UK Kidney Association

Kidney Quality Improvement Partnership

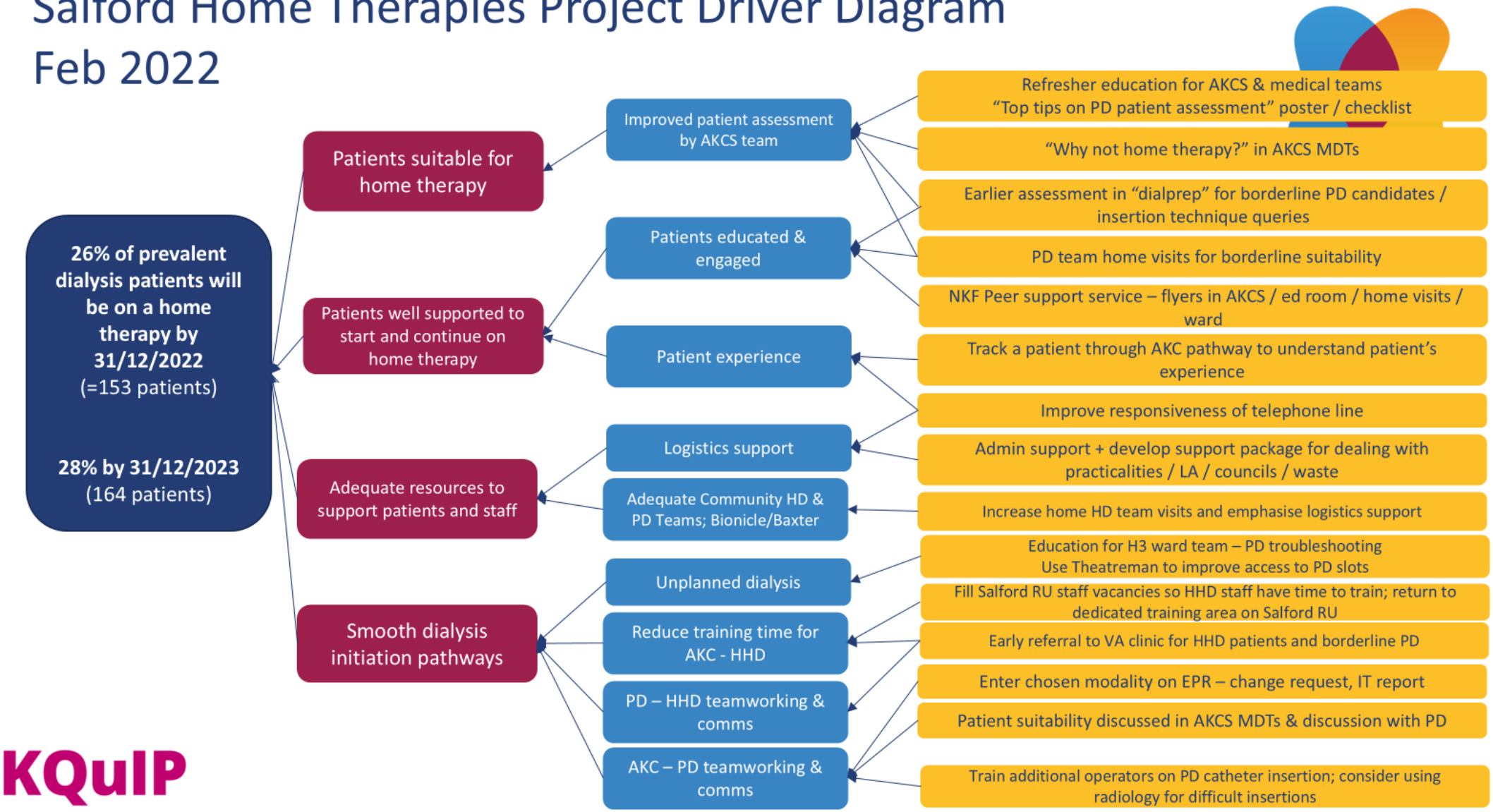
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Salford Acute PD Project-2025

Raj Chinnadurai

Renal Consultant/Salford Royal Hospital

Salford Home Therapies Project Driver Diagram Feb 2022



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Salford Acute PD Project- 2025

