The 4 ‘A’s test for detecting delirium in acute medical patients: a diagnostic accuracy study

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Plain English summary

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Plain English summary

Delirium is the sudden onset of confusion that can happen when someone is unwell. It is common in older people who go into hospital, and it is upsetting for both the patients and their families. Delirium is important to diagnose, because people with delirium do less well than those without, and it is often treatable.

The ideal way to diagnose delirium is with a full assessment by a specialist, but this is expensive and time-consuming. We therefore developed a short test called the 4 ‘A’s Test (4AT). The four ‘A’s stand for Arousal, Attention, Abbreviated Mental Test – 4, and Acute change.

First, we interviewed hospital staff about delirium and the 4AT. We found that the 4AT was already widely used and that people found it easy to use.

We then tested how the 4AT performed in practice. A total of 785 recently admitted patients aged ≥ 70 years participated, of whom around one in eight had delirium. A researcher carried out the full standard delirium assessment on each patient and then a different researcher carried out the 4AT.

A normal 4AT score reliably ruled out delirium. An abnormal score was also reasonably effective in detecting delirium, but staff still needed to follow up such patients with a full assessment. People with higher 4AT scores stayed in hospital longer and were more likely to die, and their treatment was more expensive.

We conclude that the 4AT is a useful test to rule out delirium or to see if more detailed testing is required. It could help treat patients correctly and quickly. This would save money and improve outcomes.
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