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1-1-2016

### Developing the delirium care pathways

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#### Recommended Citation

Traynor, Victoria; Britten, Nicole; and Burns, Pippa, "Developing the delirium care pathways" (2016).

*Faculty of Science, Medicine and Health - Papers: part A*. 4290.

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## Developing the delirium care pathways

### Abstract

The aim of this study was to develop delirium care pathways (DCPs) useable and relevant for registered practitioners in all care settings: community; acute; and nursing homes. A qualitative approach was adopted to develop the pathways inductively. Focus groups and one-to-one interviews with registered practitioners (n = 45) working as managers, practitioners and clinical nurse consultants were undertaken to develop draft versions of the pathways, which was pilot trialled across 19 clinical settings. The publication of the DCPs was a concise and easily readable document for registered practitioners who required immediate guidance on how to implement evidence-based delirium care for older people and their family carers, including three patient journeys explaining best-practice delirium care in community, acute and nursing home care settings, a webpage resource and printable posters of the pathways' patient journeys to promote the use of the pathways in clinical settings. The work undertaken to develop the pathways was further developed through new policy documents, state-wide initiatives to improve delirium care in hospitals, development of educational resources on delirium care and other knowledge translation projects on this topic.

### Keywords

pathways, care, delirium, developing

### Disciplines

Medicine and Health Sciences | Social and Behavioral Sciences

### Publication Details

Traynor, V., Britten, N. & Burns, P. (2016). Developing the delirium care pathways. *Journal of Research in Nursing*, 21 (8), 582-596.

# Developing Delirium Care Pathways

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April 2016

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## Acknowledgements

Funding body: NSW Ministry of Health (\$75,000).

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## **ABSTRACT**

### **AIM**

Develop a Delirium Care Pathways (DCPs) document useable and relevant for registered practitioners in all care settings: (i) community; (ii) acute; and (iii) nursing homes.

### **METHODS**

A qualitative approach was adopted to inductively develop the DCPs document. Focus groups and one-to-one interviews with registered practitioners (n=45) working as managers, practitioners and clinical nurse consultants were undertaken to develop draft versions of the DCPs document which was pilot trialled across nineteen clinical settings.

### **OUTCOME**

The publication of a DCPs document which was a concise and easily readable document by registered practitioners who required immediate guidance on how to implement evidence based delirium care for older people and their family carers, including three patient journeys explaining best practice delirium care in community, acute and nursing home care settings, a webpage resource and printable posters of the DCPs journeys to promote the use of the DCPs document in clinical settings.

### **CONCLUSION**

The work undertaken to develop the DCPs document has been further developed through new policy documents, state-wide initiatives to improve delirium care in hospitals, development of educational resources on delirium care and other knowledge translation projects on this topic.

### **KEYWORDS**

Delirium, Patient care planning, Confusion, Care pathway

## INTRODUCTION

Delirium is characterised by its sudden and acute onset, even occurring over a few hours, but the effects can be long-standing and permanent. Delirium presents as three distinct types: hypoactive (reduced motor activity, lethargy, staring into space, drowsiness, withdrawal or catatonic state), hyperactive (increased motor activity, disorientation, hallucinations, delusions, restlessness, agitation, aggression, disinhibition, rambling speech, fear, hyper-alertness or paranoia) and mixed (alternating between hypo and hyper delirium) (Australian Health Ministers' Advisory Council: Health Care of Older Australians Standing Committee, 2006). Often, the symptoms of a delirium are ignored or misunderstood by healthcare staff which results in large scale under-recognition or mis-diagnosis of delirium among older people (Inouye et al., 1990, 2014). Delirium is commonly ignored among older people when the symptoms are mis-attributed as an expected outcome of a chronic physical health problem, a dementia, an exacerbation of a dementia, or a depression.

One reason why this under-recognition or mis-diagnosis is unacceptable is that with effective management delirium among older people can be quickly reversed. Delirium among older people is most commonly caused by acute treatable problems, including an infection, polypharmacy, constipation, dehydration, malnutrition, anaemia, sleep deprivation, new or over stimulating environments (bright lights, business and/ or noisiness) or a post-operative complication (Australian and New Zealand Society for Geriatric Medicine, 2012). The physiological homeostasis of older people is more vulnerable than that of younger adults and what would be a minor 'injury' in younger age adults can result in a delirium for older people.