Why Acute PD

- Patients needing inpatient dialysis start – default to start HD via line
- 2-6 "unplanned dialysis starters" per month – some would be suitable for PD
- Difficulty switching to PD once started on HD -Patient and system factors
- Falling number and % of prevalent PD patients
  - 122 (Jan 2019) to 89 (Jan 2025)
  - 28% (Jan 2019) to 19.4% (Jan 2025)
- High pressure on HD slots

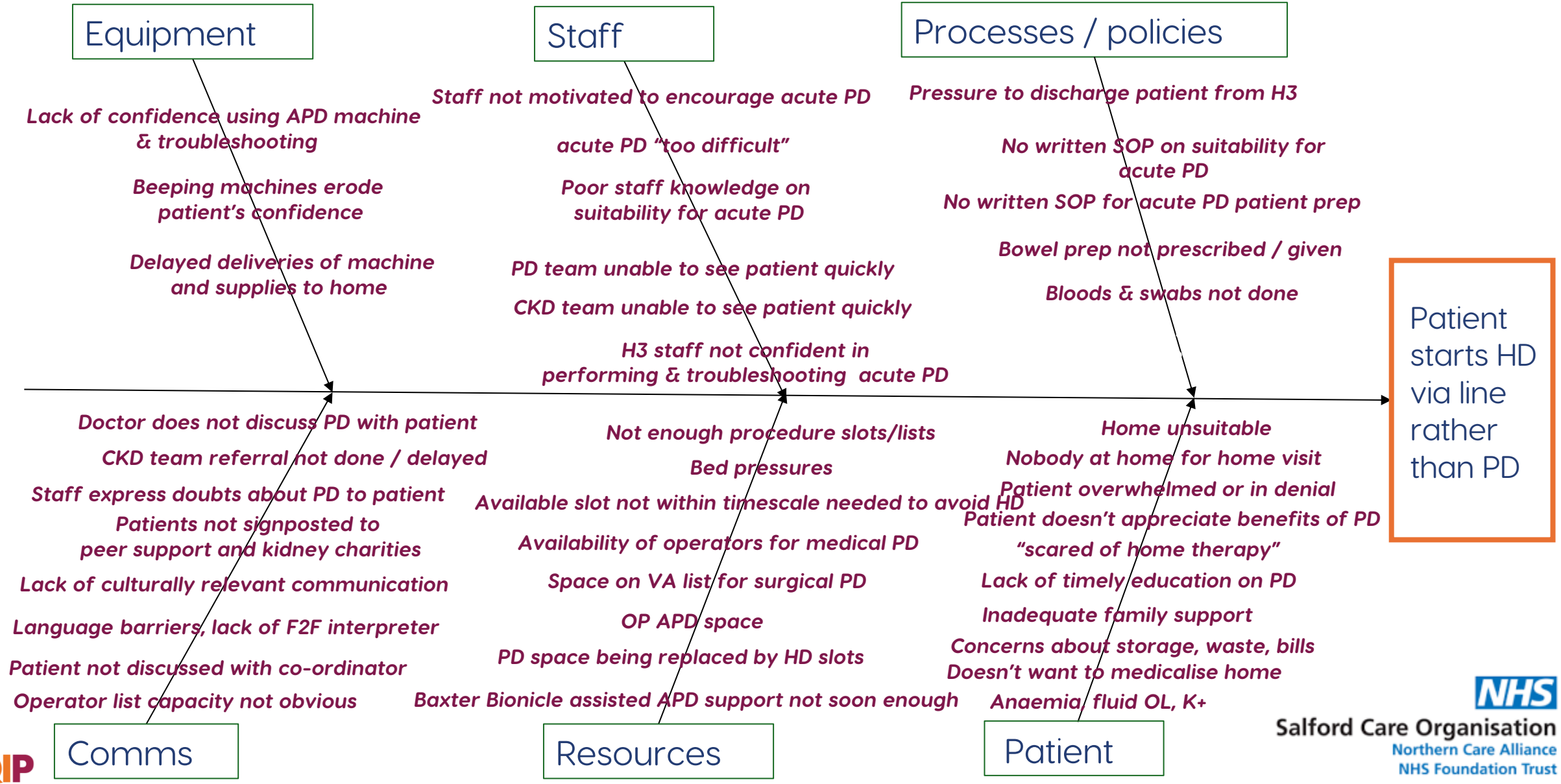


Project start date: 20.01.25

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Understand the problem – barriers to acute PD (20.01.25)



