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Project Title: A Collaborative Strategy by Pharmacist & Dietitian in Optimizing Serum Phosphorus Concentration for Newly Started CAPD Patients in POH

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Background:

- Hyperphosphatemia: → **increase mortality and morbidities**
- CAPD alone provide inadequate phosphate (PO_4) removal
- \therefore dietary control & phosphate binders needed
- But PO_4 binder not match PO_4 content in each meal

Objective: Optimize serum PO_4 control by collaboration **between pharmacist and dietitian** in counselling patients

Method:



Step 1

Referral to Dietitian & Pharmacist for Counselling during CAPD training by Renal Nurse
→ Serum Phosphorus (PO_4) level taken as Baseline

Step 2:

Dietitian Consultation

1. Provided Dietary Advice
2. **Estimated Patient's PO_4 Intake per Meal**

Step 3:

Pharmacist Consultation

1. **Counselled Medication Use**
2. **Advised to take the prescribed PBs in proportion to PO_4 Content in Each Meal where Appropriate.**
3. **Identified Drug Related Problems**

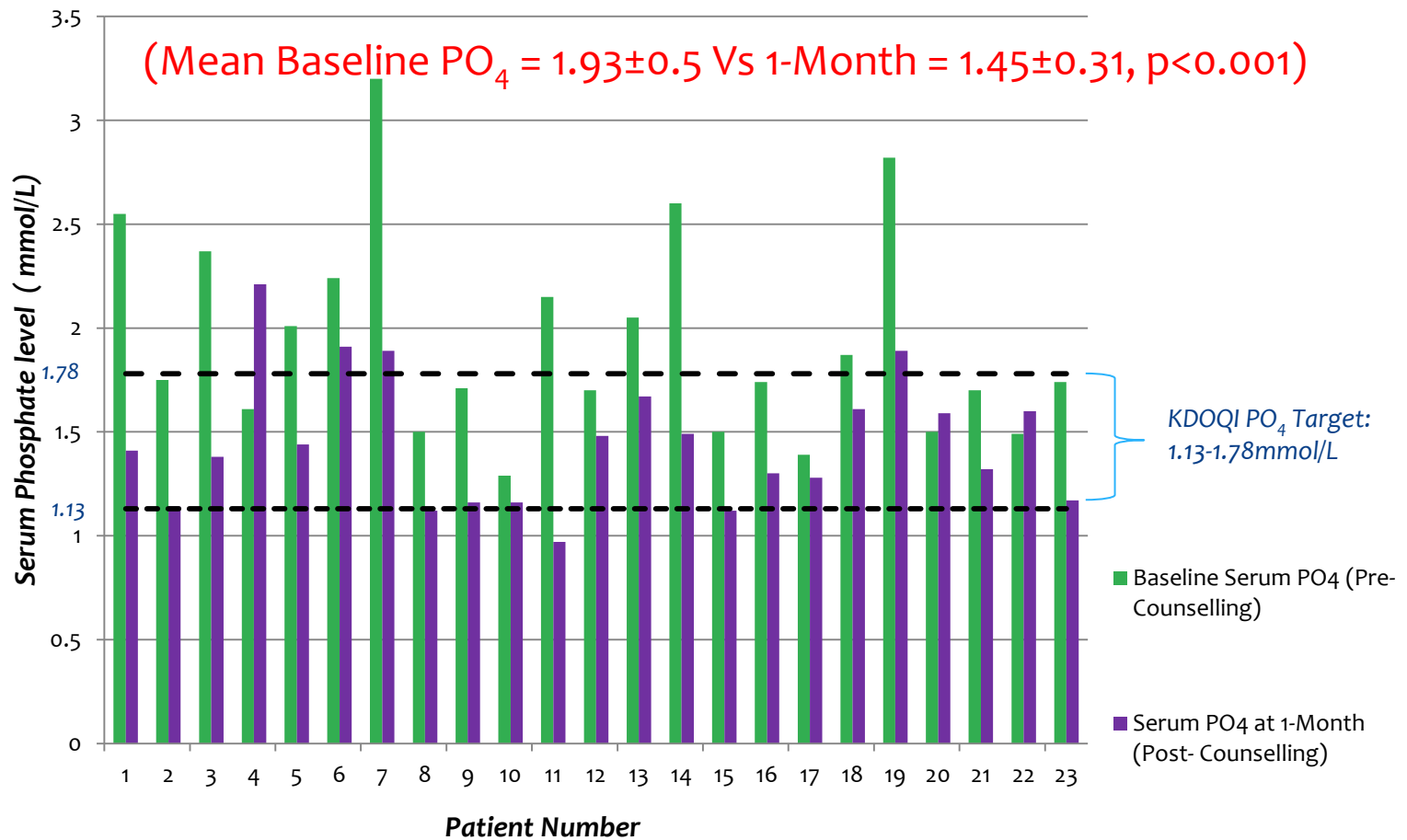
Step 4

1. Consultation by MO
~One Month after Starting CAPD
2. Serum PO_4 Measured

*Services in addition to standard of care are printed **in red** in the flow chart

Primary Outcome: A significant reduction in serum Phosphorus level was seen at 1 month

