AUDIT OF OSTEOPOROTIC HIP FRACTURES AND COMPLIANCE WITH ANTI-RESORPTIVE MEDICATIONS

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Background
- Over 300,000 patients present with osteoporotic fragility fractures to hospitals in the UK/year.
- There is concern regarding consequences of poor compliance with oral bisphosphonates (BP) for osteoporosis (OP). Persistence with daily BP treatment ranges from 25-35%, and for weekly BP therapy between 35-45% at year 1.

Objectives
- To audit osteoporotic hip fragility fracture management (trust guidelines).
- To examine patient compliance with bone protection.

Gold standards
- All patients should have OP assessment & consideration for falls assessment.
- Patients < 75yrs should be referred for OP bone protection, be referred to OP clinic or have a clear further management plan to be implemented in primary care.

Methods
- Retrospective case review, 100 consecutive pts admitted to SMH with hip fracture.
- Patients identified by Fracture Liaison Database (Jan-Dec 2011)
- Proforma completed using patient notes and database.
- Aspects of management examined: OP risk factor assessment, treatment commenced, falls assessment, <75 yrs referred for DXA, discharge destination, and follow up arrangements.
- Investigations: blood tests and radiology for DXA.
- Compliance: questionnaires sent to same 100 pts.

Results
Secondary prevention guidelines
- Out of a total of 100 pts, there were 78 Females and 22 Males, average age: 79.36 yrs.
- 20 patients had previous fractures: 13 hip, 5 wrist, 2 vertebral.
- 21 were already on secondary prevention.
- 5 patients had secondary causes of OP.
- Falls assessment/ referral for rehabilitation made for 72 pts.
- 25 patients <75yrs: 16 (64%) referred for DXA, 9 were not (1 recent DXA, 6 no documentation).
- 91 patients discharged on appropriate bone protection.

Questionnaire Results
- 58 questionnaires returned: Males 12 (21%), Females 46 (79%).
- Completed by: Patient 40 (69%), Patients carer/ relative 18 (31%).
- 55 patients received prescription for bone protection.
- Average duration of treatment 20.6 months.
- Compliance: 16/55 (30%) stopped.
- Reasons for non-compliance (Fig 1).
- Given written info on OP/ Tx before starting: Yes 7 (12%), No 20 (35%).
- Taking medications correctly: Yes 25 (43%), No 1(1%).
- GP or Pharmacist medication review: Yes 19 (32%), No 8 (14%).

Figure 1: Reasons for non-compliance

Discussion
- 100 audited, 21 already on secondary prevention.
- 91 patients discharged on appropriate bone protection; alendronate, calcium and vitamin D was the most common combination prescribed (72). Of the 9 patients discharged on no bone protection, 6 were referred to OP clinic, and 3 had no documented reason.

None of the standards from the current trust OP guidelines for prevention of secondary fractures were met in all patients. The current guidelines were however published in June 2012, following the audited period (Jan – Dec 2011) which would explain why the standards were not met.
- Only 16/25 (64%) patients were referred for DXA. Reasons for this were not documented in the notes and does need to be improved.

- All patients selected had been assessed by the fracture liaison nurse, however appropriate treatment may not have been started for the following reasons; patients wanting to know the DXA result prior to commencing Tx, patients declining treatment due to concerns of side effects.
- 16 (30%) patients stopped taking medications, with a range of reasons given.
- Only 7(12%) patients acknowledged being given written information on OP or their treatment.
- GP and pharmacist medication reviews were low: 19 (32%).

Positive aspects of audit
- Reasonable number of patients included.
- Examined important aspects of patient management and compliance.

Limitations of audit
- Retrospective.
- Questionnaires not always adequately completed, involved phoning patients, some not at home etc.
- Audit guidelines published after audited period.

Audit recommendations
- Produce patient information leaflets; on OP treatments (emphasis on compliance).
- To increase GP education on importance of treatment review; contact practice managers to increase awareness of guidelines.
- Re-audit in 1 year.

Conclusions
- A significant proportion of patients were commenced on appropriate secondary bone protection.
- Adherence rates were similar to literature, 30% stopped.
- Range of reasons for stopping. This could be improved by patient education leaflets with emphasis on compliance.

References