

Improving Assessment and Management of Delirium in Hospice Patients



Dr Isabel Brewster FY2, Dr Lucy Anson FY2, Dr Rachel Clingan ST6 in Palliative Medicine, Dr Aruni Wijeratne Consultant in Palliative Medicine. **Contact:** aruniwijeratne@pah.org.uk

Background

Delirium is common in the palliative care population and increases morbidity and mortality. An estimated one third of adults have delirium on admission to palliative care settings¹. Only 13% of UK palliative care teams use a recognised tool to assess for delirium². The 4AT test is recommended by Scottish Intercollegiate Guidelines Network (SIGN) as a useful screening tool for delirium in hospice patients³. It is used on admission to Princess Alice Hospice as part of the initial medical admission clerking, and entered in the electronic patient record (EMIS). Early identification of delirium is important for treatment and potential reversal to improve patient outcomes.

Project Stage 1: Audit

Aims

- To raise awareness about the prevalence of delirium in hospice settings and the importance of recognising and managing this effectively
- To audit completion of 4AT as part of the medical admission clerking on the Inpatient Unit (IPU)
- To evaluate identification of causative factors and actions taken to manage these, if 4AT score indicates a possibility of delirium
- To improve documentation of actions if 4AT score significant

Methods

- 25 clinical records reviewed for patients admitted to IPU backdated from 31 August 2023 with retrospective data collection

Results

- Good engagement and uptake of 4AT completion with a possible delirium identified for over 1/3 of admissions, in line with literature evidence.
- However, a cause was not explicitly stated and there was no evidence of specific action taken to manage delirium.

What is the 4AT?

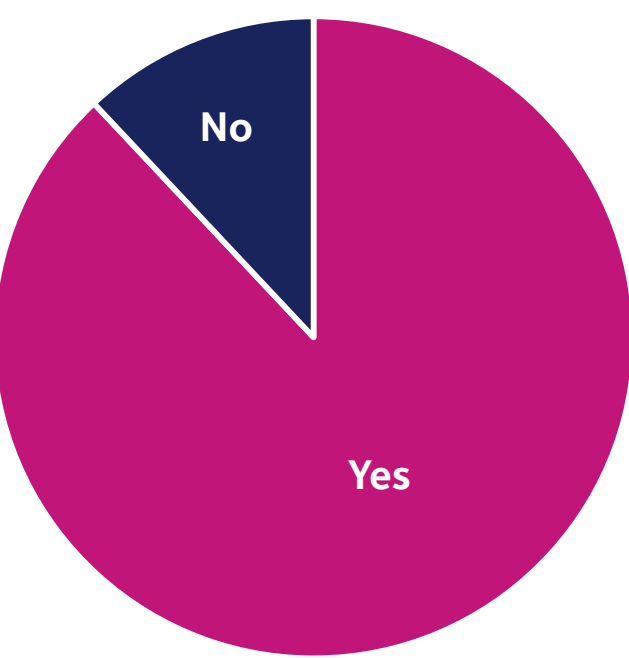
4AT is an assessment tool to screen for delirium and cognitive impairment (CI), comprised of 4 components:

- Alertness
- Abbreviated Mental Test 4 (AMT4)
- Attention
- Acute change over past 2 weeks

