

Accessing hospital from Residential Care: Current Issues

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Interdependence between acute care and aged care

- **There is close interdependence between various parts of the health and ageing system.**
- **If there is no capital to locate residential aged care beds in the inner city, the result is access block for the Acute Hospital sector – ambulances circling hospitals waiting to land.**
- **If Acute Teaching Hospitals decide to save money by closing their least glamorous section, the geriatric rehabilitation unit, then there are long nursing home waiting lists, with increasing frustration.**
- **As in geriatric medicine there is a convergence of downstream consequences (like confusion, immobility, falls) into one major outcome...**

Access to aged care beds for older people in acute hospital

THE COURIER-MAIL — 3+

Hospital facilities taken by the aged

Matthew Fynes-Clinton

ELDERLY people with illnesses such as pneumonia are occupying surgical beds in winter — forcing hundreds of patients to postpone serious elective surgery for months.

Royal Brisbane Hospital medical staff association chairman Robert Hodge said



Note the implications — important resources such as hospital beds should not be used by older people, who somehow do not need or warrant this resource

The West Australian

Saturday June 9 2007

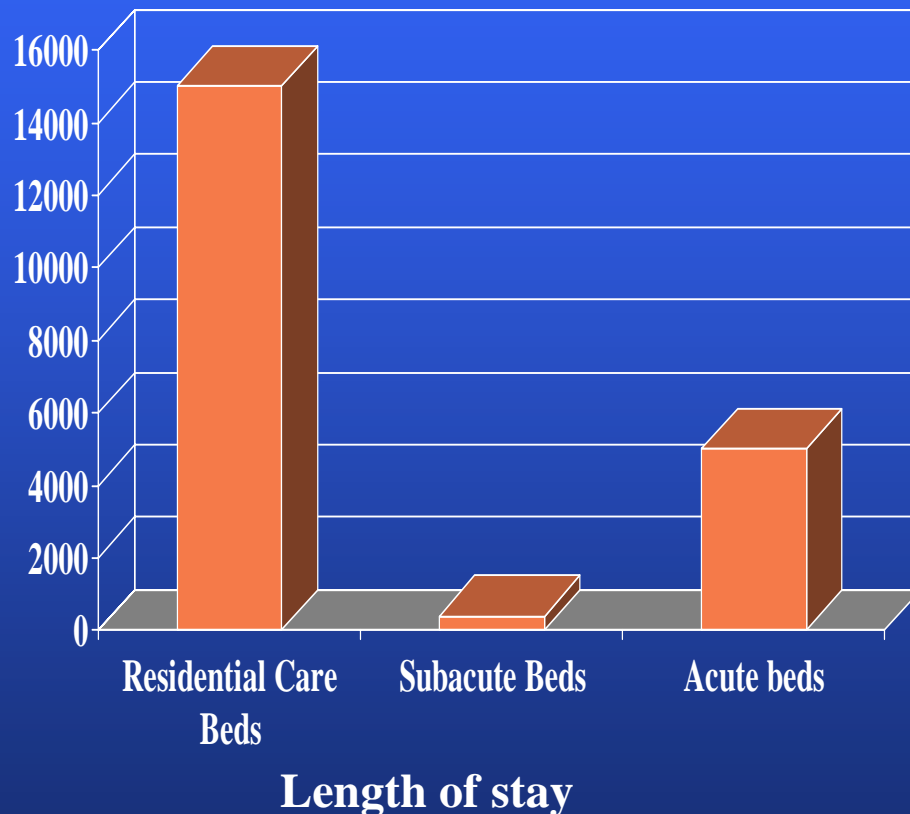
Elderly 'clogging up' beds in hospitals

9th June 2007, 9:00 WST

Hundreds of elderly patients are occupying beds needlessly in public hospitals because of the dire shortage of aged-care places, a situation the Federal Opposition claims costs hundreds of millions of dollars a year.

