AUDIT ON THE USE OF A FRACTURE NECK OF FEMUR PATHWAY IN A DISTRICT GENERAL HOSPITAL

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BACKGROUND

To improve the national standard of care and outcomes for patients across all centres with a fractured neck of femur, the Best Practice Tariff was established in April 2010 to act as a financial incentive to individual Trusts (1). Compliance is monitored via the National Hip Fracture Database (NHFD) (2). Endorsed by the British Orthopaedic Association (3) and the British Geriatrics Society, one indicator is the use of an agreed assessment protocol (4). The Countess of Chester Hospital (COCH) has a pathway in place which follows the admission from initial A&E presentation until orthopaedic discharge. Anecdotal evidence considered the pathway documentation completion to be markedly variable so an audit was designed and implemented to make a formal assessment.

OBJECTIVES

The aim of the study was to audit the percentage completion of the existing pathway documentation at the COCH whereby establishing which areas of the pathway were not routinely completed to an acceptable level. Once key areas were identified, a multi-disciplinary team (MDT) met to design an updated protocol (see Figure 1). This in turn was audited as a second cycle to ensure an improvement in services and attainment of the Best Practice Tariff uplift.

METHODS

A retrospective audit of 65 patients admitted with a fracture neck of femur between 1st December 2010 and 31st January 2011 was carried out. In the first cycle the author was responsible for data collection of 50 pathways and the findings were presented to the monthly MDT Hip Fracture Hospital meeting with areas of concern highlighted.

Taking the results into consideration, a new pathway was designed that focused on fast-tracking a patient to theatre to meet the target of less than 36 hours, and that also demonstrated a multi-disciplinary approach with a fracture prevention (falls) assessment. The re-audit was implemented between 1st August and 31st October 2011 where 86 patients were admitted using the new pathway.

RESULTS

During the first study period, 65 patients were admitted. Of these patients 54% met the target of a time to theatre < 36hrs; 15% breached the target as they required medical treatment pre-operatively; the remaining 31% breached despite not requiring pre-operative medical intervention or investigation (see Figure 2). Of these 65 patients, 50 pathways were reviewed.

Completion of the pathway was highly variable in the first cycle with some components never completed. Average percentage completion was 45.9%. With the pathway incorporating an area for prescription of analgesia and fluids in addition to the existing in-patient drug chart, it was felt that this would permit unsafe prescribing by duplication. Areas which were rarely completed had the information usually entered elsewhere on the electronic system, creating unnecessary documentation.

Based on the first cycle results the pathway was redesigned so that the expectations of care to be delivered in A&E was separated from that of the Orthopaedic team to avoid duplication of work and prevent possible delays. Prompts were included to maximise medical optimisation of a patient prior to surgery and included how to safely manage the reversal of warfarin when indicated. The area for prescription of fluids and analgesia was removed and instead instructions on recommended fluid regimes, antibiotic and venous thromboembolic prophylaxis was included.

The pathway was designed to act as tick-box list to prompt essential investigations and management to streamline care. Bone health assessment was also incorporated as recommended by the Best Practice Guidance. An increase in the sum of the tariff attainable coincided with the launch of the new pathway. theatre capacity remained the same during the two study periods. No other alteration was made between cycles.

Cycle 2 was associated with a statistically significant improvement in the times to theatre of < 36hrs from 54% (cycle 1; n=65) to 72% (cycle 2; n=86) (Fisher’s exact test: p=0.0275). The percentage attaining the financial uplift rose from 33.9% (cycle 1; n=65) to 61.6% (cycle 2; n=86). Due to limited availability of case notes only 34 pathways were examined, but this showed that mean percentage completion improved from 45.9% (n=50) to 58.0% (n=34).

CONCLUSIONS

The authors conclude that a focused pathway may reduce delays to theatre by prompting good coordination between emergency and orthopaedic department, prompting early geriatrician and anaesthetic input and ‘medically optimising’ the patient in the short pre-operative period. An improvement in services was demonstrated by meeting all of the Best Practice requirements by only changing the admission pathway. A further re-audit is scheduled to ensure the higher standards are maintained and to see if further improvements may be made to the pathway.

REFERENCES:
(2) National Hip Fracture Database: http://www.mft.co.uk
(4) National Institute for Clinical Excellence: http://publications.nice.org.uk/hpfracture-cp74

Figure 1: The new pathway designed following audit cycle 1

Figure 2: Times to theatre cycle 1 (n=65) versus cycle 2 (n=86)

Figure 3: Key improvements following implementation of new pathway

Table 1: Time to theatre < 36 hrs

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<thead>
<tr>
<th>Cycle</th>
<th>Patients</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Cycle 1</td>
<td>n = 65</td>
<td>54%</td>
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<tr>
<td>Cycle 2</td>
<td>n = 86</td>
<td>72%</td>
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Table 2: Completion of pathway

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Table 3: Attaining financial uplift for achieving all Best Practice Targets

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