

Elements of a Successful Peritoneal Dialysis Program

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Introduction

Due to the rising prevalence of ESRD in the context of limited resources, strategies are needed to maximise the use of less expensive PD while also improving therapeutic effects. To establish a successful PD programme, it is essential to consider a number of important factors, such as adequate CKD education, reimbursement for the therapy, medical professionals trained in the theories and practises of PD, clinical management, continuous quality improvement, and adequate supportive systems. To get the most out of a self-care modality like PD, it is essential for CKD patients to get predialysis education. Through education on available therapies, patients will be better able to understand PD and make informed decisions about the types of dialysis that are right for them. Despite the fact that mortality rates for dialysis patients have decreased over the past few decades, they still have significant rates of morbidity [1]. However, research has shown that patients' understanding of the illness and familiarity with the treatments on offer are lacking.

Description

Given the importance of patient involvement in therapy, the necessity of predialysis education cannot be emphasised. Clinical outcomes for several chronic diseases, including diabetes mellitus, have been proven to be improved by patient education. Patients would require lifelong renal replacement therapy if CKD progresses to end-stage renal disease (ESRD), which would only be effective with diligent self-management on their part. Patient education is the first step in improving clinical outcomes in a PD programme.

Additionally, Fresenius Medical Care, North America initiated the TOPs nationwide education campaign to teach predialysis patients and their families about the modality options for renal replacement therapy. One out of every four patients who attended the TOPs session chose PD as their home therapy as a result of this guidance. Patients who participated in TOPs education used PD at a rate that was almost eight times higher than that of non-participants. Along with the increase in patients choosing PD as their method of dialysis, patient education has a tonne of other benefits. Studies suggest that CKD education may be more effective than many other therapies in improving the care of dialysis patients [2,3].

Two Canadian randomised controlled clinical studies showed that predialysis CKD education was associated with lower short- and long-term mortality and may delay the need for dialysis. In a study including CKD patients, a pre-dialysis psychoeducational intervention increased overall survival by 2.25 years and a median of 8.0 months after the onset of dialysis therapy. The study included a 20-year examination of results.

PD nurses are important team members in the interim. Typically, nurses

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Date of Submission: 01 August, 2022, Manuscript No. JNT-22-77715; **Editor Assigned:** 03 August, 2022, PreQC No. P-77715; **Reviewed:** 15 August, 2022, QC No. Q-77715; **Revised:** 19 August, 2022, Manuscript No. R-77715; **Published:** 26 August, 2022, DOI: 10.37421/2161-0959.2022.12.408

must perform a number of duties, such as those of an educator, care coordinator, and caretaker. A PD nurse is instantly recognised by patients as the expert on all aspects of therapy who should be consulted. Without competent, seasoned, and dedicated nurses, a strong PD programme is unlikely to be operationalized. Both academic knowledge and practical skills are required of PD nurses. All new nephrology nurses should receive at least 12 weeks of training and experience in a PD unit, including 6 to 8 weeks of orientation, with supervision by a veteran PD nurse and observation of procedures, patient education, and patient education, according to the International Society for Peritoneal Dialysis [4].

A standardised training programme and treatment protocols are followed by the full-time PD doctors and nurses in the satellite centres. These protocols cover catheter insertion techniques, managing PD complications, patient education and training procedures, gathering and analysing clinical data, and putting into practise a continuous quality improvement process. This programme significantly increased the number of PD patients in Guangdong Province and enhanced medical care.

The growing competency of PD nationwide is projected to expand its use, particularly in rural and remote areas, and that PD penetration will rise in the near future through the satellite centre model and county hospital training programme. This approach needs to be adopted by other countries in order to increase the number of ESRD patients.

How to ensure that the PD programme maintains acceptable standards for the calibre of care with a higher penetration rate is a big challenge. The First Affiliated Hospital of Sun Yat-sen University in Guangzhou houses one of the largest PD centres on earth. Over the past few years, the facility's PD patient population has quickly risen, surpassing 1,000 patients as of 2017. At 1, 3, and 5 years, the survival rates for these patients are 94%, 81%, and 64%, respectively. The technical survival rates after death censoring are 98%, 91%, and 86%, respectively. Peritonitis occurred 0.14 times per patient year in 2018. For diabetic and elderly patients, ensuring favourable clinical outcomes has been demonstrated to be feasible [5].

As a result, the centre has devised a reliable and practical technique for experienced nephrologists inserting catheters. Additionally, the insertion and removal of PD catheters by nephrologists reduces the need for pointless surgical consultations and enables quick treatments. In order to promote patient self-management and independence in a short period of time, the programme has developed a well-planned training and retraining programme. This is because more than 80% of patients start dialysis unexpectedly and have no prior knowledge. Patients and their aids, including their spouse and family members, are both trained and evaluated for successfully completing the PD procedure.

The clinical management, a systematic approach to uphold and improve the standard of patient care within a particular health system, can be used to boost the PD program's overall effectiveness [6]. A performance metric that may be applied to both intracenter and intercenter comparisons is a key performance index. It serves as a gauge of the PD center's quality. The key performance indicator targets should be chosen in accordance with international standards, taking into account the clinical outcomes of a programme and the size of the current centre. Measurement of key performance indicators can be an essential component of PD practise and is necessary for continual quality improvement (CQI).

The development of appropriate CQI programmes might monitor several things, including the efficiency of the dialysis, the frequency of peritonitis, catheter-related problems, anaemia management, calcium and phosphorus

control, patient psychosocial status, and satisfaction with the PD therapy [7]. PD team meetings once a week, PD symposiums once a month and frequent clinical meetings in the morning are a few examples of ways to evaluate, identify, and enhance performance.

A team of trained, dedicated, conscientious, and hardworking medical professionals is universally recognised as the cornerstone of an effective PD programme. The team now also consists of qualified PD nurses, access surgeons, dietitians, and social workers. The role of nephrologists and nurses has already been discussed. A programme needs both social workers and dietitians in order to be successful.

Conclusion

Because dietary management is essential for PD patients, dietitians must provide patients with particular guidance regarding their consumption of sodium, phosphorus, potassium, energy, and protein. Psychosocial assessments and interventions are crucial for patients still undergoing home therapy. Every facility needs to implement a regular assessment to identify psychological problems and plan interventions accordingly.

Acknowledgement

Not applicable.

Conflict of Interest

There are no conflicts of interest by author.

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How to cite this article: Atkinson, Bard. "Elements of a Successful Peritoneal Dialysis Program." *J Nephrol Ther* 12 (2022): 408.