Number of Beds in Western Australia

Queuing Analogy



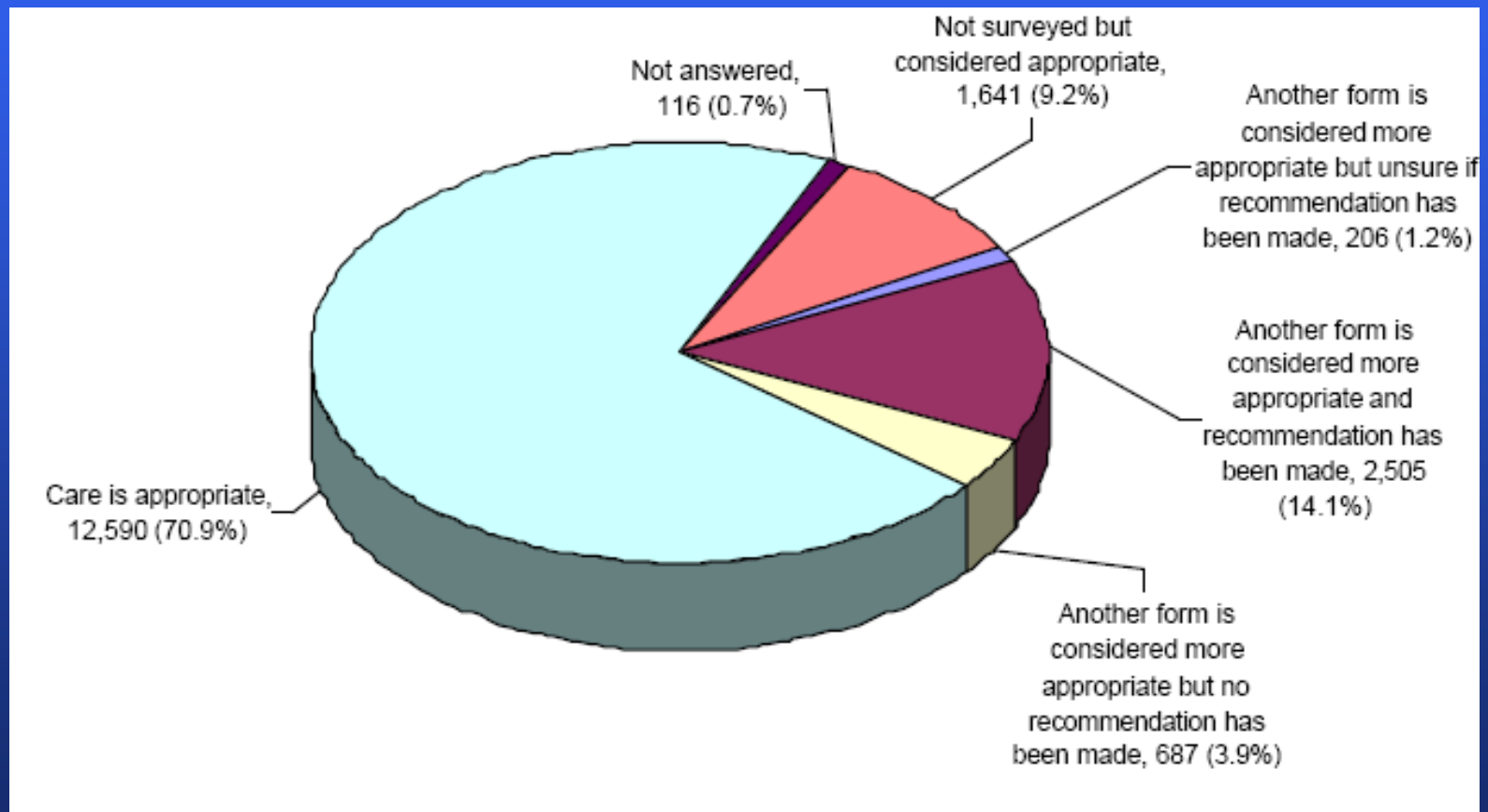
Res	Subacute	Acute
3 years	21 days	5 days

- Finding a residential care bed is like finding a parking spot in the city and determines the speed.
- Acute and subacute beds function as the highways (turning most of the people away from the city) BUT 60% of NH residents come from acute care
- Only about 90 parking spots appear each week
- Closing beds and not reopening them is the equivalent of closing down a parking station
- Opening up new services e.g. transition care services opens up a new lane
- Providing care in the community until death is like bypassing the city.

