

Using a self-management approach in developing targeted interventions for patients with chronic excessive interdialytic weight gain (IDWG)

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INTRODUCTION

- Approximately one-third to a half of all hemodialysis (HD) patients experience instability from excessive interdialytic weight gains (IDWG), creating a greater risk for morbidity and mortality.
- Across our 2 HD sites, we observed an increase in the number of patients gaining more than 4 Liters in between treatments. We did not have a teaching tool for addressing excessive fluid gains
- A rather uncomplicated run of treatments were pre HD weights are stable enough to conduct subtle UF, without a doubt, are more beneficial for patients than not.

AIM

Design, implement and evaluate a patient engagement tool that would illustrate how using a simple objective tool assists in correcting chronically excessive IDWG. Improve patient awareness on the importance of maintaining stable fluid gains. Assess the feasibility of incorporating this resource into point of care workloads.

In General, anticipated outcomes from out of this project includes:

- Improvement in patient's understanding on the importance of maintaining stable weight gains in between treatments.
- A compliance system that reinforces education.
- Provision of a system that aligns with goal settings.

METHOD

All in-centre and community HD patients were screened for consistent fluid gains exceeding 3 % of their dry weight for 3 consecutive treatments. Those identified were approached and was included in the study. The first year focused on the development of a fluid tracking journal (fluid distribution table) and the creation of a list of strategies to assist in curbing thirst and reducing fluid intake. Nine patients were enrolled and 4 were lost to attrition. Pre and post KDQOL-SF V1.3 and ESRD AQ questionnaires measured their quality of life and understanding of their affectations. A shortened version of the ESRD-AQ questionnaire administered biweekly tracked aspects of their HD treatments. Over a 3-month period, participants recorded their daily fluid intake and met regularly with the project nurse. The project was extended for a 2nd year. Recruitment reopened and 14 participants were enrolled. The daily recording of fluid intake was further simplified.

DISCUSSIONS

Advancements in HD mostly have lead to a standardized delivery of care, however for the most part, resulting ONLY to a small amount of improvements in general outcomes (Doss-Mc Quitty, S. 2014. Strategies for removing fluids during hemodialysis. Nephrology Nursing Journal, 41(3), 257-263). In spite of an emphasis on adequacy, outcomes remain essentially unchanged. Volume overload has been largely overlooked when considering these outcomes. Agarwal (2013) has posed the question of whether volume overload in hemodialysis is the elephant in the room that no one can see.

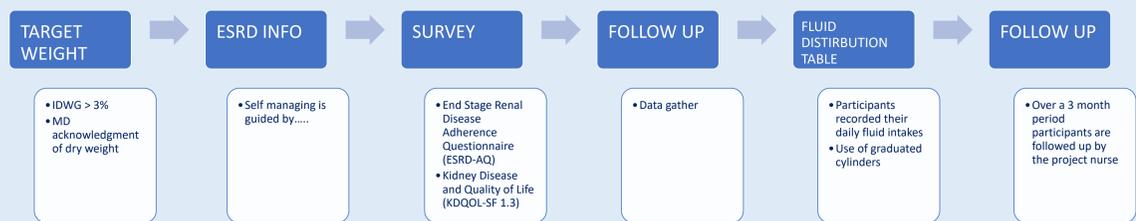
Two of the most easily identified markers of volume overload in hemodialysis are interdialytic weight gain (IDWG) and hypertension. Yet hypertension is common and poorly controlled in our patient population. While blood pressure is a significant consideration in treating patients on hemodialysis, hypertension is not synonymous with hypervolemia, just as normotension is not synonymous with euolemia (Sinha, 2011). Hypotension associated with excess fluid removal could result to organ stunning and one that logically impacts quality of life (QoL). Several studies have indicated that blood pressure and volume state are not synonymous and that achievement of normotension will not be sufficient to improve mortality associated with volume overload (Agarwal, 2010, Sinha, 2011, Wabel et al., 2008). One other predictor that is strongly associated with increased cardiovascular mortality is vascular stiffness.

