

# National Institute for Health and Clinical Excellence

## 369 – Laparoscopic insertion of peritoneal dialysis catheter

### Comments table

IPAC date: 14 December 2006

<b>Consultee name and organisation</b>	<b>Section no.</b>	<b>Comment no.</b>	<b>Comments</b>	<b>Response</b> Please respond to all comments
Individual respondent – clinician	1 – Provisional recommendations	1	It is not clear whether this guidance also relates to peritoneoscopic PD catheter placement which we have undertaken for the past 6 months. This technique is less invasive than standard laparoscopy and there is a published evidence base for its clinical efficacy. The technique can be performed as a daycase under sedation with local anaesthetic. The technique can be performed by trained nephrologists and therefore leaves dialysis access surgeons free to undertake more complex dialysis access. A number of nephrologists have expressed an interest in learning this technique in Leicester and there are at least 4 other centres already placing catheters using this method.	The Committee agreed to insert a comment at section 2.5 indicating that it did not consider evidence in relation to use of a peritoneoscope in the procedure.
Individual respondent – clinician	1 – Provisional recommendations	2	Agree with all of above	Noted, thank you.

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Individual respondent – clinician	1 – Provisional recommendations	3	Laparoscopy is a safe and effective method of inserting Peritoneal dialysis catheters. Its advantages include : visualisation of peritoneal cavity and placement of the catheter under direct vision. Interventional procedures such as release of adhesions (although not as effective as open method), peritoneal biopsy and partial omentectomy can be performed. CAPD can be started almost immediately after catheter insertion. The procedure however, requires additional equipment particularly compared to simple percutaneous insertion technique. Specialised training of the operator is needed, more so to perform advanced laparoscopic procedures. It is more expensive than the percutaneous technique. Considering these aspects and reviewing current literature, laparoscopic insertion offers little benefit in patients with an unscarred abdomen. However it has a definite advantage over percutaneous technique and open laparotomy in patients with previous abdominal surgery.	Noted, thank you.
Individual respondent – clinician	2.1 - Indications	4	Suggest adding a comment to 2.1.1 to the effect that "peritoneal dialysis is a home-based treatment"	The overview states that the patient manually drains and replaces the fluid several times a day.

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Individual respondent – clinician	2.1 – Indications	5	The procedure can be performed by simple percutaneous technique, done under local anaesthesia, open surgical laparotomy under general anaesthesia or by laparoscopy, which can be under either local or general anaesthesia. Each of these methods has their own advantage and disadvantages that should be discussed with the patient before choosing the appropriate technique. Percutaneous and laparoscopic techniques can often be done as day case procedures. Open laparotomy patients usually require overnight admission and greater analgesic use.	Thank you. Section 1.2 states that clinicians should ensure that patients understand the potential risks and benefits of the procedure, and the alternatives.
Individual respondent – clinician	2.2 – Outline of the procedure	6	Peritoneoscopic PD catheter placement is less invasive, can be performed by a nephrologist under local anaesthetic with sedation and is therefore less resource intensive and is as successful in forming PD access- see Asif et al AJKD 2003 42; 1270-1274, Gadallah et al AJKD 2000; 36 1014-1019, Asif Seminars in Dialysis 2004; 17 398-	Please see the response to comment no. 1 above.
Individual respondent – clinician	2.2 – Outline of the procedure	7	Agree	Noted, thank you.

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Individual respondent – clinician	2.2 – Outline of the procedure	8	During laparoscopy apart from peritoneal dialysis catheter insertion concomitant procedures such as peritoneal biopsy, omental fixation, adhesionolysis, repair of herniae can be performed. Occasionally it can help in diagnosing other intra abdominal pathology. As with any laparoscopic or percutaneous technique the procedure may need conversion to open laparotomy in the event of procedural failure, visceral perforation or uncontrolled bleeding. The patient must be informed regarding this potential outcome.	The Committee agreed to add: ‘During laparoscopy, concomitant procedures can be performed.’ to the end of section 2.2.1.  Section 2.4 summarises the main adverse events reported in the literature. Full details are given in the overview. Section 1.2 states that clinicians should ensure that patients understand the potential risks and benefits of the procedure, and the alternatives.
Individual respondent – clinician	2.3 – Efficacy	9	Please see data for peritoneoscopic PD catheter insertion where data is equally as impressive- reviewed by Asif in Seminars in Dialysis 2004; 17 398-	Please see the response to comment no. 1 above.
Individual respondent – clinician	2.3 – Efficacy	10	Both the short and long term outcomes of catheter survival between the different techniques are comparable with no statistically significant differences noted in the literature and our own observation.	Noted, thank you.
Individual respondent – clinician	2.3 – Efficacy	11	All the studies are non-randomised; however they all give same result that catheter survival with laparoscopic insertion is greater than with other techniques. This is not totally surprising as catheter can be guided into pelvis more effectively using laparoscopic technique - and also many laparoscopic operators will stitch the catheter to a pelvic structure, e.g., bladder or uterus during the procedure - this is not done with a simple laparotomy or percutaneous technique	Noted, thank you.

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Individual respondent – clinician	2.4 – Safety	12	Again please note safety data for the peritoneoscopic method with extremely low rates of complications: Asif Seminars in Dialysis 2004; 17 398-	Please see the response to comment no. 1 above.
Individual respondent – clinician	2.4 – Safety	13	Laparoscopic insertion is safe compared to both percutaneous and open techniques. The incisions are smaller, more cosmetic and heal faster than open surgery. Post-operative analgesic use is much less. Fluid leakage and incisional herniae are less likely to occur than open insertion. Peritoneal dialysis can be started almost immediately after catheter insertion. Rates of catheter migration, blockage and infective episodes are comparable between laparoscopic and open techniques.	Noted, thank you.
Individual respondent – clinician	2.4 – Safety	14	Laparoscopic insertion appears to be safe - and data available, though mostly non-randomised, suggests that complications are less than open procedures. This is to be expected - skin incisions are smaller so less risk of infection or fluid leakage. The fact that catheter can be stitched into pelvis results in lower migration rate - and hence lower rate of surgical revision (2.4.3) - and hence better catheter survival rates quoted in section 2.3. Not mentioned are observations that laparoscopic insertion of PD catheter results in lower analgesic requirements and shorter hospital stays than open insertion	Noted, thank you.  Analgesic requirements were not reported in any of the comparative studies described in the overview. Length of hospital stay was only reported by two of the comparative studies in the overview (see table 2); one was significantly shorter for laparoscopic insertion but the other was longer for laparoscopic insertion than for open insertion (not significant). The Committee made no change to the guidance.