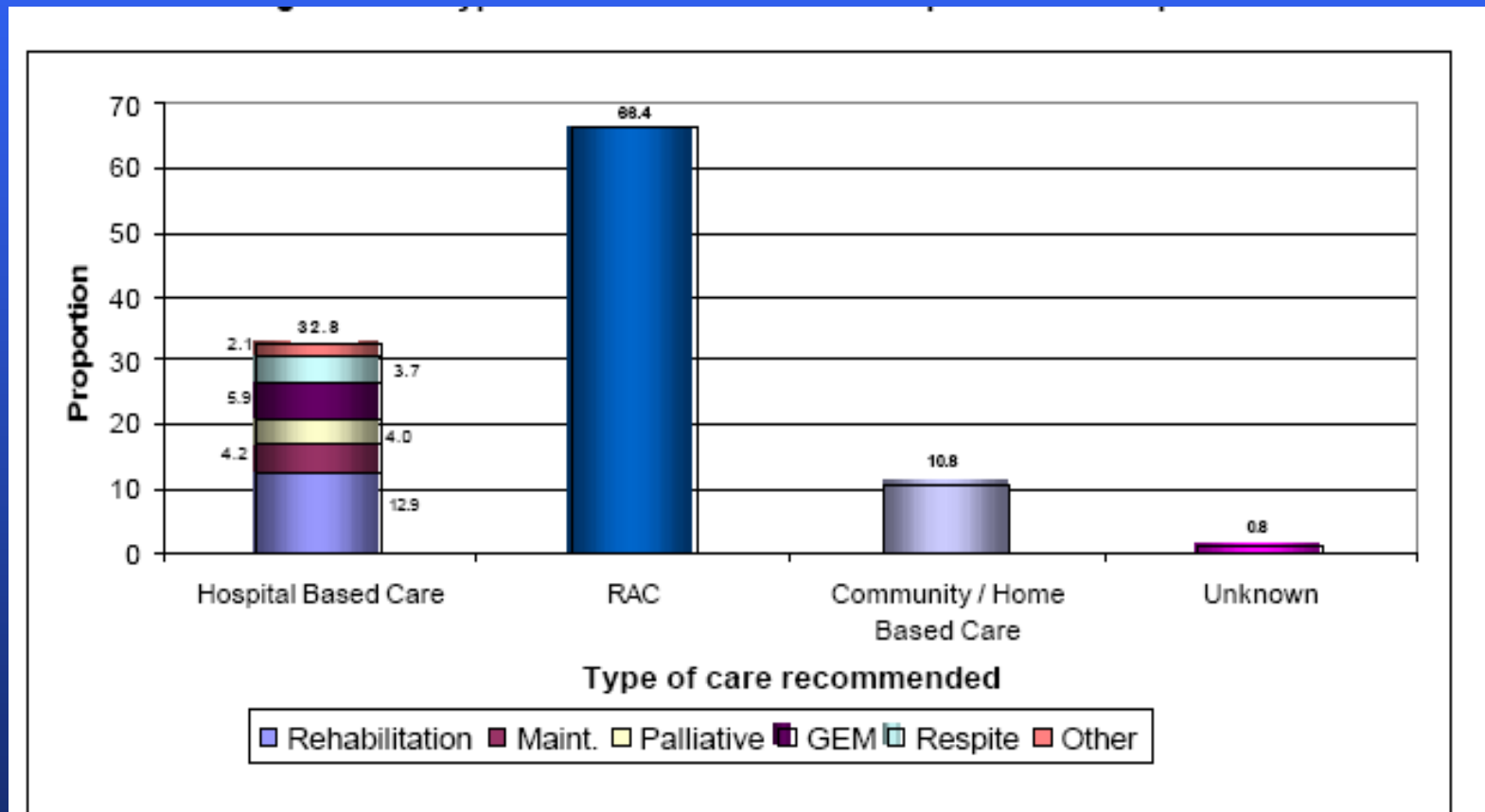
A Hospital Census of 65+

- **On the 17th April 2002 a hospital census of over 65 year olds took place. The second part was completed for the same set of patients at midnight on 8th May 2002**
- **Of a total of 617 hospitals around Australia, 611 hospitals returned surveys covering 99.9% of hospital beds in Australia.**
- **16,104 of the estimated 17,745 patients in hospital were surveyed (1,641 patients were deliberately not surveyed as they were in ICU or other high dependency ward and/or had surgery on the day of the survey).**

Proportion of older people for whom another form of care was considered more appropriate



Type of care recommended for patients in hospital



Implication: Queues for RACFs, subacute care and community care

Are the Queues the only problem?

Use of emergency departments by older people from residential care: A population based study (Age and Ageing (in press))

S Ingarfield, J Finn, I Jacobs, N Gibson, D'Arcy Holman , G Jelinek, L Flicker. NHMRC Project grant (number 254559).

- **There is some limited evidence from populations outside Australia that people living in RCFs utilize hospital services more frequently than other older people.**
- **What is their length of stay?**
- **Do people from RCFs have a different pattern of hospital admissions?**

USE OF EMERGENCY DEPARTMENTS BY OLDER PEOPLE FROM RESIDENTIAL CARE 2

- **Aim:** To investigate the differences between Emergency Department (ED) presentations of older people who do, and do not, live in residential care facilities (RCFs).

Methods

- **Retrospective cohort study**
 - used an extract of EDIS linked to the SJA database and the HMDS between 1 January 2003 and 31 December 2006.
 - **Data linkage**
 - Patients aged 65 or more years who presented in 2003-2006 at one of Perth's public hospital EDs formed the study cohort. The study cohort was restricted to the first ED attendance during this time period.