Limiting fluid gain at 1-2 liters daily is imperative and one that is directly proportionate to QoL, one that is also essential to avoiding cardiac stunning. Patients in HD with the help of the MDTs in the past have worked towards managing their IDWG to within 5% of their estimated dry weight (EDW). Working together to achieve buy-in for a UF rate less than 13ml/kg/hr. is now the metric that CMMS (US) has established to where ultrafiltration (UF) should be limited to (Heershap, A., Fox, C., Dharlyn, D., Tagpis, F., Romero, J., Pringle, T., Infante, S., 2018, The interdisciplinary team and the patient: Working together to achieve buy-in for a UF rate less than 13 mL/Kg/Hr. Nephrology Nursing Journal, 45(5), 485-488).

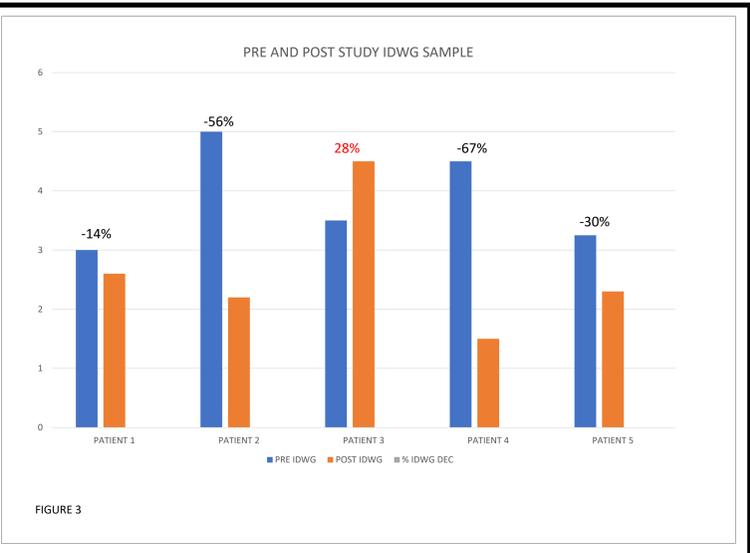
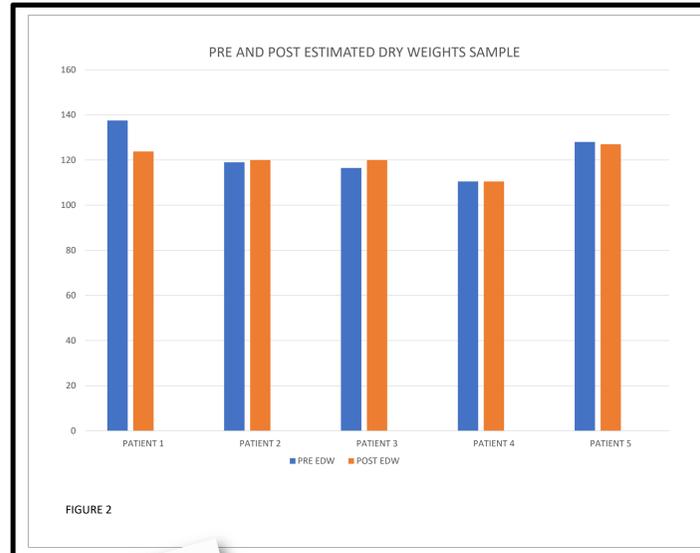
RESULTS:

The results of this study suggests that intensive follow up via “a good old sit down” with patients often goes a long way in understanding ways to help patients move towards healthier IDWGs by increasing their awareness in maintaining the same to providing a better quality of life. Awareness as one would deduce, also has crossed over to our clinical staff, as this now provides us with an engagement framework that offers practical suggestions to which we base our future interactions around the same.

PROPOSED ENGAGEMENT FRAMEWORK



IMPROVING PATIENT'S HEALTH AND WELLBEING



An Investigation of the Effect of Continuous Care Model on Compliance with Dietary and Fluid Restrictions in Hemodialysis Patients: A Clinical Trial Study

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Specialty Practice Networks – Issues in Nephrology Nursing

The Interdisciplinary Team and the Patient: Working Together to Achieve Buy-In for a UF Rate Less Than 13 mL/Kg/Hr

Use of an Educational Intervention to Improve Fluid Restriction Adherence in Patients on Hemodialysis

Causes and Consequences of Interdialytic weight gain

Adherence in Patients On Dialysis: Strategies for Success

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