Development of a renal dietetic patient database to comply with Renal Association undernutrition screening guidelines

Background:

The ‘Nutrition in CKD 2010’ Renal Association Guidelines state the recommended screening methods and frequency for undernutrition for all renal patients. Specifically: all dialysis patients should be reviewed every 6 months, have an annual subjective global assessment (SGA) and annual handgrip measurement.

The renal dietetic team were required to provide data related to these standards, which was needed for quarterly clinical forum and local peer review.

The information was available in dietetic record cards but difficult to collate. The renal dietetic team therefore decided to create a database to maintain nutritional parameter data for our HD and PD population.

Methods:

In September 2015, the database was developed and first data entered. All dialysis patients’ demographics were inputted including their latest weight and height, date of last dietetic review, date of last SGA and handgrip measurement. Calculated fields were body mass index (BMI), weight loss over 6 months and a flag for <85% ideal body weight. Conditional formatting was used to highlight when the time for dietetic review, SGA and handgrip measurements were near or overdue. The data was continuously updated after patient reviews and analysed quarterly.

Results:

In September 2015, 90% of dialysis patients had been assessed by a renal dietitian within 6 months, 24% had had a SGA assessment in the last 12 months and 30% had had a hand grip in the last 12 months. From the latest quarterly review (October 2017), this had improved to 94% of dialysis patients being seen 6-monthly, 90% having a SGA and 90% had a handgrip in the last year. Subset analysis of PD patients alone showed that 58% had been seen by a dietitian within 6 months in September 2015 and that this figure improved to 80% in October 2017.

The proportion of patients with a BMI<20 and the proportion of patients with a dry weight<85% ideal weight has remained constant pre- and post- introduction of the database. Conversely, the proportion of patients with an SGA score 1 to 5 was 37% in September 2015 but has remained between 20 and 25% in every subsequent quarter since.

Conclusion:

The introduction of this database has resulted in an improvement in the proportion of patients assessed by a renal dietitian within 6 months. This is especially true for PD patients. There has been a vast improvement in the proportion of SGAs and handgrip measurements being performed within the standard timeframe. This represents greater concordance with Renal Association guidelines. We are also able to use the database to help distribute manpower, as units and areas that need additional support are highlighted.

The described finding of the aberrantly high SGA score in September 2015 is attributed to the fact that only 24% of patients had an SGA completed during this quarter (compared to 90% subsequently) and those that did have an SGA score performed were more likely to be at risk of undernutrition.

We are now developing a similar database for our pre-dialysis patients.