Use of Emergency Departments by Older People from Residential Care 3

Characteristic	RCF patients (n=6,167)	Non-RCF patients (n=90,994)	Difference *
Mean age	84.7 ± 7.5	76.0 ± 7.7	P<0.001
Number of men	1,767 (28.7%)	42,481 (46.7%)	P<0.001
Night time	2,186 (35.4)	29,563 (32.5)	P<0.001
Died in hospital	483 (7.8)	3,190 (3.5)	P<0.001
Admission	3,980 (65.0%)	48,909 (54.5%)	P<0.001
Median LOS (IQ)	6.0 (2.0-13.0)	5.0 (2.0-12.0)	P<0.001

Logistic Regression Analysis of the Likelihood of a Particular ED Diagnosis for RCF versus Non-RCF

ED diagnosis	RCF (n=5,783)	Non-RCF (n=84,215)	Unadjusted OR (95%CI)	Adjusted OR (95% CI) [†]
Injury	1,379 (23.8)	16,660 (19.8)	1.27 (1.19-1.35)	1.02 (0.95-1.09)
Hip fracture	345 (6.0)	2,200 (2.6)	2.37 (2.10-2.66)	1.16 (1.03-1.32)
Circulatory	723 (12.5)	14,617 (17.4)	0.68 (0.63-0.74)	0.69 (0.64-0.75)
Pneumonia	377 (6.5)	2,671 (3.2)	2.13 (1.91-2.38)	1.94 (1.72-2.19)
UTI	261 (4.5)	1,759 (2.1)	2.22 (1.94-2.53)	1.72 (1.49-1.98)
Neoplasms	24 (0.4)	1,023 (1.2)	0.34 (0.27-0.51)	0.47 (0.31-0.72)

Logistic Regression Analysis of the Likelihood of Hospital Admission and Death in Hospital for RCF versus Non-RCF Patients

Outcome	RCF (%) (n=5,745)	Non-RCF (%) (n=83,805)	Unadjusted OR (95%CI)	Adjusted OR (95% CI)*
Admitted	3,750 (65.3)	46,290 (55.2)	1.52 (1.44-1.61)	1.13 (1.06-1.20)
Died in hospital	457 (7.9)	3,003 (3.6)	2.32 (2.10-2.57)	1.57 (1.40-1.75)

Adjusted for age, sex and ED diagnosis injury, pneumonia/influenza, diseases of the circulatory system

Interface between residential aged care facilities and a teaching hospital emergency department in Western Australia MJA 2006; 184: 432–435

Judith Finn, Leon Flicker, Eileen Mackenzie, Ian Jacobs, Daniel Fatovich, Shelley Drummond, Michelle Harris, D'Arcy Holman and Peter Sprivulis

- **All patients aged 65 years and over transported to RPH ED by ambulance RCF within the Perth metropolitan area between 1 January and 30 June 2002 (about 8.3% of > 65 years)**
- **These patients were identified from St John Ambulance Patient Care Record.**
- **Clinical review panel consisting of a geriatrician (LF), critical care nurses (JF and EM), emergency physicians (DF and PS), a paramedic/emergency department nurse (I J), an aged care liaison nurse (SD) and a nursing home Director of Nursing (MH).**
- **The research nurse (EM) manually reviewed the medical records of all study participants against the defined criteria.**

Criteria for assessing an emergency department presentation as “appropriate”

- **One or more of the following:**
 - **Procedure unable to be performed in a nursing home**
 - **Suitable observations unable to be provided**
 - **History of trauma with suspected fracture**
 - **Requirement for plaster application**
 - **Difficult IDC insertion**
 - **PEG tube insertion**
 - **Suspicion of cerebral event with decreasing consciousness**
 - **Requirement for intravenous antibiotics**
 - **Admission to hospital**

