

00325 Rapid Health Technology Assessment – Percutaneous Peritoneal Dialysis Catheter Insertion

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Aims: Various techniques exist for peritoneal dialysis catheter insertion, which may be conducted by different categories of staff (surgeons, interventional radiologists, nephrologists), in different locations (bedside, dedicated procedure room, main or day surgery operating theatre). A rapid health technology assessment on percutaneous peritoneal catheter insertion compared with open or laparoscopic surgery was conducted to inform a decision on which modalities the hospital should offer.

Methodology: A search for studies comparing different methods of catheter insertion was done, with the following PICO elements: • Population- Patients requiring peritoneal dialysis • Intervention- percutaneous catheter insertion (with or without image guidance; including peritoneoscopic insertion) • Comparator- Open surgical or laparoscopic insertion • Outcomes- Adverse effects, clinical outcomes, technical success (functional catheter) The UK NHS Centre for Reviews and Dissemination databases, the Cochrane Library, MEDLINE(PubMed) and the US National Guidelines Clearinghouse, were searched for systematic reviews, health technology assessment reports and clinical practice guidelines. Systematic reviews were critically appraised using the AMSTAR (Assessing the Methodological Quality of Systematic Reviews) checklist. The findings were summarised in a narrative synthesis.

Result: The evidence base for percutaneous techniques as compared to surgical techniques rests on three randomised controlled trials showing that percutaneous techniques had either, less infections and better catheter survival than surgical techniques, or were non-inferior to outcomes with surgical techniques. Poorly reported and conducted meta-analyses which included retrospective and non-randomised studies, suggested that placement modality did not affect 1-year catheter survival; and percutaneous insertion was as safe and effective as surgical technique. Clinical practice guidelines recommend that any established technique may be used and patient characteristics and available operator expertise would determine the choice of insertion technique offered.

Conclusion: The evidence base does not clearly indicate one technique as being superior to another. The choice of which techniques to offer (and in what proportion) rests on local circumstances.