The costs of delirium are to: (i) individuals who experience short-term, long-term and permanent health problems, including increased morbidity, such as falls, recurrent delirium and dementia, re-location into a nursing home and mortality; (ii) healthcare providers with greater use of healthcare services, such as accessing general practitioners, registered nurses and, physiotherapists, extended lengths of stay in hospitals and repeat admissions to hospitals; (iii) family carers taking time off work to care for individuals living with a delirium

(and the associated morbidities) and experiencing health problems associated with caring for an older member of the family; and (iv) community with lost work days for family carers. It is particularly important to address the cost of delirium because our growing ageing population will result in increases in the incidence and prevalence of delirium. Developing resources which provide guidance to implement evidence based delirium care for healthcare staff in the prevention, recognition, diagnosis, treatment and management of delirium has the potential to reduce the impact and costs of delirium (Burns et al., 2004). When evidence based delirium care practices are neglected the impact and costs associated with delirium escalate (National Institute for Health and Clinical Excellence, 2010; Siddiqi et al. 2016).

Plentiful research about evidence based delirium care exists and a range of tools provide registered practitioners from the multi-disciplinary healthcare team (in the main, registered nurses, medical doctors and occupational therapists) with guidance about how to effectively prevent, recognise, diagnose and manage delirium (MacLulich, Ryan & Cash, 2014; Marcantonio, Ngo, O'Connor et al., 2014). However, the continuing high incidence rate of delirium and its under-recognition demonstrate that the evidence is not consistently implemented and the tools are ineffective in promoting the implementation of best practice delirium care (Inouye et al., 1990, 2014; National Institute for Health and Clinical Excellence, 2010; Poole and McMahon, 2005; Siddiqi et al. 2016; Thomas et al., 2012; Traynor et al., 2015).

In Australia, the issue of how to effectively address the need to implement evidence based delirium care was systematically addressed in the *Clinical Practice Guidelines for the Management of Delirium in Older People* (Clinical Epidemiology and Health Service Evaluation Unit, 2006). These Guidelines provided an overview of evidence based approaches to delirium care, including a summary of risk factors for delirium; guidance on using validated and reliable delirium screening tools; how to adjust the hospital environment to prevent or reduce the effects of delirium; the role of the family carer in ameliorating the effects of delirium; and an information brochure about the signs and symptoms of delirium for older people and family carers.

Initially, after the Guidelines (Clinical Epidemiology and Health Service Evaluation Unit, 2006) were published policy makers, service providers and clinical leaders in Australia were optimistic about the document having a positive outcome on delirium care. Later, there was disillusionment. Anecdotal reports stated that the Guidelines sat unread on bookshelves or, worse still, in unopened in boxes in clinical settings. The Guidelines were considered inaccessible by registered practitioners because its 121 page length made it too overwhelming for clinicians. The Australian Commonwealth Government addressed the lack of use of the Guidelines and commissioned the development of a supplementary Delirium Care Pathways (DCPs) document. Importantly, the tender to develop the DCPs document required that the published resource include three patient journeys of delirium care across community, acute care and nursing home settings, a poster summarising the DCPs and content which could be expeditiously read by registered practitioners using the DCPs document to guide their clinical practice.

## **Objectives**

The overall aim of the project was to develop a Delirium Care Pathways (DCPs) document which useable and relevant for registered practitioners for use across all care settings: (i) community; (ii) acute; and (iii) nursing home. Specifically, the DCPs document needed to address the problem that clinical guidelines are often lengthy and remain inaccessible to registered practitioners who need timely answers about 'how to' deliver evidence based care. The authors commissioned by the Australian Commonwealth Government to develop the DCPs were determined that the new DCPs document would be concise and easily readable by registered practitioners who required immediate guidance on how to implement evidence based delirium care for older people and their family carers in community, acute and nursing home care settings.

## **METHOD**

This project was commissioned by the Australian Commonwealth Government and undertaken through a collaboration between the NSW Ministry of Health, NSW Australia, and the host university who undertook the research. An inductive approach to developing



the new DCPs document was adopted and consisted of qualitative methods to develop Draft1 and Draft2 DCPs documents and pilot trial Draft3 DCPs document before it was finalised and published by the Australian Commonwealth Government. Approval to undertake the project was provided by the host university and local health district joint ethics committee. The project was undertaken across NSW which consists of metropolitan, regional and rural locations. NSW is 800 642 km<sup>2</sup> with a population of 7.5 million (including Sydney). In NSW, there are 410 hospitals (225 public and 185 private (Australian Institute of Health and Welfare, 2014)) and over 890 nursing homes (DPS Publishing, n.d.).

