# Screening for Delirium: A survey of delirium screening practice in specialist palliative

# care units in the UK

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# ABTRACT

# **Objectives**

Delirium is common and distressing in palliative care settings. This survey aims to describe current practice regarding delirium identification in specialist palliative care units (SPCUs), such as inpatient hospices, in the UK.

## Methods

An 18-item anonymous online survey was distributed by Hospice UK to their network of clinical leads (n=223), and to their research mailing list (n=228). The survey was also sent to the chair of the Hospice UK executive clinical leads forum for direct dissemination to forum representatives (n=20). Clinical leads and forum representatives were asked to distribute the survey to healthcare staff in their SPCUs.

## Results

220 SPCU staff (48% nurses; 31% doctors; 10% healthcare assistants) completed the survey. Approximately half reported using clinical judgement alone to screen (97/204; 48%) and/or diagnose (124/220;56%) delirium. Over a third used an assessment tool to screen for delirium (78/204;38%). The majority (150/220;68%) reported screening in response to clinical symptoms, while few reported routine on-admission (11/220;5%) or daily-during admission (12/220;6%) screening. Most respondents had received some training on delirium (137/220; 62%). However, 130/220 (59%) said their SPCU did not have a training program for delirium screening and only 79/220 (36%) reported that their SPCU had delirium clinical guidelines. The main barriers to routine screening included: lack of delirium training, lack of guidelines and complexity of patient's conditions.

# Conclusion

There is variation in practice for delirium screening and diagnosis in SPCUs. Clinical guidelines for delirium, including consensus on which screening tools to use, are needed for this setting.

**Keywords**: Delirium, questionnaires, surveys, mass screening, diagnosis, palliative care, hospice

# **INTRODUCTION**

Delirium is a fluctuating, acute confusional state.[1] Patients in specialist palliative care units (SPCUs) are at increased risk of delirium.[2] Approximately one third of patients have delirium on admission and 58-88% in the weeks or days preceding death.[2]

Delirium is distressing for the patient, their family, friends and healthcare staff,[3] and reduces patients' ability to communicate.[4] Fluctuating symptoms need regular, systematic assessment of delirium,[5] which is rarely implemented. Sub-optimal identification and management persists.[6]

Delirium can be screened for and, if indicated, confirmed by diagnostic assessment. Screening tools are available, but most are untested in this setting, and no consensus exists for SPCUs.[7] Diagnostic assessments, such as a clinical interview, follow standardised criteria, for example the Diagnostic Statistical Manual of Mental Disorders, fifth edition (DSM-5).

Little is known about how delirium is identified in SPCUs, although a recent survey of UK palliative physicians reported that 59% never use a screening tool.[8] We aimed to gain insight into multi-disciplinary practice for identifying delirium in SPCUs, in the UK.

## **METHODS**

## **Design and sample**

We surveyed a convenience sample of SPCU healthcare staff and managers. Hospice UK, a national hospice charity, invited their network of clinical leads at registered SPCUs (n=223), to email the survey to their healthcare staff. Hospice UK also sent the survey directly to staff on their Research and Outcomes mailing list (n=228) and to the chair of the Hospice UK executive clinical leads forum for direct dissemination to forum representatives (n=20).

# Survey development

An online 18-item survey was designed to collect quantitative and qualitative data, managed on the software platform, Qualtrics. The survey was informed by current literature and researcher expertise and was pilot-tested with delirium and palliative care specialists, patients and family members.(The protocol and survey can be viewed:

https://www.york.ac.uk/healthsciences/research/mental-health/projects/delirium/delirium-palliativ e-care/).

## Procedure

The invitation email explained the purpose of the study and provided the survey URL (available 5<sup>th</sup> July-20<sup>th</sup> August 2019). Survey data were anonymous, and completion and submission was taken as implied consent; only fully completed surveys were used. Institutional ethics approval was obtained prior to data collection.

## Analysis

Data were exported from Qualtrics to Excel and the Statistical Package for the Social Sciences (IMB-SPSS Statistics 25) to prepare descriptive statistics. Free text was analysed using thematic analysis.

## RESULTS

220 SPCU staff (90% female; 31% doctors; 48% nurses; 10% healthcare assistants) submitted completed surveys. All health care regions in England were represented. Most responses were from England (88%) with some from Wales (6%), Scotland (3%) and Northern Ireland (2%). Although wide delivery of the survey was achieved, the number of potential respondents was unknown due to the distribution methods (supplementary table 1).

