

A survey of current practices in Management of Delirium in a Geriatric population

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Purposes

The main purpose of the survey is to explore doctors' awareness of delirium and their experience in the management of this condition among older adults within the Department of Geriatric Medicine in Malta.

Methodology

An online questionnaire was distributed via electronic mail to all doctors working within the mentioned department between 18th October 2021 and 16th January 2022.

Results

Twenty-six participants (44.8%) answered the questionnaire, with the more responses received from the senior members of the Geriatric department. Twenty-four participants (92.4%) admitted that they commonly encounter delirium, with mixed delirium being the commonest type. Infection, change in environment, urinary retention, constipation, medication use and metabolic reasons were the most commonly identified reasons for delirium. Despite having a vast majority routinely screen for delirium, all participants admitted that there is a need for more awareness about it. Only twelve participants (46.2%) knew about the local guideline about delirium, despite it being published on the local hospital network in 2020.

Conclusion

This study shows that doctors working within the department of Geriatric Medicine in Malta appreciate the importance of timely management of delirium. However more education and awareness about the local guideline is necessary.

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Delirium is defined as a transient, commonly reversible, cause of fluctuations in mental function. This can occur at any age, but most commonly occurs in older adults or in those with pre-existing mental health issues.¹

The Diagnostic and Statistical Manual of Mental Disorders Fifth Edition (DSM-5) defines delirium as fluctuating disturbance in attention and awareness which occurs over a short period of time, generally over a few hours to days. The change in cognition should not be explained by a pre-existing, established or evolving dementia. For delirium to occur there should be evidence from the history, physical examination, or laboratory findings that the disturbance is caused by a direct physiologic consequence of a general medical condition, an intoxicating substance, medication use, or more than one cause.² Management of delirium is dependent on the underlying organic cause of delirium. There are different types of delirium mainly hyperactive, hypoactive and mixed types.

Some of the assessment methods used to identify delirium include the Confusion Assessment Method (CAM), Confusion Assessment Method for the Intensive Care Unit (CAM-ICU), Intensive Care Delirium Screening Checklist (ICDSC)³ and 4 'A's Test (4AT) screening tool³

The main aim of this study was to investigate current practices in the detection, investigation and management of older adults with delirium. This is of utmost importance because delirium is under recognised among older adults, leading to serious adverse health outcomes and death at times.³

METHODOLOGY

Approval was obtained from the research committees of Karin Grech Hospital (KGH) and Saint Vincent de Paul long term facility (SVP). An electronic survey was distributed to all foundation doctors, basic specialist trainees, higher specialist trainees, resident specialists, general practitioners and consultants working within the Department of Geriatric Medicine between 18th October 2021 and 16th January 2022. It included doctors working at KGH, SVP, orthogeriatric section at Mater Dei Hospital (MDH) and community. A total of 58 doctors were invited to participate. A second reminder was sent via electronic mail after three weeks.

The questionnaire was developed by the researchers based international literature as well as keeping in mind the local scenario. There were seventeen

questions in all, some being close ended, while others allowed further comments from the participants.

RESULTS

Fifty-eight doctors working within the Geriatric Medicine Department were asked to participate in the survey. Twenty-six doctors (44.8%) replied with the majority of whom ten (38.5%) were consultants and nine (34.6%) were higher specialist trainees. Unfortunately only one (3.8%) basic specialist trainee and two (7.7%) foundation doctors gave their input.

Twenty-four participants (41.4%) declared their work place as shown in **Table 1**. The majority work in KGH and SVP

Table 1: Doctors' places of work

Twenty-nine (50%) participants had more than 10 years' experience as a medical doctor and twenty (34.6%) had been working for 6-10 years. Only one (1.7%) respondent had been working for 1-2 years.

Over fifty-two (90%) respondents admitted that they encounter delirium frequently or on a daily basis. This reflects the extent of the challenges delirium presents especially in the geriatric setting.

Mixed delirium was the commonest type of delirium encountered by the respondents with fourteen (53.8%) giving this answer. Nine (34.6%) participants stated that they most frequently encounter hyperactive delirium, with three (11.5%) stating that they commonly meet hypoactive delirium. This might reflect the fact that it is more difficult to pick up issues when a patient is more "quiet" than usual. Relatives or care-givers who know the patient well will easily identify "hypoactivity", but this is more difficult to be picked up by others.

