

Evidence Based Assessment and Screening Tools Working Party

**Report on Delirium Tools** 

## INTRODUCTION

Delirium is increasingly being recognised as a major issue in Palliative Care, both because of its prevalence and the level of distress it causes to patients, carers, and staff.

As well as the patient care issue, Inouye, (1994). cites Levkoff et.al. (1986) in pointing out the financial cost of delirium. In America, even one extra day in hospital, due to delirium, costs \$1-2 billion dollars. This is a report by the Clinical and Academic Collaborative Committee, Assessment Tools subcommittee, reviewing the literature relating to delirium screening tools in the palliative care setting.

**Definition** The International Classification of Disease defines Delirium as "An acute confusional state, etiologically non specific organic cerebral syndrome, characterised by concurrent disturbances of consciousness and attention perceptions, thinking, memory, psychomotor behaviour, emotion, and the sleep wake cycle" (Stillman and Rybicki, 2000). Delirium is classified by levels of motor activity being - hyperactive, hypoactive, or mixed (Morrison, 2003; Casarett, and Inouye, 2001) Hyperactive delirium is readily apparent but hypoactive delirium can often be mistaken for sedation due to narcotics or the terminal stage of the illness (Casarett, and Inouye, 2001).

There are 4 essential features of delirium according to the Diagnostic and Statistical Manual of Mental disorders (DSM-III- R) (1) acute onset and fluctuating course, (2) inattention, (3) disorganized thinking and (4) altered level of consciousness. For a diagnosis of delirium the first two must be present with at least one of the other features. (Inouye, vanDyck & Alessi et.al, 1990; Morrison, 2003)

*Incidence* The incidence of delirium in Palliative Care is believed to be quite high. In a study by Gagnon, Masse and DeSerres (2000) 20% of patients admitted for terminal care were found to have delirium on screening. 32% of the remaining patients in the study went on to develop delirium. Stiefel, Fainsinger, & Bruera, (1992) reported an incidence of 39%. Bruera, Franco & Maltoni (1995) rated it as high as 80-90% of patients dying with advanced cancer, with Morrison, (2003) quoting similar figures of 85%. Meagher, (2001) states that 15-20% of general admissions develop delirium but that it is higher with elderly people and with those with pre-existing cognitive impairment

Bruera, Chadwick, Weinlick, et.al. (1987) reported an incident rate of just over 50% (16/30) of advanced cancer patients developing delirium, though the MMSE was the screening tool used which is not diagnostic of delirium.

*Aetiology* Causes for delirium are frequently multifactorial so it makes sense to aim to isolate causes that are easily treatable so that an improvement in QOL is seen as quickly as possible (Casarett, and Inouye, 2001).

Morrison, (2003), like other authors found multiple causes in his population of critically ill cancer patients. These included – structural or chemical effects, direct and indirect effects of the tumour on the CNS, organ failure, metabolic derangements and Para-neoplastic syndromes, hypoxia, pain, systemic infection, iatrogenic aetiologies, chemotherapy, corticosteroids, and other medications.

All authors recognise medications as a common cause of Delirium. Inouye, (1994), & Casarett, and Inouye, 2001), believe that medication could be a cause in up to 22%- 39% of cases. It certainly warrants a review of the patient's narcotics and anticholinergic drugs, as these were the major offenders. Miller, Richardson, Jyu, et.al. (1988) found major reduction in cognition in 18/36 elderly patients post anticholinergic medication, with the degree of disturbance relating to the dose. Gagnon, Masse and DeSerres (2000) found that patients on high doses of opioids were probably at higher risk of delirium. Metabolic causes were found in 18% of the patients in Casarett, and Inouye study, (2001). Bruera, E., Chadwick, S., Weinlick, established a cause in 21% of their patients with advanced cancer, causes were hyponatremia, hypercalcemia, and medications – diazepam, amitriptyline and morphine.

