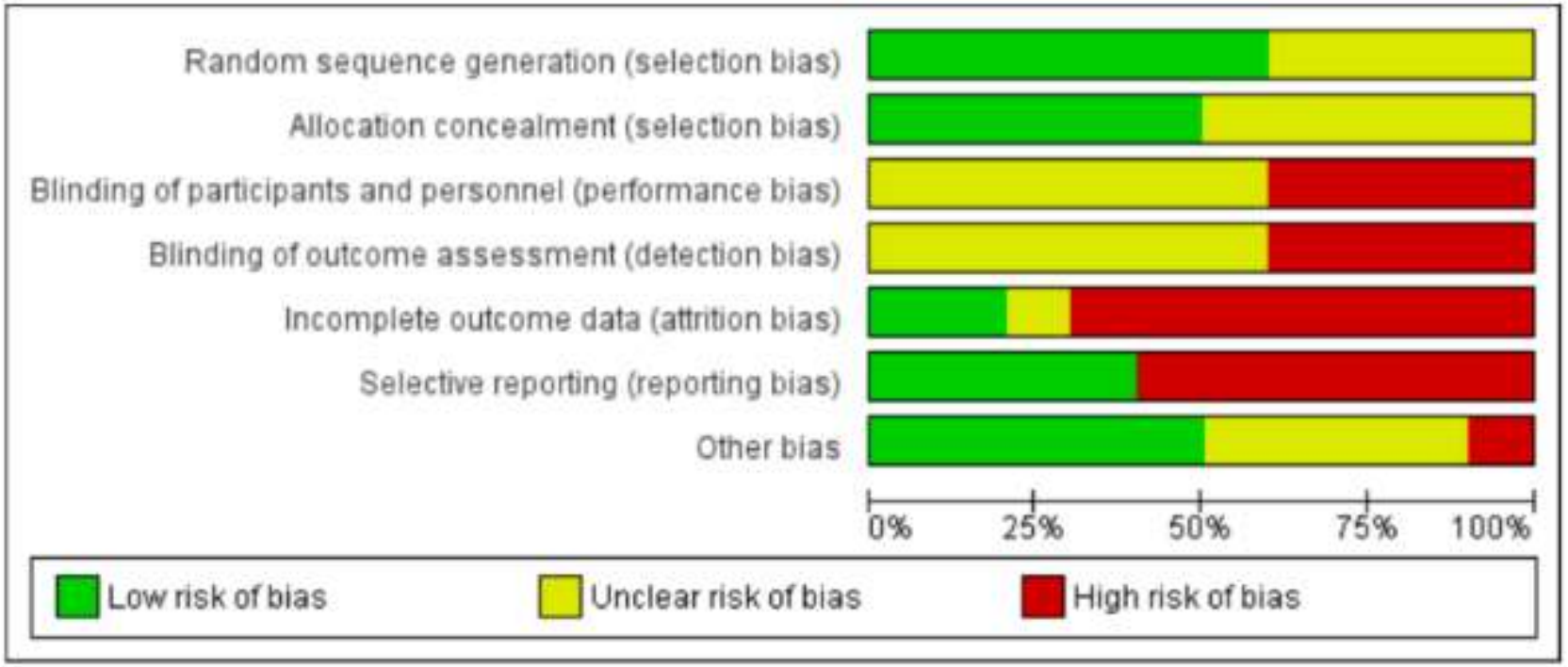

4046 records identified through database searching
2731 records after duplicates removed
2731 records screened
2701 records excluded
11 references excluded, with reasons in Characteristics of excluded studies
4 references are awaiting assessment (Characteristics of studies awaiting classification)
4 references are ongoing trials (Characteristics of ongoing studies)
30 references for which full-text articles were sought to assess eligibility
11 references of 10 studies included in qualitative synthesis
9 studies included in quantitative synthesis (meta-analysis)

Figure 2. Risk of bias graph: review authors' judgements about each risk of bias item presented as percentages across all included studies.