Table 1 Doctors' places of work

Place of Work	Number of participants
KGH	20
SVP	6
Community	3
MDH	1
KGH & SVP	1
KGH & MDH	2
KGH, MDH, SVP & community	1

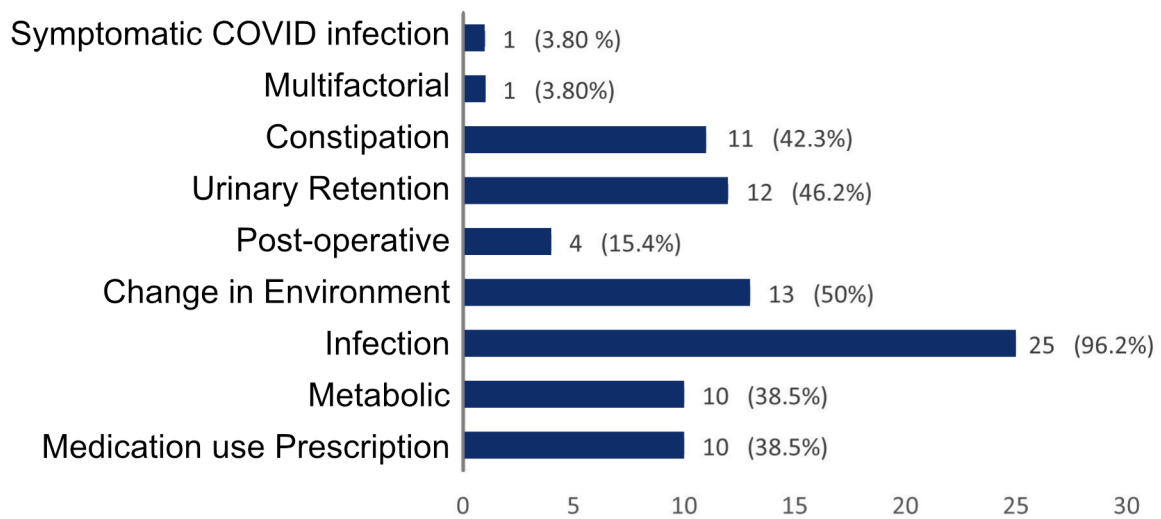


Figure 1 Commonest causes of delirium

Over forty-six (80%) respondents admitted that they frequently or always screen for delirium in older adults. Just over thirty-two participants (55%) claim that the inter-disciplinary team is primed to detect delirium.

Figure 1 shows the commonest reasons for delirium, while drug classes which were mostly associated with delirium are shown in **Figure 2**.

Seventeen (65.4%) participants admitted that they frequently encounter problems with drug prescription, with six (23.1%) claiming that they rarely encounter this issue. Furthermore nineteen (73.1%) state that they frequently notice issues with drug administration.

When it comes to environmental issues, unfamiliar place was named by fifty-three (88.5%) and chaotic environments by thirty-eight (65.4%) participants as being the main players which contribute to delirium. Lack of clock in the surrounding and lighting were mentioned to a much lesser extent, them being highlighted by eleven (19.2%) and twenty (34.6%) respectively.

4AT was used by twelve (46.1%) of the participants. Eight (30.8%) participants claimed that they used the Confusion Assessment Method (CAM). Five (19.2%) used orientation to time, place and person, while one (3.8%) participant claimed they used clinical examination, and another one (3.8%) used bloods

