Optimising the Haemostasis of Patients with Intracranial Haemorrhage

Authors: Dr Arya Jooyand (Presenting Author)
Dr Sarah Moin, Dr H Digby, Dr A Singh, Dr G Sahota.
Supervising consultant Dr Kirstin Carswell
East Surrey Hospital- Surrey And Sussex Trust

Introduction

- **Intracranial haemorrhage (ICH) is associated with significant morbidity and mortality, particularly in frail older patients.**
- **Anticoagulant therapy increases risk of ICH, haemorrhage progression and related complications.**
- **Early optimisation of haemostasis including timely use of reversal agents is critical in-patient management.**
- **An evaluation of local management practices can highlight opportunities to optimise clinical care and improve patient outcomes.**

Aim: To optimise the haemostasis of patients admitted with intracranial haemorrhage (ICH) to a DGH.

Methods:

- **Design: Retrospective quality improvement project**
- **Population: Patients admitted with ICH under the general surgery team,**
- **Data Collection period: 6-month period (01/01/2025 – 01/07/2025)**

Variables Analysed: Demographics and Clinical Frailty Scores (CFS), Anticoagulation Status, Neurosurgery Discussions, Haemostatic, Interventions, Length of stay (LOS), Mortality .
Data is presented as median (range) unless stated otherwise. Statistical analysis was performed on GraphPad Prism.

Results:

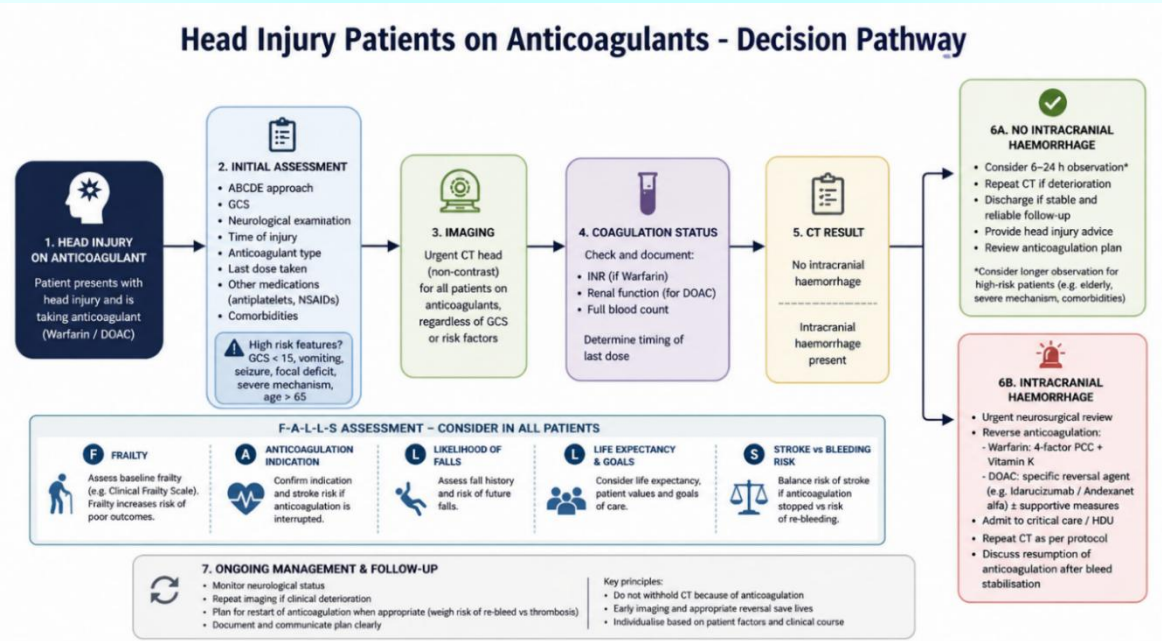
- 62 patients were included, aged 84 (65-99) years. Thirty-three patients (53%) had a clinical frailty score (CFS) >=4.

- **Avg LOS was 8 (1-39) days. 99% of patients (n=61) were discussed with the neurosurgery centre, sixteen required re-discussion, and three were transferred. No patients required ICU admission. 16 DNACPRs, 12/16 escalation plans.**
- **75% DC home, 5 to IPR, 2 neuro rehab, 5 deaths. 71% had PT/OT input,**

Anticoagulation:
- Twenty-eight patients (46%) were anticoagulated, predominantly on direct oral anticoagulants (n=24, 85.7%): twenty-three (82%) had AF, two had VTE, two had metallic valves.

- **Eight patients were discussed with haem.**
- **20 had Beriplex for reversal, 7 had Vit K. 5 had TXA.**

Morbidity/mortality: Of the 5 who died, four had been on anticoagulation, which was reversed. The deceased patients were 84 (77-95) years old with a CFS of 4.
Five patients had haemorrhagic progression on repeat CT, all had been on anticoagulants.



Conclusions

- **Frail elderly patients** with **complex co-morbidities** including those **on anticoagulation** experienced **longer hospital admissions** and **higher mortality rates**
- **Documentation of escalation plans and involvement of Therapists was variable, indicating scope for improved standardisation**
- **Decisions regarding haemostasis in this cohort was inconsistent, highlighting an area where we may be able to improve care.**
- Implementation of a structured **'Head Injury Pathway'** may optimise patient care