Improving the identification of DELIRIUM on the Acute Medical Unit

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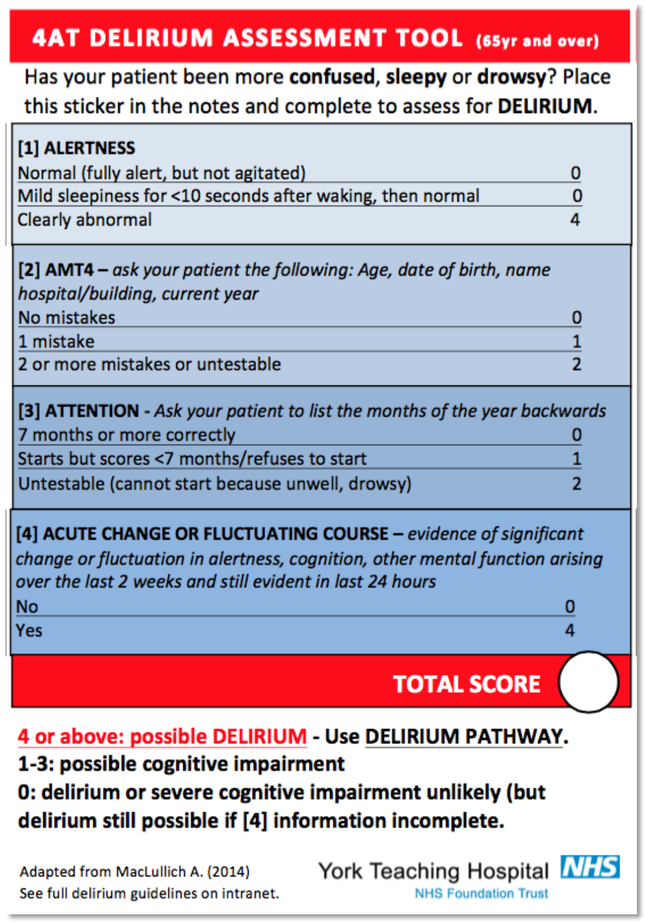
Overview

Delirium affects up to 30% of older patients admitted to hospital. Patients who develop delirium have higher mortality, institutionalisation, and complication rates as well as longer hospital stays[1], therefore representing a significant safety issue. Delirium is often not recognised and managed poorly. Studies suggest that delirium may be preventable in up to a third of cases[2].

A **baseline audit** on our acute medical (admissions) unit showed that none of the newly confused elderly patients were having a validated delirium assessment completed such as 4AT, CAM, or SQUID. The initial audit demonstrated that between 20-30% of elderly admissions were newly confused but that a diagnosis of delirium was often not being made, or made a number of days after admission.

Nurses recognised 65% of the newly confused patients, which was significantly higher than those diagnosed by doctors hence they were identified as the best group of professionals to assess these patients.



4AT DELIRIUM ASSESSMENT TOOL (65yr and over)

Has your patient been more **confused**, **sleepy** or **drowsy**? Place this sticker in the notes and complete to assess for **DELIRIUM**.

[1] ALERTNESS

Normal (fully alert, but not agitated)	0
Mild sleepiness for <10 seconds after waking, then normal	0
Clearly abnormal	4

[2] AMT4 – *ask your patient the following: Age, date of birth, name hospital/building, current year*

No mistakes	0
1 mistake	1
2 or more mistakes or untestable	2

[3] ATTENTION - *Ask your patient to list the months of the year backwards*

7 months or more correctly	0
Starts but scores <7 months/refuses to start	1
Untestable (cannot start because unwell, drowsy)	2

[4] ACUTE CHANGE OR FLUCTUATING COURSE – *evidence of significant change or fluctuation in alertness, cognition, other mental function arising over the last 2 weeks and still evident in last 24 hours*

No	0
Yes	4

TOTAL SCORE

4 or above: possible DELIRIUM - Use DELIRIUM PATHWAY.
1-3: possible cognitive impairment
0: delirium or severe cognitive impairment unlikely (but delirium still possible if [4] information incomplete.

Adapted from MacLullich A. (2014)
See full delirium guidelines on intranet.

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Figure 1. 4AT Assessment Sticker

1) AIM

100% of elderly patients, with evidence of new or worsening confusion, admitted to the Acute Medical Unit to have a 4AT assessment.

