Delirium prevalence in hospitalised inpatients across specialities: A review of a single hospital site.

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Importance

- Delirium affects up to 15% of hospitalised inpatients[1], prevalence rates vary by speciality[2,3]. Outcomes for patients with delirium remain poor[4]. Improving the care for patients having a full understanding of the burden of delirium within different inpatient ward settings is an important first step.

Objective

- To identify the prevalence of delirium on admission at a single hospital site broken down by speciality over a two-year period.

Methods

- A retrospective analysis of all non-elective admission 4 A's Test (4AT) scores using Electronic Patient Records (EPR) data was undertaken in a 600-bed urban teaching hospital in Northwest England.
- All non-elective admissions in patients aged 70 years and older with a length of stay greater than 24 hours were screened over two years between 2017 and 2019.
- Data was collected on 4AT scores, admission location based on admission speciality, and prevalence of delirium as defined by positive 4AT scores as a percentage of total admissions.
- Some specialities had very few 4ATs completed creating artificially elevated prevalence levels. Therefore, any speciality that received less than 50 admissions over a two-year period was excluded from the analysis. This figure was chosen based on previous work[5] and as it represented less than 0.5% of the number of 4AT completed in the largest speciality screened.

Results

- Out of 33,275 non-elective patient spells, 16,059 4AT scores were completed during the admission episode.
- 4491 admissions screened positive for delirium, with a 4AT ≥ 4, representing a total prevalence of 14%.
- Breaking down by specialty, Acute Medicine had the highest prevalence of delirium at 17% and Neurosurgery had the highest prevalence amongst surgical specialities at 14%. Cardiology had the lowest prevalence of delirium at 3%.

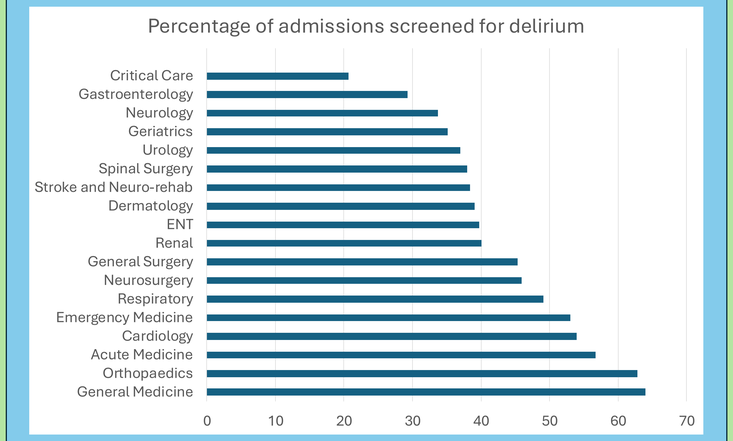

Fig 1: Percentage of admissions screened for delirium using 4ATs of non-elective admissions per specialty over the study period.

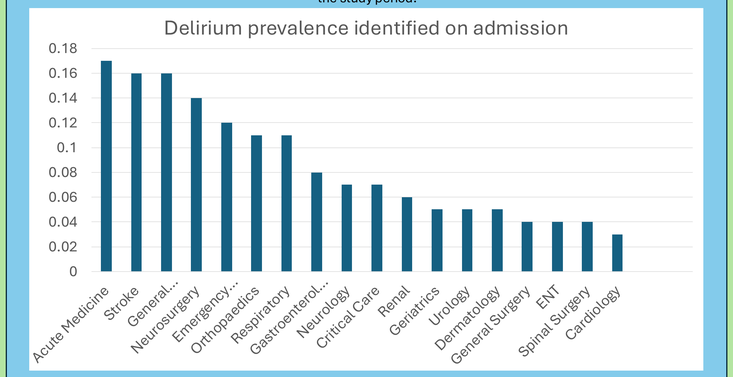

Fig 1: Prevalence of Delirium of non-elective admissions per specialty over the study period.

Delirium is common and affects up to 20% of hospital admissions

Delirium is preventable and treatable. Early recognition is key

Delirium can cause long-term harms, including cognitive impairment

Key Points

- **Delirium is prevalent most inpatient specialties.**
- **Screening rates using validated assessments for delirium are low.**
- **A targeted approach to both increase screening rates and to improve care in high prevalence areas might be a targeted way to improve care overall.**

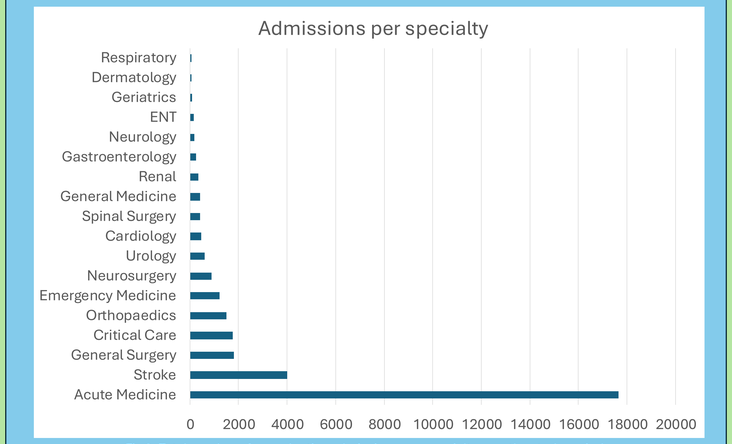

Fig 3: Total number of non-elective admissions per specialty over the study period.

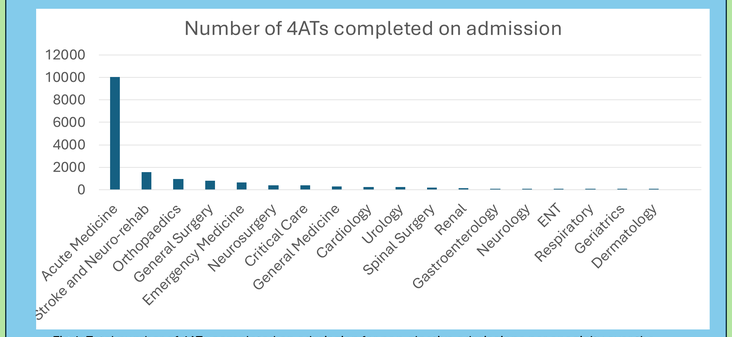

Fig 4: Total number of 4ATs completed on admission for non-elective admissions per specialty over the study period.

Conclusions

- Out of 40 specialities studied, 28 had data on delirium screening however screening rates and prevalence varied significantly between specialities.
- Whilst overall prevalence was 14% across the site, given the low overall screening rate amongst specialities, it is likely that this represented a significant underreporting of delirium rates.
- This study highlights the need for increased uptake of delirium screening across all specialities.

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