Change of Serum PO₄ Level at 1-Month Post-Counselling

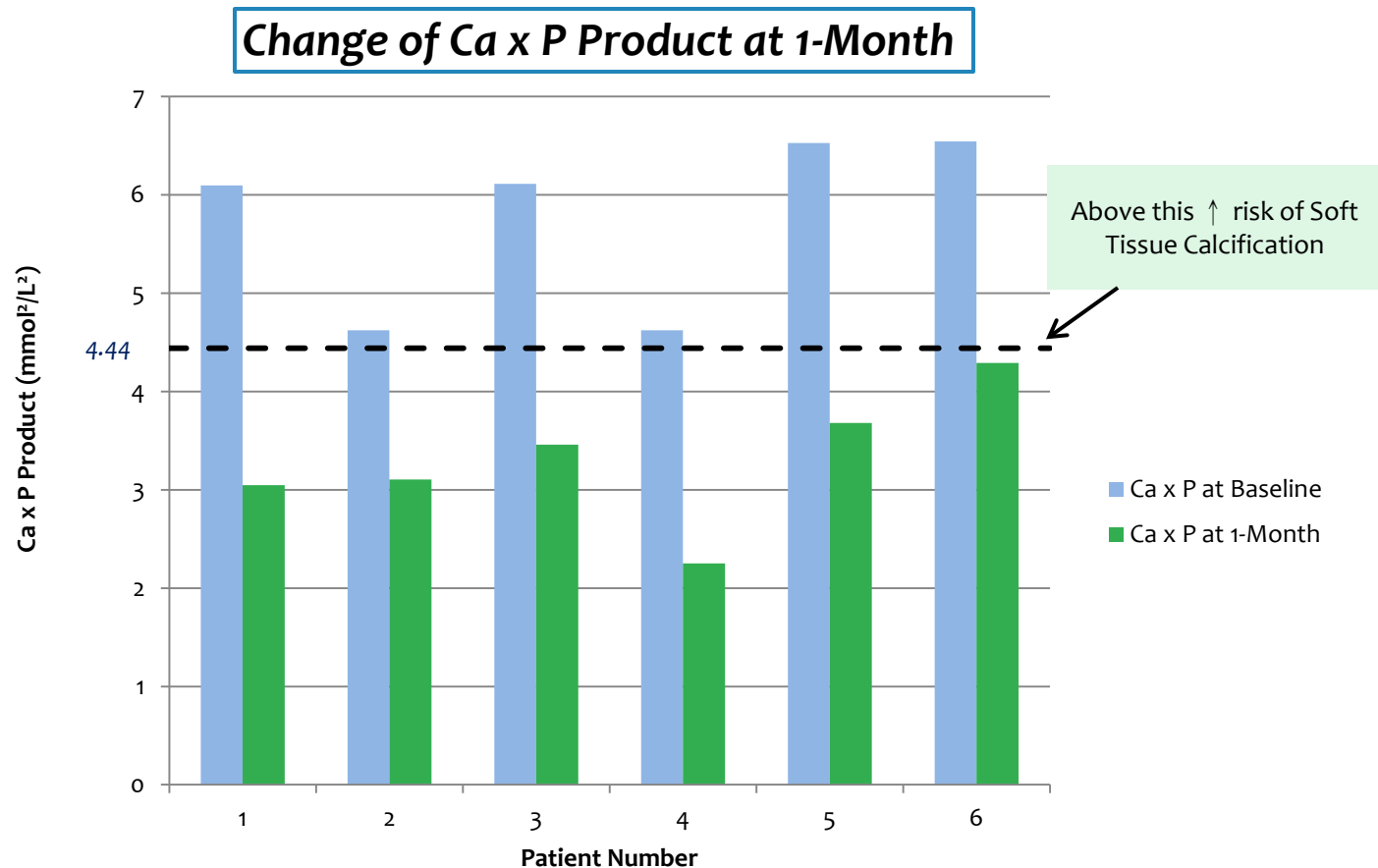


70% of patient achieving KDOQI target for PO₄ at 1 month

Secondary Outcome:

(a) Calcium-Phosphorus Product ($\text{Ca} \times \text{P}$)

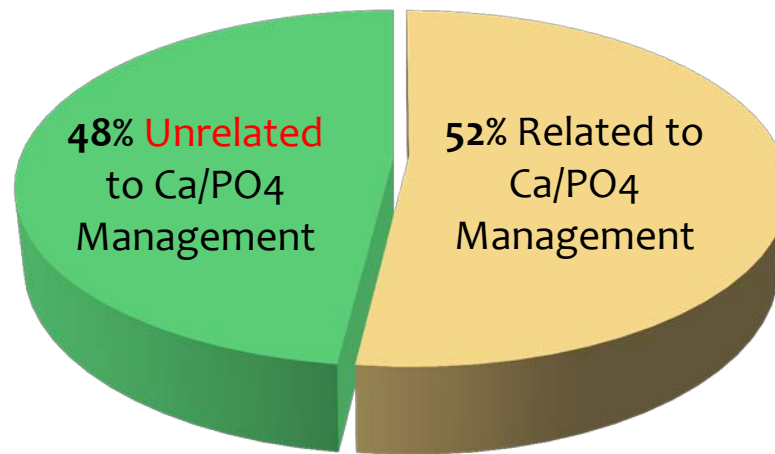
Patients with $\text{Ca} \times \text{P} > 4.44 \text{ mmol}^2/\text{L}^2$ at baseline ($n=6$) were all reduced to $< 4.44 \text{ mmol}^2/\text{L}^2$ at 1-month*



Secondary Outcome:

(b) Drug related problem identified

46 DRPs Identified



Conclusions:

This joint counselling service by pharmacist and dietitian could:

- 1) **Optimizing serum PO_4 level** in newly started CAPD patients
- 2) Additional benefit in **optimizing medication management** as a whole, which was reflected by the identification of various DRPs during pharmacist's counselling.