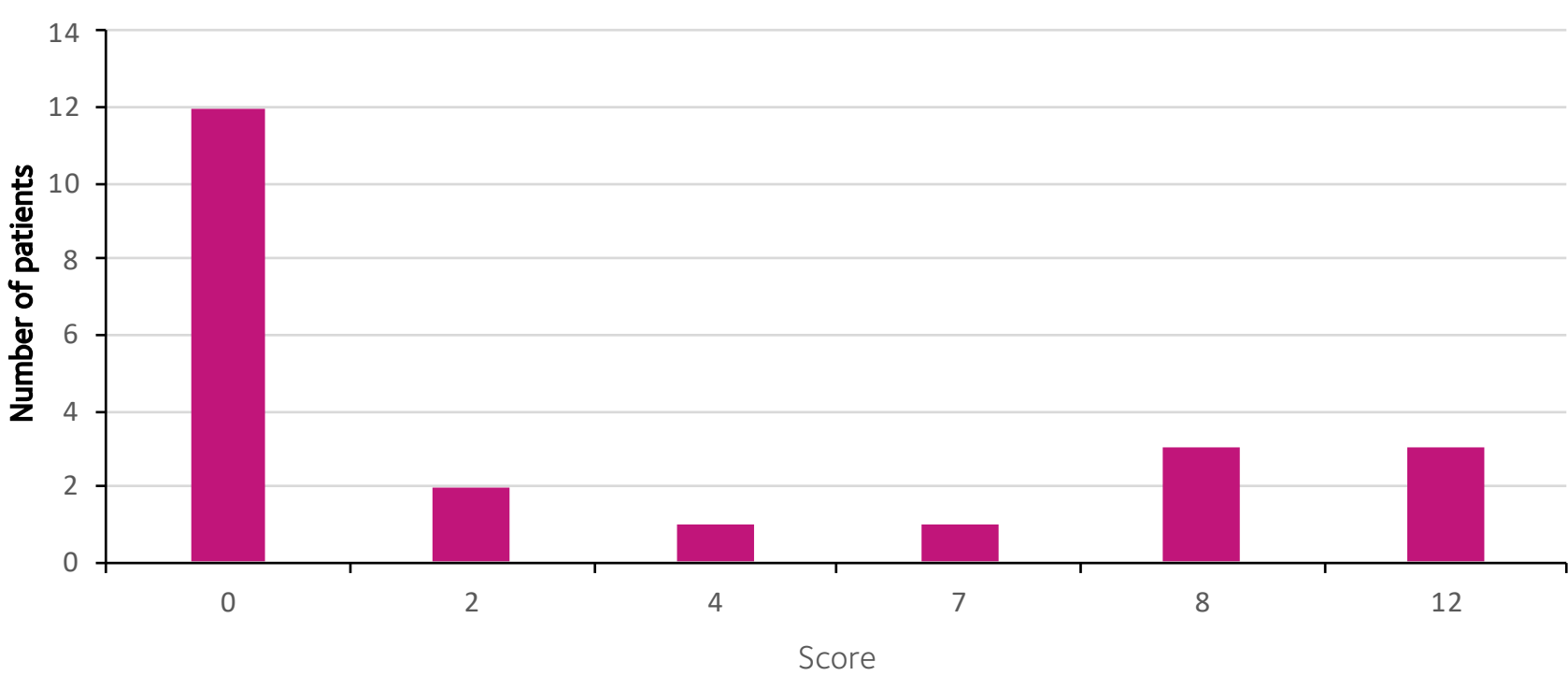
4AT gives a total score out of 12 indicating likelihood of delirium/CI:

- 4 or above: possible delirium +/- CI
- 1-3: possible CI
- 0: unlikely

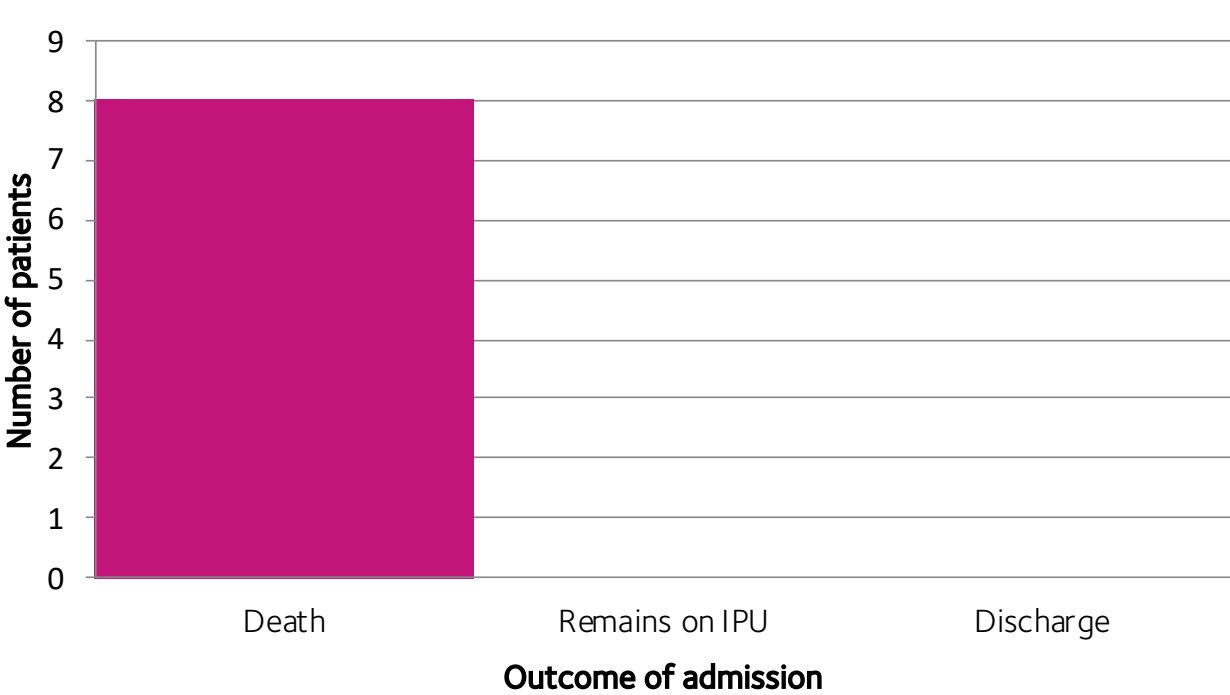
Was a 4AT assessment completed?



