





Cognitive Impairment in Acute – a real cost for safer care

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Cognitive Impairment







Presentation Summary

- What is the hospital admission data for people with Cognitive Impairment (CI)
- What are the hospital risks for patients with CI
- Is it possible to change the care culture and outcomes?
- What would good acute care for the person with CI look like.



Are there drivers to make the change







Australian Data

- Cognitive Impairment in Acute Hospitals
 - 29.4% of the population 70 and over in acute medical and surgical wards have cognitive impairment

- 20.7% of the over 70s had dementia

(C Travers, G Byrne, N Pachana, K Klein, L Gray A prospective observational study of dementia and delirium in the acute hospital doi: 10.1111/j.1445-5994.2012.02962.x In print)

- BHS experience suggests 30% of all adults in acute beds have CI
- In the private sector the prevalence in all adult patients was 27%







Growth in Hospital Usage by Age 2008-9 to 2009-10

Average Change in SeparationsAgeMaleFemale65-7425%23%75-8419%13%>8549%33%

National Ave Increase in separations= 4.7% AIHW Australian Hospital Statistics 2009-10

Ballarat Health Services Bedday Usage 2008-12 Patients over 65 – increased by 18%

Patients over 80 – increased by 16.3%







Cognitive Impairment and Risk for Patients

Odds ratio of acquiring a preventable complication in patients with dementia compared to age matched without dementia#

	Medical Ward	Surgical Ward
UTI	1.79	2.88
Pressure Ulcer	1.61	1.84
Pneumonia	1.37	1.66
Delirium	2.83	3.10

#Bail et al. BMJ Open in print







Cognitive Impairment and Risk for Staff

Staff difficulty

- 80-90% of clinical staff perceived difficulty when caring patients with CI
- 30-40% perceived difficulty with carers







Cognitive Impairment and Risk for Costs

"The average cost of hospital care for people with dementia was higher than for people without dementia (\$7,720 compared with \$5,010 per episode, respectively)."

Australian Institute of Health and Welfare 2013. Dementia care in hospitals: costs and strategies. Cat. no. AGE 72. Canberra: AIHW.







Cognitive Impairment and Risk for Costs

- ALOS is 3.5 times longer when dementia is the principal diagnosis and 2.5 times longer in the combined principal and additional group
- LoS has been reduced by 24% over the last 5 years compared with a 6% decline on a national average
- Dementia when present was documented in the notes in less than half the time.*







Cognitive Impairment and Risk for Costs

 Dementia is rarely the reason for admission. It is 6-7 times more likely to be an additional diagnosis

AIHW Dementia in Australia 2012

 On average patients with dementia have 1.8 stays in hospital a year and were more likely to be readmitted in 3 months for a multiday stay.

*Draper et al Hospital Dementia Services project (HDS)

to achieve greater efficiencies hospitals need to be aware of CI and train staff to mitigate the risks







Improving Dementia Care in Hospitals

- Dementia Care in Hospitals Program
- Recommendations of the Dementia in acute Care Forum
- Funding modles and CI
- National Policy Drivers to manage risk and cost







The Dementia Care in Hospitals Program An All of Hospital Education Program to Improve the Awareness of and **Communication with People** with Dementia – Linked to a Visual Cognitive Impairment Identifier (CII)

> Mark Yates, Meredith Theobald, Director of Nursing Subacute, Michelle Morvell CNC Cognition Ballarat Health Services

Focus Groups Facilitated by Alzheimer's Australia Victoria -People with Dementia and their Carers



DCHP Bed side Cognitive Impairment Alert (CII)







