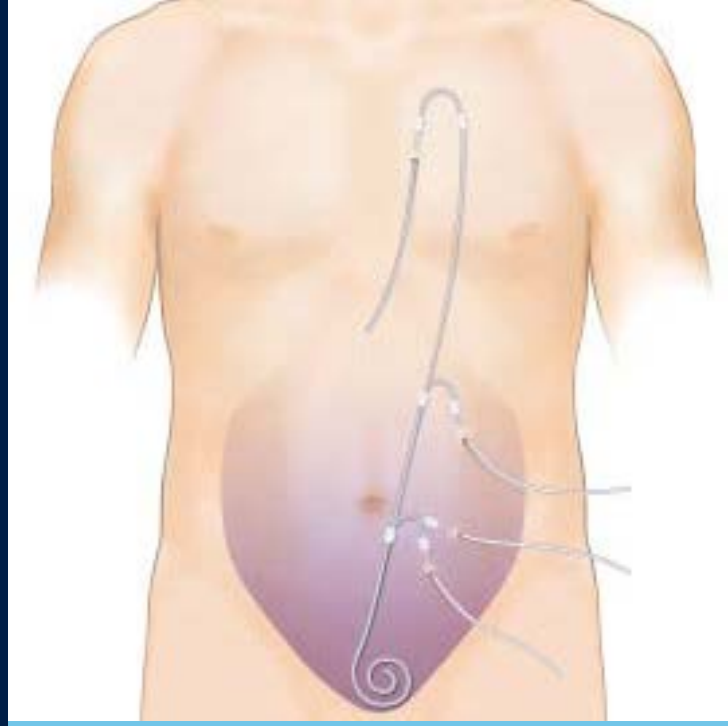
PERITONEAL DIALYSIS POST-OPERATIVE PD CATHETER CARE AND CATHETER BREAK-IN



PERITONEAL DIALYSIS
TRAINING PROGRAM

Medtronic
Further, Together

OVERVIEW

- Early and late PD complications
- Immediate post-operative care
  - Clinical care
  - Patient instructions
- Long-term post-operative care
- Early catheter break-in

POTENTIAL COMPLICATIONS OF PD[1]

EARLY COMPLICATIONS

- Bleeding
- Viscus perforation
- Dialysate leak
- Exit site and cuff infection
- Obstruction (one- or two-way)
- Infusion pressure or pain
- Subcutaneous hematoma

LATE COMPLICATIONS

- Exit site infection
- Tunnel infection
- External-cuff extrusion
- Obstruction by omentum
- Dialysate leak
- Peritonitis
- Sepsis
- Infusion pressure or pain
- Organ erosion
- Genital edema
- Allergic reaction

[1]Bender. 2012.

MAIN GOALS OF IMMEDIATE POST-OPERATIVE CARE[2]

- Minimize bacterial colonization of the exit and tunnel during early healing period
- Prevent trauma to the exit site and traction on the cuffs by immobilizing catheter
- Minimize intra-abdominal pressure to prevent leakage

NOTE: No single best method of achieving these goals is currently available. Facilities that insert PD catheters are encouraged to track their experience and infection rates to determine specific best practices while following general published guidelines.

[2]Gokal, et al. 1998.

IMMEDIATE POST-OPERATIVE CARE

- Optimal to start PD about 2 weeks after insertion[3]
- PD nurse to flush within one week[3]
- Sterile dressing applied post-operatively and maintained for at least a week[4]
- No dressing changes until first flushing unless dressing is soaked or contaminated[4]
- Dressing changes performed by PD nurse under sterile conditions and followed by application of antibiotic ointment[4]
- Patient instructed to keep dressing dry (no showers) until healed[4]

[3]Figueiredo, et al. 2010.
[4]Bender, et al. 2006.

POST-OPERATIVE CARE – PATIENT TRAINING[4]

- Patient training is essential to post-operative success
- Whenever possible, training should be provided by a PD-trained nurse
  - "PD-trained" considered 6 to 8 weeks of orientation followed by mentorship – observing and being observed
  - Continuing education is important to maintain skills
- Consider patient's mental state when providing training
- If patient is overwhelmed or appears depressed, consider another session in follow up or home training session
- Follow up with retraining to ensure patient is maintaining best practices over time

[4]Bender, et al. 2006.

PATIENT INSTRUCTIONS FOR POST-OPERATIVE CARE[5]

- Avoid bathing, showering, and getting catheter and exit site wet
- Keep the catheter immobilized as much as possible
- Leave the dressing undisturbed
- Instructions on avoiding and treating constipation
- Teach warning signs of possible infection
- Instruct the patient of their contact for questions and complications (surgeon, nephrologist, PD nurse)
- Provide the patient with the next visit (surgeon, nephrologist, PD nurse) and when appointments should be set up
- After the exit site is healed, patient is instructed how to perform long-term catheter and exit site care

[5]Wong, et al. 2014.

LONG TERM POST-OPERATIVE CARE[4]

- The exit site is healed when the skin appears normal without gapping, erythema, draining, crusting and tenderness
- Patients can perform exit site care once healed
- Patient instructions for Chronic Exit Site Care:
  - Wash hands thoroughly with soap and water, and supplement if possible with alcohol-based agents
  - Allow hands to dry completely before touching the catheter to avoid contamination
  - Avoid artificial nails or other possible sources of contamination
  - Clean exit site daily with antibacterial soap and water or other mild cleaning agents
  - Use bottled water to clean the exit site if well water is used or possible bacterial contamination is a concern in the water source
  - Once healed, swimming in pools or oceans is acceptable but exit site should be allowed to dry completely afterwards
  - Avoid baths and swimming in ponds or rivers

[4]Bender, et al. 2006.

EARLY CATHETER BREAK-IN[6]

- 2-week wait time before initiating dialysis may not be possible

- If catheter-based conversion to short-term hemodialysis is also not desired, can start PD within 24 hours of placement
  - Requires special technique
  - Urgent start may be undertaken based upon clinical need
  - Should consider Instructions for Use and Institution's protocol for initiating urgent start dialysis
  - Low volume dwells in supine position are an option
  - In one prospective study, PD performed supine with 500mL of dialysate every 3 hours for the first 3 days, followed by 1 L every 4 hours for the next 4 days resulted in low leak rate (1.9%)

[6] Jo, et al. 2007.

CONCLUSIONS

- The catheter is a PD patient's lifeline
- Post-operative care is important to reduce catheter malfunction and infection
- Patient education is a critical component of post-operative care as patients play a major role in their short and long-term catheter care
- When ideal 2-week healing time is not possible, early break-in using low volume, supine PD is an option
- Centers should track and maintain data on catheter survival, exit infection, and peritonitis to continuously improve practices and patient outcomes[4,7]

[4]Bender, et al. 2006.
[7]Flanigan and Gokal. 2005.

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