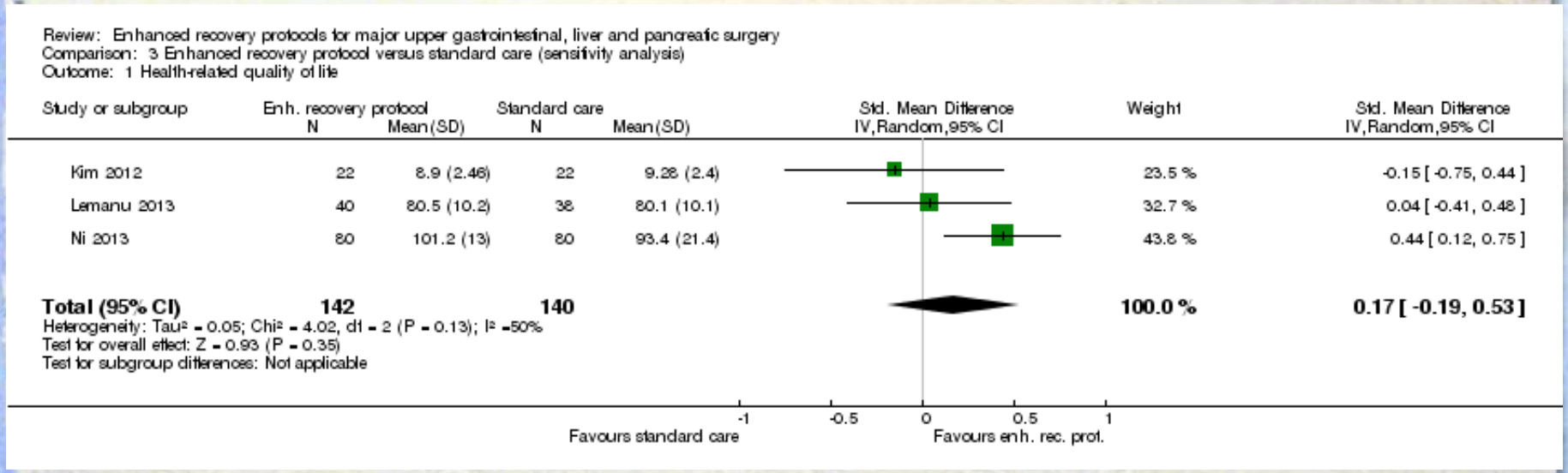


Criteria for judging risk of bias

- 1. **Random sequence generation**(biased allocation to interventions) due to inadequate generation of a randomised sequence . There is a low risk of selection bias if the investigators describe a random component in the sequence generation process such as:
- 2. **Allocation concealment** (selection bias) Selection bias (biased allocation to interventions) due to inadequate concealment of allocations prior to assignmentThere is a low risk of selection bias : central allocation (including telephone, web-based and pharmacy-controlled randomization)
- 3. **Blinding of participants**
  Performance bias due to knowledge of the allocated interventions by participants during the study
- 4**. Blinding of personnel/ care providers (performance bias**).
- 5. **Blinding of outcome assessor (detection bias)**
  Detection bias due to knowledge of the allocated interventions by outcome assessors
- 6**. Incomplete outcome data** (attrition bias)effect size, or missing data were imputed using appropriate methods. #
- 7. **Selective Reporting (**reporting bias)
  Reporting bias due to selective outcome reporting

Enhanced recovery protocols for major upper gastrointestinal, liver and pancreatic surgery:

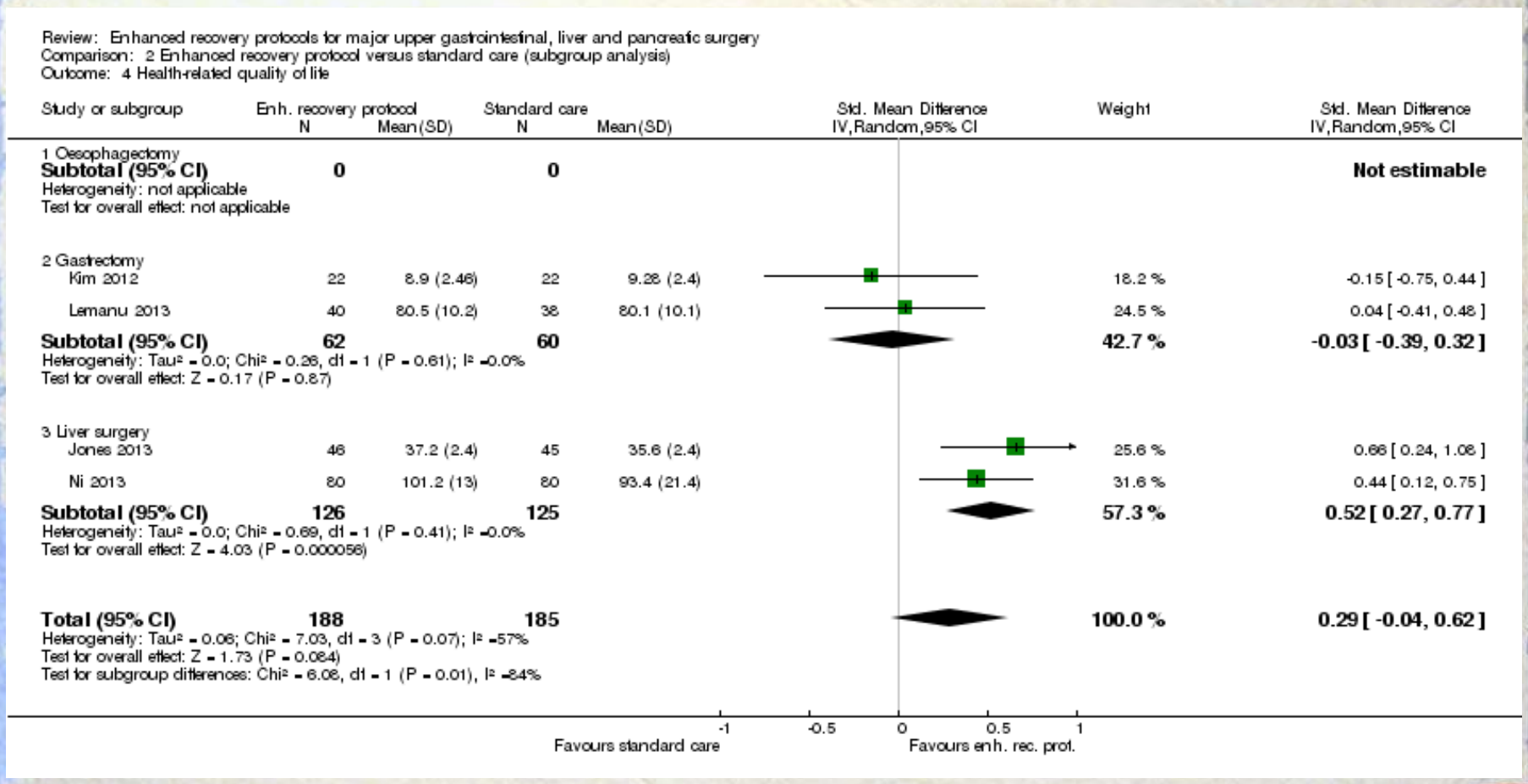
Quality of life



Cochrane Database of Systematic Reviews
1 FEB 2016 DOI: 10.1002/14651858.CD011382.pub2
http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD011382.pub2/full#CD011382-fig-00301

Enhanced recovery protocols for major upper gastrointestinal, liver and pancreatic surgery

Quality of life



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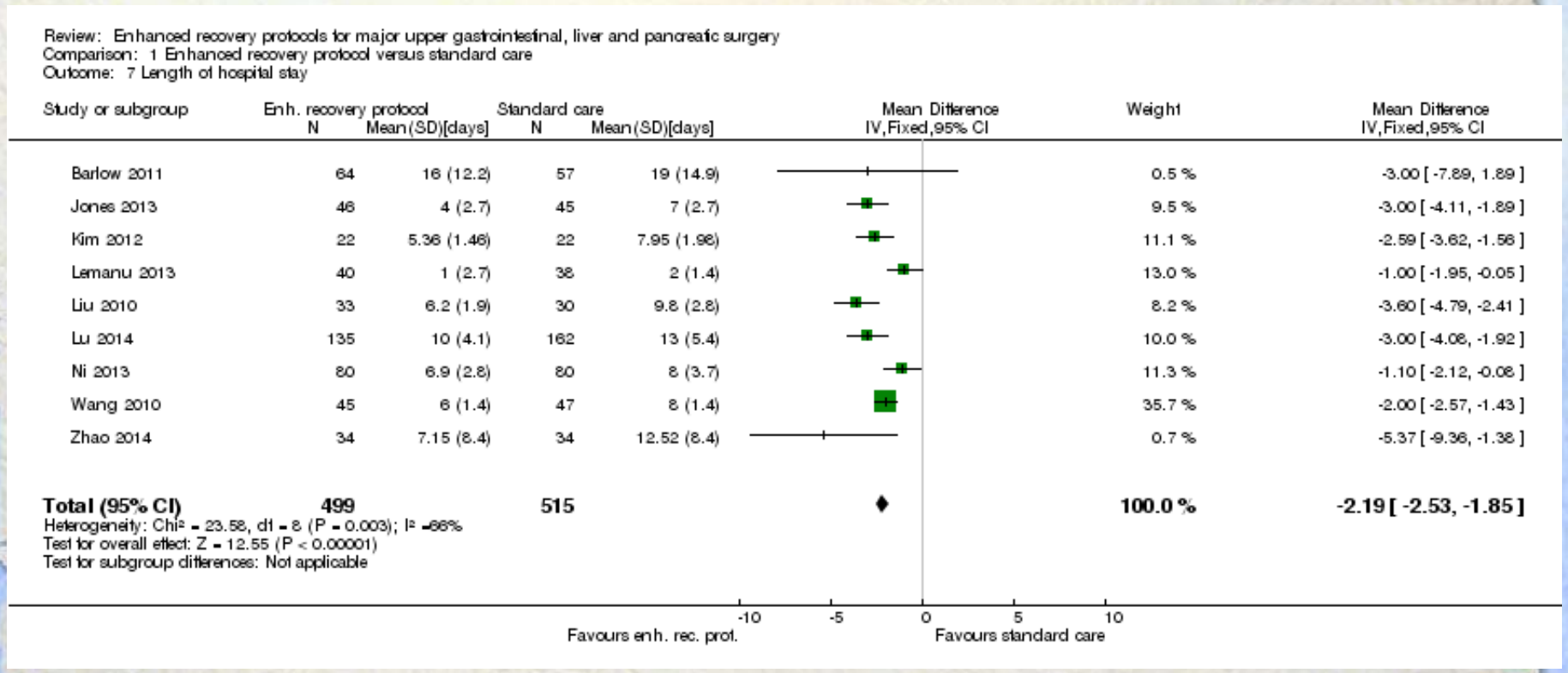
Enhanced recovery protocols for major upper gastrointestinal, liver and pancreatic surgery

