Early postoperative feeding and abdominal gynaecological surgery

Wu L, Griffiths P

CRD summary
This mini-review assessed the efficacy of early versus delayed post-operative feeding on length of hospital stay after major abdominal gynaecological surgery. The authors' conclusions appear to follow from the evidence presented; however, additional relevant studies may have been missed.

Authors' objectives
To determine the efficacy of early post-operative feeding compared with delayed post-operative feeding on recovery after major abdominal gynaecological surgery.

Searching
MEDLINE, CINAHL, EMBASE and the Cochrane Library were searched from inception to 2004 for relevant papers written in English that were accessible from the University of London library; the search terms were reported.

Study selection
Study designs of evaluations included in the review
Randomised controlled trials (RCTs) were eligible for inclusion.

Specific interventions included in the review
Studies that compared early oral intake with delayed oral intake following open abdominal gynaecological surgery were eligible for inclusion. The interventions consisted of a clear fluid on the first post-operative day (or until 500 mL could be tolerated) followed by regular diet as tolerated. The control group received nil by mouth until return of bowel function, after which clear liquid was given followed by a regular diet as tolerated.

Participants included in the review
Studies of adults diagnosed as having a gynaecological disease or disorder were eligible for inclusion. Studies of Caesarean sections, out-patient gynaecological surgery, gynaecological laparoscopic surgery and vaginal gynaecological surgery were excluded. The participants in the included studies were undergoing surgery for gynaecological oncology (involving bowel procedures), and major abdominal gynaecological surgery without involving the gut or without injury to the gut. The average age ranged from 50 to 57 years.

Outcomes assessed in the review
Studies that assessed length of post-operative hospital stay were eligible for inclusion. Studies assessing other outcomes (such as signs of post-operative ileus or time to bowel sound) without assessing post-operative hospital stay were excluded.

How were decisions on the relevance of primary studies made?
The authors did not state how the papers were selected for the review, or how many reviewers performed the selection.

Assessment of study quality
The studies were assessed against the following criteria: randomisation and follow-up of at least 80%. The authors did not state how many reviewers performed the validity assessment.

Data extraction
The authors did not state how the data were extracted for the review, or how many reviewers performed the data extraction.
Methods of synthesis
How were the studies combined?
The studies were described in a narrative.

How were differences between studies investigated?
Differences in individual study descriptions were highlighted.

Results of the review
Three studies were included in the review: two RCTs (n=302) and one quasi-randomised trial (n=96).

Appropriate methods of randomisation were described in one study, the methods used in another study were quasi-randomised, and the methods used in the remaining study were unclear. The follow-up rates ranged from 90 to 100%. One study included a substantial number of participants (30%) who underwent multiple surgical procedures in addition to the gynaecological procedures.

A statistically significant difference in the mean or median length of hospital stay, in favour of early post-operative feeding, was found in all three studies. The mean length of post-operative hospital stay was reported in two studies: 4.6 (+/- 2.1) and 3.12 (+/- 0.16) days compared with 5.8 (+/- 2.7) and 4.02 (+/-0.30) days, respectively, in the control group. The median length of hospital stay was reported in the third study: 4.0 days compared with 6.0 days.

Authors' conclusions
Early post-operative feeding after most abdominal gynaecological surgeries appeared safe, and well-tolerated and led to an approximately 1-day reduction in hospital stay, although the patients' preferences and costs remained unclear. The authors also stated that while the evidence was supportive, it was not strong enough to advocate a change in practice in units where delayed feeding was the norm.

CRD commentary
This mini-review set a clear question that was supported by well-defined inclusion and exclusion criteria. The search strategy was restricted by language and no attempt was made to locate unpublished material, thus increasing the potential for publication and language biases. The authors highlighted that the eligible population was broad, including any patient who had undergone major gynaecological abdominal surgery, and that the limited number of studies found did not encompass this breadth. The methodological procedures undertaken to select papers, extract the data and assess study quality were not reported, thus the likelihood of reviewer error or bias having been introduced at these stages cannot be assessed. The authors' conclusions appear to follow from the evidence presented; however, additional relevant studies may have been missed.

Implications of the review for practice and research
Practice: The authors stated that while the evidence was not strong enough to advocate a change in practice in units where delayed feeding was the norm, the review results support an early feeding regime following major gynaecological abdominal surgery for the reduction of post-operative hospital stay. Units should consider participating in a properly controlled trial of early feeding.

Research: The authors stated the need for further good-quality trials to more fully determine the effect of early post-operative oral feeding. The authors highlight the lack of an assessment of patient satisfaction, side-effects and costs.

Bibliographic details
This is a critical abstract of a systematic review that meets the criteria for inclusion on DARE. Each critical abstract contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on the reliability of the review and the conclusions drawn.