*Risk Factors* Risk factors are age, pre-existing cognitive deficit, severe co -morbidity, previous episode of delirium, treatment with medications, drug/alcohol dependence, vision or hearing deficits, social isolation, immobility and decreased activity (Meagher, 2001, & Morrison, 2003) Caraceni, Nanni, Maltoni, et.al. 's (2000) multivariate analysis showed a significant association between delirium and CNS metastases, male gender, performance status, progestational treatment and Clinical Prediction of Survival (CPS)

*Treatment* Treatment basically comes down to treating the cause (Meagher, 2001; Casarett, and Inouye, 2001; Gagnon, Masse and DeSerres 2000; Morrison, 2003). But intervention should not be delayed whilst searching for the cause, some intervention should be implemented as soon as possible to decrease suffering

Pharmacological treatment of delirium should aim to return the patient to their normal mental state as much as possible. Haloperidol is mentioned in most of the literature as the drug of first choice (Meagher, 2001; Casarett, and Inouye, 2001; Gagnon, Masse and DeSerres 2000). Risperidone and Olanzapine are newer antipsychotic drugs, with fewer side effects Morrison, 2003). Casarett, and Inouye, (2001), acknowledged that sometimes sedation is necessary.

If seizures accompany the delirium then Benzodiazepines would be the first line of treatment (Meagher, 2001).

Non-pharmacological measures should not be underestimated; they have been proven to be helpful and effective. Such measures, as reorientation of the patient to person, place and time, giving verbal reminders, creating a quiet environment, providing a clock and calendar, providing signposts, attention to lighting and noise should be considered. If possible have familiar objects belonging to the patient in the room (Meagher, 2001)

Important interventions include, assisting the sleep-wake cycle, through encouraging some exercise in the day and good sleep at night with relaxation and quiet music. (Casarett, and Inouye, 2001). Morrison (2000) points out that it is easy to forget the "simple factors". For example: Does the patient normally wear glasses? Does he have them on? What about other aids?

Paice, (2002) is the only author who mentions spiritual care, this may be an essential consideration given the distress delirium causes

*Why Screen* Delirium causes extremely high levels of distress to patients, carers, and staff, couple this with its high incidence, and it is easy to see that it is a major issue in Palliative Care. Despite this most authors acknowledge that delirium is under detected and therefore under treated (Inouye, 1994;

Inouye, van Dyck, & Alessi et.al. 1990; (Gagnon, Masse and DeSerres, 2000;Inouye, 1994; Inouye, van Dyck, & Alessi, et.al. 1990).

The routine use of screening, diagnostic, and monitoring tools for delirium will make a significant difference to the situation at present, where delirium is so under recognised. Inouye, (1994) quotes one study where 32% of delirium cases went unrecognised, she found that it is often misdiagnosed as dementia, psychosis or depression. Morrison (2003) made similar findings with delirium being diagnosed as anxiety, anger, depression, dementia and /or psychosis. In his literature review Meagher, (2001) found rates for non-detection of delirium of 33%-66%, this was even higher for elderly people and those with pre-existing cognitive impairment. Fainsinger and Young, (1991), also write of cases of misdiagnoses where delirium was treated as dementia or depression.

Unless delirium is recognised it cannot be treated. This is understood by Fainsinger, and Young, (1991), and Gagnon, Masse, and DeSerres, (2000), who stress the importance of recognising delirium for appropriate and effective treatment of the terminally ill person. If the delirium continues unabated it leads to extreme levels of stress for the patient, the carer and the staff. It also wastes precious end of life- time that could otherwise be spent productively, and can also lead to unnecessary sedation of the patient. Gagnon, Masse and DeSerres, (2000), feel that more effective palliative care can be given if the patient is not continually agitated, and of course this affects the family.

It seems that there is a misunderstanding at times that delirium cannot be treated – that it is part of dying – this is far from the reality. Gagnon, Masse and DeSerres, (2000) reversed 50% of delirium in their study and in a study by Bruera, Franco & Maltoni et. al. (1995), a cause for delirium was found in 44% of the patients and treated, with 33% of patients showing an improvement. Bruera, Chadwick, Weinlick et.al. (1987) were able to isolate a cause in 21% of the 30 patients in a study. Morrison (2003) found that 44% of patients with delirium had an identifiable cause and were therefore potentially treatable. If delirium is not recognized it can't be treated.

Another reason that the recognition of delirium is important is that several studies have shown delirium to be prognostic. Caraceni, Nanni, Maltoni, et.al. (2000), in their study of patients with advanced cancer, found the medial survival time after admission for patients diagnosed with delirium, was 21days. For those without delirium it was 39. They cite Bruera, Miller, et.al. (1992) who found an association between the presence of delirium and dying within four weeks, and Lawlor, Gagnon, et.al. (2000) who also found that delirium, due to advanced cancer, is associated with shorter survival.

