Getting it wrong: Avoidable Perioperative Delirium in the Elderly

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Background:

By 2080, 1 in 7 of the European population will be over the age of 80 years. The elderly population have both a greater number and severity of comorbidities and as a result, require much more frequent and longer hospital admissions. Consequently, there is a responsibility for medical professionals to 'get it right' for this cohort. Any increase in avoidable hospital complications and length of stay will therefore have potentially huge implications for both the quality and safety of patient's care as well as a greatly increased financial cost.

It is well known that pre-existing cognitive impairment in the elderly strongly predicts post-operative delirium. In turn, post-operative delirium is associated with longer hospital stays, increased peri-operative mortality and a significant functional decline post-operatively. As a result, it is recommended that cognitive impairment should be routinely screened for and delirium risk factors aggressively minimised in the at-risk elderly population. We performed a snapshot study of elderly patients admitted to two General Surgical and one Orthopaedic wards to investigate whether this was the case in our District General Hospital.

Methods:

For this study, all patients that were over 75 years old and were admitted over three week period were screened for delirium risk factors. A total of 37 patients were identified from this cohort and their cognitive function was assessed on a daily basis utilising the validated Mini-Cog tool. A score of 0-2 indicated a degree of impairment and despite not being a validated measure, a drop or change in any daily score was also noted. The patient's drug charts were also reviewed in order to identify whether any patients were taking cognition-affecting or Beer's positive criteria medications and whether there was any documentation in their notes regarding the risks and benefits of continuing these drugs during the peri-operative period. Lastly, the notes of all patients were reviewed to determine whether any peri-operative screening for cognitive impairment had occurred throughout their admissions.

Results and Discussion:

Our study found that 100% of the patients who were reviewed had two or more delirium risk factors. Notably, none of the patients had any documented pre- or post-operative cognitive screening performed at any point in this hospital.

A total of 35% of the patients had a Mini-Cog score of 2 or less at some point during their admission. More than 1 in 5 of the patients had also dropped scores on at least one occasion. Of these patients, 3 had been taking Beer's positive medications prior to their hospital admission. Most interestingly there was one patient who had scores that dropped sequentially over a 3 day period. This patient's notes were reviewed and in retrospect this reduction in cognition tied with their clinical deterioration and subsequent admission to the Intensive Treatment Unit.

More than 40% (16 patients) of the patients were taking at least one medication with known cognition-altering effects and 12% of the cohort were taking two such drugs. Of this sample of 16 patients, six of them were started on these medications during their hospital admission.

Conclusion:

There are clear risks that are posed by cognitive impairment and the associated peri-operative delirium in our elderly patients however unfortunately all too often they remain very poorly recognised. Screening for cognition and delirium at any time throughout admission appears scant within the peri-operative elderly population.

Additionally, this study has highlighted that single point assessment of cognition can be misleading as it doesn't identify all those with peri-operative delirium.

From this study, we recommend that assessment should occur significantly more frequently in the 'at-risk' elderly peri-operative population.

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