

# THE YIELD OF CT HEAD SCANS FOR INTRACRANIAL HAEMORRHAGE IN ANTICOAGULATED PATIENTS PRESENTING WITH HEAD INJURY

Omnya Ahmed, Ishrat Rahim, Milind Girish, Barbie Giri, Honida Mansour, Rand Mikael, My Nhi Dang, Rasha Al-Ebbini, Gautham Palanisamy, Jozef Jarosz

## AIM

Updated 2023 NICE guideline introduces more selective imaging, advising clinicians to *consider* CT imaging in these patients rather than mandating it as before.

What is the real-world diagnostic yield of CT head scans in this population?

## METHODS

Single centre retrospective cohort study. NHS trust comprising tertiary trauma centre and affiliated smaller district general hospital. 1<sup>st</sup> Jan 2025 – 31<sup>st</sup> March 2025.

Automated search of electronic patient record system to identify all CT head scans whose clinical indication contained anticoagulation-related keywords (DOAC, warfarin etc), followed by manual screening of clinical indication then full patient electronic records. Two data sets generated:

1. 472 patients identified through clinical indication manual screening, used for demographic analysis and assessment of NICE guideline eligibility.
2. Refined cohort of 450 after excluding cases with no relevant anticoagulant use or trauma on manual review of patient records, used to calculate diagnostic yield

Subgroup analysis of patients whose only indication for scanning was the presence of anticoagulation (i.e. no other NICE criteria met) was used to calculate second yield figure.

## RESULTS

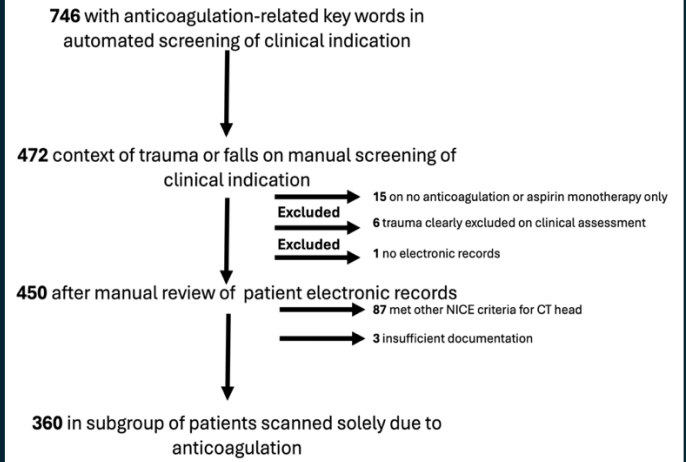
Mean age 81.5 (SD11.9), 27% cognitive impairment, 90% ED referrals (52% admitted) & 10% inpatient, 71% on DOAC, 99.4% minor trauma.

73% NICE compliant

2.9% overall positive yield (n=13)

2.2% in complete asymptomatic (n=8)

## RESULTS



Of the 13 with intracranial haemorrhage:

- 11/13 evidence of trauma on examination
- 1 had surgery: ref for minor fall but BG of RTA weeks ago presenting with multiple NICE criteria since
- 2 died: 1 unrelated to trauma, 1 SDH not fit for surgery

## CONCLUSIONS

CT imaging in anticoagulated patients yields a low rate of ICH.

Anticoagulation appeared to act as a de facto trigger for scanning, even when head injury was clearly absent.

These patients rarely undergo neurosurgery due to frailty and comorbidities.

Could decision to withhold anticoagulation be made without imaging in frail patients not fit for surgery presenting with recurrent falls? Half these patients are also admitted for non-trauma reasons allowing for a period of observation.

Findings support a more selective approach to imaging these patients, now that the updated NICE guidance allows for clinical discretion.

With rising anticoagulant use in an ageing population, a move away from reflexive imaging and a more careful patient selection process is essential to ensure diagnostic value, support resource stewardship, and promote patient-centred care