Length of hospital stay



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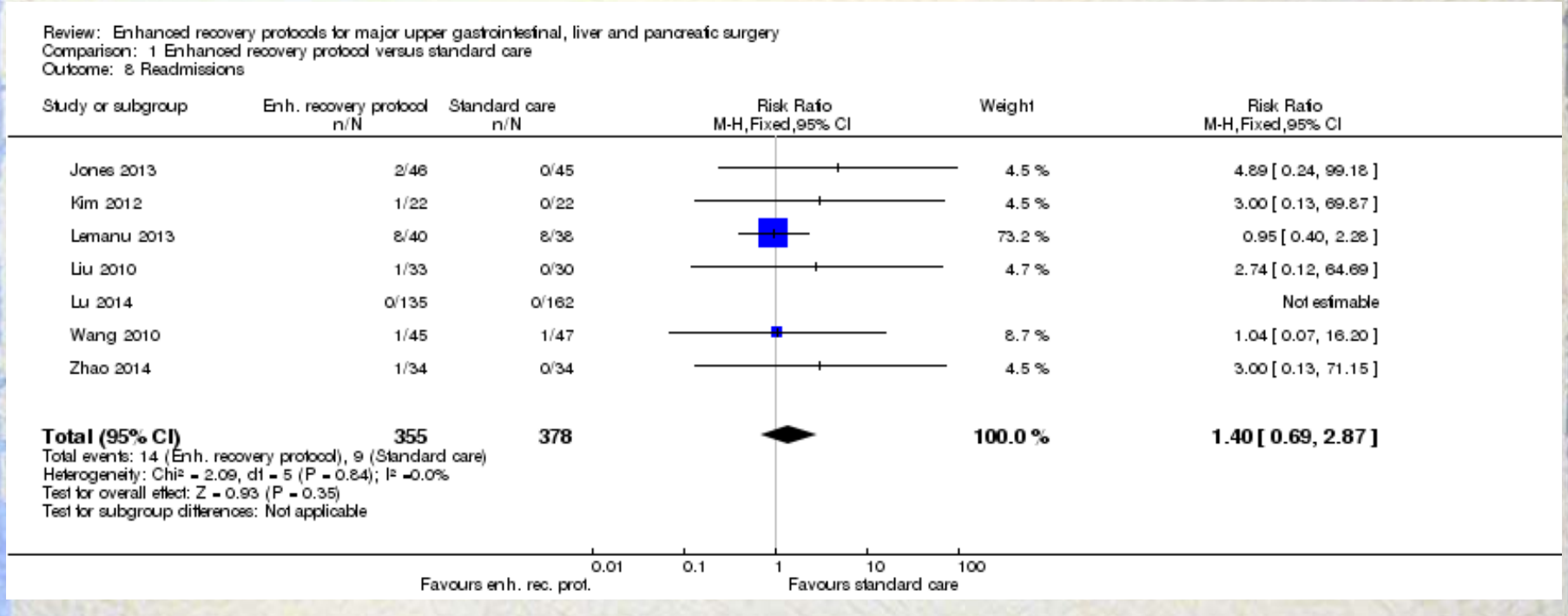
Enhanced recovery protocols for major upper gastrointestinal, liver and pancreatic surgery

Readmission



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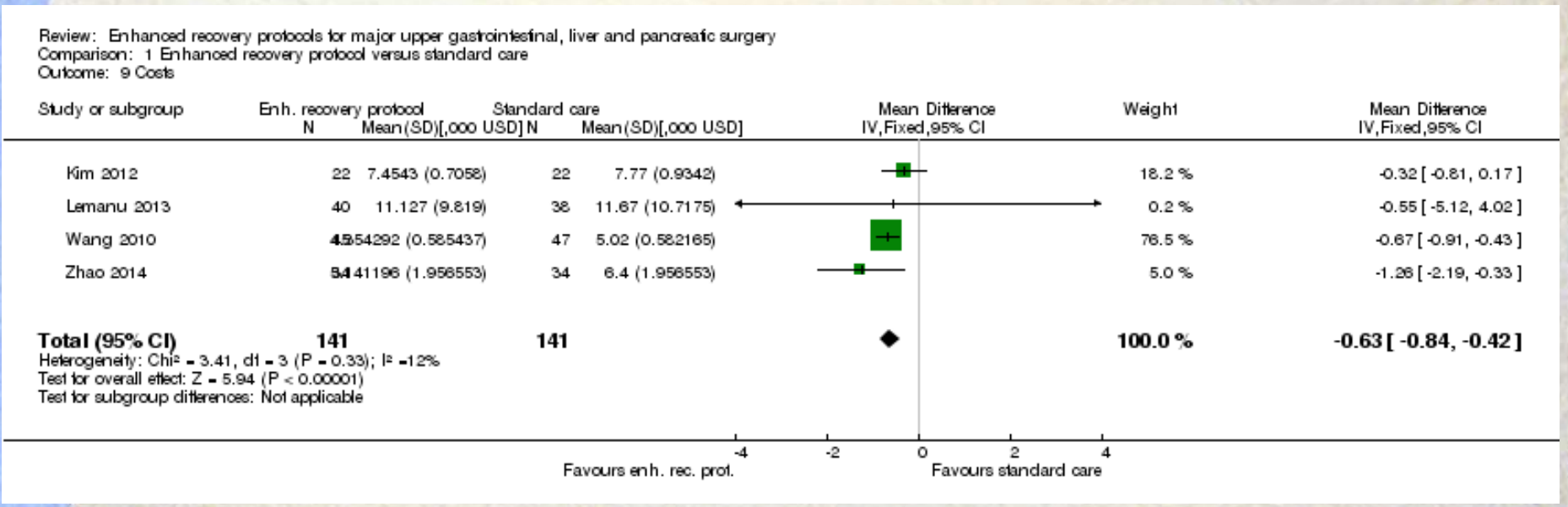
Enhanced recovery protocols for major upper gastrointestinal, liver and pancreatic surgery