KQIP Kidney Quality Improvement Partnership

Established in 2016 | Hosted by the UK Kidney Association

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Project Aim

24 new inpatients per year to start PD

Project plan and milestones (April 2025 – Nov 2026)

Engagement phase		QI Training and Support Phase		Sustain and sharing phase				
Engage QI team	**Engage ward staff**	**Face to face**	**On-line**	**Face to face**	**Face to face**	**On-line**	**On-line**	**Face to face**
Jan 2025	Feb	August	Sept/ Oct	Nov 2025	Early 2026	June/ July	Sept	Nov 2026
Agree an area for improvement using data Understand the problem Prepare to lead a QI team	First PDSA – acute PD as default dialysis modality	Understand your system Define project aim and scope Define drivers and develop change ideas Agree measures including baseline data	Identify and engage new stakeholders	present your learning	Display data over time Sustain improvements	Display data over time Progress to sustain improvements	Plan to share improvements	present your project and improvements

Also – monthly project meetings

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Understanding the System – Acute PD Process Map

START – H3 patient likely to need inpatient dialysis

→ Review clinic letters for modality, postcode, are they known to renal and AKC team

→ Assess suitability for PD using the QRG

if complex abdominal scars, may need surgical insertion under GA on VA list

→ Patients highlighted on the on-call handover and H3 daily morning meetings

→ Referral to CKD team

CKD referral often incomplete

→ CKD team process referral

↓

Document patient details on CKD team 'white board' word document

← CKD team see patient on the ward ideally with carers in attendance, give leaflets etc.

← Option to take to education room in renal OPD if well enough

← CKD team liaise with PD team and ward team and document decision in patient notes

← CKD team assess home suitability; PD patients are prioritised (usually within 2 working days)

← Decision made for PD or not

↓

PD nurses do "PD prep" with patient and carers, consent form, consultant does abdo exam

if complex abdominal scars, ?need surgical insertion on VA list

→ H3 doctors prescribe bowel prep and meds (EPR order set "PD catheter insertion")

Ensure order set is used to avoid errors

→ PD team list for PD insertion under LA (regular list on Fridays + limited ad hoc capacity

PD insertion capacity limited by 2 operators

→ H3 nurses administer bowel prep

Bowel prep sometimes given late if prescribed as stat dose

→ PD tube inserted under LA in H3 procedure room, AXR to check position, initial PD exchange done

→ Medical decision whether to start PD as IP or wait 7-14 days

↓

If needed, PD starts with CAPD in the daytime on bedrest

← PD team order and plan delivery, usually 3 working days

← **Patient discharged home**

← May need outpatient APD until delivery of supplies

← PD team review patients by phone and do home visit to check wellbeing, wound etc.

← **FINISH - Patient begins home training, usually takes 3-5 days**

Ward nursing staff may lack the knowledge, skills and confidence to talk to patients about PD as a treatment option and/or do acute PD treatment including troubleshooting

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Driver Diagram

Salford Royal Hospital to have 24 new patients per year to start on in-patient Peritoneal Dialysis (PD)

Patient tracking

- Ask IT to add in extra columns for weekly data
- Database

Staff

- Registrars to get experience in PD clinic
- PD team consent patients
- PD team and CKD team undertake home visits
- Prep clinic done on ward
- CKD nurse time on ward
- H3 staff training – PD first/ competencies/ medications
- PD awareness campaign
- New staff to H3 to spend 2 weeks with PD team
- Use the QRG to admin meds – 12 and 6pm
- EPR Mandatory fields for CKD referrals – no referrals: no review
- Ward champions for PD (needs to be defined)
- Doctor training – resend QRG/ referrals to CKD team
- Morning meetings – PD team asking anyone for us?

