

P256

## P256 -Does an individualised Treatment Plan Aimed at Improving the Management of Cardiac Instability on Haemodialysis improve Health and wellbeing?

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The Wessex Kidney Centre (WKC) covers a large geographical area with a population of around 2.5 million. The main haemodialysis (HD) unit is based within Queen Alexandra Hospital (QAH). Patients who are considered too complex to receive HD in one of the eight WKC peripheral units must travel to QAH for their treatment. Currently there are approximately 116 patients receiving treatment within the HD unit at QAH. It has been observed that some patients are unable to tolerate routine HD and becoming increasingly unwell when initiating treatment. This may be due to cardiac instability. Cardiovascular disease is common in patients with end stage kidney disease (ESKD) and the risk of sudden cardiac death has been shown to be 20 times higher than in the general population<sup>1</sup>.

### OBJECTIVES

To identify whether an individualised treatment care plan will improve the patients overall health and wellbeing with the use of specific interventions to manage cardiac instability on HD. Symptoms range from:

- Hypotension
- Dizziness
- Shortness of breath
- Tachycardia
- Increased respirations
- Nausea
- Feeling of impending doom

Review the literature to research similar practices and intervention outcomes.

### METHODS

1. In-house renal database (Proton) to observe for changes in blood chemistry such as calcium, potassium and albumin
2. Literature review
3. Discussion with patients regarding increased levels of energy, feelings of well being and activities of daily living.

### RESULTS

Of the 116 patients receiving HD, 16 patients (12%) were considered to be cardiovascular unstable and therefore routine maintenance HD was more complex. As a result they were selected to receive an individualised HD prescription due to initial complications during their first HD session. Having identified a programme of evidence based care we were able to develop a specific treatment plan.

The interventions within the dialysis sessions were:

- Standardised individual profiling with the BBraun Dialog+ HD machine<sup>2</sup> with the most positive outcome being the stepped profile, often termed 'Pyramid'
- Minimal UF within the first half hour of treatment
- HD instead of Haemodiafiltration
- Initial pump speeds of <200mls/min gradually increasing over the dialysis session
- Reduction in dialysate temperature

These resulted in:

- Improved blood chemistry due to the patient being able to tolerate HD
- Improved Kt/V
- Improvement in patient wellbeing and an increase in activities of daily living,
- Improved diet and albumin
- Nurses observed less anxiety and feelings of negativity towards HD. There was also a recognised improvement in the patient's physical ability.

#### CONCLUSION

These interventions are proving to be beneficial to this cohort of patients as a result of them successfully tolerating HD. Despite this service evaluation being in its initial stages we have observed a significant improvement in patient outcomes, importantly their ability to receive full treatment every HD session. As well as this, there have been the other benefits such as reduction in patient anxiety, worries and concerns contributing to the improvement of health and well being and ultimately the overall patient experience.

References:

1. Rutherford E, Mark PB. What happens to the heart in chronic kidney disease? Royal college of Physicians 2017; 34: 76-80
2. B Braun Dialog+ Dialysis Machine: Instructions for use SW 9.0x