

Evaluation of the impact of sedative medication in patients admitted with a fractured neck of femur

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Introduction

For a patient who falls and sustains a fractured neck of femur, it can be a devastating experience. The instances of falls can be increased if the patient is prescribed a sedative or an anticholinergic medication.

Over recent years, internationally a number of authors have produced papers which have highlighted the increased risk to this cohort of patients in relation to falls and medication.^{1–3} The overall conclusion of these papers is that caution should be taken in the prescription of these classic drugs in relation to the cohort patients, in order to lower the risk of falls.

Method

As part of the local orthogeriatric service that is delivered within the trust, the lead clinician was aware that a number of the patients who were at high risk of falls could also be using sedative or anticholinergic medication, and that this was perceived as one of the main contributing factors to the patient's fall, and subsequently leading to the fractured neck of femur.

As a result, an internal audit was undertaken, which looked at 50 randomly selected patients who had been discharged from the trust, following an internal fixation of a fractured neck of femur, (hemiarthroplasty, dynamic hip screw), within a 1-month period. Within the demographics was also recorded the age range of the cohort patients and the male–female split. These patients were audited against four criteria which were:

- > Was the patient prescribed a sedative or an anticholinergic medication prior to admission?
- > The class of drug that was prescribed
- > The 4AT score on admission
- > Was the sedative or an anticholinergic medication discontinued at time of discharge?

Results

It was noted that the age range of patients within the cohort was 60–96 years, with a 34:66% male–female split. It was found that 12% (n=6) of the patients studied were currently

prescribed sedative or an anticholinergic medication prior to their admission; of these, the most prevalent medication was benzodiazepines, followed by other medication such as amitriptyline and morphine, which could be considered as contributing to the patient's fall due to their sedative nature.

The cognitive assessment for these patients was a 4AT assessment, which was used during their stay. It was noted that 40% (n=20) of the patients had a degree of cognitive impairment which may be associated with the use of sedative or an anticholinergic medication.

Following the medication review for these patients, 50% of the six patients had their sedative or anticholinergic medication discontinued at the time of discharge; for the other 50% it was felt that there was no increased risk to the patient from taking these medications on discharge.

Conclusion

In conclusion, this group of patients remain at a high risk of falls, which may be increased by sedative or an anticholinergic medication. Therefore, as part of the overall assessment, this type of medication should be reviewed and discontinued where appropriate in order to reduce the overall falls risk. ■

Conflicts of interest

None declared.

References

- 1 Mamun K, Lim JKH. Association between falls and high-risk medication use in hospitalized Asian elderly patients. *Geriatr Gerontol Int* 2009;9:276–81.
- 2 Yu N-W, Chen P-J, Tsai H-J *et al.* Association of benzodiazepine and Z-drug use with the risk of hospitalisation for fall-related injuries among older people: a nationwide nested case-control study in Taiwan. *BMC Geriatr* 2017;17:140.
- 3 Panula J, Puustinen J, Jaatinen P *et al.* Effects of potent anticholinergics, sedatives and antipsychotics on postoperative mortality in elderly patients with hip fracture: a retrospective, population-based study. *Drugs Aging* 2009;26:963–71.

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