Policy/ guidance

- EPR order set for PD catheter insertion
- Acute PD Quick Reference Guide for every patient
- Standing operating procedure

Patient/ carers

- Local peer support – PD patients liked to contacted by new patients
- PD banners on display on H3
- NKF peer support leaflets
- Information leaflets on H3

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Examples of test change ideas using PDSA cycles

Quick Reference Guide developed (see next slides)

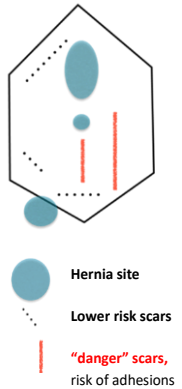
Culture change - **PD as default modality** – agreed test of change for 4 weeks from 10/2/25

QRG Inpatient Peritoneal Dialysis Catheter Insertion

1. **Check medical suitability of patient and complete checklist on paper**

   – abdominal surgical history, abdominal scars, hernias , BMI (?for medical or surgical PD catheter)

   – "danger" scars or inguinal hernias usually prevent medical PD catheter insertion



2. **Document clinical frailty score on EPR**
3. **Check other patient factors**
   - I. Motivation for home therapy
   - II. Bowel habit and willingness to take regular laxatives
   - III. Manual dexterity
   - IV. Visual problems
   - V. Cognitive impairment / severe mental health problems
   - VI. Home support and storage space
4. **Refer to CKD team** for urgent assessment including home visit **(ideally at morning handover** or phone or speak to CKD team in person)
5. **Refer to PD team** for "PD prep" discussions **(ideally at morning handover)**
6. **Discuss catheter insertion date** with Adele on H3 ward
7. **Identify slot on "theatreman" procedure list** (once logged into intranet)
   https://www.northerncarealliance.nhs.uk/myhub/online-systems/online-systems-salford click on "clinical systems" then "theatreman, you need password
8. **Discuss with operator doing list**
9. **Complete consent form**
   - risks include bleeding, infection, failure to insert, malposition requiring repositioning, perforation of abdominal organs requiring laparotomy
10. **Prescribe laxatives to be given regularly:**
    - i. Senna 2 tabs bd + Sodium Docusate 200mg bd
11. **Prescribe medication on EPR "PD Catheter insertion medication" order set**
    - **I. Picolax 2 sachets to be given on day before procedure:**
      eg. 1st sachet at 12 noon & 2nd sachet at 6 pm
    - **II. Insertion medications (given by operator):**
      - i. Flucloxacillin 1g IV once
      - ii. Lorazepam 1-2mg IV PRN as an anxiolytic (it is not for sedation)
      - iii. Oxycodone 2.5-5mg PRN
12. **Nil by mouth from 2am on day of procedure**
    - but can have water until 2 hrs before

ACUTE PD CHECKLIST - PATIENT NAME……HOSP NO…… DATE……

1. **Abdomen examined by a doctor and surgical history discussed (date ……)**
2. **Abdominal scars and surgical history** ☐ None



Complications eg. drain / bleeding / perforation / obstruction /prolonged hospital stay

……

……

3. **Hernias**
   1. None ☐
   2. Divarication of recti only, but no hernia (usually ok for acute PD) ☐
   3. Umbilical hernia present (small ones usually ok) size…… cm ☐
   4. Inguinal hernia present (RIGHT / LEFT / BILATERAL) = can't have acute PD ☐
4. **Home visit in current accommodation completed (date ……)**
   See EPR "RenalCKD assessment"

	YES/NO
1. Good family support nearby	
2. Entirely suitable	☐
3. Limited storage space	☐
4. Concerns about suitability ……	☐
5. Unsuitable ……	☐
6. Patient awaiting relocation to suitable accommodation	☐

5. **Bowel management**
   1. Willing to take laxatives daily to support PD ☐
   2. Usually takes no laxatives, bowels opened every 1-2 days ☐
   3. Usually takes laxatives, bowels opened every 1-2 days ☐
   4. Usually bowels opened every 3+ days despite laxatives ☐
6. **Patient motivation**
   1. Highly motivated to do PD ☐
   2. Unsure – would like more information ☐
   3. Concerns re. DNAs / poor adherence …… ☐
   4. Unsure despite maximal CKD team input ☐
7. **Circle any concerns about: Vision / Manual dexterity / Memory / Frailty / Mental health / Other** ……

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Pilot study -what we did

Problem

- Increasing number of patients requiring renal replacement therapy
- No short-term solution from transplantation