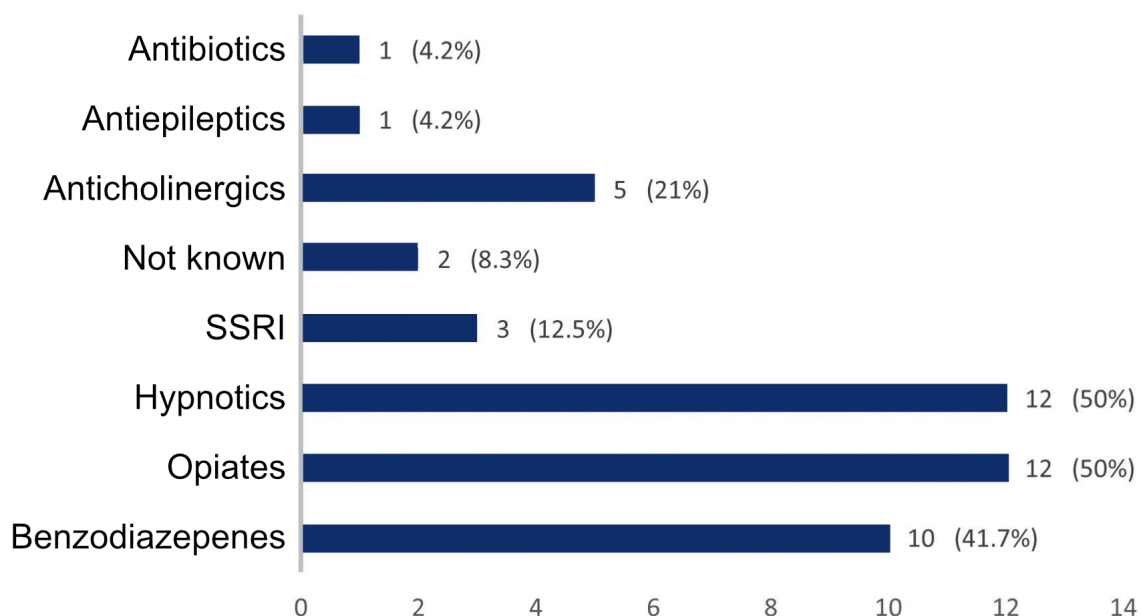


Figure 2 Drugs commonly associated with delirium

and parameters mostly. One of the participants did not reply to this question.

Only twelve (20%) knew about the local guideline for delirium. Ten (83.3%) of those knowing about the guideline found it useful.

The respondents agreed that there needs to be more awareness about delirium. When asked what could be done to enhance this, over forty-six (80%) believed that educational activities would help. Thirty-eight (65.4%) claimed that staff education would enhance reporting patient behaviour changes to professional staff such as nurses and doctors. This would allow safer and more timely managements of patients in delirium.

DISCUSSION

This study had a response rate of 44.8% which is deemed acceptable compared to usual response rates among medical doctors. International literature quotes 35% as an average response rate for most online surveys among doctors.⁴

The greatest strength of this study was that it the first such local study exploring the management of delirium in Malta. International research about this topic is also limited. In 2009, a group of researchers investigated the barriers to the management of delirium among junior doctors. It was clear that more awareness and education was required among these doctors.⁵ The first Italian multicentre study about the management of delirium was published in 2014. This study included nurses, physiotherapists, psychologists apart from medical doctors.⁶

Whereas studies abroad show that CAM is the commonest used tool for the detection of delirium, it seems that the 4AT (4-abbreviated mental test) is more commonly used in the Geriatric department in Malta. In fact, 46.1% used 4AT versus 30.8% who used CAM. The CAM tool is based on the four core features of delirium and has a high sensitivity (94-100%) and specificity (90-95%). The 4AT tests knowledge about age, date of birth, place and year. A score of three or less would indicate a problem with cognition.⁷ Reasons for which 4AT is more commonly used in Malta need to be studied.

This first local study investigated the types of delirium the participants most commonly encountered and the commonest causes of delirium mostly identified by them. This had not been published in foreign studies. On the other hand, just like other published studies, this local study surely highlights the lacunae present in the teaching of the more junior staff about delirium. All the respondents felt that there need to be more awareness about delirium. This is also in light of the fact that 53.8% of doctors working within the Geriatric Department in Malta were not aware of a local guideline which had been published in 2020 on the local hospital intranet.

Just like foreign research, it is clear that there should be more education and awareness about delirium among doctors and other healthcare professionals.⁸ Ideally there should be more promotion of local available material such as delirium guideline and leaflets. These results are also seen in international literature.^{5,6}

The limitation of this study is that only doctors were invited to participate in the study. Should the study have included other healthcare professionals, the results would have been more robust. Ultimately all members of the interdisciplinary team are involved in the management of delirium with carers and nurses being at forefront in the detection of possible cues for delirium.

CONCLUSION

In conclusion, the results obtained in this survey reflect the need for more education among doctors for timely detection and management of delirium. Ideally there should be more promotion of local available material such as delirium guideline and leaflets. These results are also seen in international literature.^{5,6} Another study about the management of delirium among other members of the interdisciplinary team would add more knowledge about the current situation in Malta.

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