DCHP- Phase1 Staff Education

Communication

Carer engagement

Understanding

DCHP Phase 1: Hospital Education Program Results





Self-rated measures:		Means (1)			
		Direct care staff	Non- direct care staff	Total	
How would you rate your confidence in dealing with patients with dementia, delirium or memory and thinking difficulties?	Pre	3.06	2.90	3.00	
	Post	3.24*	3.03*	3.15*	
How would you rate your level of comfort in dealing with patients with dementia, delirium or memory and thinking difficulties?	Pre	3.12	3.00	3.07	
	Post	3.32*	3.10*	3.22*	
How would you rate your level of job satisfaction in dealing with patients with dementia, delirium or memory and thinking difficulties?	Pre	2.71	2.82	2.75	
	Post	2.97*	2.93*	2.95*	
How would you rate the level of organisational support you receive in dealing with patients with dementia, delirium or memory and thinking difficulties?	Pre	2.79	2.56	2.71	
	Post	3.00*	2.68*	2.86*	
n your experience how well equipped is the	Pre	2.21	3.24	2.57	
ospital environment to meet the needs of atients with dementia, delirium or memory and inking difficulties?	Post	2.17	2.96	2.52	

Notes: (1) 1 = Very low, 2= Low, 3= Satisfactory, 4= High, 5= Very high. * Change in "desired" direction.







DCHP Phase 1:Carer Response

Question to Carer	Satisfi	ed (%)	Dissatis	fied (%)
	Pre	Post	Pre	Post
	(n=25)	(n=30)	(n=25)	(n=30)
That the staff knew the patient has CI	80	87	20	6
Staff introduced themselves	70	81	25	0
Staff did not expect more than patient capable of	75	84	20	6
Staff explained things simply	65	90	15	6
Carer invited to provide information	80	78	15	9
Notice taken of information volunteered by carer	80	84	20	6
Staff understanding of challenging behaviour	55	87	10	3
Carer given information about treatment given	70	78	25	19
Carer given option to receive discharge information	70	81	15	3
The hospital is "dementia friendly"	85	92	15	6
Per cent satisfied or dissatisfied	73	84.2	18	6.4

Satisfied = Very Satisfied + Satisfied Dissatisfied = Unsure + Dissatisfied + Very Dissatisfied







Dementia Care in Hospitals Program

- Victorian DHS Tested in 7 Public Hospitals
- Rolled as now to 22 Victorian Hospitals
- Bupa Health Foundation reevaluation in the Private Sector to investigate transferability and risk reduction









Difficulty Managing with Dementia – Private Sector

Change in Difficulty	Cabrini Site 1		Cabirni Site 2		St JoG- Bendigo	
		Non-		Non-		Non-
	Clinical	Clinical	Clinical	Clinical	Clinical	Clinical
	Staff	Staff	Staff	Staff	Staff	Staff
% reduction in difficulty experienced when working with						
pateints with dementia, delirium or memory and thinking						
difficulties	23.40%	25%	42.80%	2.70%	19%	2%
% reduction in difficulty expreienced working with the carer						
or family of patients with dementia, delirium or memory and						
thinking	2.30%	8%	31%	0.90%	5%	-1%

On average across all 3 sites 84.3% of clinical staff had difficulty with patients with CI pre intervention this decreased to 57.7% post-intervention

No measurable impact on risk









Cognitive Impairment and Vic WIES

- 80yr old pt ORIF of #NOF
 - Vic WIES 2.6393 ALOS 6.5 days
- 80 yr old pt ORIF of #NOF with acute delirium due to UTI post surgery
 - Vic WIES **2.6393** ALOS **6.5 days**
- 80 yr old pt ORIF of #NOF with acute delirium due to UTI on a background of dementia post surgery

- Vic WIES 3.9363 ALOS 12.5 days







Recommendation of the Dementia in Acute Care Forum

Three key recommendations

- A costing study should investigate the costs and benefit of improved care of people with cognitive impairment
- All people over the age of 65 admitted to hospital should be screened for cognitive impairment.
- A national cognitive impairment education strategy should be developed, including the appointment of cognition clinical nurses







Recommendation of the Dementia in Acute Care Forum

- 25 additional recommendations were made
 - Develop national standards on acute care of people with dementia and delirium,
 - Integrate cognitive function into the National Safety and Quality Health Service Standards.
 - Use a Cognitive Impairment Identifier to communicate needs of patients.
 - Provide a dementia-friendly physical environment, including orientating cues for patients, carer facilities and special care areas.







