

# Training and Assessment Curriculum for Peritoneal Dialysis Catheter

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| Status | Version | Author                | Date     | Changes                                     |
|--------|---------|-----------------------|----------|---|
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## **Percutaneous peritoneal dialysis catheter insertion curriculum**

### **Background**

Percutaneous Peritoneal dialysis (PD) catheter placement is a well-tolerated, quickly performed bedside procedure that allows for rapid initiation of PD and avoids the need for operating room time and a larger peritoneal incision. This curriculum aims to meet patient and service need by ensuring that trainees develop the capabilities necessary to insert peritoneal dialysis catheters percutaneously, with or without guidance with ultrasound or fluoroscopic imaging.

The goal is to provide safe, timely, and effective catheter insertion without an unduly long wait time or delay and enable efficient use of resources. It is a minimally invasive procedure that can be performed on an outpatient basis without the need for general anaesthesia. Additional advantages include shorter procedure time, and timely placement, especially for urgent start PD.

### **Scope of training**

The training would be open to suitably qualified doctors, nurses and allied professionals. Doctors would need to be consultant nephrologists or trainees on the renal training program, preferably close to completion of the training. Nurses or allied professionals would need to have successfully completed:

1. The Renal Course
2. The Advanced Assessment Course
3. The X-ray Referrers Course
4. Consent Training

Previous experience in interventional procedures would be desirable. It would also be recommended that trainees should have experience in peritoneal dialysis prior to commencing percutaneous insertion of PD catheter training.

### **Assessment of competence to the peritoneal dialysis catheter insertion**

A DOPS assessment tool (Appendix A) should be used to evaluate the performance of a trainee in undertaking a percutaneous peritoneal dialysis catheter insertion procedure, against a structured checklist. The trainee should receive immediate feedback to identify strengths and areas for development. Formative DOPS should be undertaken before doing a summative DOPS and can be undertaken as many times as the trainee and their supervisor feel is necessary. The assessor's evaluation is recorded on a structured form which is used by the assessor to provide the trainee with structured feedback.

## Capabilities in Practice (CiPs)

Those following the curriculum are expected to achieve the following high level CiPs.

### Generic and renal specific CiPs

1. Once considered fully competent to the procedure, the doctor/ nurse/ AHP are responsible for care of all patients undergoing the procedure from the time of referral to discharge from follow up including any late complications directly related to the procedure. They should be able to prioritise according to clinical needs, understand and manage workload for optimum running of procedure lists and ensure optimal and safe patient care within the current NHS structure.
2. Be able to understand and explain choices regarding management of end stage kidney disease, including various modalities of home based and in centre dialysis, conservative supportive care and transplantation.
3. Understand the disease processes, associated risks, interactions (both drug and other) and treatment options of patients under their care
4. Be up to date with current evidence and offer an evidence-based practice, submitting data to national registries where appropriate and available.
5. Enable patient choice by informing patients of the spectrum of procedure options
6. Establish and implement appropriate treatment plans and ensure that the treatment is in the patient's best interest
7. Understand and explain the indications, contraindications, limitations and expected outcomes of the catheter insertion procedure including complications
8. Understand and explain alternative options including open surgical, laparoscopic and radiological options (where available), and include details of these in the consent process
9. Understand disease risk factors and implement risk factor modification
10. Safely prescribe or stop related medications as appropriate, including anti-platelets, anticoagulation, sedation and antibiotics, or seek appropriate advice from responsible clinicians to implement these changes.
11. Maintain an up-to-date knowledge of the full range of approved interventional equipment in use in their practice (catheters, wires, devices)
12. Provide longitudinal patient care, from outpatient pre-assessment to inpatient care before, during, and after catheter insertion procedures, and arrange safe patient discharge and long-term follow-up to assess outcomes.

