



Standard Treatment Workflow

PERITONEAL DIALYSIS

ICD-11-QB94.2

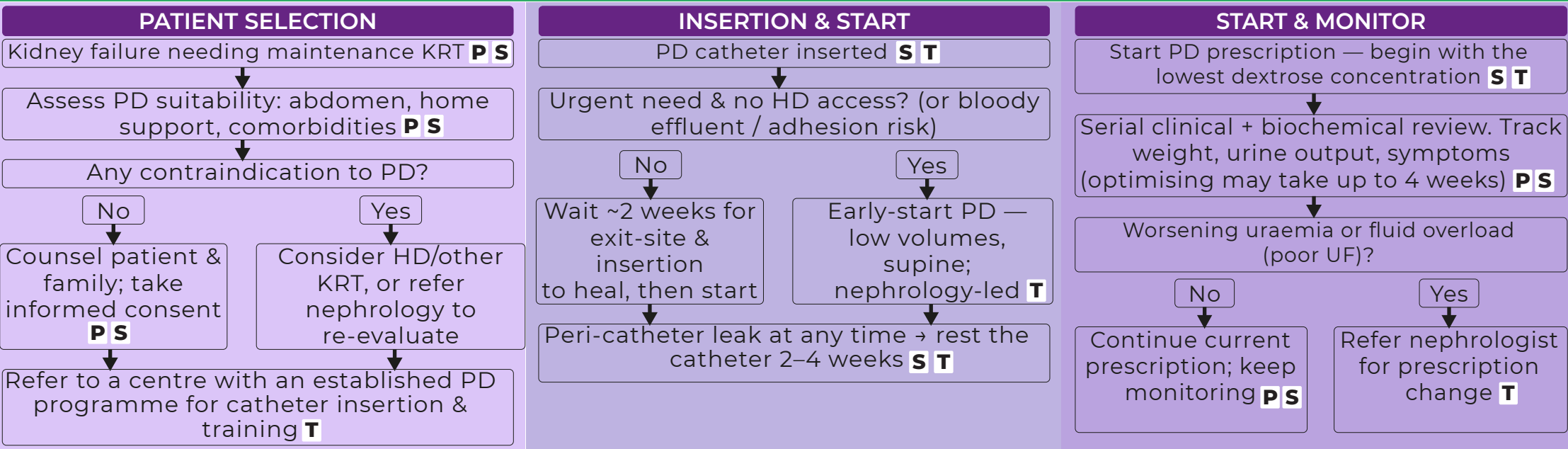
WHY & WHEN TO CONSIDER PD

- PD is as effective as haemodialysis (HD) in properly selected patients.
- Prefer PD when the patient still passes good urine (>200-500 mL/day-good residual kidney function).
- Often the only maintenance option (besides home HD) when all HD access has failed or for home-bound patients.
- Home-based therapy done by patient/caregiver after training-suits long travel, cost and HD slot limitation
- Counselling is the key to PD being chosen and continued **PS**

RED FLAGS - ACT & REFER

- **REFER NOW** - treat catheter removal as an **EMERGENCY** when
 - Peritonitis not responding by ~5 days
 - Peritonitis with exit-site / tunnel infection together
 - Tunnel infection (usually needs catheter removal)
 - Recurrent / relapsing peritonitis, or culture-negative & not improving (think TB / fungal)
- Also refer (non-urgent):**
- Catheter insertion & structured PD training
 - Poor ultrafiltration / uraemia → prescription change
 - Mechanical problem or pleuro-peritoneal shunt; decision to switch to HD

CLINICAL PATHWAY



SELECTION CHECKLIST

Suitable for PD if

- Wants home therapy / lives far from a unit
- Willing, able caregiver or can self-perform
- Clean space, water & storage at home
- Good residual urine; or HD access exhausted

Caution /re-evaluate if

- Abdominal wall defect / large hernia / ostomy
- Active abdominal sepsis or inflammation
- Severely distorted anatomy / many adhesions
- No home support & cannot self-perform

INDIA Most are relative — discuss with nephrology first. Most CKD here is diabetic (PD usually still fine — watch glucose). Screen/treat abdominal TB before starting; counsel on monthly cost & supply