Proposed change

- Acute start peritoneal dialysis with medical catheter insertion for appropriate patients
- Likely to include unplanned starters, rapidly deteriorating patients from AKCS/Gen Neph clinics, unrecoverable AKI

Possible Process

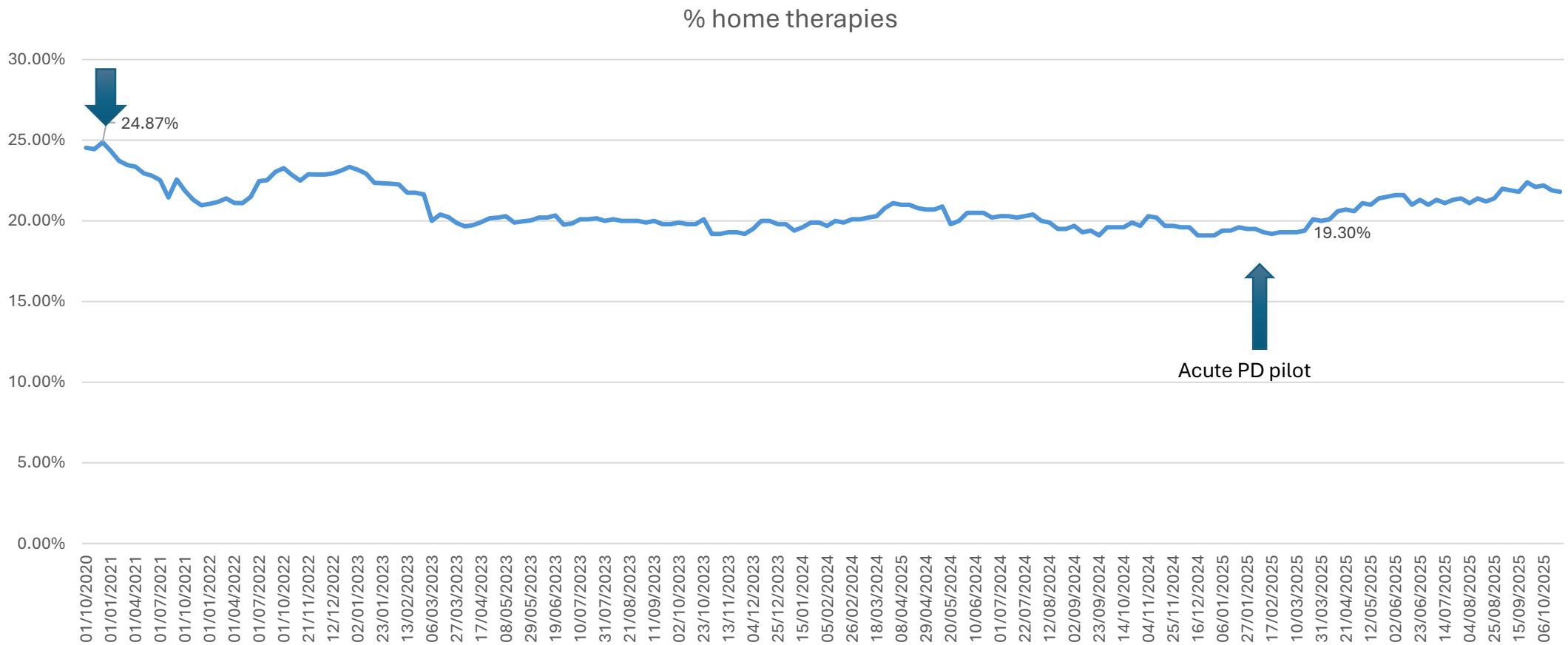
- Ward patients / outliers / DGH referrals flagged as potential for PD
- Assessment by CKD/PD teams
- Medical assessment for suitability (abdominal scars, residual function etc)
- Hold off tunnelled line insertion /Temporary line if necessary
- Medical PD catheter insertion - likely in Friday slot after bowel preparation, skins swabs, skin prep
- To remain in hospital on low volume APD (not mobilising with fluid) until established working and safe, managing laxatives
- HD may be required to ensure safe to hold or have low volume PD (metabolic state, size, fluid status)