Costs



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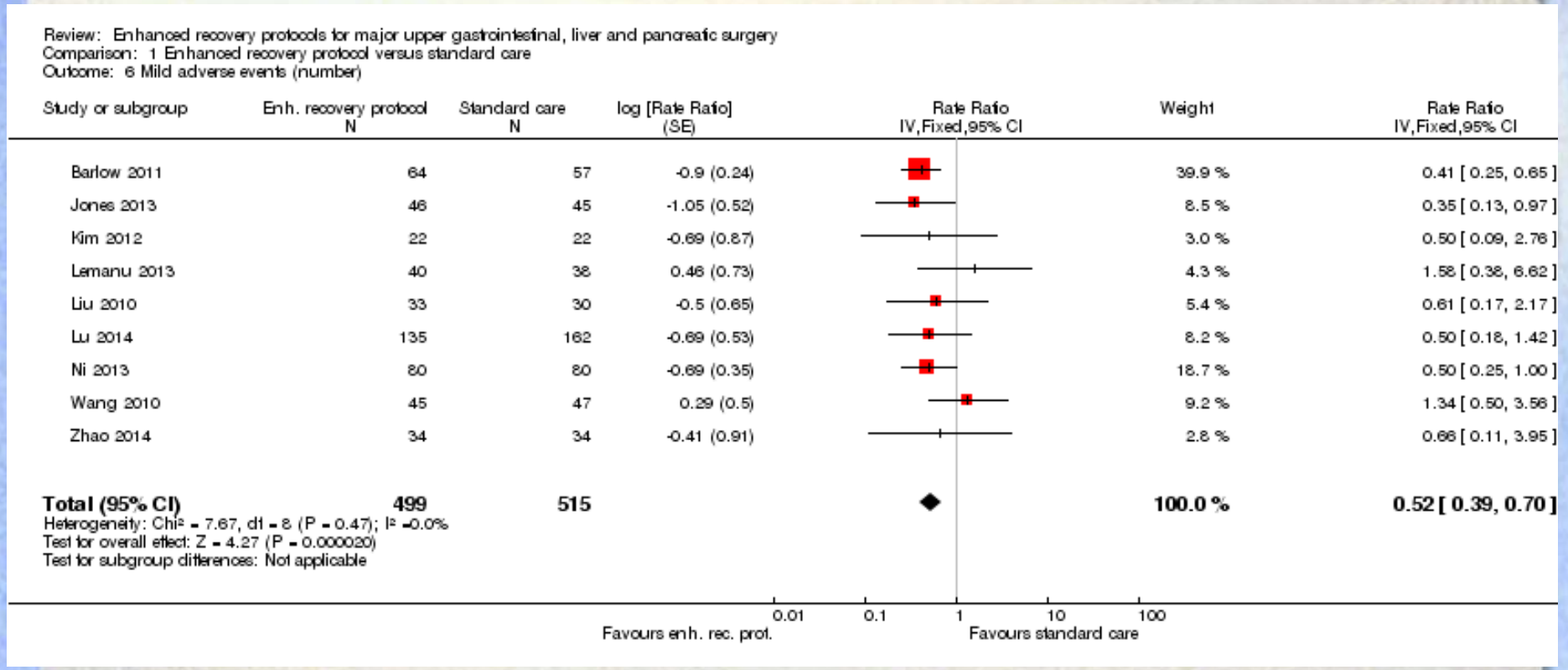
Enhanced recovery protocols for major upper gastrointestinal, liver and pancreatic surgery

