

P279

## P279 -Using Data to Drive Quality Improvement: The Haemodialysis Patient Safety Index One Year On

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**Background:** Haemodialysis is associated with a high rate of adverse incidents or harm events. Regular monitoring of haemodialysis treatments using the 'Haemodialysis Trigger Tool' (HTT) and 'Haemodialysis Patient Safety Index' (HD PSI) has confirmed harm events are frequent. In June 2017, the HD PSI was incorporated into our electronic systems, facilitating routine data collection from all haemodialysis treatments for 6 common harm events. This includes occurrence of intradialytic hypotension, multiple cannulation attempts, hypoglycaemia, reduction in haemodialysis time, incorrect programming of the haemodialysis machine and venous needle dislodgement.

**Methods:** From January 2018, monthly data from HD PSI results were reported to the clinical management team (CMT) in the haemodialysis unit, for discussion in monthly management meetings. The team included consultant nephrologists, senior nurses and allied health professional (AHP) leads. Results were also shared with nursing teams via posters. Results included the frequency of the 6 harm events, plus an overall harm rate incorporating the frequency of all of the 6 harm events.

**Results:** Between July 2017 and December 2018, data were collected on 43,876 haemodialysis treatments (99.58% completion rate). The frequency of the six harm events is demonstrated in Figure 1. Between July 2017 and February 2018, CMT meetings noted the frequency of 'Reduction in Haemodialysis Time' to be unacceptably high, varying from 8.0 to 11.6% of all treatments. The main reasons for reducing haemodialysis time were examined through pre-determined categories. The most frequent reason was patient choice (91-161 treatments per month / 62.94% of treatments with reduced time), followed by clinical reasons (22-39 / 15.48%), technical reasons (15-43 / 11.47%) and transport (14-25 / 10.11%). An improvement plan was developed and haemodialysis nurses and consultants were encouraged to discuss with individual patients why it was important not to reduce haemodialysis time

From March to June 2018, the frequency of 'Reduction in Haemodialysis Time' consistently dropped progressively from 11.6% to 6.3%. The improvement was sustained between July and December 2018, with rates varying between 6.5% and 7.5%. The number and proportion of reduced treatment times that were categorised as patient choice also decreased (77-106 treatments per month; 50.9% of treatments with reduced time). Changes in the overall harm rate also evidenced some reduction over the same time period. July 2017 to February 2018: 13.8% to 18.7%; March to June 2018: dropped from 17.8% to 13.6%; July to December 2018: 12.3 to 14.4%.

**Conclusions:** Focussing senior healthcare professionals on the results of the HD PSI, facilitated development of solutions to reduce harm events. The readily available data created awareness, which prompted sustained changes. We are currently exploring weekly automated data reporting to increase responsiveness to changes in harm events. Continued monitoring will allow response to changes in harm events, minimising adverse incidents during haemodialysis treatments.