

9. Timing of commencement of dialysis after peritoneal dialysis catheter insertion

Date written: February 2003

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Guidelines

No recommendations possible based on Level I or II evidence

Suggestions for clinical care

(Suggestions are based on level III and IV sources)

- When possible, peritoneal dialysis should not be commenced until at least 2 weeks after the insertion of the dialysis catheter.

Cheng et al (1996) compared delayed start (haemodialysis support) with intermittent PD for 4 weeks after catheter insertion in an adult population, before commencing continuous ambulatory peritoneal dialysis (CAPD). They found there was no difference in peritonitis between the two groups but there were more dialysate leaks, cuff erosions and delay in CAPD training in the immediate group.

A retrospective analysis by Patel et al (2001) of 33 paediatric patients reported that delayed use of the catheter (average of 20 days) in 22 patients compared with immediate use in 11 patients resulted in a higher rate of peritonitis at 3 months in the delayed group, (0.36 vs 0.15) [and more ESI and tunnel infections]. Dialysate leaks were more common in the immediate group (0.36 vs 0.09).

Background

Delayed use of the peritoneal dialysis (PD) catheter may reduce catheter-related complications such as peritonitis.

Search strategy

Databases searched: MeSh terms and text words for PD were combined with MeSH terms and text words for catheter insertion, and then combined with MeSH terms and text words for peritonitis. The search was carried out in Medline (1966 – October Week 5 2002). The Cochrane Renal Group Trials Register was also searched for trials not indexed in Medline.

Date of search/es: 25 November 2002.

What is the evidence?

No randomised controlled trials (RCTs) are available which address this issue.

Summary of the evidence

There are no RCTs.

What do the other guidelines say?

Kidney Disease Outcomes Quality Initiative: No recommendations.

British Renal Association: No recommendations.

Canadian Society of Nephrology: No recommendations.

European Dialysis and Transplant Association-European Renal Association: Whenever possible the implantation should be at least 2 weeks before starting peritoneal dialysis. Small dialysate volumes in the supine position can be used when this is impossible. (Evidence C)

International Society for Peritoneal Dialysis 1998: Commencement of CAPD is dependent on the implantation technique, but generally the catheter should be capped for at least 2 weeks before initiating CAPD. Peritoneal dialysis in this interim period should be intermittent, using small volumes and with the patient in a supine position. The exchange volumes can be gradually increased.

Implementation and audit

All renal units should maintain data on the date of catheter insertion and time of commencement of dialysis in addition to all PD-related problems including exit-site infections, tunnel infections, peritonitis, catheter malfunction rates and catheter survival times. This data should be submitted to the ANZDATA registry.

Suggestions for future research

An RCT addressing the issue of timing of the commencement of dialysis after insertion of a PD catheter may help resolve this question.

References

Cheng YL, Chau KF, Choi KS et al. 1996. Peritoneal catheter related complications: a comparison between hemodialysis and intermittent peritoneal dialysis in the break-in period. *Adv Perit Dial* 12: 231-35.

Patel UD, Mottes TA, Flynn JT. 2001. Delayed compared with immediate use of peritoneal catheter in pediatric peritoneal dialysis. *Adv Perit Dial* 17: 253-59.

OUT OF DATE

Appendices

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