National Change Drivers

- Dementia A National Health Priority Area 2012
- The National Safety and Quality Health Service Standards -2011
 - Consumer Engagement, Medication Safety and Falls are all difficult to address if those with CI are not known to the organisation
- National Hospital Performance Authority
 - Re admission is more likely in patients with cognitive impairment
- New Australian Government Initiative -LLLB
 - \$39 M over 5 years to improve Dementia Care in the acute setting







Next Steps Nationally

- The program of activity linked to the LLLB innitiative
 - Changes to the National Standards to include cognitive impairment
 - Building/ environmental guidelines for acute to meet the needs of those with CI
 - Hospital education programs
- Alzheimer's Australia call for a national symbol for dementia
 - National Framework for Action On Dementia







Conclusions

- The care for patients with CI in the acute setting can be improved
- Hospital process and culture need to change to achieve this
- New national policy settings will be a key driver to change
- The new funding model for acute hospitals can facilitate improvements in care by funding the costs of quality care which have not previously been built into costings.







"I kept forgetting who said what, and there were so many different people...I felt awful that I couldn't even remember what I was there for...it just seemed like a thick fog..."



.....Thank You













Is Acute Care Uncomfortable when you have CI ?

 Governments carers and consumers requests for change







State Government View

The Victorian Dementia Task Force October 1998

 "Acute hospitals are not well equipped to respond to the particular needs of people with dementia and the care given can be compromised."

Cognitive Impairment = Dementia







Consumer View

"I kept forgetting who said what, and there were so many different people...I felt awful that I couldn't even remember what I was there for...it just seemed like a thick fog...'







Consumer View

- Alzheimer's Australia National Consumer Summit 2005
 - Action Point 2: Improve the responsiveness of acute care so it better meets the needs of people with dementia.- We need people working in and managing acute care to understand the needs of people with dementia. We need **protocols** to be established that will inform all who work in acute care so that they can better support and inform people with dementia and their carers. We need acute care to be adequately resourced to respond to our needs.







Combined States and Territories View National Framework for Action on Dementia; 2006–2010

 Acute Care: identify acute care services that are sensitive to people with dementia and the needs of their carers and families

 Develop dementia sensitive principles for Acute care services







Is Acute Care Uncomfortable when you have CI ?

- Adverse event data
 - People with cognitive impairment are over represented in hospital falls data
 - People with dementia have a 40-50% greater chance of developing a delirium







Is Acute Care Uncomfortable when you have CI ?

- Sources of distress when confused
 - Bed changes
 - Staff changes
 - Built environment
- Lack of awareness leads to expectations of the patient beyond their capability
 - Dementia when present was documented in the notes in less than half the time (Travers et al.)
- An inability to fulfil the expectations of the hospital care paradigm
 - You are a patient not a person
 - "Don't forget to use the bottle we need to collect all your urine today"







The Dementia Care in Hospitals Program (DCHP)

- Program Development and Outcomes 2003-2013
- This Program has now been introduced into 22 hospitals across Victoria
- So far there have been 3 Phases







DCHP-Phase 1: Results

- 200 acute care staff were educated over a six week period
- 169 completed pre-education surveys
- Pre-education 63% of nursing staff reported satisfactory confidence managing cognitive impairment
- Independent evaluation performed by the Australian Institute for Primary Care; funded by the Victorian Department of Health








DCHP-Phase 1: Results

- Staff Survey Report
 - of those with daily or weekly contact with a patient with CI - 80% reported that seeing the CII and the associated education had changed their practice
 - of those with daily or weekly contact with a patient with CI - 40% reported the CII and the associated education had changed their response to carers







DCHP Phase 1:Carer Satisfaction Results

Question to Carer	Satisfied(% c	f response)	Dissatisfied(%	6 of response)
	Pre(n=25)	Post (n=30)	Pre(n=25)	Post(n=30)
That the staff knew the patient has Cog. Impairm.	80	87	20	6
Staff introduced themselves	70	81	25	0
Staff did not expect more than patient capable of	75	84	20	6
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Notice taken of voluntered information by carer	80	84	20	6
Staff understanding of challenging behaviour	55	87	10	3
Carer given information about the treatment given	70	78	25	19
Carer given option to receive discharge information	70	81	15	3
The hospital is dementia friendly	85	92	15	6
Percent satisfied or dissatisfied	73	<mark>84.2</mark>	18	6.4