It is not enough to screen for delirium only on admission. For good quality care Meagher, (2001) believes that any patient in a high-risk group should be observed regularly for delirium. Most palliative care patiens would fall into the high-risk group.

Gagnon et.al. (2000), recognises that bedside nurses notice small changes in a patient's condition. They feel that with adequate tools and training, early changes, due to delirium, can be recognized quickly, enabling early diagnosis and treatment with subsequent reduction in suffering. Screening and monitoring allows early recognition of delirium with subsequent early treatment, which Morrison (2003), feels is essential for improved results of delirium treatment

By using delirium recognition and measurement tools it will improve data we have on the phenomenon, thus improving knowledge and understanding. In 1990 (p941) Inouye, van Dyck, & Alessi, et.al. wrote that they felt that the management and study of delirium was neglected due to the lack of "uniform terminology and diagnostic criteria" secondary to the lack of monitoring and diagnostic tools. Fainsinger, & Young, (1991) and Caraceni, Nanni, Maltoni, et.al. (2000), echo this. Gagnon, Masse and DeSerres, (2000) also feel that delirium is under researched because of lack of, or the minimal use of, adequate screening, diagnostic and monitoring tools. Morita, Tsunoda, Inouye, et.al (2000) recognise the need for use of uniform instruments for ongoing good quality research on delirium.

# Objectives

The Clinical and Academic Collaborative Committee, Assessment Tools sub-committee was formed on 26<sup>th</sup> May 2003, with a specific objective of reviewing assessment and/or screening tools used in palliative care in the Eastern Region. Following discussion, delirium screening was identified as a priority area for the group to consider. The objectives of the committee are noted in the Terms of Reference (Appendix I) and for the purposes of this activity were modified to reflect the focus on Delirium tools. The objectives were:

- To identify evidenced-based and validated delirium screening, monitoring and diagnostic tools suitable for use in the palliative care setting.
- 2. For tools to be selected that would be suitable for use across a variety of settings.
- 3. To draw on input from as many palliative care facilities as possible in the Eastern Region
- 4. To implement the same delirium tools across as many of the above facilities as possible, to ensure continuity of care and consistent measurement in any possible future research.

# The Group

The working party consisted of -:

Julie Bernardson	Chair – Caritas Christi Hospice
Jane Bourke	Royal District Nursing Service
Kim Ching	Caritas Christi Hospice, Kew
Brigid Hughes	Caritas Christi Hospice Fitzroy
Dr Peter Martin	Director Palliative Care Services - Eastern Region
Lisa Miteff	Eastern Palliative Care
Shaun O'Neil	Box Hill Hospital
Cathy Pigott	Peter MacCallum Cancer Institute

# The Process

- Karen Quinn, Education Co-ordinator at Caritas Christi Hospice spoke to the group about the research project she undertook as part of the Clinical Research Fellowship through Melbourne University. This study consisted of a literature review regarding delirium in palliative care patients and appropriate management including tools to assess delirium. This study was a good starting point for this investigation.
- Benchmarking: group members approached various health care facilities providing palliative care, to identify what tools were being used for delirium screening, monitoring and /or diagnostic purposes.
  - a. Of those palliative care facilities in Melbourne that were approached only one used a specific delirium "screening " tool. This was the Delirium Rating Scale (DRS). The DRS is also used by a major Sydney Hospital that cares for Palliative patient's
  - Several aged care facilities were asked, but again none had specific delirium screening.
    Most had behaviour charts. The Alzheimer's Association of Victoria had a particularly good brochure on distinguishing between dementia, depression and delirium.
- 3. Literature reviewed was found by a search using the terms "palliative care-etc, toolsmeasurement etc, delirium- acute confusion, and literature suggested from the Bulletin Board on the Palliative Care Drugs website. Input from this source-included information from the Temmy Latner Centre for Palliative Care, Canada; Western Health Care, Canada; and Edmonton Palliative Care Programme, Canada. The main tools mentioned have been discussed further on.
- 4. The Co-ordinators of the Primary Care Partnership Programme in the eastern region were informed of the intentions of this group, as uniformity of documentation is an objective of the PCP programme. All three co-ordinators were kept informed of ongoing progress.