Mild adverse events



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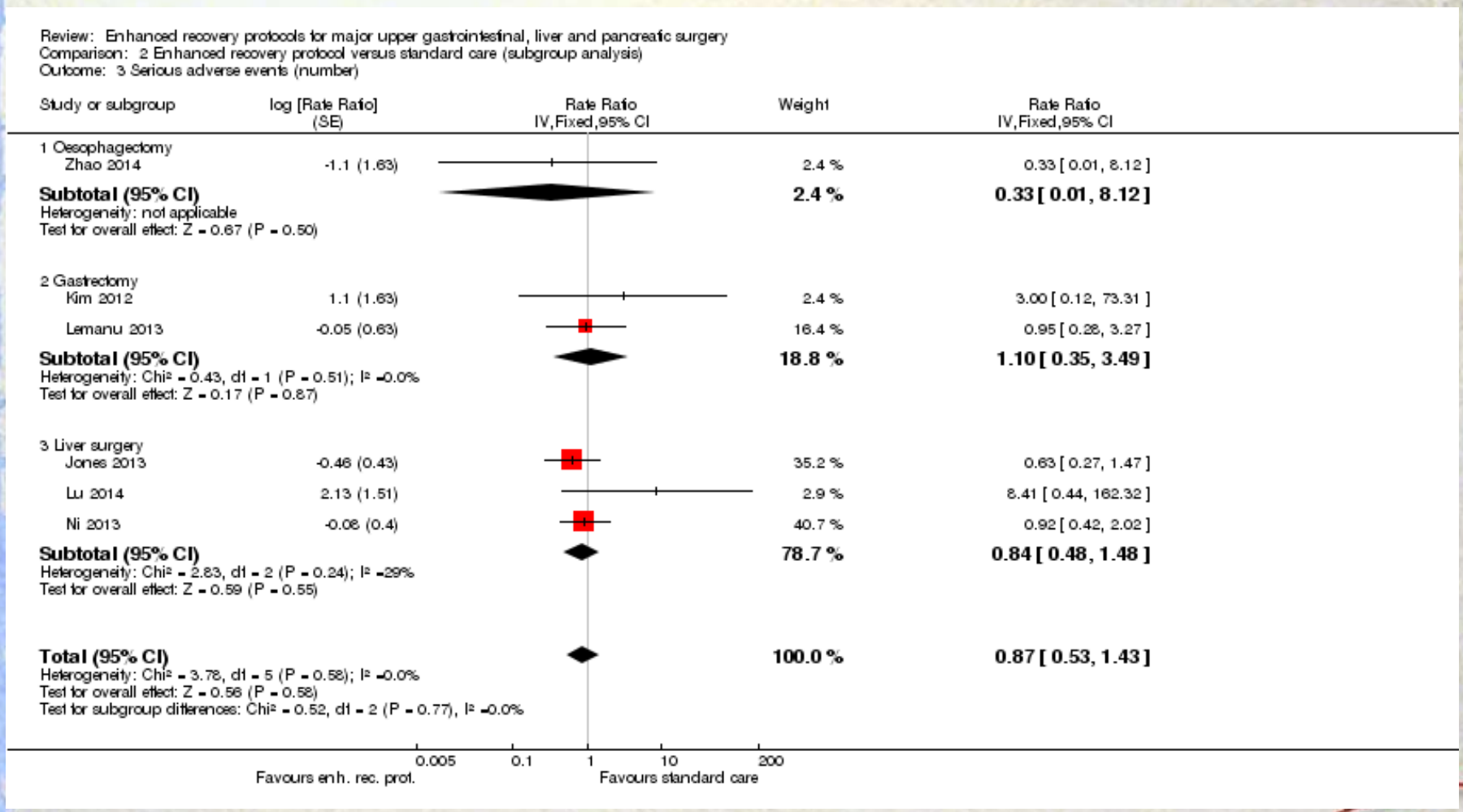
Enhanced recovery protocols for major upper gastrointestinal, liver and pancreatic surgery

