Polypharmacy Drug Errors in the Elderly Peri-operative population; are we providing a disservice to an at-risk group?

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Background

There are 11.6 Mil people over the age of 65 in the UK, and by 2040 it is predicted that 1 in 4 UK residents will be over 65¹. This age group will usually have a number of medical conditions and therefore will have been prescribed a variety of medications by their GP, and it is vital that these regular medications are continued in secondary care. In addition, the admission to hospital may often be as a result of an acute condition that necessitates the temporary alteration, or discontinuation of these drugs. Elderly patients are more vulnerable to the effects of some drugs, especially so in cases of renal impairment². Changes must be communicated back to Primary Care in order to guarantee continuity.

Negative Examples

85 year old male admitted with and eGFR <40, patient prescribed twice the recommended dose of ramipril (10mg) for such kidney function levels.

86 year old female not prescribed regular seretide inhaler until 3rd day of admission, subsequent infective exacerbation of COPD during hospital stay. Patient also prescribed supra-maximal doses of statin and ranitidine for current kidney function.

81 year old male prescribed double the maximum recommended dose of olmesartan for their reduced GFR.

Aims

- To ascertain whether regular medications were being effectively continued in the hospital setting.
- To investigate whether regular medications were altered in response to changes in eGFR.

Materials and methods

In this retrospective report of practice, the admissions of 34 patients over the age of 75 were investigated for the maintenance of their routine medication regimes while admitted and whether its continuation was recorded on discharge. Patients were selected at random from 3 surgical wards. Prescribed medicines were compared with reconciliation data from pharmacy, and collated against electronically recorded blood test results.

CKD in sample population

Results and Discussion

The Median age of patient investigated was 85, and were prescribed on average 9 medications each. We found that a large proportion of patients were not prescribed their regular medications in the first 48hrs of admission. Of those patients that suffered a drop in GFR during admission, the minority had their medications altered accordingly and approximately half had the fluid maintenance appropriate for their renal function.

Conclusion

The study demonstrated a clear discontinuity of care between primary and secondary care, as well as a lack of recognition of the complex interactions that are likely to be inherent in such polypharmacy.

Positive Examples

84 year old female admitted following a fall, GFR dropped from 80 to below 60. Patient's regular NSAIDs stopped the next day.

77 year old male admitting with nausea and vomiting, AKI identified upon admission. Patient's regular Atorvastatin stopped and crossed out for next 3 days on the drug chart.

References

- 1 - 1 Mid-2015 Population Estimates UK Office for National Statistics, 2016
- 2 - Milton James C, Hill-Smith Ian, Jackson Stephen H D. Prescribing for older people *BMJ* 2008; 336 :606