DCHP Phase1:Conclusions

 People with cognitive impairment and their families find the use of a bedside identifier to alert hospital staff acceptable

 A hospital education program linked to the Cognitive Impairment Alert (CII) improves hospital processes to support patients with CI



DCHP Phase1:Conclusions

 Staff were accepting of the DCHP and the associated bedside CII

 Carer satisfaction of the hospital experience is improved





DCHP Phase 2 - 2006

- Re evaluation in 7 other hospitals
 - St Vincent's Health
 - Barwon Health
 - Melbourne Health
 - Austin Health
 - Latrobe regional hospital
 - Peninsula health
 - Northeast Wangaratta
 - Broadmeadows Health







DCHP Phase 2:Conclusions

- Evaluation demonstrated improvements in staff knowledge, attitudes and perceived level of organisational support.
- Levels of all or most of these measures showed an increase between pre and post education across all projects.

Lincoln Centre for Ageing and Community Care Research and Victorian Department of Human Services, (2007), Evaluation of Education and Training of Staff in Dementia Care and Management in Acute Settings.)







DCHP-Adoption

Victorian Department of Health (COAG LSOP)

- Person centred practice
- Assessment
- Mobility/Vigour/self-care
- Nutrition
- Delirium
- Dementia
- Depression
- Continence
- Medication
- Skin Integrity

Delirium - A learning module for Junior Doctors



Victorian Geriatric Medicine Training Program



mpair't^uldentifier

rogram



© Ballarat Health Service.

The Cognitive Impairment Identifier is part of a hospital wide education program to improve the awareness of and communication with patients with Cognitive Impairment, sponsored by the Department of Human Services,

Vice the rest for the state of Victoria.







Phase 3-2012 Bupa Foundation

- Demonstrating transferability to the private sector
- Validation of the impact of the DCHP on hospital risk
- Results will be available in March.
- Abstract at AA National Conference May







National and International programs

- Dementia Care in Hospitals Program Ballarat Health Services (2003-)
 - Education linked to an over bed alert with access to skilled nursing support strong AA link
- Cognition Care Support Teams (CCST)– Peninsula Health Care (2008-)
 - Education linked to Skilled Nurse Support
- Care of the Confused Hospitalised Older Person Study (CHOPS)– NSW Agency for Clinical Innovation(2010-12)
 - Education linked to standards
- The Butterfly Scheme UK (2012-)
 - Education with a hidden identifier for staff only
- Dementia Friendly Hospitals: Care not Crisis- US
 - Education linked to standards strong AA link







Can Care be improved?

• Yes

- There are existing national models that have suggested benefit in staff knowledge and attitude and carer satisfaction
- But...
 - We need the will and drivers to make change happen







Are there new change drivers

- The National Safety and Quality Health Service Standards -2011
 - The Deteriorating Patient, Medication Safety and Falls are all difficult to address if those with CI are not known to the organisation
- National Hospital Performance Authority
 - Re admission is more likely in patients with cognitive impairment
- Dementia A National Health Priority Area –



- New Australian Government Initiative
 - \$39 M over 5 years to improve Dementia Care in the acute setting





Bollarat Health Services Putting your health first *"I didn't want them making a fuss of me.... there are people worse off than me.... I may forget some things but I'm not stupid"*







Screening for Cognitive Impairment

- What age
 - 75 and over will miss the 14% younger patients with dementia*
 - 70 and over matches the Travers dat
 - 65 and over the usual screening age recommended with falls etc. would capture the younger delirium but there will be false positives
- Is there a risk with a false positive screening result
 - Depends how a positive result is explained it is not a diagnosis
 - The associated risk management response should provide additional help to the patient and family not restrict freedom or choice

*Draper et al Hospital Dementia Services project (HDS)







Hospital Wide Education

- Who all hospital staff
- What
 - Cognitive screening
 - Carer engagement
 - To change the current hospital care paradigm







Hospital Wide Education

To Change the Care Paradigm

- from one where all **people** in hospitals are expected to be fully capable of being patients to one where we understand those people with CI may not be consistently able to fulfil the patient role requiring us to change our communication, environment and process to reduce anxiety, fear and error.