PRE-PROCEDURE PREP

Before insertion

- Confirm modality & consent **PS**
- Choose insertion method based on training & skills: Percutaneous (Nephrologist) in naïve abdomen or surgical method (preferred if prior surgery/adhesions/reinsertion)
- Chest X-ray before insertion
- Treat constipation; empty bladder; mark exit site

At insertion-infection control

- Prophylactic IV antibiotic just before/during - e.g. Inj. Vancomycin 1 g IV **ST**
- Strict aseptic technique throughout

HOME MONITORING SHEET

Patient/caregiver records daily — bring to every visit:

- Body weight
- Ultrafiltration (UF) — fluid removed each exchange
- Urine output
- Blood pressure & swelling (fluid-overload signs)
- Effluent appearance — clear vs cloudy

TIP: If a lab is far, teach the family to photograph a cloudy bag and call early — cloudy effluent = suspect peritonitis

MANAGING COMPLICATIONS

A. Peritonitis — catch early

Cloudy effluent and/or abdominal pain ± fever?

1. Send effluent for cell count + culture if lab available. 2. Start empirical antibiotics without delay per local protocol - intraperitoneal (IP) preferred; IV if severe sepsis **PS T**

Always examine exit site & tunnel at the same time **PS**

Not better by ~5 days, recurrent, or exit/tunnel also infected?

No

Complete full antibiotic course; review

Yes

Refer — may need catheter removal (EMERGENCY) **T**

B. Exit-site infection

Discharge / redness at exit site → oral antibiotics (e.g. ciprofloxacin). Not settling or tunnel involved → refer.

INDIA Relapsing or culture-negative peritonitis not responding → think tuberculous or fungal peritonitis → refer

C. Tunnel infection

Redness/swelling/tenderness over tunnel → Refer - usually needs catheter removal **T**

D. Poor inflow/outflow

Treat constipation first (common cause). Do a quick in/out test — in 10–20 min, out 20–30 min, most fluid returns → obstruction unlikely. Abnormal / suspected → refer **PS**

E. Pleuro-peritoneal shunting

Poor UF + new/worsening pleural effusion → diagnose by pleural tap showing very high glucose (use diluted samples) → refer **ST**

F. Catheter malposition/omental wrap

Tip wandered out of pelvis or omentum wrapped → common cause of poor flow → usually needs surgery → refer **T**

Catheter re-insertion after removal

- Removed for infection → re-insert after treatment + 4-week wait (selected treated repeat-peritonitis: same-sitting exchange — nephrology decision).
- Removed for mechanical reason → can re-insert in the same sitting **T**

PATIENT & CAREGIVER EDUCATION

Training is the cornerstone of successful PD.

Every patient/caregiver must learn

- Hand hygiene before every exchange
- Clean exchange technique
- Daily exit-site care & dressing

Re-train after

- Any peritonitis / catheter infection
- A long break from therapy
- Keep the monitoring sheet
- Spot warning signs: cloudy bag, pain, fever, exit redness
- Store fluids; know whom to call
- Any change of caregiver
- Any technique error seen

DAILY CARE, INFECTION CONTROL & FOLLOW-UP

Daily catheter care

- Hand hygiene before handling the catheter; clean, dry exit-site care.
- Report redness, discharge, pain or cloudy effluent early **PS**

Intercurrent illness/procedures

- Do procedures on an empty abdomen (drain PD fluid first).
- Prophylactic antibiotics before invasive procedures that breach mucosa (dental, endoscopy) **PS**

When to switch PD → HD

- UF failure not fixable by prescription change; or unfavourable membrane after repeated peritonitis **ST**

PD IN ACUTE SETTINGS

A life-saving skill for AKI/CKD patients who cannot be referred — disasters, conflict, or unfit to transport

- A stiff or soft peritoneal dialysis catheter can be placed at the bedside **ST**
- Use clean technique; start low volumes and watch for leak/pain

ABBREVIATIONS

AKI: Acute Kidney Injury
CKD: Chronic Kidney Disease
HD: Haemodialysis
IP: Intraperitoneal
ISPD: International Society for

Peritoneal Dialysis
IV: Intravenous
KRT: Kidney Replacement Therapy
P: Primary
PD: Peritoneal Dialysis

S: Secondary
T: Tertiary
TB: Tuberculosis
UF: Ultrafiltration

REFERENCES

1. ISPD Guidelines - International Society for Peritoneal Dialysis <https://ispd.org/guidelines>

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