Serious adverse events



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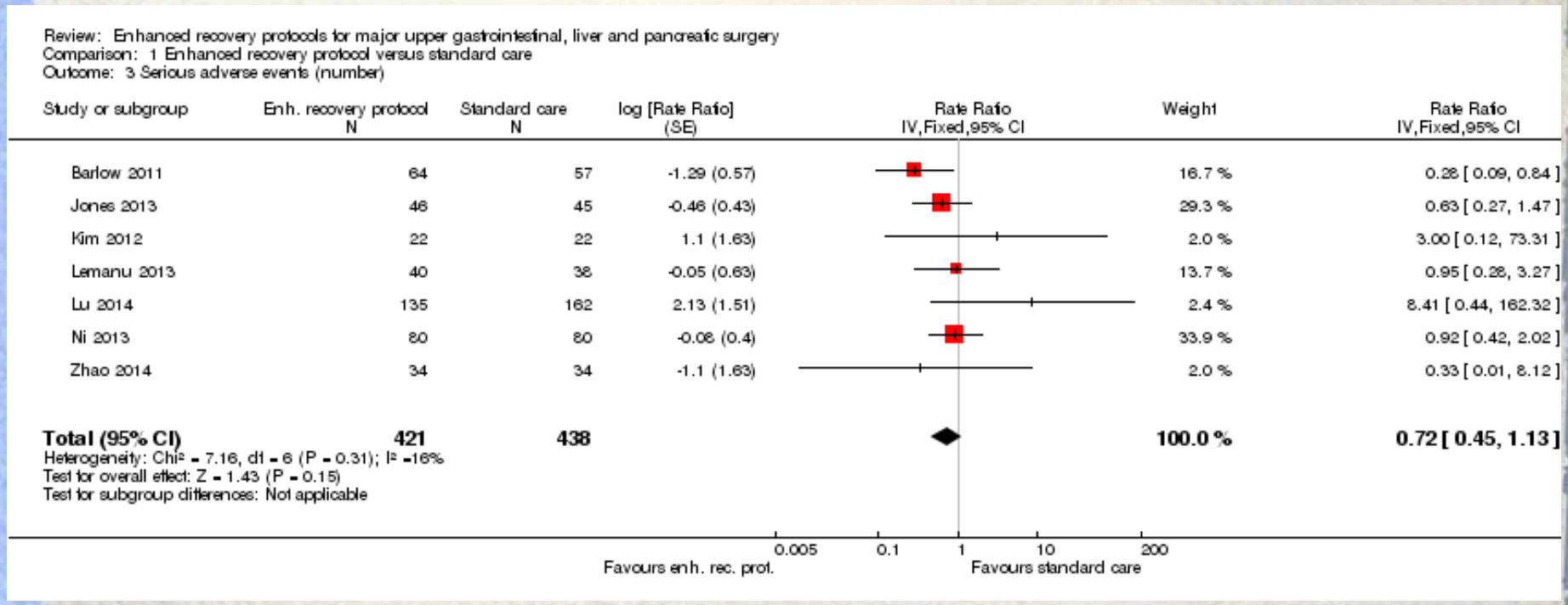
Enhanced recovery protocols for major upper gastrointestinal, liver and pancreatic surgery

Serious adverse events



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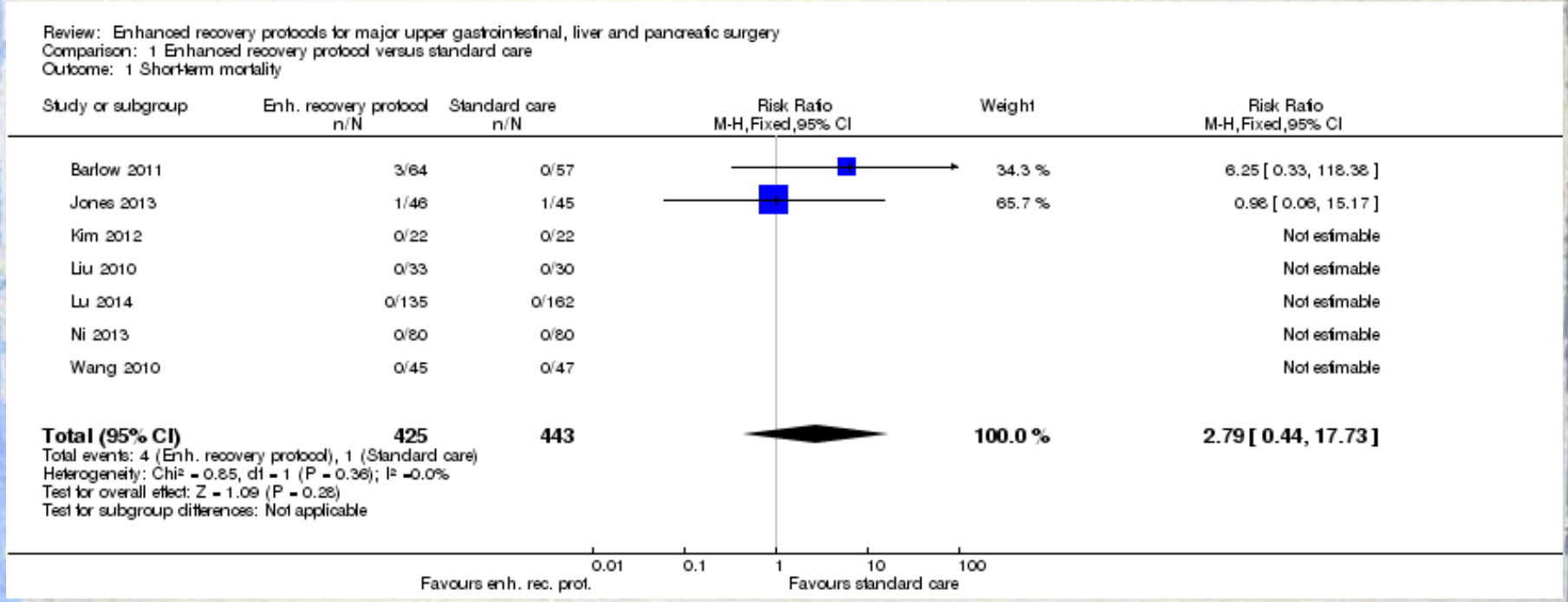
Enhanced recovery protocols for major upper gastrointestinal, liver and pancreatic surgery