Central to the success of this project, was the role of a collaborative project management group represented by a range of stakeholders: an academic specialising in aged and dementia care research and education from the host university, a senior Occupational Therapist, seconded from her role as an aged care clinician working in the emergency department of the local health district and a colleague with responsibility for aged care policy development from NSW Ministry of Health. The project management group met every 4-6 weeks. In addition, an advisory group was convened to inform the project outcomes and ensure that the content and structure of the DCPs document reflected the views of a wide range of stakeholders from across care settings. Membership of the advisory group included ministry of health representatives, clinical nurse consultants, a general practitioner and a family carer. The members were nominated by the project management group. All professional members of the advisory group had a reputation state-wide and nationally within NSW and Australia, respectively, as an expert in developing and delivering innovative care for older people. The family carer was nominated by a member of the project management group who met the family carer when providing care for her mother who lived in a nursing home and was admitted to hospital for treatment of an episode of delirium.

The advisory group undertook the following activities: reviewed previously published DCPs and related documents which informed the content and structure of the new DCPs document; helped with recruitment of sites and registered practitioners to participate in the development of Draft 1 and Draft2 DCPs document and pilot trial Draft3 DCPs document before it was published; were forwarded draft versions of the DCPs document in advance of

each advisory group meeting and provided feedback about the content and structure of draft versions of the DCPs document; and worked with the project management group to finalise the content and structure, including specific wording, for the final version of the DCPs document published by the Australian Commonwealth Government.

The project was commissioned by the Australian Commonwealth Government and therefore the final content and structure was approved by the Health Care of Older Australians Standing Committee (HCOASC). This final stage with the Australian Commonwealth Government was open and transparent and the project management group was able to ensure the views and opinions of the advisory group and the evidence generated during empirical stages of the research were authentically represented in the final version of the DCPs document. Immediately prior to publication, no contentious issues arose regarding the structure or content of the DCPs document. This was because the content and structure of the DCPs were inductively derived from a rigorous research process informed by evidence based practice and feedback back loops with nominated experts in delirium care through the advisory group.

## **Findings**

The empirical research undertaken during this project to inform the content and structure of the DCPs document was undertaken in four stages.

### **Stage 1**

Stage 1 consisted of accessing and reviewing existing best practice delirium care resources, including pathway documents. A literature search of Cumulative Index to Nursing and Allied Health (CINAHL), Web of Science, Cochrane and Medline was undertaken in order to identify published delirium care resources. A total of 112 articles were retrieved and reviewed. In addition, Google was searched to locate unpublished delirium care resources. Emails were also sent, nationally and internationally, to colleagues requesting examples of delirium resources being used in practice, including: Health Care of Older Australian Standing Committee (HCOASC), NSW Health Clinical Nurse Consultant Dementia Network, NSW/ACT

Dementia Training and Study Centre, Australian Association of Gerontology, Geriatric Society of America and British Society of Gerontology. In total, 30 email responses were received containing information about delirium resources, from Australia, England, and Ireland. The resources located included clinical guidelines, clinical pathways, care plans, standardised operating procedures all related to delirium care of the older person.

All resources located from the database search, retrieved from the Google search and received via email were critically reviewed by the advisory group. The following criteria were applied when reviewing the resources reviewed:

- Does the format of the resource make it easy to navigate?
- Does the resource reflect evidence based best practice delirium care?
- Does the resource include specific detail to enable the practitioner to be guided to deliver evidence based best practice delirium care? and
- Was the resource short and concise?

