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KEY ASSESSMENT AND MANAGEMENT OF

Mechanical Catheter Complications

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PDACADEMY

FOR HEALTHCARE PROFESSIONALS ONLY

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Key Assessment and Management of:
Mechanical Catheter Complications

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Lower Than Expected Dialysate Drain Volumes

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Obvious Pericatheter Leakage

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External Catheter Tubing Damage

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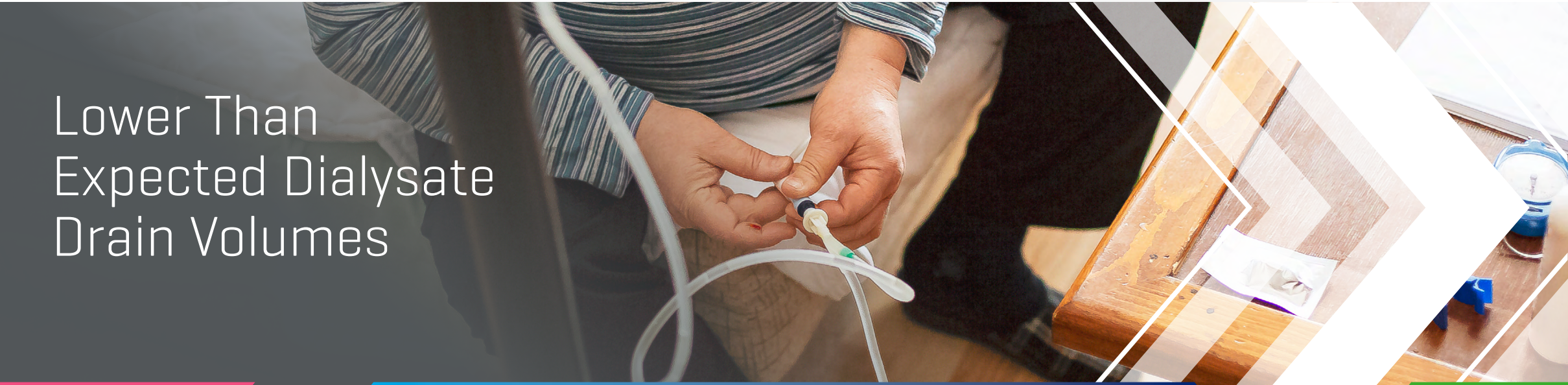
Lower Than Expected Dialysate Drain Volumes



NO

Outflow failure – Is it due to constipation?

YES

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Treatment

Oral laxatives

Review bowel habits with patient.
Oral laxatives are needed to treat or prevent constipation which can impair the dialysate flow.

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Lower Than Expected Dialysate Drain Volumes

Outflow failure – Is it due to constipation? NO Inflow good?

NO

Inflow good?

YES

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Lower Than Expected Dialysate Drain Volumes

Outflow failure – Is it due to constipation? NO Inflow good? YES Causes

CAUSES (please click on below's causes to see treatment options)

- Catheter malposition/migration
- Extraluminal catheter obstruction from adhesion band
- Extraluminal catheter obstruction from omental wrapping

Click here to view references

Catheter malposition/ migration

Treatment options

- Radiologically guided manipulation
- Laparoscopically directed interventions
- Simultaneous catheter replacement

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Extraluminal catheter obstruction from adhesion band

Treatment options

- Laparoscopic intervention
- Surgical lysis
- Catheter repositioning / replacement

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Extraluminal catheter obstruction from omental wrapping

Treatment options

- Suturing of omentum to abdominal wall (omentopexy)
- Omentectomy

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Lower Than Expected Dialysate Drain Volumes

Outflow failure – Is it due to constipation? NO Inflow good? NO Causes

CAUSES (please click on below's causes to see treatment options)

- Catheter kink
- Intraluminal catheter occlusion (often by thrombus)

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Catheter kink

Treatment options

- Catheter manipulation via fluoroscopic guidewire
- Laparoscopic intervention
- Surgical manipulation

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Intraluminal catheter occlusion (often by thrombus)

Treatment options

Flushing catheter with normal saline or heparinised saline

Failure to dislodge intraluminal debris by brisk irrigation of catheter?

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Failure to dislodge intraluminal debris by brisk irrigation of catheter?