Bed based Cognitive Alert

- A timely visual cue so staff can use appropriate communication
- Consistent with other hospital policy on alerts
- A relearning opportunity
- A change driver
- A public statement of commitment to better care
- Requested by consumers
 - People with dementia and carers need to see a national symbol for cognitive impairment so that people with dementia are treated appropriately particularly in the delivery of service.(AA Aus Nat. Con Summit- 2005)







Sustainable Organisational Culture Change

- Ward based Dementia champions such as CNC Cognition
 - Diabetes Nurse Specialists are well accepted as key elements to the hospital and outpatient management of diabetes which has a prevalence of 11.1% of Inpatients *

(<u>Diabet Med.</u> 2005 Jan;22(1):107-9.- Hospital in-patients with diabetes: increasing prevalence and management problems. <u>Wallymahmed ME</u>, <u>Dawes S</u>, <u>Clarke G</u>, <u>Saunders S</u>, <u>Younis N</u>, <u>MacFarlane IA</u>)







Flexible Care Options

- Flexible community based treatment option so, when appropriate, acute admission can be avoided
- Community care must be a positive option not an alternative to providing excellence in in-patient dementia care



UK experience

Report of the National Audit of Dementia Care in General Hospitals 2011 Recommendations

The Royal College of Physicians, the Royal College of Psychiatrists and the British Geriatrics Society should **recommend brief screening tools for cognitive function and delirium** for the assessment of people with dementia and older people in the general hospital.



The Chief Executive Officer should **ensure that key leadership roles and support from specialist staff are in place** to ensure delivery of dignified, skilled and compassionate care, for example Dignity Leads, Dementia Champions, Older People's Nurse Consultants.

The Senior Clinical Lead for Dementia should **implement** systems of good practice to ensure that staff can identify people with dementia on the ward/during care and treatment and can provide an appropriate response to their needs

Royal College of Psychiatrists (2011). *Report of the National Audit of Dementia Care in General Activities* Editors: Young J, Hood C, Woolley R, Gandesha A and Souza R. London: Healthcare Quality Improvement Partnership.







Conclusion

- CI is core business in acute hospital
- A detour to acute does not have to be uncomfortable
- As a result of Federal and State Government initiatives there is a an environment for change
- The ball is in our court to deliver that change





























Not sign. = ns p 0.05 = + p 0.01 = ++	(n)Post / (n)Pre	Staff Type	Knowledge change	Confidence change	Organisational change
Aughte	48/137	Clinical	ns	+	ns
Austin		Non- Cl	N/A	N/A	N/A
Pauvan	48/177	Clinical	+	+	ns
Barwon		Non- Cl	++	++	+
Nertherro	48/85	Clinical	ns	ns	ns
Northern		Non- Cl	ns	ns	ns
Manageratia	86/141	Clinical	ns	++	++
Wangaratta		Non- Cl	+	++	++
Devicente	37/208	Clinical	ns	++	++
Peninsula		Non- Cl	ns	++	++
Malhaurraa	11/65	Clinical	ns	+	+
Melbourne		Non- Cl	ns	+	+
St Vincentie	39/148	Clinical	ns	++	++
St.Vincent's		Non- Cl	ns	++	+







DCHP Phase 2: Evaluation

- -A total of 1,611 staff surveys
- -84% of clinical staff reported difficulties working with patients with CI
- –56% reported difficulties with carers











Can Care be Improved ?