Characteristic	All patients (n = 541)	Presentation "appropriate" (n = 468)*	Presentation "inappropriate" (n = 71)*	Difference [†]
Mean age in years (SD)	83.7 (7.0)	83.8 (7.1)	83.7 (6.5)	t = 0.09, P = 0.93
Number of men (%)	176 (32.5%)	153 (33%)	23 (32%)	$\chi^2 = 0.002$ (1 df), P = 0.96
Reviewed by GP or locum doctor before presentation (%)	136 (25%)	126 (27%)	10 (14%)	$\chi^2 = 5.4$ (2 df), P = 0.02
Blood test (%)	430 (80%)	405 (87%)	24 (34%)	$\chi^2 = 105$ (1 df), P < 0.001
Electrocardiogram (%)	347 (64%)	326 (70%)	20 (28%)	$\chi^2 = 46$ (1 df), P < 0.001
X-ray (%)	403 (74%)	374 (81%)	27 (38%)	$\chi^2 = 57$ (1 df), P < 0.001
Intravenous cannula inserted (%)	358 (66%)	345 (74%)	13 (18%)	$\chi^2 = 85$ (1 df), P < 0.001
Referred by ED staff to specialist (%)	371 (69%)	361 (77%)	10 (14%)	$\chi^2 = 114$ (1 df), P < 0.001
Mean length of ED stay in hours (SD)	5.3 (3.0)	5.5 (3.1)	4.1 (2.0)	t = 5.1, P < 0.001
Survived to discharge from hospital or ED (%)	488 (90%)	416 (90%)	70 (99%)	$\chi^2 = 6.5$ (1 df), P = 0.02

3 Number (%) of 541 patients with various emergency department diagnoses

Musculoskeletal system

Hip fracture	29 (5.4)
Other fracture	24 (4.4)
Soft tissue injury	53 (9.8)
Other musculoskeletal problem	29 (5.4)
<i>Total</i>	<i>135 (25.0)</i>

Respiratory system

Pneumonia	60 (11.1)
Asthma/COPD	16 (3.0)
Other respiratory problem	6 (1.1)
<i>Total</i>	<i>82 (15.2)</i>

Cardiovascular system

Chest pain/angina/AMI	23 (4.3)
Cardiac failure	14 (2.6)
Other cardiovascular problem	25 (4.6)
<i>Total</i>	<i>62 (11.5)</i>

Neurological system

Stroke	14 (2.6)
Seizure	14 (2.6)
Head injury	8 (1.5)
Altered conscious state	26 (4.8)
Other neurological problem	9 (1.7)
<i>Total</i>	<i>71 (13.1)</i>

Gastrointestinal system	
Abdominal pain	8 (1.5)
Bowel obstruction	5 (0.9)
Constipation	12 (2.2)
Gastrointestinal bleed	22 (4.1)
Other gastrointestinal problem	7 (1.3)
<i>Total</i>	<i>54 (10.0)</i>
Genitourinary system	
Urinary tract infection	26 (4.8)
Renal failure	6 (1.1)
Other genitourinary problem	9 (1.7)
<i>Total</i>	<i>41 (7.6)</i>
Miscellaneous	
PEG tube/IDC insertion	27 (5.0)
Mental illness	6 (1.1)
Other infections, NEC	23 (4.3)
Fluid and electrolyte imbalance, NEC	15 (2.8)
Social issues	8 (1.5)
Other, NEC	17 (3.1)
<i>Total</i>	<i>96 (17.7)</i>

4 Major issues identified by the expert clinical review panel

Problem	Possible solutions
Lack of clinical support for staff in RCFs, especially after hours	<ul style="list-style-type: none">• Incentives and training for GPs to attend patients in RCFs, including visits after office hours• An alternative to transfer to ED for assessment and referral• Adequate registered nurse cover of RCFs, including hostels
Lack of planning for adverse clinical events	<ul style="list-style-type: none">• Advanced directives discussed with resident and family, and adherence to them• Practice guidelines to direct the response to acute emergencies
Lack of alternative to ED for relatively simple clinical procedures	<ul style="list-style-type: none">• Performance of simple clinical procedures (eg, PEG tube or IDC insertion, neurological observations) by registered nurses in RCFs• Adequate funding of resources for RCFs (eg, PEG tubes) to deter cost-shifting
Lack of communication between RCF and hospital	<ul style="list-style-type: none">• Documentation (ideally standardised across all RCFs) about functional status, medical conditions and drugs to accompany all residents to hospital• Direct line of communication between RCF staff and ED, prior to transfer to ED, to discuss options

5 Resources/actions that could potentially have prevented "inappropriate" ED presentations

Resource	Number (%) of presentations preventable
GP review	45 (63.4)
PEG tube insertion by nursing home staff*	11 (15.5)
IDC insertion by nursing home staff*	6 (8.5)
Advance directives	3 (4.2)
Better communication	3 (4.2)
Observations	3 (4.2)
Total	71 (100)

Conclusions

- The nature of the difference in service cultures probably require some sort of queues in the system. How this can be minimized and managed needs attention. It is counter-productive to blame older patients.
- Health care in residential care is relatively poorly organized and contrary to popular belief there may be under-utilization of appropriate specialist services. Ageist nihilistic attitudes may be partly responsible for this.
- Virtually every review of this interface comments on the poor communication, often dysfunctional, between the ageing and health sectors. This could be improved.