OVoiD delirium and improved outcomes in acute care. Introducing a model of care

AUTHOR

Anne Hoolahan
MA, GradDipApSc-Gerontology, GradDipHlthSc-Nursing, DipTeach
Clinical Nurse Consultant – Dementia, Northern Sydney Local Health District, Sydney, Australia.
ahoolaha@nsccahs.health.nsw.gov.au

KEY WORDS

Acute Hospital, Delirium, Improved Patient Outcomes, Management Strategies, Multifaceted, Prevention

ABSTRACT

Objective
In this article three aspects of prevention/management will be available at a glance to nursing staff – the key personnel who manage this difficult area in aged care.

Setting
The acute hospital environment.

Primary argument
Delirium is a syndrome characterised by a sudden onset, over hours or days, impaired attention that fluctuates, together with altered consciousness and impaired cognition (ASGM 2005). Delirium is well reported to be already present for older people (10% - 24%) (Inouye 1998) on admission to hospital and develops in many more (up to 61%) (Gustafson; Berggren; Brannstrom et al 1998). Research has reported a multifaceted approach to reduce and manage the incidence of delirium in acute care, but do acute care staff have access to a brief overview of the information they can refer to, to prevent a crisis? Upon review, many of the non-pharmacological strategies to manage delirium are similar to those which prevent delirium.

Conclusion
Delirium is under recognised and often poorly managed. This paper suggests preventing and managing delirium is achievable through a consistent, systematic, multifaceted team approach.

INTRODUCTION

Delirium is a syndrome characterised by a sudden onset, over hours or days, impaired attention that fluctuates, together with altered consciousness and impaired cognition. Delirium may be the only sign of serious medical illness in an older person and is a medical emergency (ASGM 2005). Delirium has previously been known as "acute confusional state, acute brain syndrome and toxic psychosis" (Weber et al 2004, pp 115). Delirium, in the acute patient, presents a challenge to the bedside care providers as the patients are often not able to be orientated to their environment, can become non-compliant and at times confrontational.

Delirium is well reported to be already present for older people (10% - 24%) (Inouye 1998), on admission to hospital and develops in many more (up to 61%) (Gustafson; Berggren; Brannstrom et al 1998). Delirium is often misdiagnosed and usually results from an underlying acute health condition. Delirium risk factors include age, co-morbidities, dementia or previous delirium, polypharmacy, dehydration and/or visual/ hearing impairment. Precipitating events are directly proportional to cognitive reserves, as a risk factor for delirium. If brain function is already lowered by history of memory problems, chemical imbalances, poor nutrition and/ or damage to nerve tissue the risk of delirium is increased.

Recent review of staff knowledge indicated that nursing staff were not aware that delirium is preventable (82% no=115) (Hoolahan 2009) and therefore did not implement preventive strategies. Staff believing delirium may be preventable, were not aware of preventative strategies. Research has reported a multifaceted approach to reduce and manage the incidence of delirium in acute care, but prompt access to this information is difficult.

DISCUSSION

Preventative strategies have been reported to reduce the incidence of delirium resulting in improved patient outcomes (Cole 1999; Cole et al 1996; Inouye et al 1999; Milisen et al 2005). Many of the non-pharmacological strategies to prevent delirium are similar to those implemented to manage delirium (Melbourne Department of Human Services 2006), yet it is reported that prevention of delirium is more effective than early detection and/or treatment (Weber et al 2004). A "multicomponent approach... and provision of individual patient recommendations targeting multiple components of care" (Melbourne. Department of Human Services 2006, pp45). In this article, aspects of prevention and management will be available at a glance (see figure 1).

1. **Obtain relevant information**

   The first approach to assessment of any older person, with or without cognitive impairment is obtaining information gathered from both carers and medical review. This assessment and review directly impacts on the strategies implemented. Maintaining known routines is vital to assist with orientation and 'normalising' the hospital experience as much as possible. Action and management plans should be patient specific whilst incorporating direct carer involvement, enabling patient and carers to be partners in the care.

   Adequate oral intake to maintain nutritional and hydration status, maintaining mobility, regulating sleep/ wake cycles, enhancing independence in activities of daily living (ADLs), recognising and managing pain are all assisted by knowing individual routines and incorporating these into the daily management plan and person centred care practices.