At the end of this review process, three delirium care pathway documents were identified by the advisory group as useful for informing the content and structure of a new DCPs document. These documents included the Clinical Practice Guidelines for the Management of Delirium in Older People (Clinical Epidemiology and Health Service Evaluation Unit, 2006), copies of three unpublished delirium resources forwarded to the project management group via email, and Poole's Algorithm (Poole and McMahon, 2005; Poole, 2009). An already published stroke pathway document, from same portfolio of work as the DCPs project commissioned by the Australian Commonwealth Government, (National Stroke Foundation, 2006) was also reviewed. However, when this document was reviewed, the advisory group considered this document too lengthy and wanted the DCPs document to be shorter and more concise to ensure it was usable by the target registered practitioners who were intended audience of the new DCPs document. The advisory group also identified the *Clinical Practice Guidelines for the Management of Delirium in Older People* (Clinical Epidemiology and Health Service Evaluation Unit, 2006) as an important and useful document which needed to have specific pages referred to in the DCPs document. Integrating the content from specific pages in the Guidelines document (Clinical Epidemiology and Health Service Evaluation Unit, 2006) into the final DCPs would ensure

the goal of the DCPs being a supplementary resource for the Guidelines document would be achieved. When the advisory group reviewed the stroke clinical pathways document, which was promoted as a supplementary document to the stroke guidelines, they found that it simply repeated the lengthy and comprehensive content of the guideline document. The advisory group did not consider the stroke clinical pathways document to meet the aim of being a document which was more accessible to registered practitioners than the stroke guidelines document.

## Stage 2

Stage 2 consisted of focus groups and interviews with registered practitioners managing, developing and delivering healthcare services to older people with delirium and family carers. Focus groups and one-to-one interviews were conducted to provide empirical evidence about what content and structure practitioners wanted from a DCPs document. Stage 2 of the project aimed to ensure that the DCPs document would be valid, usable and relevant for registered practitioners (Holloway and Wheeler, 2002). Focus groups were adopted to generate evidence from participants working with older people who experience a delirium because this method generates discussions not usually possible from one-to-one interviews on their own. The group discussion within a focus group brings new ideas and opportunities for elaboration not possible within a one-to-one interview. Focus groups can also create a consensus view which was useful when developing the DCPs document for use in clinical settings. The one-to-one interviews with managers and policy makers specialising in aged care were chosen for a pragmatic reason because gathering these senior colleagues together in one place was not possible.

Participants of the focus groups and one-to-one interviews were invited to complete two tasks: (i) review the resources identified by the advisory group as useful for informing the content and structure of the new DCPs document and (ii) generate ideas about the content and structure for the new DCPs document. In total, seven focus groups and eight one-to-one interviews were undertaken with a registered practitioners (n=45). All care settings and a range of job roles were represented by the participants (Table 1).

**Table 1: Stage 2 Participants' Job Setting and Job Title**

Care Setting	Job Title	Number
Aged Care Assessment Team	Clinical Nurse Consultant	2
	Clinical Nurse Specialist (Dementia)	1
	Senior Occupational Therapist/ Occupational Therapist	3
	Senior Physiotherapist	2
	Senior Speech Therapist	2
	Social Worker (Team Leader)	1
Acute Care	Clinical Nurse Consultant	3
	Clinical Nurse Specialist	2
	Social Worker	1
	Clinical Nurse Consultant	2
Across Settings	Clinical Nurse Consultant	1
	Nurse Practitioner	1
Community	Clinical Nurse Consultant (Aboriginal Torres Strait Islander)	1
	Nurse Practitioner	1
Residential Aged Care Facility	Assistant Care Manager	4
	Assistant in Nursing	3
	Clinical Care Manager	2
	Director of Nursing	2
	Diversional Therapist	2
	Endorsed Enrolled Nurses	3
	Nurse Educator	1
	Nurse Practitioner	1
	Registered Nurses	4
	<b>Total</b>	

The project manager undertook all focus groups and one-to-one interviews. Where possible, the project manager travelled to the workplace of the participants to enable participation from as far across the local region as possible. To enable participation more widely across NSW state, including rural locations, focus groups were also undertaken via telephone. All focus groups and expert interviews were digitally recorded (audio) and data were transcribed verbatim. Data were de-identified, using codes, to ensure participants remained anonymous. Maintaining anonymity during this project was important as some participants were from a small group of known specialists and could be easily identified by reporting their job title. No incentives were provided to participants of this project.

