Routine delirium assessment for patients with hip fracture – using local data to inform the redesign of a national audit

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Introduction

The cognitive assessment tool for patients presenting with hip fracture, as mandated by the National Hip Fracture Database (NHFD), changed in 2024.

2007
Abbreviated Mental Test Score (AMTS) on admission

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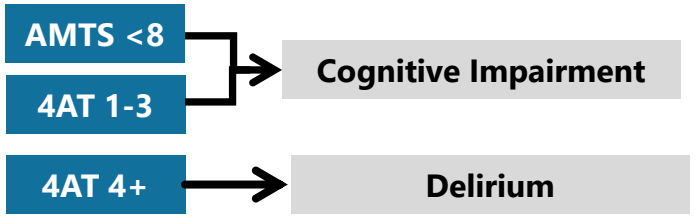
2024
4A Test (4AT) on admission and post-op

Aim: to validate use of 4AT in place of AMTS for routine screening in this patient group.

Methods

The clerking house officer completed both AMTS and 4AT for 100 patients admitted consecutively under the 'femur fracture pathway' to University Hospital Wales between August-October 2023.



Results

	AMT 8+	AMT <8
4AT = 0	67	1
4AT = 1-3	7	10
4AT = 4+	1	14

- 100 patients were included, 65 female and 35 male.

4AT vs AMTS

- 4AT was normal (0) in 67/75 patients with normal AMTS (8+).
- 4AT was abnormal (1+) in 24/25 with abnormal AMTS (<8).
- 4AT identified possible delirium in 15 patients (15%).

Four questions from AMTS form the 'AMT-4' sub-domain of 4AT

- AMT-4 was normal (0) in 73/75 patients with a normal AMTS.
- AMT-4 was abnormal (1+) in 22/25 with an abnormal AMTS.
- This means the AMT-4 has a sensitivity of 0.88, and specificity 0.97 in predicting AMTS results.

Conclusion

1) The 4AT highlights aspects of cognition (such as inattention) missed by the AMTS whilst being a quick, user-friendly tool.
2) The AMT-4 subdomain of 4AT is encouragingly consistent with the results of the full AMTS.
3) Our findings have been integrated into our local clerking protocols
4) Out findings have been used by the NHFD to support a national roll-out of 4AT delirium screening.