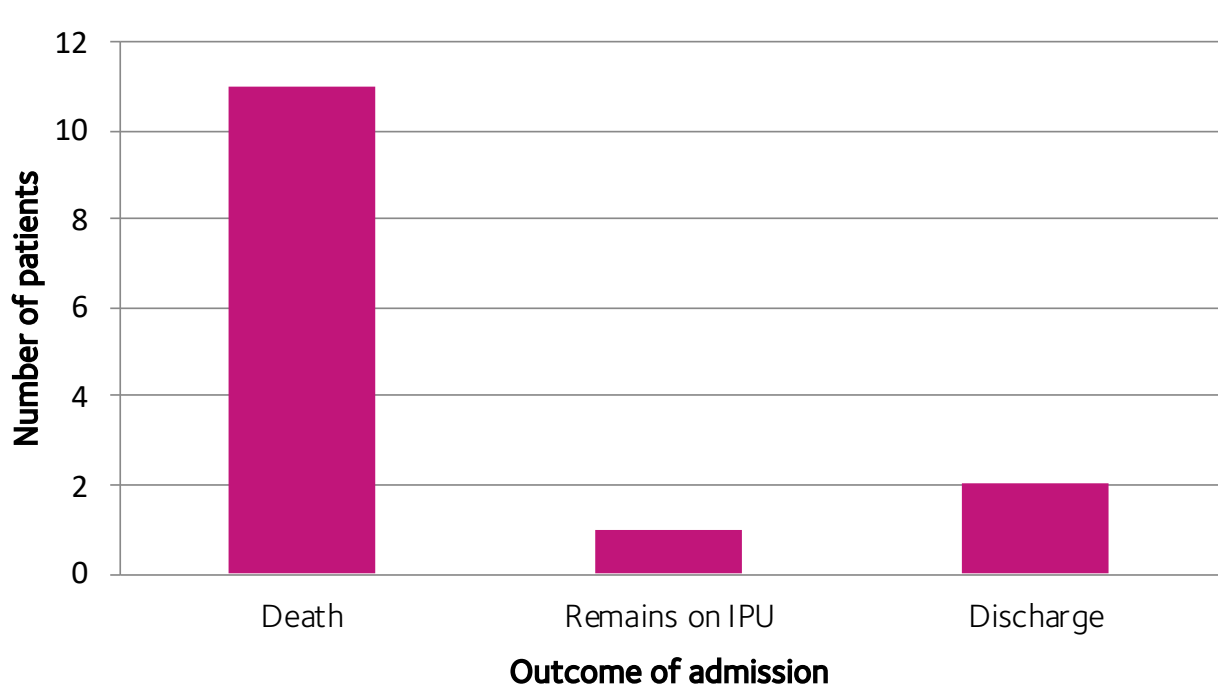
Scores of completed 4AT Assessments



Outcome for patients with 4AT score 4 and above



Outcome for patients with 4AT score < 4



Project Stage 2: Quality Improvement Project - Plan, Do, Study, Act (PDSA) Methodology