The qualitative data were analysed using content analysis techniques (Silverman, 2006) and the findings used to develop the content and structure of the DCPs document. Specifically, the analysis was undertaken with the overall aim of identifying what essential content about delirium care needed to be included in the new DCPs document and how the document needed to be structured to ensure its usefulness for registered practitioners across care settings. The findings were compared across focus groups and one-to-one interviews to ensure the new DCPs document would be relevant and useful to registered practitioners working across all care settings. Four themes were identified: (i) Clinical Guidelines; (ii) Relevance of Pathways; (iii) Purpose of Pathways; and (iv) Content of Pathways. Extracts of data from the participants from the themes informed the development of Draft1 DCPs document (Table 2).

**Table 2: Summary of content analysis findings from focus group and one-to-one interview data by theme**

<b>Theme and examples of findings</b>
<i>(i) Clinical Guidelines</i>
<ul style="list-style-type: none"> <li>• Majority of participants who were registered practitioners working in clinical settings were viewing the Clinical Guidelines for the first time (FGs)</li> <li>• All experts had reviewed the Guidelines and the majority had initiated implementation of the Clinical Guidelines (Is)</li> <li>• Practitioners reported that Clinical Guidelines were too long to be useful in practice and experts recognised this as a limitation in their use (FGs and Is)</li> </ul>
<i>(ii) Relevance of Pathways</i>
<ul style="list-style-type: none"> <li>• Particularly useful in nursing homes where many registered nurses gained their professional qualification many years ago (up to 30) and are not familiar with using evidence based practice resources (FGs)</li> <li>• GPs, in particular, need to be aware of the Pathways because of GPs play a pivotal and crucial role in ensuring access to appropriate services (Is)</li> </ul>
<i>(iii) Purpose of Pathways</i>
<ul style="list-style-type: none"> <li>• Participants recognised the usefulness of the Pathway for providing them with evidence to support their liaison with medical practitioners (FGs)</li> </ul>
<i>(iv) Content of Pathways: Assessment and screening</i>
<ul style="list-style-type: none"> <li>• There are assessment and screening tools which nursing homes must use to report the needs of older people who live in the nursing home where they work and apply for the accompanying monies for funding</li> </ul>

**Theme and examples of findings**

- Multi approaches needed, including, online with hyperlinks, hard copy, and poster versions (FGs and Is)
- Orange colour to be continued to maintain association with HCOASC delirium documents (Is)
- Publication and distribution of Pathways very important
- GPs need to be targeted with notice about availability of Pathways to ensure their use of the Pathways is increased (Is)
- Need a strategic plan to distribute Pathways otherwise the difficulties in accessing the Clinical Guidelines will be replicated with the Pathways (Is)
- Pathway must not be prescriptive (FGs)

FG: Focus Groups/ I: Interviews

The majority of comments made about existing documents reviewed during the focus groups and one-to-one interviews were related to the importance of the layout, colour and clarity of the new DCPs document. The findings from the focus groups and one-to-one interviews were used by the project management group to create Draft1 DCPs document.

Draft 1 of the DCPs document was presented to the advisory group for review and feedback and this review was used by the project management group to develop the Draft2 DCPs document. The Draft2 DCPs document was created as a flow chart and visually looked similar to the final published version of the DCPs document. The content of each box in the flow chart was generated from a combination of the findings of the analysis of the focus groups and one-to-one interviews and feedback from the advisory group on Draft1 DCPs document. The Draft2 DCPs document was produced using PPT slides, specifically 'Smart Art' objects, printed in colour. The document was 17 pages long and consisted of: extracts of whole pages from the Guidelines document (Clinical Epidemiology and Health Service Evaluation Unit, 2006) (Table 3), which were deemed essential by the registered practitioners who participated in the focus groups and one-to-one interviews and the advisory group members, and three patient journeys explaining best practice delirium care in: (i) community; (ii) acute care; and (iii) nursing home settings.

**Table 3: Extract from Guidelines document included in Draft2 DCPs document**

Preventive Strategies For Delirium (flow chart)
Cognitive Assessment (flow chart)
Risk Factors (table)
Strategies to Prevent Delirium (table)
Poole's Algorithm (flow chart)
Delirium Diagnostic Tools (one page summary)
Identify and Address the Causes of Delirium (three page summary)
Management (2 flow charts)
Supportive Care: Patient Brochure (two pages)

### Stage 3

Stage 3 was a pilot trial of the Draft2 DCPs document. All focus group participants volunteered to participate in a pilot trial of the Draft2 DCPs document. Therefore registered practitioners from all care settings (community, acute care and nursing homes) and locations within NSW, Australia (metropolitan, regional and remote) were represented in pilot trial Stage 3 of the project. A total of 15 sites participated in the pilot trial and pilot trialled Draft2 DCPs document with older people experiencing a delirium.