2) MEASURES

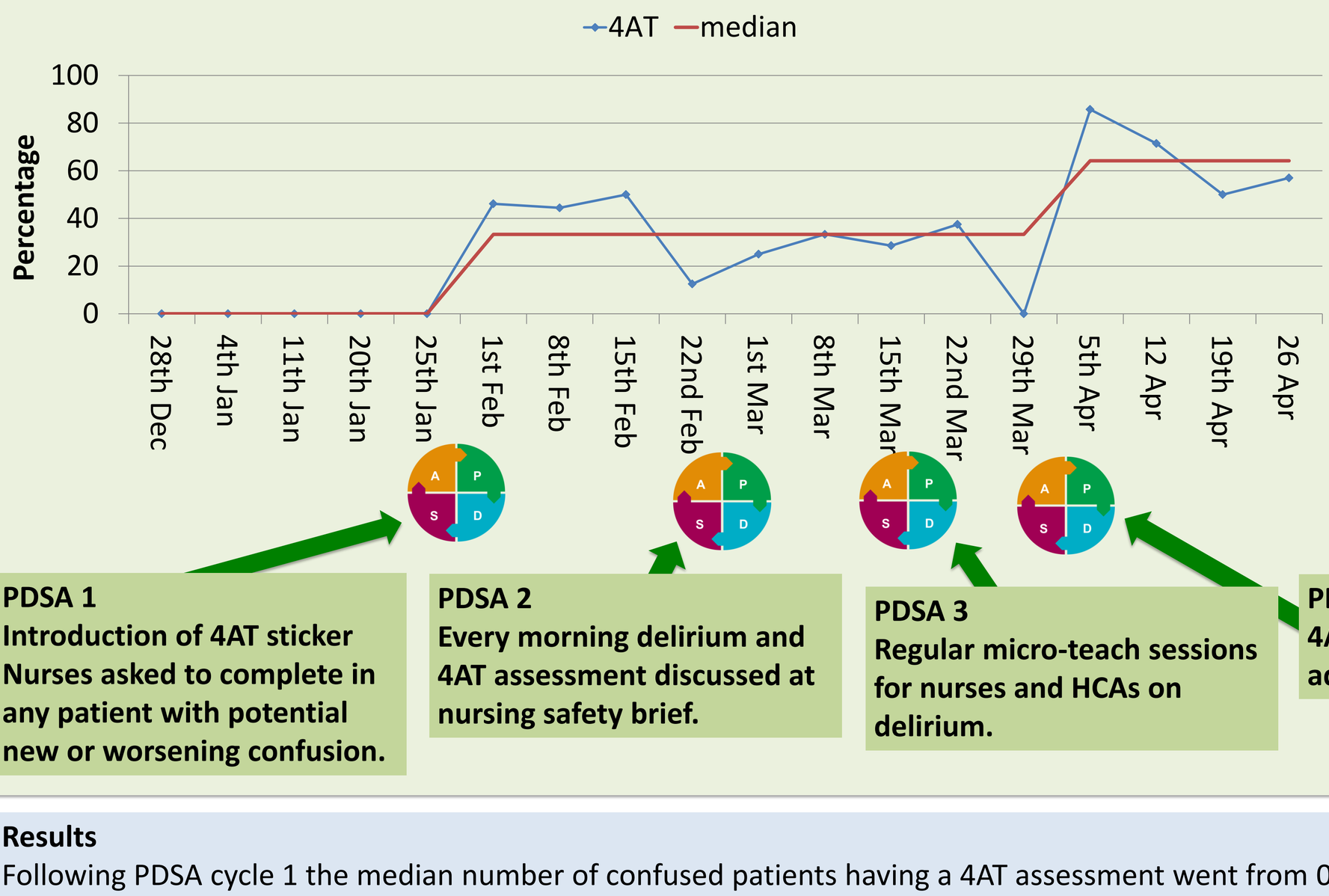
Percentage of patients with evidence of new or worsening confusion who have a 4AT assessment completed.

3) CHANGE

Nurses to put 4AT Delirium Assessment Sticker (figure 1) into the notes of any patient with suspected new confusion and complete. Patients with a positive 4AT will have the Delirium Pathway initiated.