Treatment options

- Thrombolytic therapy such as tissue plasminogen activator (tPA) for blood clot lysis

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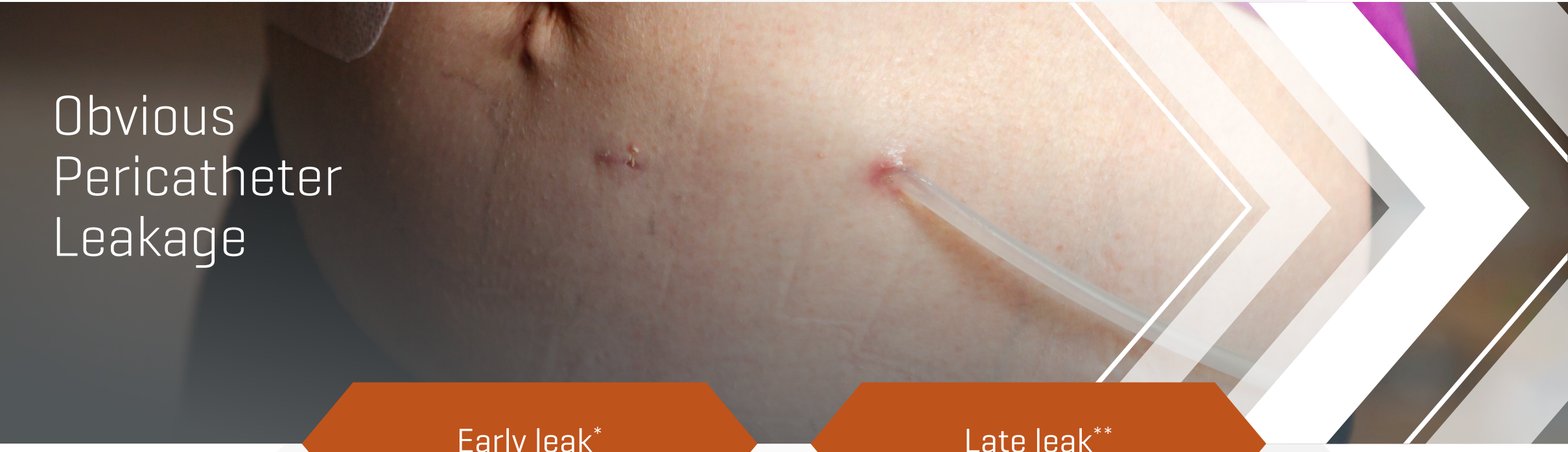
Obvious Pericatheter Leakage



Early leak*

* Leaks that occur ≤ 30 days post catheter implantation and start of PD

Late leak**

** Leaks that occur > 30 days post catheter implantation and start of PD

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Obvious Pericatheter Leakage

Early leak* / Late leak** ▶ Early leak* ▶ Dramatic leak from exit site and/or insertion incision?

NO | Dramatic leak from exit site and/or insertion incision? | **YES**

* Leaks that occur ≤ 30 days post catheter implantation and start of PD | ** Leaks that occur > 30 days post catheter implantation and start of PD

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Treatment

Immediate surgical referral for possible exploration for suture failure

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Obvious Pericatheter Leakage

Early leak* / Late leak** ▶ Early leak* ▶ Dramatic leak from exit site and/or insertion incision? NO ▶ Did the leak resolve with temporarily discontinuing dialysis for 1-3 weeks?

NO

Did the leak resolve with temporarily discontinuing dialysis for 1-3 weeks?

YES

* Leaks that occur ≤ 30 days post catheter implantation and start of PD | ** Leaks that occur > 30 days post catheter implantation and start of PD

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Treatment

Slowly increase prescription as tolerated.

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Treatment

For further investigation.

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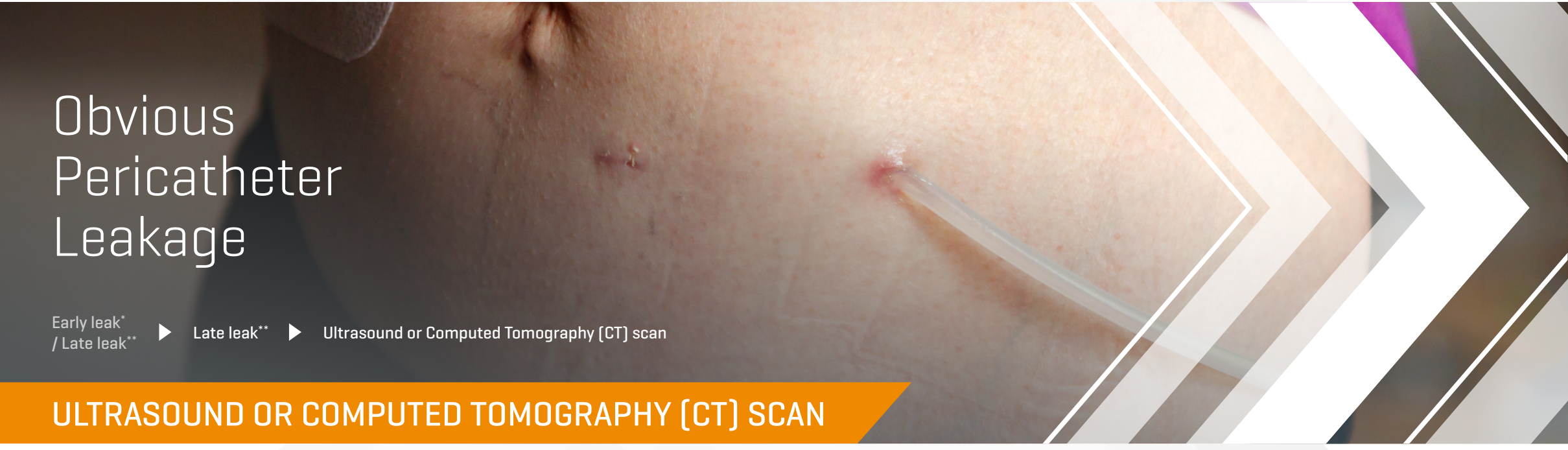

