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Increasing the uptake of home-based dialysis- a cost effective, less labour-intensive way of renal replacement therapy

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<u>Aim:</u>

In line with the ministry direction to increase utilisation of peritoneal dialysis (PD), our unit aims to increase number of prevalent PD patients from 70 to 100 in a year, then further expand into a 200-patient unit as its long-term goal.

Background

Peritoneal dialysis is an effective dialysis modality. It

Results:

Between November 2022 and April 2024, 87 patients were successfully initiated on PD. A combination of catheter insertion techniques and PD training settings were utilised (figure1).

The number of prevalent PD patients in our unit started rising rapidly towards the end of 2022, exceeding 100 in June 2023 and continuing to grow to 137 in April 2024(figure 2), effectively doubling from the baseline of 71 in December 2021. Both the increase in incidence and reduction in dropouts had significant bearing to this result.

is home-based, gentle, and less resource-intensive compared to hemodialysis. Yet its utilization remains low¹. In August 2022, the health ministry announced its goal to increase PD uptake to 30% among incident patients by 2025². This direction created motivation to overcome the multifaceted real-world barriers to PD.

Methods

A combination of measures was taken in our unit:

- Nephrologists actively advocating PD
- Recruiting dialysis counsellors proficient in different languages to meet the needs of our diverse population
- Improving access to timely PD catheter insertion— Nephrologist-driven percutaneous catheter insertion, complemented with advanced laparoscopic surgery when indicated
- Enhancing capacity and accessibility of ambulatory support
- Incorporating more home visits and home training into patient care

Number of PD patients from Dec 2019 to Apr 2024

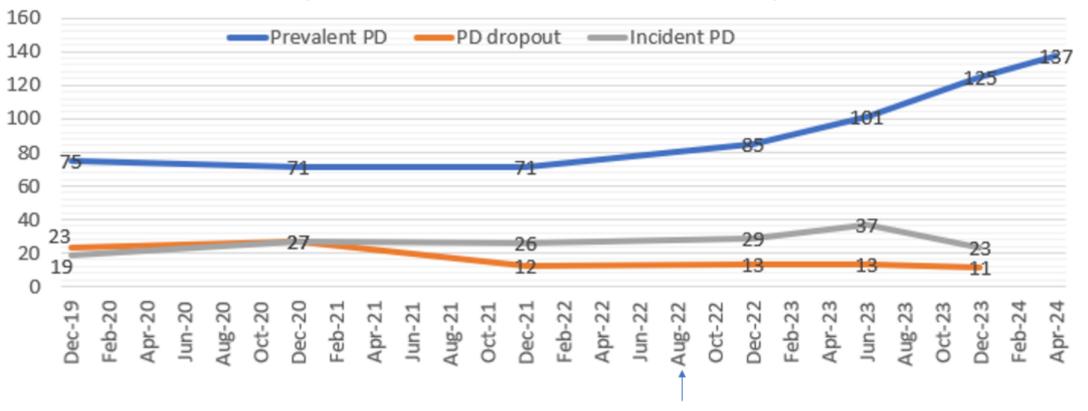


Figure 2: Trend of prevalent PD patients in our unit from 2019 till current: Having remained stagnant for a few years prior, the number of PD patients rose rapidly after August 2022

Conclusion

While our primary objective is to grow the PD program, in line with the ministry direction, its success will likely result in wider positive repercussions from the health economics perspective³.

Vis-à-vis in-centre hemodialysis, consider the manpower and infrastructure saved by empowering patients to perform their own home-based therapy, and

Newly initiated on PD November 2022 to April 2024- method of catheter insertion and PD training (n=87)

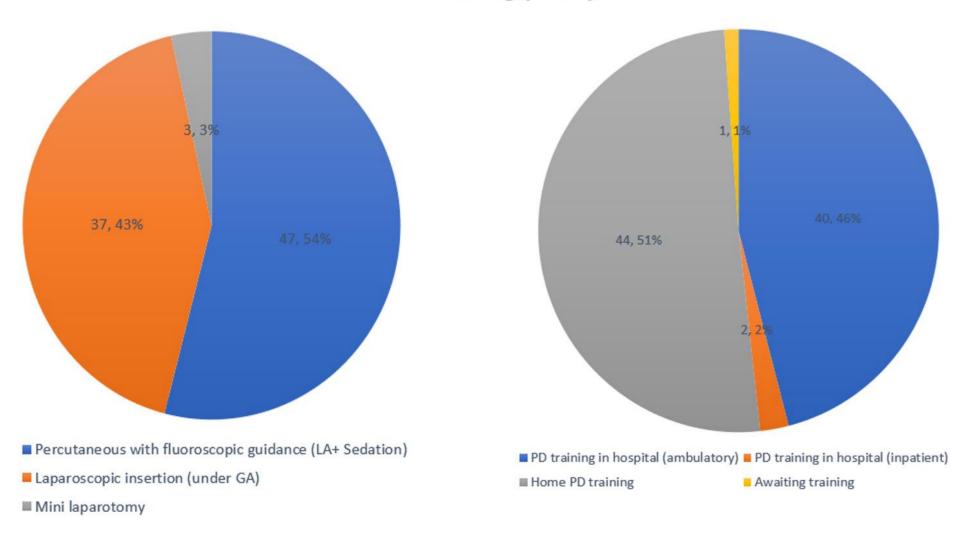


Figure 1: Catheter insertion method and PD training method for new patients

potentially better employment opportunities with a less restrictive dialysis modality⁴.

Reference:

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3. Yang, F., Lau, T. and Luo, N., 2016. Cost-effectiveness of haemodialysis and peritoneal dialysis for patients with end-stage renal disease in Singapore. Nephrology, 21(8), pp.669-677

4. Brown, E.A., Zhao, J., and Pisoni, R.L., 2021. Burden of kidney disease, health-related quality of life, and employment among patients receiving PD and ICHD: findings from DOPPS. AJKD, 78(4), pp.489-500