Issues and Gaps

- Capacity for rapid intervention CKD/PD for counselling & home visits
- Potential longer stay compared to discharge straight to maintenance HD
- More than one day weekly insertion (or Friday capacity) , capacity for operators / assistants- impact on other procedure lists
- Site for outpatient APD
- Ward staff (medical and nursing) experience- fresh start PD on low volume APD

Pilot study outcomes and data

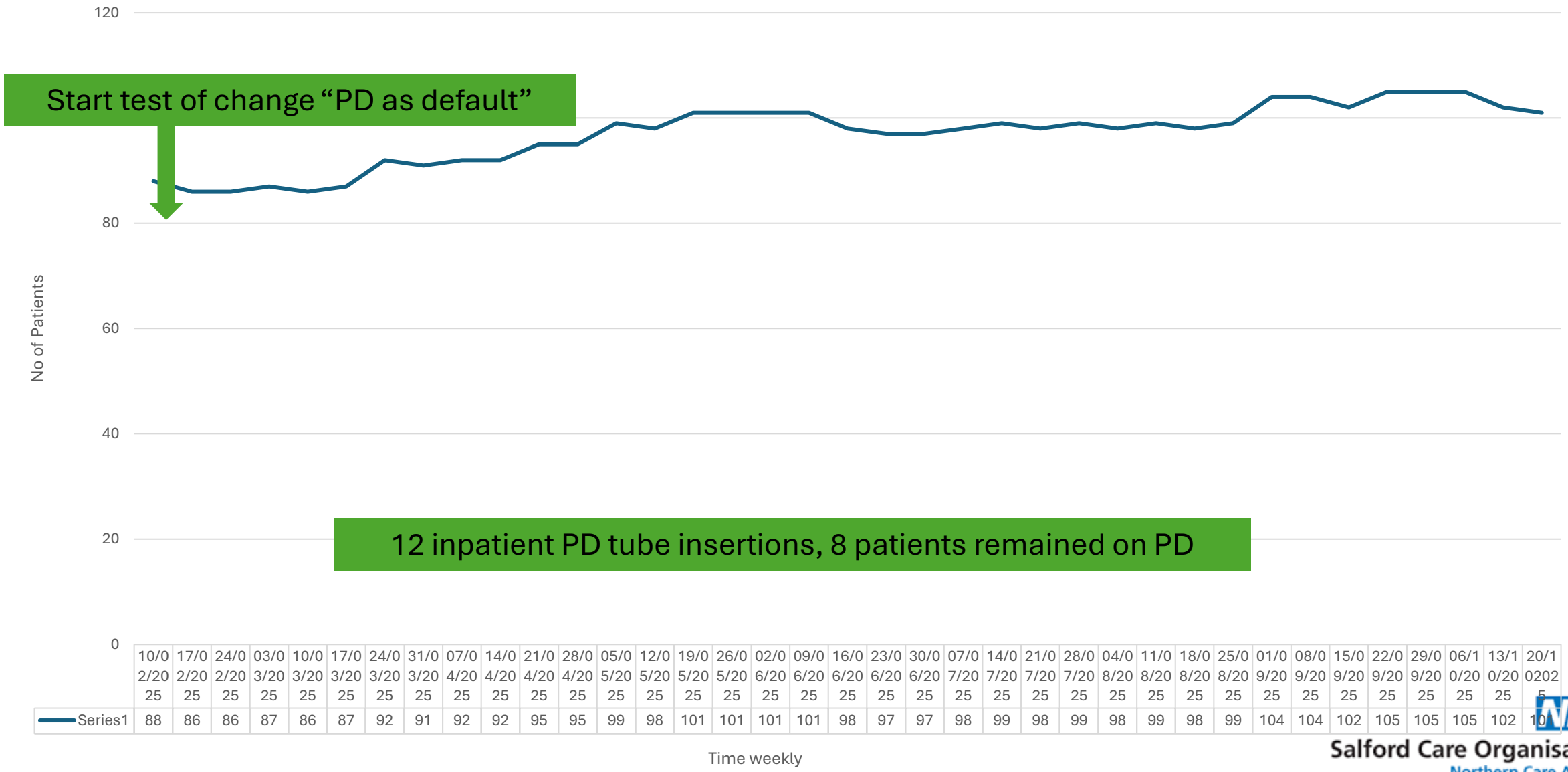
Percentage of home therapies (PD and HHD)



