**Title**

Tranexamic Acid in Hip Fracture Surgery – National Audit of Practice

**Background/Rationale**

Hip fractures are associated with significant morbidity and mortality. A number of strategies have been introduced to try and improve outcomes (National Hip Fracture Database, Best Practice Tariff, local protocols and procedures).

Anaemia is linked with mortality in patients following a hip fracture. A low haemoglobin is one of the variables used in calculating the Nottingham Hip Fracture Score, a score used to predict mortality following a hip fracture.

Transfusion of blood products, however, is associated not only with cost but also morbidity and therefore should not be undertaken lightly.

Alternative methods of reducing blood loss and as a result anaemia and the need for transfusion, is therefore desirable.

Tranexamic acid has been shown to reduce blood loss and reduce the need for transfusions, without an increase in complications, in several independent studies investigating its use in patients undergoing surgery for hip fractures. Two systematic reviews of these studies have shown similar conclusions.

Tranexamic acid is cheap and widely available. It is now commonly used in orthopaedic procedures, such as joint replacement surgery, and there are many publications reporting its effectiveness in reducing blood loss.

Despite this evidence, anecdotally, the use of Tranexamic acid has not been widely introduced into the management of patients undergoing surgery for hip fractures. A local audit in Stepping Hill Hospital, Stockport, showed only around 25% of patients undergoing surgery for a hip fracture received peri-operative Tranexamic acid. We wish to quantify the use of Tranexamic acid in patients undergoing surgery for hip fractures nationally.

**Aims / Objectives**

Aim:

To assess if patients undergoing surgery for a neck of femur fracture are receiving peri-operative Tranexamic acid.

Objective:

To improve the administration of peri-operative tranexamic acid in patients undergoing surgery for a neck of femur fracture (if required) and to improve outcomes (if possible).

**Source of Standards**

The standards are based on the results of published literature.

The references for the most relevant literature are listed below:

Farrow LS, Smith TO, Ashcroft GP, Myint PK. A systematic review of tranexamic acid in hip fracture surgery. Br J Clin Pharmacol. 2016 Dec;82(6):1458–70.

Baskaran D, Rahman S, Salmasi Y, Froghi S, Berber O, George M. Effect of tranexamic acid use on blood loss and thromboembolic risk in hip fracture surgery: systematic review and meta-analysis. HIP. 2017 Oct 4;:0–0.

**Standards**

|  |  |  |
| --- | --- | --- |
| Number | Standard | Target |
| 1 | All patients undergoing surgery for a fractured neck of femur should receive peri-operative tranexamic acid unless contraindicated | 100% |

**Methodology**

**Patient identification**

All patients who have a hip fracture, which will be managed with surgery during the audit period, will be identified from handover documents and/or theatre lists and be included in this audit.

**Data collection**

Data will be collected using a standardised proforma (see separate document). This proforma will be retained, by the auditing clinician, until the associated patient is at least 28 days post-surgery at which point outcome information relating to the post-operative period will be collected. Anonymised data will then be submitted for central analysis using an online form.

**Time Period**

The audit period will be from 4th March – 18th March 2019.

**Disseminating Results**

The results will be presented at the local audit meeting of each department involved in the audit. Results may also be presented at local and national academic meetings or submitted for journal publication if appropriate.