The Draft2 DCPs document was distributed for use by all participants who participated in the focus groups and all agreed to participate in the pilot trial. Each participating site was provided with a copy of a 'Practitioner Feedback Form' developed by the project management group to record the outcomes from the pilot trial of Draft2 DCPs document. The form consisted of a range of questions and items: demographic details about the older person being pilot trialled using the Draft2 DCPs document and qualitative questions requesting that registered practitioners record comments about the Draft2 DCPs document, specifically its content and structure, implementation issues and ideas for improving its use in clinical settings. The responses were analysed using a content analysis techniques (Silverman, 2006).

In total, the Draft2 DCPs document was pilot trialled with 12 older people experiencing a delirium. Some sites were unable to pilot trial the Draft2 DCPs document as no older person experiencing a delirium presented to their service during the pilot trial period (Table 4). The majority of registered practitioners who pilot trialled the Draft2 DCPs document were



enrolled nurses or registered nurses (11, 61%), followed by social workers (3, 17%), general practitioners (2, 11%) and recreational activity officers (2, 11%). Over half the older people who participated in the pilot trial were over 90 years (58%, n=7). This finding was reflective of the high proportion of older people who were trialled in the pilot in nursing homes (58%). Five of the older people (42%) who participated in the pilot trial were from rural and remote communities and two (17%) from culturally and linguistically diverse (CALD) communities. No older people who participated in the pilot trial identified themselves as being from an Aboriginal or Torres Strait Islander community. A specialist practitioner who identified as being from an Aboriginal or Torres Strait Islander community volunteered to review the Draft2 DCPs document. Her comments informed the content and structure of the DCPs document to try to ensure the needs of older people from Aboriginal and Torres Strait Islander communities was represented in the feedback.

**Table 4: Clinical settings of *Delirium Care Pathways* document pilot trial sites**

Care setting	Number of sites (%)	Number of older people (%)
Community	3 (20)	0 (0)
Acute	7 (47)	5 (42)
Nursing home	5 (33)	7 (58)
<b>Total</b>	<b>15 (100)</b>	<b>12 (100)</b>

All of the registered practitioners who participated completed the 'Practitioner Feedback Form' when they pilot trialled the Draft2 DCPs document with older people experiencing a delirium. They all provided comments as requested and it was found that the content and format of the Draft2 DCPs document was useful (89%, n=11) and relevant (89%, n=11) for providing guidance in implementing best practice delirium care to older people. The majority of participants (89%, n=11) stated that they would recommend the use of the Draft2 DCPs document to other colleagues.

A range of comments and requests for amendments to the Draft2 DCPs document were made by the participants in the pilot trial Stage 3 of the project. The comments made were mainly focused on the structure and wording of the Draft2 DCPs document. Overall, all participants reported positive feedback on the Draft2 DCPs document and comments were

focused on specific wording in each of the patient journeys created within the Draft2 DCPs document to more specifically explain best practice delirium care in community, acute care and nursing home settings. The inclusion of an advance care plan/ living will to record the wishes of individuals who can no longer verbally articulate their wishes, specifically for older people living in nursing homes was requested. Participants also raised the issue of consent for older people, again specifically those living in nursing homes, and how registered practitioners can gain consent from an older person experiencing a delirium for treatment to be commenced, including a hospital admission. Participants pointed out that the legibility of some of the figures in the Draft2 DCPs document made it difficult to read and the printing needed to be improved for the final version of the document. All comments and requests for amendments provided during the pilot trial of Draft2 DCPs document were addressed and incorporated into Draft3 DCPs document when it was created for review by the advisory group.

The participants who pilot trialled the Draft2 DCPs document were overall satisfied that it would be a useful and relevant document to guide their implementation of best practice delirium care. An extract of data from a participant who pilot trialled the Draft2 DCPs document in a nursing home illustrated this positive outcome from the pilot trial Stage 3 of the project:

“That’s exactly what we do [NH staff]. Do you want any other point’s added [NB]? No [NH staff].”