#### Screening for delirium

Just over two-thirds (150/220;68%) reported only screening in response to clinical symptoms of delirium. Few reported routine on-admission (11/220;5%) or daily-during-admission (12/220;6%) screening (table 1). Respondents reported doctors (n=167), nurses (n=122) and healthcare assistants (n=30) undertook screening in their SPCUs (supplementary table 2). The tools and methods used to screen varied. Most commonly (97/204, 48%), clinical judgement alone was used. A few, (20/204; 10%) used the 4'A's test (4AT),[9] and

13/204(6%) used the Confusion Assessment Method (CAM); mostly the short CAM.[10]. Overall, over a third (78/204;38%) reported using an assessment tool to screen for delirium, either on its own, mostly 4AT or CAM (50/204; 24.5%) or alongside clinical judgement (28/204; 13.7%). Thirty-one (15%) reported they did not screen (table 1). Some reported following hospice guidelines as the main reason for using a particular tool (n=74) (supplementary table 3).

# **Diagnosing delirium**

Just over half, 124/220(56%) used clinical judgement to diagnose delirium following a positive screen, but very few used a standard method (1% DSM-V; 1% ICD-10/ICD-11). Thirteen (6%) reported no further assessment was undertaken (table 1).

Table 1:			
Screening and diagnosing delirium survey responses n (%)			
<i>Q1: How often do you screen patients for delirium? n=220</i>	Never	19 (8.6)	
	On admission	11 (5)	
	Daily (or more than once a day)	12 (5.5)	
	Most days	4 (1.8)	
	Weekly	2 (0.9)	
	As required (when symptoms of delirium present)	150 (68.2)	
	Not applicable – I don't have a clinical role	16 (7.3)	
	Other (please specify)	6 (2.7)	
Q2: Which assessment tool(s) or methods, if any, do you use to screen for delirium? n=204*	Clinical Judgement (alone)	97 (47.5)	
	<ul><li>and 4AT</li><li>and CAM</li></ul>	- 15 (7.4) - 10 (4.9)	
	<ul><li>and AMT4</li><li>and DOS</li></ul>	- 2 (0.9) - 1 (0.5)	

	- total using an assessment tool alongside clinical judgement	- 28 (13.7)
	САМ	13 (6.4)
	4AT	20 (9.8)
	SQiD	1 (0.5)
	DOS	2 (1)
	Nu-DESC	0 (0)
	NEECHAM	0 (0)
	More than one tool used	5 (2.5)
	Other	9 (4.4)
	Total reporting using an assessment tool on its own	50 (25)
	Not applicable – I do not screen for delirium**	31 (15.2)
Q3: When a patient screens positive for delirium, is the delirium diagnosis confirmed with a further assessment? n=220	Clinical judgement	124 (56.4)
	DSM-V	1 (0.5)
	ICD-10	1 (0.5)
	Clinical judgement and DSM-V	2 (0.9)
	Clinical judgement and ICD-11	1 (0.5)
	Clinical judgement and basic observations	1 (0.5)
	Clinical judgement and Mental health nurse review	1 (0.5)
	Clinical Judgement and Medical team review	1 (0.5)
	Other tool	3 (1.4)
	Other	9 (4.1)
	Not applicable - do not screen for delirium**	51 (23.2)
	Not applicable – I do not have a clinical role**	12 (5.5)
	No further assessment**	13 (5.9)

\* Those who answered 'N/A – I don't have a clinical role' to the previous question, were not asked this question.

\*\* Exclusive answer – no other answer could be selected alongside. Other answers are 'select all that apply'.

#### Training and guidelines for delirium

Of the 220 respondents, 137/220(62%) had received some delirium training, 44/220(20%) reported their SPCU had a training programme about screening for delirium, and 79/220(36%) reported their SPCU had delirium guidelines (supplementary table 4).