Recognising impaired cognition and poor attention is not diagnostic of delirium. Tools that have been developed and validated for delirium diagnosis are the, Confusion Assessment Method (CAM) The

Memorial Delirium Assessment Scale the Delirium Rating Scale and the Delirium Symptom Interview. Each has its strengths and weaknesses and choice depends on the goals of use and the population (Casarett, and Inouye, 2001). Other tools explored include the Confusion Rating Scale, The Bedside Confusion Scale

## **Our Patient Population**

Though all the patients that would be assessed with these tools are specifically palliative, there is great divergence between the health care facilities involved. The organizations involved in the project range from an In-patient Hospice (two campuses), a specialist palliative domiciliary service covering the greater eastern area of metropolitan Melbourne, an acute care general hospital in the eastern metropolitan region and a generic domiciliary nursing service. In the case of the latter services the tools will only be used for palliative patients cared for by trained Palliative Care Specialist staff.

## The Tools

#### The Bedside Confusion Scale

Developed by Stillman, and Rybicki, (Stillman and Rybicki, 2000) uses an operational task of citing the months of the year backwards within 30 seconds, and uses inattention as the differential for delirium. This study did not assess the validity of the tool with patients with dementia or examine inter-rater reliability. The group felt the task would be too difficult for our patient population.

#### The Confusion Assessment Method (CAM)

The CAM is a tool that does require training but can be used by clinicians other than psychiatrists therefore if a patient is showing signs of possible delirium they can be diagnosed immediately using this tool thus allowing for early intervention, minimising distress to patients and carers.

An expert panel developed the CAM by adapting the Diagnostic and Statistical Manual of Mental Disorders (DSM-111-R). The aim was to develop a tool with high face validity (that it made sense to clinicians), high sensitivity, and high negative predictive accuracy and high specificity. It is a tool that is well known and commonly used. It is short and easy to use for with terminally ill patients. (Gagnon, Allard, Masse and DeSerres, 2000)

Stillman, & Rybicki, (2000), consider the CAM to be the best diagnostic tool available. When validated against psychiatric diagnoses the CAM was shown to have 94-100% sensitivity, 90-95% specificity; 91-94% positive predictive value and 90-100% negative predictive value. (Smith et al 1995; Gagnon, Allard, Masse and DeSerres, 2000(Inouye, 1994; Inouye, van Dyck, & Alessi, et.al. 1990)

#### **Confusion Rating Scale**

The CRS allows for the easy detection of symptoms. The CRS was designed for the screening for the presence of confusional symptoms (not delirium). The CRS allows for a systematic recording of data, continued monitoring also allows for assessment of treatment effectiveness. It is the only screening instrument that does not require patient participation, which is an advantage with palliative patients as they are often extremely debilitated and it allows maximum information with minimal intrusion. (Gangon et al 2000)

Observation of the patient and documentation is made every 8 hours, noting -:

- Disorientation to time place or person
- Communication
- Inappropriate behaviour
- Illusions or hallucinations

Presence of any of these, flags the possibility of psychosis, dementia, depression or delirium - The patient can then be assessed with a diagnostic tool to confirm diagnosis such as the Confusion Assessment Method. (Flynn & Quinn, 2003).

Training is minimal, in the study by Gagnon et.al. (2000), the nurses doing the monitoring participated in a 2-hour workshop on delirium, which included instruction on how to complete the tool.

Completion time was less than 2 minutes (Gagnon et.al. 2000),

An advantage of the CRS is that because it is an observational tool it is appropriate for Non English Speaking people, and aphasic patients, and does not unduly disturb patients.(Gagnon et.al. 2000) The CRS has been validated against the Short Portable Mental Status Questionnaire and was shown to be useful as a detection instrument, although its psychometric qualities have yet to be fully explored. (Smith et al 1995)

Disadvantages include that hypoactive delirium may be missed because it is an observational tool only and the patient is not required to interact (Gagnon et.al. 2000).

## **Delirium Rating Scale**

The DRS was developed by Trzepacz, it too is based on the DSM-111-R, it assesses onset, behaviour and perceptual and sleep disturbances as well as cognition, mood, and severity of co- morbid illness. It distinguishes between dementia and other neuropsychiatric illness.