Obvious Pericatheter Leakage

Early leak* / Late leak** ▶ Late leak** ▶ Ultrasound or Computed Tomography (CT) scan

ULTRASOUND OR COMPUTED TOMOGRAPHY (CT) SCAN

- Pericatheter hernia or pseudohernias detected
- Occult tunnel infection detected

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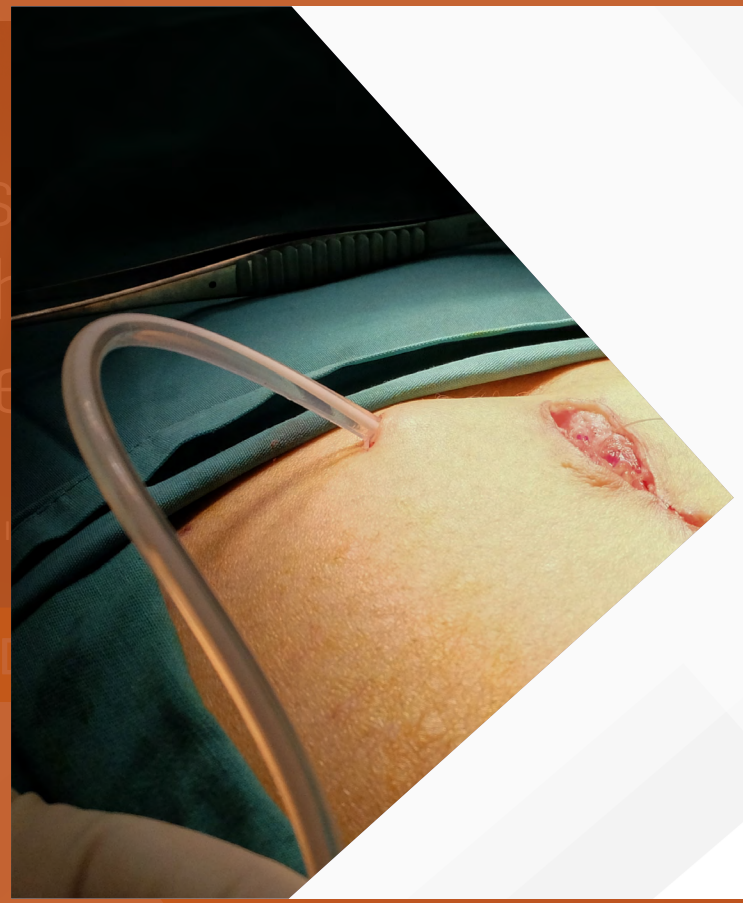

Treatment options

- Pericatheter hernia repair
- Simultaneous PD catheter replacement

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Treatment options

- Remove catheter
- Interim HD

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External Catheter Tubing Damage

NO

Sufficient length of external tubing for repair?

YES

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External Catheter Tubing Damage

Sufficient length of external tubing for repair?

YES — Repair external tubing, investigate peritonitis and treat as per clinic protocol. Peritonitis resolved?

NO

Repair external tubing, investigate peritonitis and treat as per clinic protocol. Peritonitis resolved?

YES

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Treatment

Resume catheter care and observation

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Treatment

Follow protocol for subsequent management of peritonitis

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External Catheter Tubing Damage

Sufficient length of external tubing for repair? **NO** With flow dysfunction / Satisfactory flow function and no concurrent peritonitis

With flow dysfunction

Satisfactory flow function and no concurrent peritonitis

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Treatment

Catheter replacement

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Treatment

Consider catheter splicing at intercuff segment

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