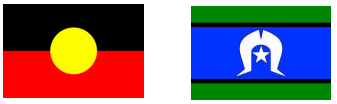
Acknowledgement to Country

I would like to acknowledge the Wadjuk people of the Nyungar Nation as the traditional custodians of this land on which Curtin is situated and pay my respects to Elders past, present and emerging



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Overview

- Review the Extent of the Problem of Hospital Deconditioning
- Adverse Events associated with Hospitalisation
  - In Hospital
  - Post Discharge
- Falls and Mobility in Hospital
- Practical Tips and Strategies for Enhancing Older Patients' Safety and Mobility

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Older People in Hospital

11 Million hospitalisations in 2016-17

42% of all Admissions were for Adults aged over 65 years

1 in every 10 days spent in hospital by a person aged 65 and over (2014–15) attributable to an Injurious Fall

Falls Bed Days - 0.8 million patient days in 2002–03 to 1.4 million patient days in 2014–15

AIHW 2018, Pointer, AIHW 2018

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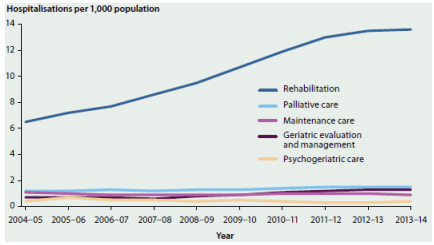
Rehabilitation Care



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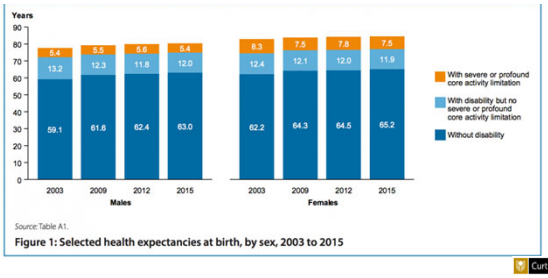
Years of Life without Disability



Source: Table A1.

Figure 1: Selected health expectancies at birth, by sex, 2003 to 2015

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Staff Perspective - Positive Views on Ageing?

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Functional Decline in Hospital

Hazards of Hospitalisation – Functional Decline

- Under-Nutrition and Dehydration
- Decreased Mobility - Loss of independence
- Skin integrity issues - pressure ulcers
- Incontinence
- Falls
- Delirium
- Depression

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Functional Decline

Functional decline can occur as early as day two of hospitalisation – 30% hospitalised older people, functional decline is unrelated to the primary diagnosis

- Recognition of functional status problems - essential prerequisite to preventing and managing disability,
- Functional status assessment - evaluation of ADLs, mobility, and cognition

Hirsh et al 1990 , Covinsky JAMA 2011

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Low Mobility

Older medical patients (n=45) could walk independently, no dementia, not isolated, mean LOS 5 days

- Intensive measurement - Wireless monitoring, Inter-rater training
- 83% of day spent lying in bed – mean time up 43 minutes per day

Browne, 2008

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Hazards of Hospitalisation

Lack of access to water and other fluids

Use of functional restraints including intravenous poles, nasal cannula oxygen, and indwelling urinary catheter

Enforced dependence: Patient performs few ADLs in hospital, nursing staff assists with ADLs regardless of patient's ability

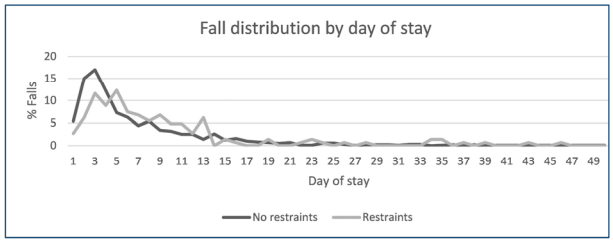
Undernutrition and dehydration Frequent and prolonged use of no food by mouth orders, no assist for meals

Use of psychoactive drugs for behavioral disturbance and sleep

Discharge Planning motivated by bed utilization team rather than patient-centered

Covinsky et al 2011

LOS and Restraint Use



Hill et al 2019 submitted data

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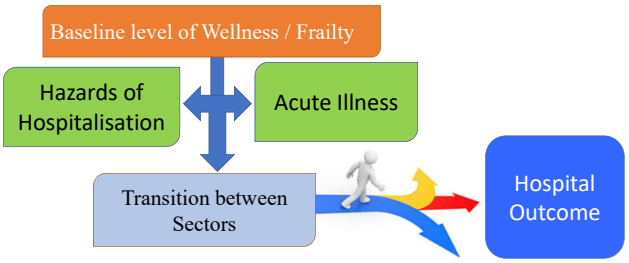

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Functional Impairment at Admission

10-year longitudinal, nationally representative study of hospital admissions older people in US mean age =78.5 years

48.3% with Functional Impairments at admission

- Risk of readmission increased in a dose-response fashion as severity of impairment increased
- Patients with most functional impairments were 42% more likely to be readmitted compared with those with no impairments