The only validation study was with a small sample (*n* = 20). This study showed some evidence of validation but the ability to establish delirium severity has not been tested. (Smith et al 1995). The DRS has been tested and verified for its specificity to distinguish delirium from dementia. (Casarett, & Inouye, 2001). Morita, Tsunoda, Inoue, et.al 2001 have noted that the DRS is not suited for ongoing regular monitoring because two of its components are constants and it does not distinguish between sedated and agitated delirium

As a diagnostic instrument the DRS has face validity, but it is missing items that are essential components in DSM-III-R, including inattention, disorganized thinking and clouding of consciousness. (Smith et al 1995) Further testing of the instrument and its psychometric properties are required.

#### The Memorial Delirium Assessment Scale

The Memorial Delirium Assessment Scale (MDAS) was designed so that the instrument could be administered repeatedly within the same day to allow for r objective measurement of changes during the day. (Breitbart et al 1997) Morita, Tsunoda, Inoue, et.al 2001 suggest that very sick patients find it difficult to complete the MDAS, therefore limiting its use in a palliative population.

#### Mini Mental State Examination

The Mini-Mental State Examination (MMSE) was originally developed as a brief, practical, clinical instrument for distinguishing functional, from organic mental-status impairment. (Smith 1995) The MMSE has the advantage of being able to be administered by lay interviewers. A sudden drop in a patients score strongly suggests delirium (Agostinelli et.al., 1994). Morrison, (2003) thinks the MMSE has the advantages of being well known and is quick and easy to attend, but it lacks sensitivity and specificity for delirium, it is also believed to be difficult to use with critically ill patients. Gagnon et al (2000) suggest that the MMSE includes tasks that terminally ill cancer patients often cannot perform, such as writing and drawing figures, which makes it difficult to use in this population.. The MMSE cannot differentiate between depression and dementia and can over estimate cognitive impairment in patients with a psychiatric condition (Agostinelli et.al., 1994).

#### The Saskatoon Delirium Checklist

The Saskatoon Delirium Checklist (SDS) was originally developed to measure delirium induced by scopolamine in elderly patients. (Smith 1995). The SDS was developed from the DSM-111 criteria and was found to be very sensitive in the specific population tested, (Miller, Richardson, Jyu, et.al.1988) but further assessment of patients is required to establish its psychometric properties and sensitivity in detecting clearly delirious patients. (Smith 1995).

It has not been validated in a palliative setting.

## Selecting the Tool

The literature showed a high incidence of delirium in the palliative care setting and therefore a need for the routine use of a screening tool to detect delirium. The advantage of early detection relates to earlier treatment and potentially improved quality of life. The diagnosis and monitoring of delirium in the palliative care setting can help focus the treatment towards effective interventions, if delirium can be distinguished from other confused states. Any tools selected need to be evidence-based, reliable and valid, quick to use and require minimal staff training.

Inouye (1994) notes what she considers to be four essential criteria for diagnosis of delirium these are:-

- 1. Validated specifically for use in delirium
- 2. Capable of distinguishing between delirium and dementia
- 3. The ability to assess the multiple features of delirium
- 4. Feasibility of use in delirious patients.

Of the 18 published tools only two fulfilled this criteria- the CAM and the Delirium Rating Scale (DRS), but the DRS requires substantial training for appropriate use.

## Recommendations

#### Routine Screening - MMSE

The CACC Assessment Tools Committee recommends a possible combination of three tools to be used to detect delirium in the palliative care setting. The three tools identified are the MMSE, the CRS and the CAM.

As stated earlier there is a suspected high incidence of delirium in the palliative care setting and the aetiology is often not clear, or may be a combination of effects, therefore following the review of the literature, to identify changes in cognitive functioning it was felt that the MMSE would be the most appropriate tool to provide a baseline for all patients. Investigations showed the need for a screening tool on admission that would flag patients with cognitive impairment. Inouye, (1994) argues that all elderly

patients should be screened for cognitive impairment, this establishes a baseline but also flags patients at risk, it can establish patients with cognitive impairment enabling assessment of the persons ability for decision making and understand ongoing medical care. Meagher (2001) notes that those with pre-existing cognitive impairment are at higher risk of developing delirium and Inouye (1994) thinks that up to 2/3 of cases of delirium occur on a background of dementia.

Cognitive screening would identify these patients.

Given the debility of our patient population it was decided that the MMSE would be too difficult and intrusive to administer on a regular basis. It would therefore be used as a screening tool on admission but another tool would be used for ongoing monitoring.