Delirium Clinical Guide

Common Causes

D	Drugs (sedatives, opiates, antidepressants, anticholinergics, polypharmacy)
E	Electrolyte imbalance/Endocrine/Environment change (Dehydration, hypo/hyper glycaemia, hypercalcaemia, renal/liver failure, vitamin deficiency (B12, thiamine, folate) Thyroid, Temperature, Room change)
L	Lack of Drugs (Alcohol, Nicotine, other, uncontrolled pain)
I	Infection/Intercurrent Illness
R	Reduced Sensory Input (vision/hearing loss)
I	Intracranial (Stroke, Subdural, Brain metastasis, Post Ictal)
U	Urinary retention/Faecal Impaction
M	Myocardial/Pulmonary (MI, Angina, Pulmonary embolism, Hypoxia, Hypotension, Anaemia)

Investigations to consider

Check Observations	(Temp, Pulse, RR, Blood glucose)
Full Examination	(Chest, Abdo, Skin, CNS, +/- PR, Bladder Scan)
Signs of Withdrawal	from drugs, alcohol, nicotine
Evidence of Pain	
Urine Dip	+/- MSU/CSU
Sputum Culture	
Review Medications	
Bloods	- FBC, U&Es, LFTs, Ca, Alb, Glucose, CRP, Consider TFT & B12/Folate
Consider Hospital Ix	ECG, CXR, CT Head

Management

Regular observations	
Treat any underlying cause	
Stop or reduce contributing drugs	
Good sensory environments	(Glasses/hearing aids, well lit room during day, reduce noisy environments, low level light at night)
Educate and Support Family	
Regular Orientation	(Clocks/calendars, visitors, familiar objects/photos)
Promote Mobility	Where safe to do so
Staff Continuity	When possible
Reduce need for wandering	
Restore sleep pattern	- use non-pharmacological means where possible
Pharmacological management	only when necessary; Haloperidol (not if PD or Lewy Body Dementia) +/- Lorazepam lowest dose for shortest time
Is DOLS needed?	

PDSA Cycle 1

Educate medical team
Make changes to 4AT template to make it more user-friendly

Teaching session held for medical team
EMIS template changes:
• New free-text boxes
• Embed delirium clinical guide
• New boxes added to document "assessment of delirium causes", "action plan" & "need for review".
Obtained feedback.

Anonymous questionnaire sent to medical team to evaluate suggested changes. 7 respondents.
• 85% report old tool is user-friendly
• 71% report old tool doesn't allow them to document everything
• 14% report feeling "very confident" in actioning a significant score

Good understanding already of importance of delirium screening.
Need further feedback about EMIS tool going forward.