   Recognising delirium risk factors on a hospital admission such as, pre-existing cognitive impairment, severe illness, > 65years of age, visual impairment, depression and +/- sodium levels can assist in delirium prevention. These risks are escalated by the use of an indwelling catheter, use of physical restraint and

the addition of > three medications whist in hospital (Melbourne Department of Human Services 2006). Obtaining relevant information helps staff to recognise risk factors and ensure they are addressed as soon as possible post admission. Assessing for delirium using a reliable, validated tool, such as the Confusion Assessment Method (CAM), (Inouye et al 1990) improves early detection and appropriate assessment and management.

2. **Implement a variety of strategies**

   There is never one management strategy that will be effective for every patient, therefore implement strategies focused around re-orientation, risk reduction and promoting the resumption of 'known' routines will reduce the impact and duration of delirium.

   Re-orientation can take the form of time and place orientation but can also include orientation by the presence of familiar people, familiar items - such as photos, a rug or books from home - and familiar routines – such as a daily walk, the opportunity to listen to music as they prepare for bed or time to attend to their daily bodily requirements.

   Risk reduction, involves identifying risk factors such as unfamiliar environment, decreased mobility, falls, infection, aggression, skin integrity, nutrition levels, dehydration, constipation, pain levels and sleep deprivation all need to be considered as potential risk factors if not addressed in the patient care plan and preventive actions implemented.

3. **Dialogue**

   It is important never to negate the importance of talking to the patient, the carer and the staff. By talking to the patient and the carer, 'normal' can be established, 'changes' can be determined and a plan established. Staff can also offer valuable information and insights into their patients and this information is often lost, if not related or well reported.

   A routine component of every shift should include time spent to:

   Value the person –

   Orientate the patient to where they are and why they are there. This may need to be repeated frequently, in a calm manner.

   Validate what the patient has to say – never argue or contradict their thoughts. Validating an experience as 'real', without confirming it exists in the real world (Ski and O'Connell 2006). For example, 'you said you need to visit your mother, tell me about your mother'.

   Distract their conversation and actions into a manageable area. 'Did your mother like you to help her? Why don't we go and fold the towels to help out'.

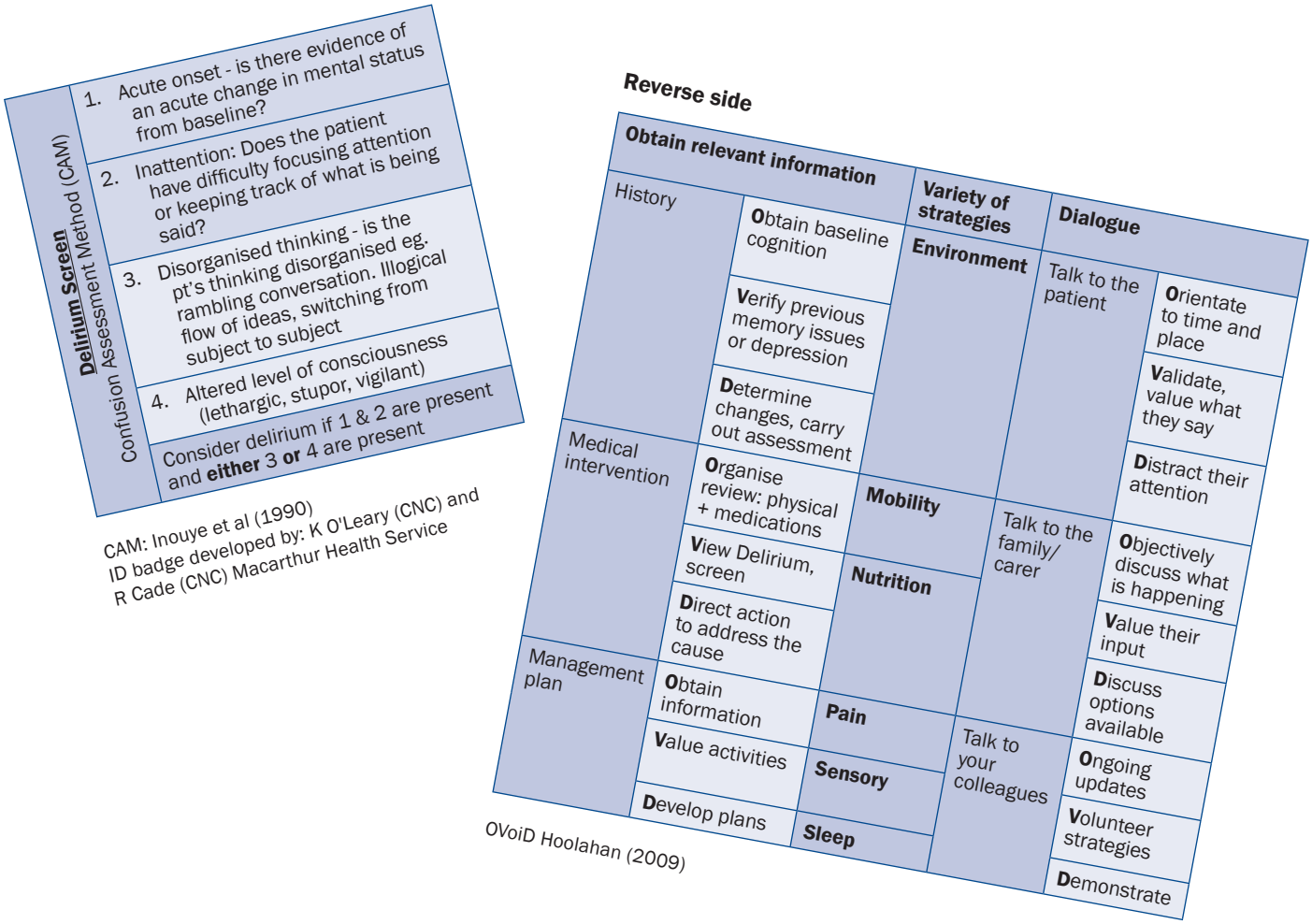
   Value the carer/family for the input they can offer and the person with whom all medical information and decisions should be discussed. The carer/family can provide insight into what is going on for the patient, and potentially the cause of delirium. By including the carer/family in discussions, previous patterns can be established, such as, functional ability, likes and dislikes and habits.