(Focus Group Participant 13/09)

This extract of data is representative of views expressed by other registered practitioners working in other care settings. Thus, there was confidence among the project management group that the amendments made to the Draft2 DCPs document produced a new document of sufficient quality to undertake a meaningful pilot trial of Draft2 DCPs document.

#### Stage 4

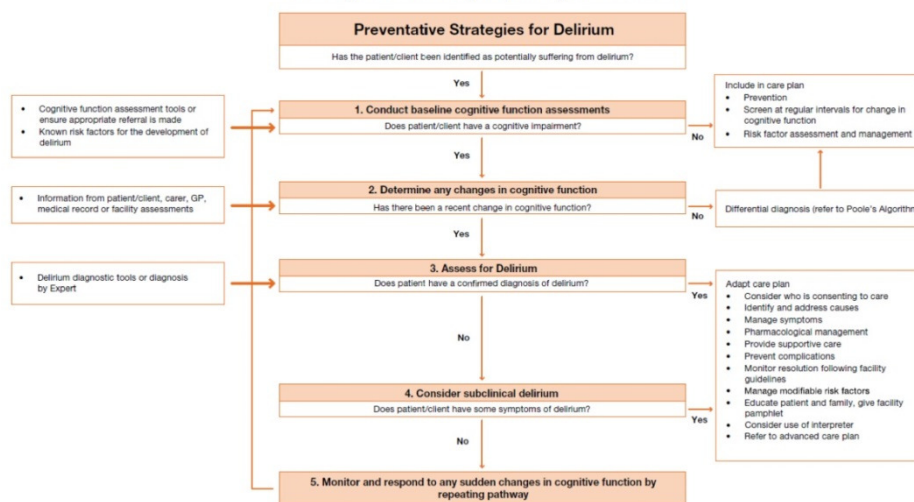
The last stage of the project was approving the final version of the new DCPs document for publication by the Australian Commonwealth Government. The project management group and advisory group worked together during this stage to finalise the document to be published by the Australian Commonwealth Government. During this final stage of the project, only one issue was debated between the project management group and the advisory group. There was debate about how to ensure the DCPs document was evidence based and relevant to all jurisdictions in Australia, that is could take account of different service delivery models in different states and territories across Australia. The project management group negotiated with the advisory group and a decision was made not to: (i) name a specific delirium screening tool in the DCPs document or (ii) list examples of referral services for community or nursing home care settings. This specific wording was not included to ensure the DCPs document was applicable and relevant across different organisations who chose different evidence based delirium screening tools and had specific referral pathways for delirium care in community and nursing home settings.

The final published version of DCPs consisted of 27 pages (Department of Health, 2011). The document started with 14 pages from the Guideline document (Clinical Epidemiology and Health Service Evaluation Unit, 2006) (Table 3) (pp. 3-17) to ensure practitioners using the DCPs document had immediate and easy access to essential best practice resources. The main and most important part of the new DCPs document was the three patient journeys created to enable registered practitioners working in community and acute care and nursing home settings to implement best practice delirium care (pp. 19-21). At the end of the document, there was a glossary of terms (pp. 26-27). Lastly, posters were produced for service managers to print out and display in clinical settings to promote the use of the DCPs document (Figure 1).



**DELIRIUM CARE PATHWAYS**

Consider for use if aged over 65 years or 45 or older for Aboriginal and Torres Strait Islander Communities (ATSI)  
 Delirium may be a life threatening and potentially reversible condition



Adapted from: Clinical Epidemiology and Health Services Evaluation Unit 2006, Clinical Practice Guidelines for the Management of Delirium in Older People, Victorian Government Department of Human Services, Melbourne, Victoria.

[www.ahmac.gov.au](http://www.ahmac.gov.au)  
 All information in this publication is correct as of August 2011.

**Figure 1: Copy of the poster produced for display in clinical settings to promote the use of the DCPs document**

The patient journeys explained best practice patient flow and the clinical work to be undertaken by registered practitioners. The patient journey in each setting commenced with the first interaction a registered practitioner has with an older person at risk of developing a delirium or with a suspected delirium and explains best practice delirium care during the management of a delirium experienced with by an older person and continues through until the discharge processes to be undertaken for older person who experienced a delirium, including the care required for the family member of the older person. Importantly, each patient journey included details about best practice communication at specific points in the patient journey in each care setting, with the older person, family carer and multi-disciplinary healthcare team members, to ensure a whole-team approach to delirium care is adopted. Lastly, a set of posters summarising the three patient journeys (community, acute and nursing homes) was created to enable practitioners to easily print out large versions of the DCPs document in their clinical setting as one way to promote adoption of the DCPs.