# Barriers and facilitators to delirium screening

The main barriers to routine delirium screening identified were: clinical complexity (n=107); lack of training (n=89), and lack of guidance (n=76)(supplementary table 5). The complex presentations, and communication difficulties, of some patients with advanced illness, were perceived as barriers:

"...if someone has confusion in hospice it can be so many variables, disease progression and medication. Very difficult I think." (Pt 149, nurse)

"...many of our patients are not well enough to communicate on admission so it would not be possible to screen all patients" (Pt 203, doctor)

Staff identified burden of existing paperwork as a significant barrier,

"...Whatever the benefit of an individual tool it is the overwhelming nature of all information that must now be gathered and entered onto I.T systems that I believe is the main barrier."(Pt 147, doctor) An important facilitator was increased education and training about delirium, its identification, the use of screening tools and their benefits,

"How screening for this may make a conceivable difference" (Pt 40, doctor)

Use of a screening tool was seen as useful but needed to be:

- Quick and easy to use, "Simple tool that all could feel empowered to use" (Pt 15, doctor)
- Suitable for palliative care, (*"specific to palliative care and hospice settings*" (*Pt 78, doctor*)
- A valued and established part of the process of clinical care:
  "Seen as an important factor" (Pt 41, nurse)
  "Embedded in practice" (Pt 197, doctor)
  "Clear process for what to do post screening to make a difference." (Pt 15, doctor)

Clear delirium guidelines, appropriate for palliative care, were also felt to be needed.

"Specific guidelines to adhere to by all levels of staff involved in patient care (Pt 59, nurse)".

"Some clear guidance supported by Hospice UK or other research body" (Pt 195, nurse)

# DISCUSSION

This survey provides insight into delirium screening practice by SPCU staff, in the UK. Most used clinical judgement in response to clinical signs and symptoms to screen for delirium. A minority (38%) used a screening tool, and even fewer screened routinely. Few diagnosed delirium against standard clinical criteria. A lack of training and use of clinical delirium guidelines was apparent, consistent with results of the UK palliative care physicians

survey[8]; practice is similar across disciplines, although healthcare assistants reported screening the least, reporting they had no role in this aspect of clinical care.

The most striking finding is that most clinicians only screened in response to overt clinical suspicion. Clinical judgement alone misses over half (61%) of delirium cases.[11] Failing to detect delirium until symptoms are clearly apparent may miss opportunities to reverse causes in those with a narrow window of opportunity, or to manage the delirium without recourse to sedation.[6] Dependence on clinical expertise also depends on staff experience, an issue with variable clinical training and use of guidelines. It is important to note that the survey assumed an understanding of 'screening'. Misinterpretation of this term could have affected how staff answered the questions, potentially misinterpreting screening for diagnosis.

The low use of guidelines, or clinical training, may be influenced by the stated exclusion of end-of-life and palliative care in the National Institute for Clinical Excellence guideline on delirium for England and Wales,[12]; perhaps then interpreted as irrelevant. However, the guideline specifically signposts to the related NICE guideline for care of adults in the last days of life which includes consistent general guidance for delirium.[13] The recently published Scottish SIGN delirium guidelines explicitly <u>include</u> palliative care settings and recommend the use of the 4AT.[14]

Screening was perceived as burdensome for the patient and clinical complexity made it difficult to screen; consistent with Australian data.[15] Increasing training and use of delirium guidelines may address these barriers.

# Strengths and limitations

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Responses were received from all healthcare regions in England, all UK nations and from different job roles. However, as the denominator was unknown, we cannot draw further conclusions about representativeness. To preserve anonymity, we did not identify individual SPCUs. Therefore, the number represented is unknown. In addition, although most respondents are likely to be hospice staff, we used the term SPCU to be inclusive of staff who may have responded from other palliative care settings. Due to the distribution methods of the survey (via Hospice UK) we do not know if these findings are representative of other palliative care settings (for example, community palliative care).

A further limitation, inherent with this study design; we know nothing about those who chose not to participate, who may hold different views or have different practices. However, its likely those with an interest and knowledge in delirium would have participated, and that we have not <u>under</u>-estimated good practice.

## Implications for clinical practice and research

Our data indicate patients with delirium are at risk of being missed and potentially sub-optimally managed. Systematic implementation of NICE and SIGN guidance for screening and management may increase the chance of early detection and management. Future research should gain consensus regarding a SPCU screening tool, guidelines and training, and identify the best ways to implement good delirium care in clinical practice.

#### CONCLUSION

A small minority of clinicians routinely screen for delirium in SPCUs. Agreed tools, guidelines and clinical training for the palliative care setting would be useful to help implementation of best practice.

# Ethics

Ethical approval was obtained from the University of York, Health Sciences Research Governance Committee on 13<sup>th</sup> May 2019, ref HSRGC/2019/336/F.

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## **Competing Interests**

None declared.

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