   Share information with colleagues, strategies implemented and success stories. Through this, acute care staff will be empowered to continue to trial range of innovative strategies.

Figure 1:

<table>
<tr><th colspan="2">Obtain relevant information</th><th>Variety of strategies</th><th colspan="2">Dialogue</th></tr>
<tr><td rowspan="3">History</td><td>Obtain baseline cognition</td><td rowspan="3">Environment
locate close to desk, avoid room/ward changes
locate staff in room with desk and light
night lights
remove clutter
family visiting plan, reduce number at one time, increase length of patient support, visitor diary (ie when/who will return)
large clock, orientating signs, newspaper</td><td rowspan="3">Talk to the patient</td><td>Orientate to time and place, day/date current affairs/familiar people</td></tr>
<tr><td>Verify occurrence of previous memory issues or depression</td><td>Validate what the patient says, value what they say</td></tr>
<tr><td>Determine changes, discuss with patient/carer, what has been happening. Assess bowels/urine/hydration/skin</td><td>Distract their attention to a positive outcome, using information obtained from family/carer</td></tr>
<tr><td rowspan="3">Medical intervention</td><td>Organise review
physical
alcohol/medication</td><td rowspan="2">Mobility (minimise bed rest)
Reduce falls, lower bed, appropriate shoes, consider non-slip socks at night, walking aid accessible, hip protectors - as appropriate
early mobilisation - physiotherapy
walk 1/24 short distances and chair based strengthening exercises
remove equipment that restrict mobility</td><td rowspan="3">Talk to the family/carer</td><td>Objectively discuss what is happening and what family /carer can expect (ie delirium brochure)</td></tr>
<tr><td>View results of diagnostic tests carried out, including a delirium screen</td><td>Value their input in planning, decision making and assistance
flexibility in visiting hours</td></tr>
<tr><td>Direct action to address the risk
repeat cognitive assessment if change occurs
no IDC or early removal
address oxygen levels
consider SC fluids
no restraints</td><td>Nutrition, ensure hydration
limit choices, know and offer preferences
open food packages
set up utensils
finger food
minimise caffeine
position to assist digestion
swallowing difficulties - refer to speech pathologist</td><td>Discuss options available and how they can help</td></tr>
<tr><td rowspan="4">Management plan</td><td rowspan="2">Obtain
personal profile information, interests, likes/dislikes
familiar items from home
information on patterns (hygiene/sleep/wake)</td><td>Pain
Ensure pain is managed early
Avoid benzodiazepines</td><td rowspan="4">Talk to your colleagues</td><td>Ongoing updates on the information you have gained (document, document, document)</td></tr>
<tr><td>Sensory
Use sensory aids (hearing aids, glasses, dentures - keep them clean)
reduce noise/over stimulation</td><td>Volunteer strategies you have tried</td></tr>
<tr><td>Value activities that the patient likes to do</td><td rowspan="2">Sleep
Avoid hypnotics
Assist normal sleep/wake cycles:
massage
toilet program
limit caffeine (non after 4pm)
pain management
noise reduction
stagger activities</td><td rowspan="2">Demonstrate what has worked (do what I do)</td></tr>
<tr><td>Develop a plan
continence/bowel management
pain management
mobilisation</td></tr>
</table>