Delirium Avoidance

- SK Inouye 1999
 - 40% reduction in delirium incidence in the treatment group- 42 vs 64 (OR .61, 0.4-0.93 p=0.02)
 - reduced length of delirium-105 vs161 p=0.02
- Siddiqi 2009 Cochrane review
 - Sparse evidence that delirium can be prevented
- Multi-disciplinary management of Cognitive Impairment







DCHP-Adoption

I the care/management principles that I should be the termination of the set of the set

- Once identified, alert all hospital staff coming into contact with patients who have memory and thinking difficulties using the Cognitive Impairment Identifier (CII; *** tool**), a tool designed to be used as a discreet bed-based flag of cognitive impairment.
- In organisations using the CII, a hospital wide education program trains staff to respond appropriately to the needs of a patient with cognitive impairment and dementia. Please refer to the website for more information about the identifier and how to use it effectively.
 - http://www.health.vic.gov.au/older/toolkit/06Cognition/02Dementia/index.htm

DCHP Phase 1: Hospital Education Program Results





Calf rated measures							
	Self-rated measures:		Means (1)				
			Direct care staff	Non- direct care staff	Total		
	How would you rate your confidence in dealing with patients with demontia, delirium or memory	Pre	3.06	2.90	3.00		
	with patients with dementia, delirium or memory and thinking difficulties?		3.24*	3.03*	3.15*		
dealir	w would you rate your level of comfort in	Pre	3.12	3.00	3.07		
	dealing with patients with dementia, delirium or memory and thinking difficulties?		3.32*	3.10*	3.22*		
	How would you rate your level of job satisfaction in dealing with patients with dementia, delirium or memory and thinking difficulties?	Pre	2.71	2.82	2.75		
		Post	2.97*	2.93*	2.95*		
:	How would you rate the level of organisational	Pre	2.79	2.56	2.71		
	support you receive in dealing with patients with dementia, delirium or memory and thinking difficulties?		3.00*	2.68*	2.86*		
h p	In your experience how well equipped is the hospital environment to meet the needs of patients with dementia, delirium or memory and thinking difficulties?	Pre	2.21	3.24	2.57		
		Post	2.17	2.96	2.52		

<u>Notes:</u> (1) 1 = Very low, 2= Low, 3= Satisfactory, 4= High, 5= Very high. * Change in "desired" direction.







Is the acute detour often?

- Cognitive Impairment in Acute Hospitals
 - 29.4% of the population 70 and over in acute medical and surgical wards have cognitive impairment
 - 20.7% of the over 70s had dementia
- National Hospital Data
 - Those over 65 accounted for 48% of all multiday beddays
- Combining the Travers data and National Hospital Data 1-2 patients in every 10 in acute hospitals will have Cognitive Impairment
- BHS experience suggests 30% of all adults in acute beds have CI

(C Travers, G Byrne, N Pachana, K Klein, L Gray A prospective observational study of dementia and delirium in the acute hospital doi:

10.1111/j.1445-5994.2012.02962.x In print)







The Dementia Pathway

- Elements in the Dementia Pathway
 - Awareness, recognition and referral
 - Initial assessment and diagnosis, and post-diagnosis support
 - Management, care, support and review
 - End of life
- Hospital admission can be a detour at any stage of the pathway
- The detour is usually longer than in those without dementia







What would a Good Dementia Care look like

- Screening
- Hospital wide education
- Bed based alert for staff to target appropriate care
- Sustainable Education and culture change program – CNC Cognition
- Flexible community options for care so if appropriate acute admission is avoided







- Mean dementia prevalence in over 65s in General Hospitals was 31%
- Mean combined prevalence for dementia and delirium was 51%

Bollarat Health Services Putting your health first Who Cares Wins-Improving the outcome for older people admitted to the general hospital: Guidelines for the development of Liaison Mental Health Services for older people.







Cognitive Impairment and Vic WIES

- 78 yr old patient with UTI
 - Vic WIES 0.5717 ALOS 2.4 days
- 78 yr old patient with UTI causing delirium
 - Vic WIES 0.5717 ALOS 2.4 days
- 78 yr old patient with "delirium secondary to UTI"
 - Vic WIES 0.9209 ALOS 3.8 days
- 78 yr old patient with UTI causing delirium on a background of Alzheimer's disease
 - Vic WIES 1.5172 ALOS 6.4 days