Achieving Optimal Dry Weight Management in Chronic Hemodialysis Patients

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ABSTRACT

In 2020, 70% of post dialytic admissions were due to Acute Pulmonary Oedema (APO) in Gleneagles Hospital Penang.
The main reason was due to patients not understanding the significance of their dry weight. Based on our survey conducted to measure patient's awareness of their dry weight, 10% had a full understanding of the significance of their dry weight, 55% had a partial understanding and 35% did not understand at all.

Emphasis is placed on patient and staff education, staff empowerment for an active participation in patient's care to enhance the efficiency of dry weight management.

In conclusion, this abstract underscores the need for a multidisciplinary, patient-centered approach to maintain dry weight effectively, ultimately improving the quality of life for chronic hemodialysis patients

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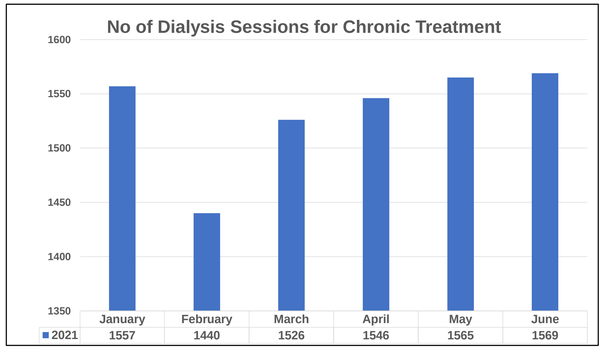
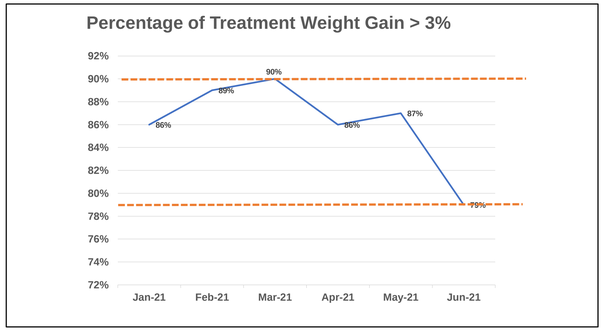
INTRODUCTION

From Jan – June 2021, out of approximately 1500 monthly dialysis sessions for chronic treatment, approximately 86% of the dialysis sessions failed to achieve the target interdialytic dry weight. An analysis of patients admitted after Dialysis in 2020, showed that 70% were due to Acute Pulmonary Oedema (APO), 20% after a fall at home and 10% with Gastrointestinal bleed. The main reason for the APO was fluid overload. Fluid overload is a common and important complication encountered in the care of patients with end-stage kidney failure receiving haemodialysis. Fluid overload not only causes unpleasant symptomatology for patients on dialysis, but also leads to increased incidence of morbidity, hospitalization and mortality. [BMC Nephrology 20, Article number: 47(2019)]





METHODS AND MATERIALS

The project aimed to ensure that 90% of our patients on chronic haemodialysis treatment achieve an interdialytic weight gain of not more than 3% of their dry weight by the end of 2022.
[Renal Replacement Therapy CPG Fourth Edition, MOH 2017]

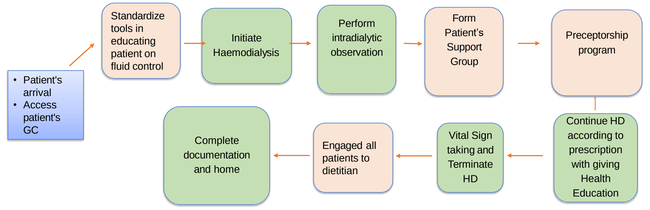
$$\frac{\text{Number of chronic dialysis patients who gained not more than 3\% of their interdialytic dry weight.}}{\text{Total number of patients on chronic dialysis treatment per month}} = <3\%$$

RESULTS

CAUSES		Lack of awareness and knowledge about the assessment	Lack of patient education	Unhealthy life-style and health behavior
PDSA CYCLE		1	2	3
PLAN	Change	Standardize tools in educating patient on fluid control	Form a Patients' Support Group and Structure a preceptorship program	Engaged all patients to see the dietitian
	Predict	The staff and patients increased knowledge and self-awareness	By sharing experiences and ideas, may influence others	Patient has an idea of what food to consume
DO	Learn	• Assess patient's general appearance • Ask patient for any symptoms • Assess for oedema • Ask patient about past dialysis	• How to control fluids intake, types of food to take • Engage family members for support • Preceptorship of patient and staff • 1 nurse to precept 8 patients monthly • Each session 15-30 min	• Create a personalized diet plan for that particular patient • Every patient to buy a digital bathroom weighing scale to weigh daily at home • Mandatory 3 monthly consultations by the nephrologist in their clinics
STUDY	Compare Prediction	• Active participation from patients and staff • Awareness makes patients to ask questions on their pre and post dialytic weight. • 2 ways communication achieved.	Staff feels more motivated and supported	More compliance in their fluids and food consumption
ACT	Adopt, Adapt or Abandon Change	• Re- design and re-do the health education flow chart	Encourage all patients to join Patient's Support Group and continue with Preceptorship program	Mandatory to refer all patients to the Dietitian

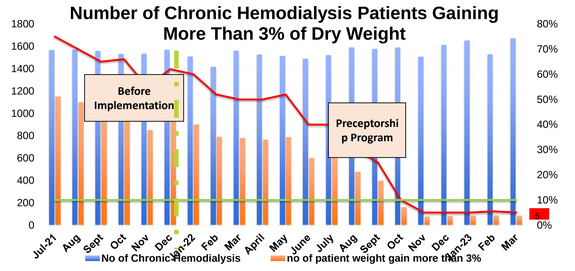
By utilizing the standardized tools in educating patient on fluid control, proactive and personalized care approaches, we were able to efficiently managed patient's dry weight. Working within a multidisciplinary team is the opportunity for collaboration and shared expertise for improved patient safety. Having better processes to improve better clinical outcomes.

Improved Process Workflow

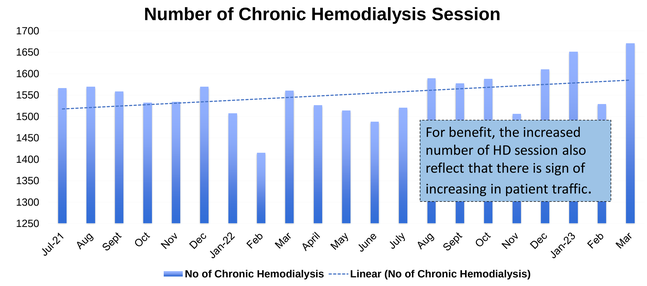


WI-GPGNUR-RN-033 Workflow in Dialysis Centre

GRAPHS AND TABLES



DISCUSSION



One crucial aspect of dry weight management is patient education. A well-informed patient, effective educational programs and tools in empowering patients to make informed decisions about fluid intake and dietary choices will be imperative in managing patient's dry weight, by avoiding fluid overload without causing dehydration.

CONCLUSIONS

In conclusion, the effective management of dry weight in chronic hemodialysis patients is paramount to their overall well-being and treatment success. Achieving and maintaining the optimal dry weight not only improves symptoms and quality of life but also reduces the risk of complications. This abstract highlights the importance of patient and staff education on fluid control, establishing preceptorship program for close monitoring in attaining successful dry weight management.

REFERENCES

1. *Renal Replacement Therapy CPG Fourth Edition, MOH 2017*
2. *BMC Nephrology 20, Article Number 47 (2019)*