Figure 2: ID card – prompt



CONCLUSION

Increasing awareness and knowledge of prevention and management strategies for patients at risk of delirium or diagnosed with delirium will reduce the degree of strain on the nursing staff and improve outcomes for the acute care patient. A multifaceted approach to reduce and manage the incidence of delirium in acute care incorporates an environmental and psychosocial approach to the clinical care. Prompt access to this information will facilitate improved patient outcomes and reduced length of stay.

In Sydney South West Area Health Service, these strategies are being implemented and evaluated. Patient outcomes; such as, the review of nursing burden, carer satisfaction, falls, use of night time sedatives, length of stay and readmission rates are being measured to provide evidence about the patient's hospitalisation.

RECOMMENDATIONS

Implement strategies to OVoiD delirium to provide systematic pro-active care, focused on prevention, for older patients in the acute care environment.

REFERENCES

The Australian Society of Geriatric Medicine. 2005. *Delirium in Older People*. Position Statement 13.

Cole, M.G. 1999. Delirium: effectiveness of systematic interventions. *Dementia and Geriatric Cognitive Disorders,* 10(5):406-11.

Cole, M.G., Primeau, F. and McCusker, J. 1996 Effectiveness of interventions to prevent delirium in hospitalized patients: a systematic review. *Canadian Medical Association Journal,* 155(9):1263-8.

Gustafson, Y., Berggren, D., Brannstrom, B., Bucht, G., Norberg, A., Hansson, L.I., and Winbald, B. 1998. Acute confusional states in elderly patients treated for femoral neck fracture. *Journal American Geriatrics Society,* 36(6):525-30.

Hoolahan, A. 2009. *Nurses perceptions delirium prevention and management.* Unpublished. Sydney, Australia.

Inouye, S.K. 1998. Delirium in hospitalized older patients. *Clinical Geriatric Medicine,* 14(4):745-64

Inouye, S.K., Bogardus, S.T. Jr., Charpentier, P.A., Leo-Summers, L., Acampora, D., Holford, T.R. and Cooney, L.M. Jr. 1999. A Multicomponent Intervention to Prevent Delirium in Hospitalized Older Patients. *New England Journal of Medicine,* 340(9):669-676.

Inouye, S.K., van Dyck, C., Allessi, C., Balkin, S., Siegal, A. and Horwitz, R. 1990. Clarifting confusion: the confusion assessment method. *Annals of Internal Medicine,* 113(12):941-948.

Melbourne, Department of Human Services. 2004. *Best practice approaches to minimise functional decline in the acute, sub-acute and residential aged care setting, Quick Guide.* Clinical Epidemiology and Health Services Evaluation Unit; commissioned by: Australian Health Ministers Advisory Council (AHMAC).

Melbourne, Department of Human Services. 2006. *Clinical Practice Guidelines for the Management of Delirium in Older People.* Clinical Epidemiology and Health Services Evaluation Unit; commissioned by: Australian Health Ministers Advisory Council (AHMAC) and Health Care of Older Australians Standing Committee (HCOASC).

Milisen K., Lemiengre J., Braes T., and Foreman, M.D. 2005. Multicomponent intervention strategies for managing delirium in hospitalized older people: systematic review. *Journal of Advanced Nursing,* 52(1):79-90.

Ski, C. and O'Connell, B. 2006. Mismanagement of Delirium places patients at risk. *Australian Journal of Advanced Nursing,* 23(3):42-46.

Weber, J., Coverdale, J.H. and Kunik, M.E. 2004. Delirium: current trends in prevention and treatment. *Internal Medicine Journal,* 34(3):115-121.