#### On going Monitoring - CRS

An ongoing monitoring tool was considered necessary because of the fluctuating nature of delirium; a once off assessment would not be sufficient (Stillman, & Rybicki, 2000) and could mean cases going unrecognised.

Meagher (2001) believes that any patient in a high-risk group should be monitored for delirium; most palliative care patients would fall into the high-risk group. Meagher (2001) also suggests that patients being treated for delirium should be continually monitored to assess effective of the treatment. Gagnon, Masse and DeSerres (2000) suggest that t a tool used to detect delirium should allow for easy systematic recording and be conducted "around the clock". Regular monitoring of delirium in the palliative care setting would need to be undertaken in a way that minimises the burden for the already seriously ill patient. The CRS does not require repeated interviews and therefore should not be overly burdensome for the patient. The Assessment Tools Committee identified the CRS as fulfilling these criteria and therefore recommends its use as a monitoring tool.

#### Diagnosis - CAM

The CAM has been recognised as a reliable and valid tool for use with seriously ill patients. Although the CAM requires some training, most reliable mental health diagnostic tools would require some training. Health professionals other than a psychiatrist or psychologist are able, with training, to use the CAM and thus it can be used in a number of settings. The CAM, following easy training for senior staff, allows accurate diagnosis of delirium within 24 hours of symptoms, therefore eliminating a need to wait for the availability of a psychiatrist.

Meagher, 2001 noted that the CAM was widely used, reliable, brief and applicable to a variety of settings.

## CONCLUSION

The selection of these three tools is based on relevant evidence of reliability; validity and specific use in the palliative care population. The utilisation of all three tools would provide a comprehensive screening, monitoring and diagnostic assessment of delirium in palliative care patients. Agencies may choose to use none, one, two or the three tools recommended, however when selecting tools to be used, the agency should consider the potential advantages of selecting the tools recommended. The advantages include: a) Uniformity in research measurement tools if a multi-sited research project is considered b) Ease of communication if all agencies are using the same tool when referring patients to another

agency in the Eastern region

c) Recognisable tools that have been identified as valid and reliable

d) Patients and carers may become familiar with the tools and questions and be able to participate in the monitoring of delirium, thus identifying early changes and empowering self-action.

#### REFERENCES

Agostinelli, B., Demers, K., Garrigan, D., and Waszynski,C., "Targeted Interventions: Use of the Mini-Mental State Exam" *journal of Gerontological Nursing, August, 1994, P 15-19.* 

Bruera, E., Franco, I., Maltoni, M., Watanabe, S., Suarez-Aimazor, M., 1995, "Changing patterns of agitated impaired mental status in patients with advanced cancer; association with cognitive monitoring, hydration and opiate rotation", *Pain and Symptom Management, 10 (4), pp287-291.* \

Bruera, E., Chadwick, S., Weinlick, A., MacDonald, R., 1987, "Delirium and Severe Sedation in Patients with Terminal Cancer, *Cancer Treatment Report 71 (718) pp787-788* 

Caraceni, A., Nanni, O., Maltoni, M., Piva, L., Indelli, M., Arnoldi, E., Monti, M., Montanari, L., Amadori, D., De Conno, F., DeConno, F., <u>"Impact of Delirium on the Short Term Prognosis of Advanced cancer</u> patients", *Cancer 89 (5): 1145-1149, 2000* 

Casarett, D., and Inouye, S., 2001, "Diagnosis and Management of Delirium near the end of life", *American College of Physicians*, 135(1) July, pp32-40

Fainsinger, R., and Young, C., 1991, "Cognitive Failure in a Terminally III Patient", *Journal of Pain and Symptom Management, 6 (8), pp 492-494.* 

Flynn, E., & Quinn, K., 2003, "Confusion and Terminal Restlessness", in O'Connor, M., & Aranda, S., *Palliative Care Nursing: a guide to practice, Ausmed Publications, Melbourne, Australia.* 

Gagnon, P., Allard, P., Masse, B., and DeSerres, M., 2000, "Delirium in Terminal Cancer: A prospective study using daily screening, early diagnosis and continuous monitoring", *Journal of Pain and Symptom Management*, *19 (6)*, *pp412-426*.

Inouye, S., vanDyck, C., Alessi, C., Balkin, S., Siegal, A., & Horwitz, R., 1990, "Clarifying Confusion: The Confusion Assessment Method, a new methods of detection of Delirium, *Annals of Internal Medicine, 113* (12), pp 941-948.