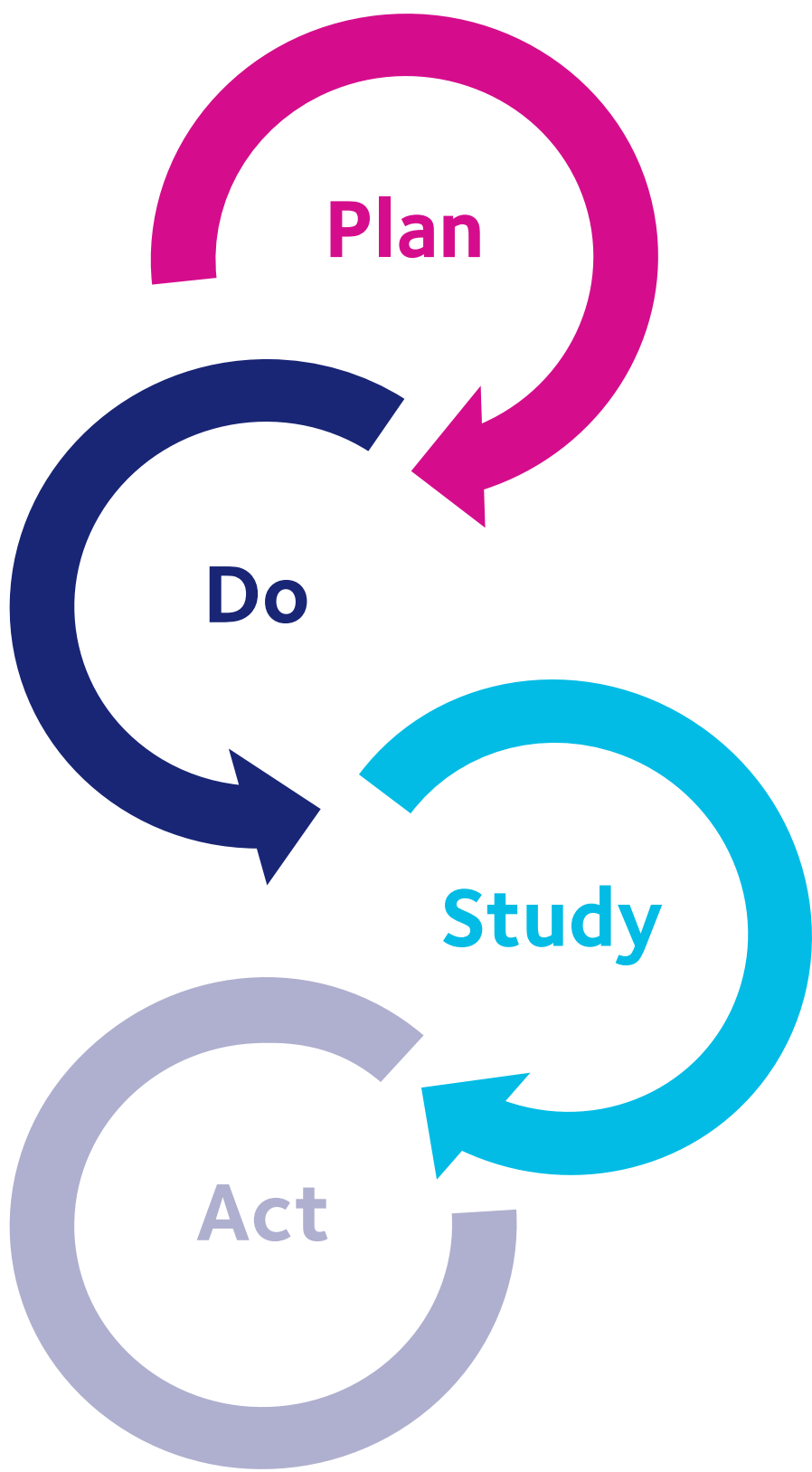
PDSA Cycle 2

Make further adjustments to EMIS 4AT tool based on feedback

EMIS template changes
• Delete "assessment of delirium causes" & "need for review" boxes
• Make "action plan" box mandatory
Repeated questionnaire

4 respondents to anonymous questionnaire
• 100% report new tool is user-friendly
• 100% report now being able to document everything needed
• 75% report feeling "very confident" in actioning a significant 4AT score

Implement these changes in EMIS long-term



Conclusion

Our audit replicated the evidence that over a third of adults have delirium on admission to a hospice. Ensuring an evidence-based screening tool is embedded within the medical admission clerking is essential for identification. However, this alone is insufficient for optimal management and documentation of actions. We have shown that by including clinical guidelines and facilitating individualised documentation, the medical team's confidence acting on a significant 4AT score has increased, which will improve patient care and create meaningful change to patient outcomes.

References:
1. Watt, C.L., Momoli, F., Ansari, M.T., Sikora, L., Bush, S.H., Hosie, A., Kabir, M., Rosenberg, E., Kanji, S. and Lawlor, P.G. (2019). The incidence and prevalence of delirium across palliative care settings: A systematic review. *Palliative Medicine*, [online] 33(8), pp.865-877. doi:https://doi.org/10.1177/0269216319854944.
2. Pearson, M., Jackson, G., Jackson, C., Boland, J., Featherstone, I., Huang, C., Ogden, M., Sartain, K., Siddiqi, N., Twiddy, M. and Johnson, M. (2022). Improving the Detection, Assessment, Management and Prevention of Delirium in Hospices (the DAMPen-D study): protocol for a co-design and feasibility study of a flexible and scalable implementation strategy to deliver guideline-adherent delirium care. *BMJ Open*, 12(7), p.e060450. doi:https://doi.org/10.1136/bmjopen-2021-060450.
3. SIGN (2019). Risk reduction and management of delirium A national clinical guideline. [online] Available at: https://www.sign.ac.uk/media/1423/sign157.pdf.