PLAN DO STUDY ACT CYCLES and RESULTS

Percentage of newly confused patients receiving 4AT Assessment



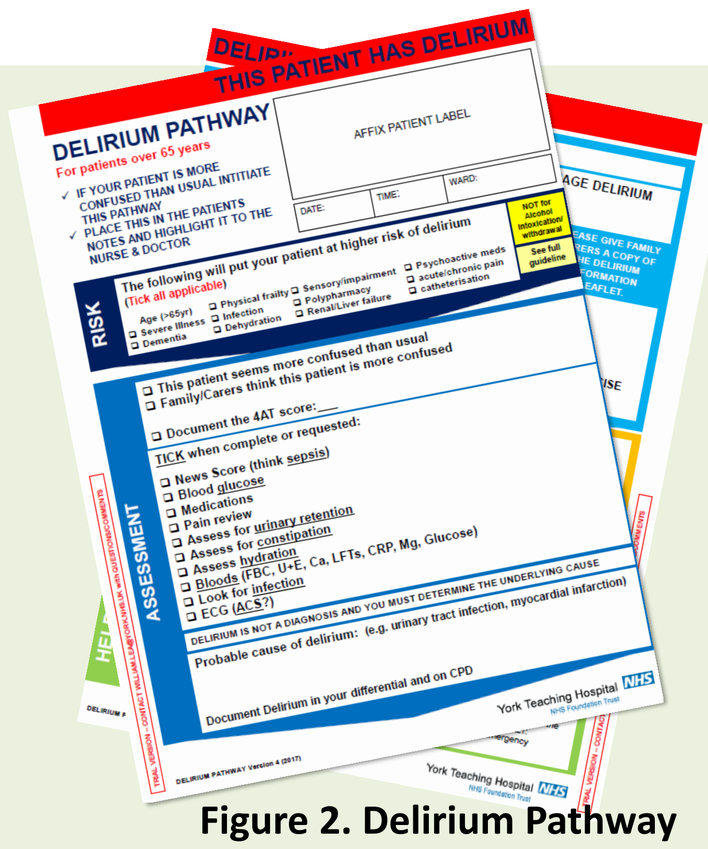


Figure 2. Delirium Pathway

PDSA 1
Introduction of 4AT sticker Nurses asked to complete in any patient with potential new or worsening confusion.

PDSA 2
Every morning delirium and 4AT assessment discussed at nursing safety brief.

PDSA 3
Regular micro-teach sessions for nurses and HCAs on delirium.

PDSA 4
4AT sticker placed into all admissions/clerking booklets.

Results

Following PDSA cycle 1 the median number of confused patients having a 4AT assessment went from 0 to 32%. With eight points above the median line this shows a shift in the data from which we can conclude that our interventions have caused a significant change in our measure. However given this was still considerably lower than our target measure of 100% we continued to implement ongoing PDSA cycles to educate nursing staff on the ward and raise awareness further. Nursing staff raised some concerns such as difficulty in assessing some patients and knowing when to use the 4AT. We tried to address these issues through safety briefs and micro-teach sessions. We then decided to place the 4AT sticker in all clerking booklets to encourage completion and this resulted in a further rise in the median to 64%. Nursing staff were much more likely to remember to complete it but there were still some issues with incomplete stickers or no action following on from a positive 4AT. We also produced a delirium pathway to guide medical staff in which investigations should be carried out and initial management of delirium. Looking into the future we plan to have clerking proforma's produced with the 4AT printed in, we also are hoping to see an increase in number of delirium cases diagnosed via coding on the computer system and will be monitoring this as the project continues. Education is still a key aspect of this project and will continue to take place.

Finally we feel a significant change in 4AT assessment has taken place through our interventions and we continue to work closely with the nursing staff who have become key players in assessing delirium and implementing timely management.

References
1 *Levkoff S, Cleary P, Liptzin B, Evans DA. Epidemiology of delirium: an overview of research issues and findings. Int Psychogeriatr 1991;3:149-67*
2 *Royal College of Physicians (2006) The Prevention, diagnosis and management of delirium in older people. RCP, London*
3 Alasdair MacLullich. (2014). *4AT Rapid Assessment test for Delirium.* Available: http://www.the4at.com/. Last accessed 11 October 2016.

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