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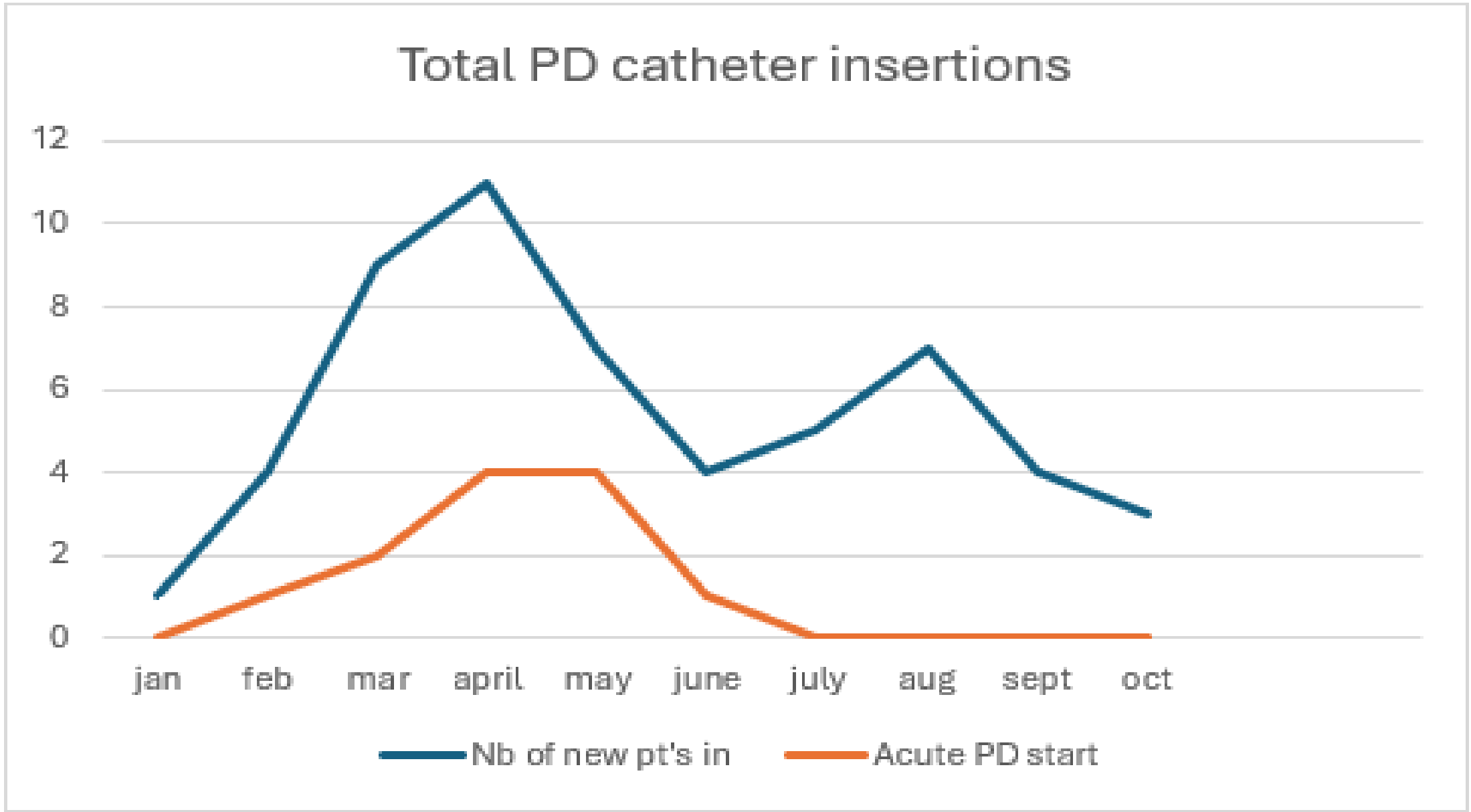
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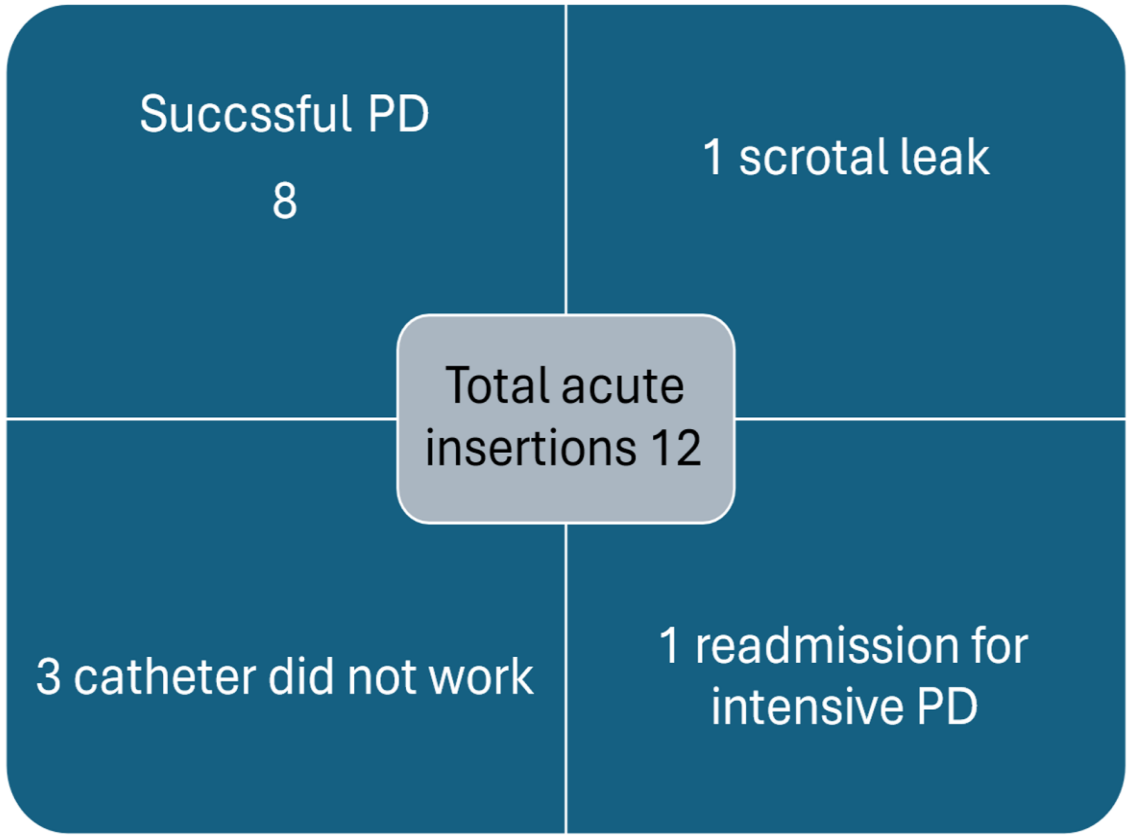
Display data over time to understand impact