Inouye, S., 1994, "The Dilemma of Delirium: Clinical and Research Controversies regarding Diagnosis and Evaluation of delirium in Hospitalised Elderly Medical Patients", *American Journal of Medicine, 97 (3), pp278-288.* 

Meagher, D., 2001, "Delirium: Optimising Management", British Medical Journal, 322 (7279), pp144-149.

Miller, P., Richardson, S., Jyu, C., Lemay, J., Hiscock, M., Keegan, D., 1988, "Association of low Serum anticholinergic levels and Cognitive Impairment in Elderly Pre-surgical Patients", *American Journal of Psychiatry*, *145 (3), pp 342-345.* 

Morita, T., Tsunoda, Inoue, Chibara, and Oka, 2001, "Communication Capacity Scale and Agitation Distress Scale to measure the severity of delirium in terminally ill cancer patients: a validation study", *Palliative Medicine*, *15 (3)*, *197-206*.

Morrison, C, & Thomas, S., 2003, "Identification and Management of Delirium in the Critically III Patient with Cancer" *AACN Clinical Issues; Advanced Practice in Acute Critical Care, 14 (1), pp92-111.* 

Paice, J., 2002, "Managing Psychological conditions in Palliative care: Dying need not mean enduring uncontrollable anxiety, depression or delirium", *American Journal of Nursing*, *102 (11)*, *pp 36-42*.

Stiefel, F., Fainsinger, R., and Bruera, E., 1992, "Acute Confusional States in Patient's with Advanced Cancer", *journal of Pain and Symptom Management, 7 (2) pp94-98.* 

Stillman, M., Rybicki, M., 2000, "The Bedside Confusion Scale: Development of a Portable Bedside Test for Confusion and it's application to the Palliative Medicine Population", *Journal of Palliative Medicine*, *3*, *(4)*, *pp* 449-456

# **APPENDIX 1**

# Evidence Based Assessment and Screening Tools Working Group TERMS OF REFERENCE

Evidence based assessment and screening tools working group is a working party of the Clinical Academic Collaboration Committee. The leader will be a member of the Clinical Academic Collaboration Committee.

The aim of the Evidence based assessment and screening tools working group is to develop screening and assessment tools based on evidence based best practice evidence and principles, for the care of people with terminal illness.

Key stakeholders will include, Box Hill Hospital, Eastern Palliative Care, Peter MacCallum Cancer Institute, Royal District Nursing Service, and St Vincent's Health, hopefully including all palliative care providers across the Eastern Region of metropolitan Melbourne.

## **Objectives**

- 1. To develop and implement screening and assessment tool(s) for people with terminal illness.
- 2. To draw membership from as many interested parties as possible within St Vincent's Health and, eventually, the Eastern Region, including acute, sub acute, and community care providers.
- To second, from time to time, people with relevant experience to assist with or undertake specific tasks.
- To achieve any other specific objectives as set by the Clinical Academic Collaboration Committee within prescribed time frames.

## Leader

Julie Bernardson, Clinical Nurse Consultant (Palliative Care)

# **Core Group**

- Jane Bourke (RDNS)
- Kim Ching (CCH)
- Brigid Hughes
- Dr Peter Martin
- Shaun O'Neill

- Cathy Pigott (PMCI)
  - Lisa Miteff

# Quorum

Three members are required for a quorum.

# Accountability / Reporting Structure

- The leader will make quarterly progress reports to Clinical Academic Collaboration Committee group.
- The members of the Evidence Based Assessment and Screening Tools Working Group will undertake an annual evaluation of the group's performance.

# **Frequency of Meetings**

The committee will meet monthly or as required to achieve specific objectives. There will be at least 10 meetings per year. Meeting dates for 2003 are:

May	26th	June 30th	July 28th	August 25th
Septem	iber 29th	October 27th	November 24th	December 22 <sup>nd</sup>
Februa	ry 23 <sup>rd</sup> , 2004	March 29 <sup>th</sup> , 2004		

These dates may be varied from time to time by majority consent in order to ensure that a quorum can be achieved at all meetings.

# **Venue of Meetings**

Most meetings will be held on the 6<sup>th</sup> floor In patient Services building, St Vincent's Hospital, exceptions are August 25<sup>th</sup> and March 29<sup>th</sup> when they will be held at Box Hill Hospital.

TOR Date: May 2003