Greyson et al; JAMA Int Med 2017

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Functional decline

Strong Association between Hospitalisation and Functional Loss

- Age not associated with decline before Hospitalisation
- Age WAS associated with
  - failure to recover ADL function during admission
  - new losses of ADL function during Hospitalisation
- Older people are vulnerable to Functional Decline in Hospital

Covinsky et al; 2003

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Functional Decline post Discharge

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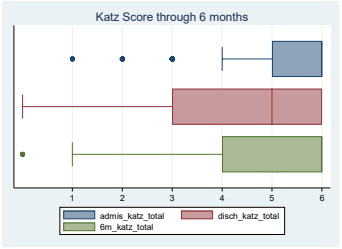
Functional Profile – Personal ADL



Whole Cohort= 6 (4-6)

N=292 at 6 months

n= 38 Nursing Home Admissions

n = Deaths

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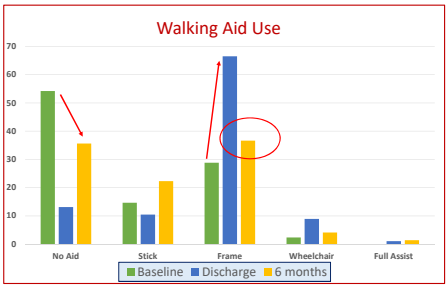
Functional Profile - Walking Ability



- **New Walking Frame use n=144**

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Functional Decline after Discharge

Follow up after hospitalization – 2279 post RCT analysis, non elective medical admissions

- 35% discharged with Functional Decline
- In that group - 41% deaths, 28% still not back to baseline at 12 months
- 30% at Baseline function compared with 60% of those discharged with Baseline function
- 1month measure was significantly associated with long term outcomes

Boyd 2008

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Hospitalisation Caused Disability

Large trial examining community older people and the onset of Disability

Significantly related to Episode of Hospitalisation

- Any disability, 31.9 (95% CI, 27.4-36.5)
- Persistent disability, 17.2 (95% CI, 14.2-20.2)
- Disability with Nursing Home Admission 18.8 (95% CI, 16.0-21.7)

per 100 person-months of exposure to hospitalization

Gill et al: 2010

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Adverse Events after Disharge

- High rates of Falls after Discharge

  2.1 Falls per person year (similar to 8 week study), higher than some post discharge studies

  1 Injurious Falls vs 0.5 per person year in community
- Increased Spike in Hip Fractures
- Re-admission rates high
- 83.3% of n=900 patients experienced significant barriers to Care after Discharge

Naseri et al, Sherrington et al, 2013; Bischoff-Ferrari et al,2010; Fitzharris et al, 2010; El-Khoury et al,2013; Wolinsky et al 2009

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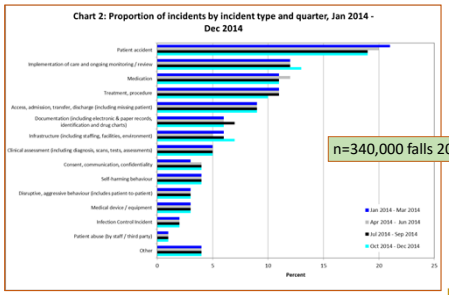
Falls and Mobility

Incidence of Falls



n=340,000 falls 2014

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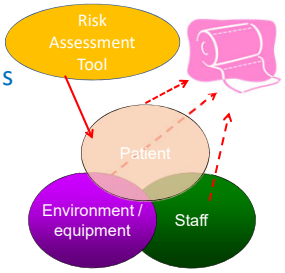
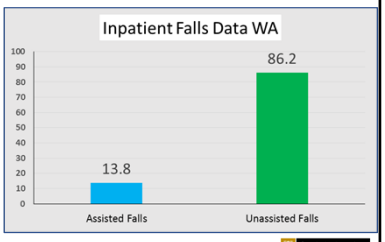
Aetiology of Inpatient Falls Events

- Patient's mobility suddenly altered – illness, medications
- Unfamiliar environment
- Staff actions, decisions
- Ward culture including rehabilitation process



Epidemiology of Falls Events

- US Hospital data 2011 (>165,000 falls) – over 85% Unassisted
- WA Data n=245 falls events



Stagg et al Jt Comm J Qual Patient Saf; 2014: Hill et al JAGS 2010

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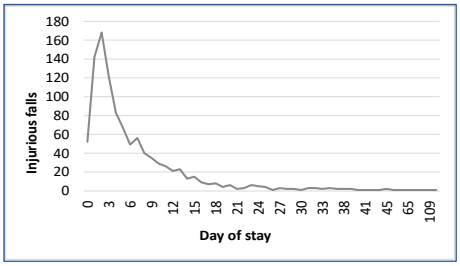
Injurious Falls (n=1033) Occurrence in Acute Medical/ Surgical Units



Over 50% occur between Stay Day 2 and 8

Hill et al 2019 submitted data

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Patient / Staff Communication

Why do Patients take Risks that lead to Falls?

Most frequent barriers identified to engaging in safe falls prevention behaviours – patients' own thoughts and feelings about their recovery n=205 (64.3%)

'..thinking I can do it myself because chair/bed is close by..'

'..I tend to be overconfident and push myself..'

'..I don't have much patience..'

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Why Don't Patients ask for Help?