The final stage of publication was the creation of a webpage within the Australian Commonwealth Government Department of Health (DoH) webpages onto which the DCPs document and posters were uploaded (Department of Health, 2011). In addition, the host university Aged and Dementia Health Education and Research (ADHERE) web page has a link to the DoH webpage promoting the DCPs and the posters (University of Wollongong, 2015).

## DISUCSSION

The iterative and inductive process adopted to develop this new DCPs document reflected an emphasis on the importance of stakeholder engagement to develop this resource by the Australian Commonwealth Government who commissioned the project. The views of registered practitioners from all care settings (community, acute and nursing homes) and across locations (metropolitan, regional and rural) were gathered to develop the content and structure of the new DCPs document. This ensured the content and structure of the document reflected the needs of the target users of the new DCPs document and will increase the likelihood of its usability and relevance for registered practitioners working with older people experiencing a delirium.

Since the Australian Commonwealth Government published its DCPs document, a range of projects and initiatives have been implemented within Australia, state-wide and national, and internationally by the authors and other colleagues. This included a documentary medical record audit which showed that in a local health district delirium was only documented in 2% of medical records reviewed, despite the retrospective audit indicating that the actual rate of delirium was 14% (Traynor et al., 2015). The DCPs document was complemented with a 2014 document '*A Better Way to Care: Safe and High-Quality Care for Patients with Cognitive Impairment (Dementia and Delirium) in Hospital*' (Australian Commission on Safety and Quality in Healthcare, 2014). A state-wide initiative in NSW, Australia, is underway 'Care of Confused Hospitalised Older Persons' (CHOPS) (Agency for Clinical Innovation, 2016) was implemented in over 20 local health districts. This initiative includes, practice change implementation projects, a website resource for replicating education initiatives and an annual conference to disseminate the results and findings of these activities (Agency for Clinical Innovation, 2016). This project is similar to the Hospital

Elder Life Program (HELP) which was implemented in the USA and UK (Hospital Elder Life Program, 2016; Yue et al., 2014). Lastly, the work undertaken by the authors for this project resulted in a range of projects to improve delirium care. The outcomes from these projects can be viewed at the host university website ADHERE:

- Completed:
  - Delirium Care Flip Chart resource for registered practitioners (2013);
  - Delirium Care Online Resource for registered practitioners and support care workers (2015);
  - Master of Philosophy thesis 'Recognition of Delirium by Registered Nurses' (2015);
  - Objective Structured Clinical Examination (OSCEs) delirium care project (2016); and
  - Medical record audit of anaesthetic procedures for older people undergoing surgical procedures to identify factors causing delirium (2015).
- Ongoing:
  - online survey of anaesthetists knowledge, clinical practice and attitudes towards post-operative delirium among older people (2016); and
  - Ongoing PhD study 'The Lived Experience of Older People Experiencing a Delirium' (2019).

## CONCLUSIONS

The overall aims of this project were to develop a new DCPs document and provide registered practitioners with a guide on delivering best practice delirium care across all care settings (community, acute care and nursing homes) and locations within Australia (metropolitan, regional and rural). The published DCPs document consisted of extracts from a Guidelines document (Clinical Epidemiology and Health Service Evaluation Unit, 2006) with essential information easy to view, three patient journeys, a glossary, poster print outs, and a webpage resource providing free to view access to the DCPs document. Extensive stakeholder consultation, with representation from registered practitioners from across

care settings, the multi-disciplinary team and locations in Australia, pilot trialling of draft versions of the DCPs document and review of draft versions by Government nominated experts (clinicians, managers, policy makers, researchers and consumer representatives) in delirium care ensured the content and structure of this document were usable and relevant to the target audience who would use the new DCP document in clinical practice. What was unique about the new DCPs document was its conciseness and the production of three patient journeys explaining best practice delirium care across care settings and the posters to promote the use of the DCPs document. Since its publication, the outcomes of this project influenced national and state-wide initiatives in Australia and an international study on post-operative delirium among older people.

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