Short term mortality



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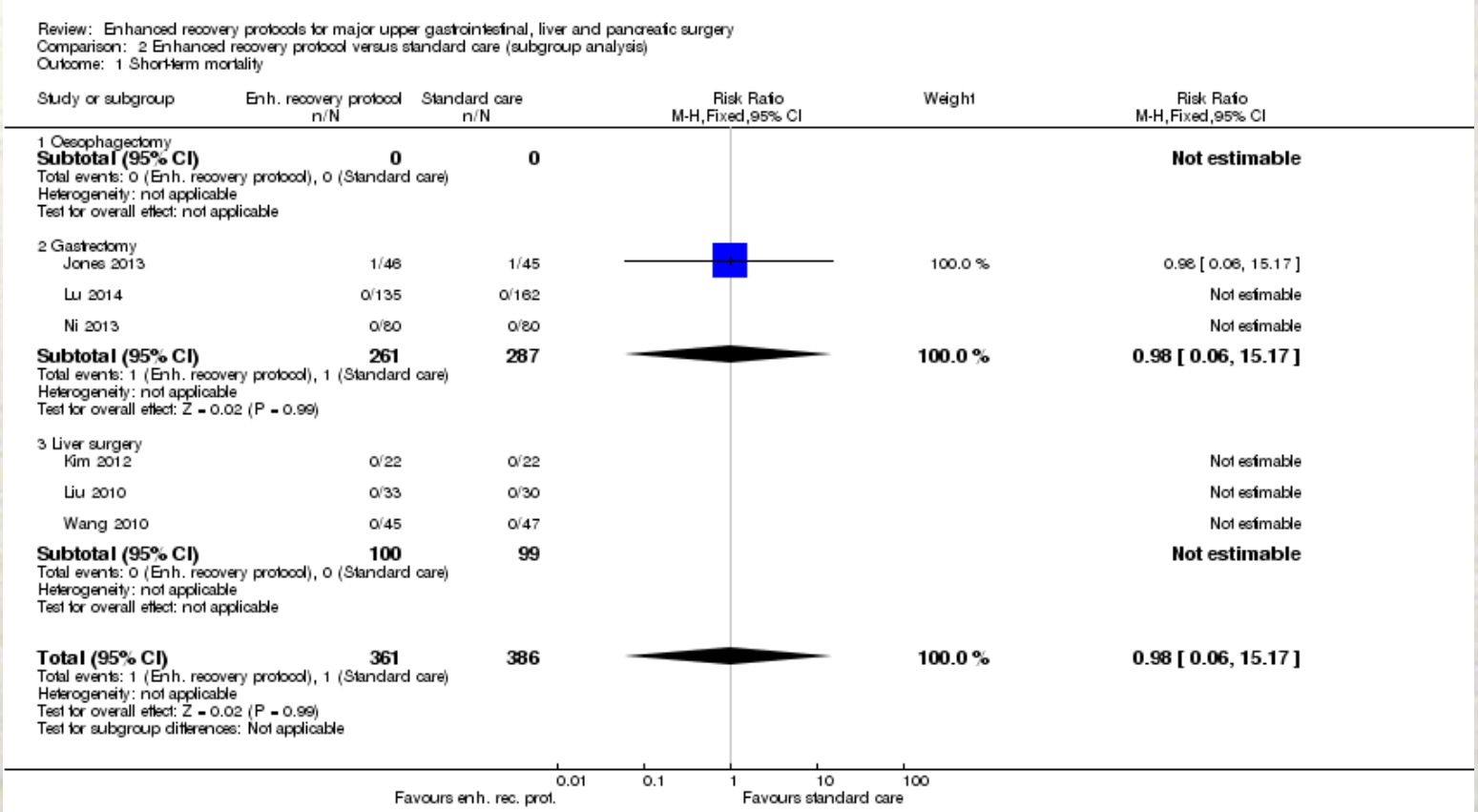
Enhanced recovery protocols for major upper gastrointestinal, liver and pancreatic surgery

Short term mortality



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Key results

- None of the trials reported long-term deaths, medium-term health-related quality of life (three months to one year), time to return to normal activity, or time to return to work.
- The difference between enhanced recovery protocols and standard care was imprecise for short-term deaths, percentage of people with major complications, total number of major complications, health-related quality of life and hospital readmissions. Enhanced recovery protocols had a lower percentage of people with minor complications, fewer minor complications, shorter length of hospital stay (approximately two days shorter hospital stay per person) and lower costs (cost savings of approximately USD 6300 per person) compared to standard care. Because the trials were of poor quality and did not include clinically important end points, future high quality studies are needed in this field.