'..Feeling like I am a burden..'

"..If I need to go to the toilet in a hurry..'

'..Nurses are always very busy..'

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Patient Perceptions about Barriers to Preventing Functional Decline

'…there's this culture of fear [with respect to falls]. It stops you from taking any initiative because they drum it into you-It's too dangerous . . .

'..I feel like I'm in jail. I can't sit up or go to the bathroom without them coming after me..'

Lafreniere et al 2017: Growdon et al 2017

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Ward Barriers - Unannounced Ward Audit

6/30 glasses out of reach, personal items out of reach

7/30 bells out of reach

8/25 SAC incidents did not Trigger a Post Falls FRAMP to be Completed

Medical deterioration in past 24hours had not triggered a review of Falls risk or change in management

3/14 Mobility aids out of reach

8/14 placed deliberately out of reach

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Hospital Audit - Mobility

- High degree of variability – Mobility chart, bedside plan, falls alert on journey board, nursing handover not Consistent
- 15 high risk vs 9 on journey board, 3 mentioned in handover
- Example: Patient with medical changes, including a code blue, severe dementia, walked with assistance frame – mobility or falls strategies not mentioned

Hill et al 2017

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Staff Feedback

Physiotherapist ' I write in medical notes and read the journey board'

Nurse ' I get information from Handover and look at the FRAMP at bedside'

Consistency of Mobility Instructions

'..You educate the patient who has been assessed by staff on their mobility chart as requiring assistance, about being safe and to ask for assistance then a nurse will go in and say you need to be independent so it's a total contradiction..'

Hill et al; BMJ Open

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Strategies to Enhance Mobility

Overarching Principles

- Understand Baseline Function – Comprehensive Picture required
- High Quality Handovers- between ALL health care sectors
- View Patients, Carers and Family as Key members of the Multi Disciplinary Team

Inouye et al, Covinsky et al; JAMA 2011

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Communication with Patients

Needs to be Engaging and Informative

- Patient Goals – find out from Patient, Review Frequently
- Understand Patient's thoughts and feelings about Mobility
- Explain Recovery Process - Assist to Independence
- Set Clear Goals that assist patients to IMPROVE their mobility
- Communicate with Family – especially for patients with Cognitive Impairment

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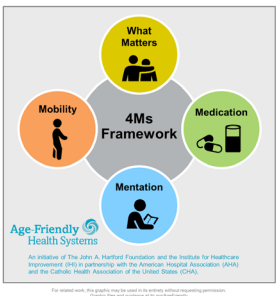
Systematic QI Approach

- Patient Staff and Systems Approach to Older Patients
- Person Centred Care - treating older people with respect and as equal partners in the health care relationship. Listen to the older Person, take time to get to know them, Engage with them as an equal
- Age Friendly Health Care - US aiming to bring this to 20% of all Hospitals by 2020



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Mobility Program led by Physiotherapist?

RCT n=100 patients

- Patients seen up to twice a day for 15 to 20 minutes each session 7 days a week for assisted walking
- Behavioural intervention strategy to encourage patients to increase time spent out of Bed

At 1 months post discharge intervention patients maintained prehospitalization community mobility but control group experienced clinically significant declines

RCT in Melbourne did not achieve significant differences (in gait speed) – consisted of RA standing /walking program

Brown et al; 2009: Said et al; 2018

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Best Practice for Maintaining Functional Ability

Need to provide a Multi-Disciplinary Approach

Communication between Allied Health and Nursing Essential

Systematic review n=14 studies (4200 participants) involving 12 unique interventions

❖ Multicomponent non-pharmacological interventions for delirium prevention - highly effective in decreasing the occurrence of both delirium and falls during hospitalization (>50%)

Hshieh et al 2015

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Evidence-Based Non-pharmacological Delirium Prevention Interventions

- **Cognition / Orientation** Cognitive stimulation activities Orientation board with names of care team members and daily schedule Orienting communication
- **Early mobility** Ambulation or active range-of-motion Exercise Minimizing use of Immobilizing equipment
- **Hearing** Portable amplifying devices and special communication techniques, with daily reinforcement
- **Sleep-wake cycle preservation** Warm milk or herbal tea, relaxation tapes or music, and back massage Unit-wide noise reduction strategies and schedule adjustments to allow uninterrupted sleep
- **Vision** Visual aids (glasses, magnifying lenses) and adaptive equipment (large illuminated telephone keypads, large print books, fluorescent tape on call bell), with daily reinforcement of their use
- **Hydration** Encourage fluids Feeding assistance and encouragement during meals

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Summary for Mobility Promotion

- Aim: **Team** to Maintain and if Possible IMPROVE Functional Ability
- Have a clear understanding about Pre-Admission level of Function
- 24/7 procedure for Mobility Aid prescription – falls occur early
- Address Nutrition and Hydration with high priority – impacts on muscle strength and prevention of Delirium
- Address Cognition – trained staff to work with patients with Cognitive impairment to promote nutrition, mobility and ADL
- Coordinate approach to Patient's Mobility – Team Consistency at bedside, include the patient
- Room Check at every shift – bed, chair, bell, frame, shoes

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