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P127 -Measuring postural blood pressure to reduce the risk of falls in patients receiving peritoneal dialysis

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Introduction:

Falls are common in patients receiving peritoneal dialysis and are associated with increased morbidity, reduced survival and poor quality of life. Postural hypotension is a potentially modifiable risk factor for falls, and is common in peritoneal dialysis patients due to polypharmacy, diabetes and vascular disease. We developed a quality improvement project to improve detection of postural hypotension in patients undergoing PD, identify patients at increased risk of falling and introduce generic and specific interventions in order to minimise the risk of falls and improve quality of life in this population.

Methods:

We offered postural blood pressure measurement to all patients receiving peritoneal dialysis. Patients' blood pressure was measured supine and on standing at zero and three minutes. Postural hypotension was defined as a fall in systolic blood pressure of greater than 20mmHg or a fall in diastolic blood pressure of greater than 10mmHg within three minutes of standing. Patients completed a short survey on history of falls, symptoms and quality of life.

Patients with postural hypotension underwent a quality assurance review to identify specific interventions including 24 hour blood pressure monitoring, invitation for medication review or fluid balance review. All patients were given a patient education leaflet ("Your safety: reducing the risk of falling"). The outcome of interventions will be measured by repeating postural blood pressure recordings and questionnaires after six months.

Results:

44 patients receiving peritoneal dialysis participated in the project. Participants were 61% male, median age 70. 18 patients (41%) had postural hypotension. Of patients with postural hypotension 3 (17%) were on continuous ambulatory peritoneal dialysis and 15 (83%) were on automated peritoneal dialysis. 4 patients (22%) were diabetic.

Results from the questionnaire showed that 9 (50%) patients with postural hypotension had a fall in the last 5 years and 7 (39%) had fallen since being on peritoneal dialysis. 11 (61%) felt dizzy or lightheaded at times and 6 (33%) were worried about falling. Of the patients who did not have postural hypotension, 11 patients had fallen within the last 5 years (42%), 14 (58%) had symptoms of dizziness and 11 (42%) were worried about falling.

Quality assurance review identified that 17 (94%) were on antihypertensive medications. Outcomes of quality assurance included 9 (50%) patients referred for 24 hour blood pressure recording, 11 (61%) invited for medication review and 1 (2%) invited for fluid assessment. 4 (22%) had already received definitive intervention at the time of review.

Discussion:

There was a high incidence of postural hypotension in our peritoneal dialysis population which may lead to an increased risk of falls. Incidence of historical falls was higher in those with postural hypotension. There was no association between symptoms of dizziness or fear of falling and postural hypotension. By offering postural blood pressure recording to patients we were able to identify patients who are at risk of falls and offer them further investigation or assessment to reduce risk of future falls.