### Programme of assessment

Assessment of the CiPs involves looking across a range of key skills and evidence of progress to make an overall judgement about a trainee's achievement of the CiPs in the context of their clinical practice at the current stage of training. This will be informed by the professional judgement of the trainer and take account of workplace-based assessment, supervisors' reports, summative assessment and the trainee's own self-assessment. Assessment of the CiPs, or aspects of the CiPs, should take place throughout training and include formative feedback to the trainee on their performance. (See Appendix B)

## Procedure specific CiPs

1. Be familiar with the anatomy, physiology and pathology of abdomen
2. Develop knowledge of the pathological processes affecting abdomen and its impact on catheter insertion
3. Understand the principles of informed consent
4. Understand the importance of communication skills related to all aspects of clinical practice

## Skills to be assessed for CiPs

- 1. Professionalism and consideration for the patient**
  - a. Demonstrates a high level of regard for patient safety at all times.
  - b. Can explain the procedure, indication for the same, possible complications and post procedure plan to the patient and obtain informed consent.
  - c. Can demonstrate ability to communicate effectively with the patient throughout the procedure in a professional and calm manner, allowing the patient to ask questions and give information freely.
  - d. Can demonstrate ability to impart appropriate post - operative advice, allowing patients to ask questions and give information freely.
- 2. Patient assessment**
  - a. Can assess the patient's abdomen for polycystic kidney disease, hernias, presence of ascites, palpable organs, palpable masses & arterial bruit to exclude aortic aneurysms or other vascular abnormalities
  - b. Can perform basic point of care ultrasound assessment to exclude urinary bladder obstruction and aortic aneurysm
  - c. Can interpret blood results including biochemistry, FBC & INR, to assess whether patient is haemodynamically stable for procedure.
- 3. Appropriate analgesia**
  - a. Demonstrates an understanding of dosing, administration, and complications of local anaesthesia
  - b. Understand and strictly follow local guidelines of safe use of conscious sedation
  - c. Demonstrates knowledge of appropriate post procedure analgesia.
- 4. Technical abilities for the procedure**
  - a. Can correctly gown-up and glove-up using aseptic technique and appropriate 3 minute surgical hand scrub.
  - b. Demonstrate strict aseptic technique throughout the procedure
  - c. Understands and demonstrates competent use of modified Seldinger technique to obtain safe access to peritoneal cavity
  - d. Safe and correct placement of catheter aiming for catheter tip to be in pelvic location
  - e. Demonstrate correct technique of tunnelling and placement of cuffs
  - f. Can safely suture and dress the incisional site and secure the PD catheter with appropriate dressing
  - g. Can interpret abdominal x-rays, identifying correct PD catheter placement.

## 5. Clinical judgement

- a. Demonstrates a good knowledge of possible pre-, peri- and post-operative complications of PD catheter insertion
- b. Has good understanding of management plan for possible complications and pathway to escalate/ refer in the event of complications
- c. Demonstrates an awareness of own limitations in relation to procedure.
- d. Demonstrates a high level of regard for patient safety at all times.

## Appendix A

### Direct Observation of Procedural Skills (DOPS)

| Trainee   | Assessor                  |          |
|---|---------------------------|----------|
| Name / GMC/NMC number:  | Name / GMC/NMC number:    |          |
| Assessment date:  | Hospital DOPS took place: |          |
| <b>FEEDBACK:</b>  |                           |          |
| Verbal and written feedback is a mandatory component of this assessment.  |                           |          |
| General   |                           |          |
| Strengths   |                           |          |
| Development needs   |                           |          |
| Recommended actions   |                           |          |
| <b>TRAINEE REFLECTIONS ON THIS ACTIVITY (optional)</b>  |                           |          |
| What did I learn from this experience?  |                           |          |
| What did I do well?   |                           |          |
| What do I need to improve or change? How will I achieve it?   |                           |          |
| <b>RATINGS</b>  |                           |          |
| Your ratings should be judged against the standard laid out in the syllabus for the trainee's stage of training.<br><b>N</b> = Not observed <b>D</b> = Development required, <b>S</b> = Satisfactory (no prompting or intervention required) <b>O</b> = Outstanding |                           |          |
| Domain  | Rating                    | Comments |
| 1: Describes indications, anatomy, procedure and complications to assessor  |                           |          |
| 2: Obtains consent, after explaining procedure and possible complications to patient  |                           |          |
| 3: Prepares for procedure according to an agreed protocol   |                           |          |
| 4: Administers effective analgesia or safe sedation (if no anaesthetist)  |                           |          |
| 5: Demonstrates good asepsis and safe use of instruments and sharps   |                           |          |
| 6: Performs the technical aspects in line with the guidance notes   |                           |          |
| 7: Deals with any unexpected event or seeks help when appropriate   |                           |          |
| 8: Completes required documentation (written or dictated)   |                           |          |
| 9: Communicates clearly with patient and staff throughout the procedure   |                           |          |
| 10: Demonstrates professional behaviour throughout the procedure  |                           |          |