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Total PD catheter insertions
12
10
8
6
4
2
0
jan
feb
mar
april
may
june
july
aug
sept
oct
Nb of new pt's in
Acute PD start


Succssful PD
8
1 scrotal leak
Total acute insertions 12
3 catheter did not work
1 readmission for intensive PD

Conclusion- Success

Pilot study has shown that acute PD can be successfully introduced as an option for patients staring on dialysis.

Acute PD as an initial RRT option improves flexibility and access to dialysis

Continued evaluation and multidisciplinary collaboration will be key to sustaining and expanding this model of care

Major factors to success in acute PD program includes:

- Culture change –increasing awareness, confidence and collaboration across both medical and nursing staff
- Patient education and resources
- Sustainability relies on continued staff training, resources allocation and ongoing QI improvement

Conclusion-Challenges

- **Major challenge:** Sustainability/Attrition after initial successful run.
- **Multifactorial causes:** Motivation/Staff Training + Resources/Discharge priorities.
- **Solutions:** Ongoing assessments/Discussions in departmental meetings (governance)/Missed opportunities audit.

Discussions

- Team

Joanne Collier- PD Team Manager

Joanne Martin- PD ANP

Rajkumar Chinnadurai- Renal Consultant

David Lewis- Renal Consultant

Tilly Abeygunaratne-Renal Consultant

Rosie Donne-Renal Consultant