| DOPS DETAILS  |                                      |
|---|--------------------------------------|
| Formative - <input type="checkbox"/> Summative - <input type="checkbox"/>                 |                                      |
| Name of Procedure:  |                                      |
| No. times procedure previously performed:   | Emergency / Elective (please circle) |
| Performed in a simulated setting - Description of the simulation:                         |                                      |
| DOPS performed while on a course Yes / No If yes, please give details:                    |                                      |
| Difficulty of procedure: Easier than usual/ Average difficulty /More difficult than usual |                                      |
| Assessment grade - (1-4) -  |                                      |
| Trainee's signature:  | Assessor's signature:                |

## Appendix B

### Level descriptors for procedure-specific CiPs

| Level | Descriptors  |   |
|-------|--|---|
| 1     | Entrusted to observe only                          | No provision of direct clinical care  |
| 2     | Entrusted to act with direct supervision           | The supervising doctor is physically within the hospital or other site of patient care and is immediately available to provide direct supervision. For IR procedures the supervising doctor is present in the operating theatre.  |
| 3     | Entrusted to act with indirect/minimal supervision | The supervising doctor is not physically present within the hospital or other site of patient care, but is immediately available by means of telephone and/or electronic media, to provide advice and can attend physically if required to provide direct supervision. For IR procedures the supervising doctor is on hand in the department. |
| 4     | Entrusted to act unsupervised                      | The trainee is working independently and able to manage complications   |



## Appendix C

### Preparation for insertion of a Peritoneal Dialysis catheter.

Adapted from a Patient Information Sheet developed at Kings College Hospital

#### Information for patient:

You will be given today;

A bottle of hydrex 500ml surgical scrub (pink body wash)

#### And a prescription for;

2 Sachets of Citrafleet/picolax® Powder (Laxative)

1 Tube mupirocin/bacroban 2%(Nasal Ointment)

Senna Tablets 15mg and Sodium Docusate tablets 200mg



**Collect the prescription items from the hospital pharmacy today. Keep the items along with this guide, safe at home until needed.**

#### How to prepare...

##### Five days before the procedure:

- Use the pink Hydrex scrub as a body wash and shampoo every day.
- Apply the mupirocin/bactroban 2% Ointment to inside both nostrils three times a day. For **5** days before procedure.
- Take two Senna and two Sodium Docusate tablets twice daily.

*Contact the clinic on xxxx if you have any problems when taking the medication.*



*Using Hydrex scrub and Bactroban ointment can help to prevent skin infections such as MRSA. MRSA is commonly found in the nasal passages and on the skin, therefore application of this antibacterial ointment and wash will eradicate the organism and prevent MRSA skin infection after the procedure.*

##### One day before the procedure:

**At midday** - dilute one sachet of Citrafleet/picolax® Powder into a 200ml glass of water and take immediately. Drink another 200mls of water straight afterwards.

**At 4pm** Take a second sachet of Citrafleet/picolax® and again drink 200mls of water straight afterwards.



### **Important information**

This is a strong laxative; ensure you have access to toilet facilities after taking. It is essential to the success of the procedure to take this laxative.

### **On the Morning of the Procedure:**

- Have a light breakfast.
- Take any medications you normally take.
- Arrive as promptly as possible for your appointment.

**If you have any questions, don't hesitate to phone the Peritoneal Dialysis clinic directly on**

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