Sedation in the Elderly and Review after a fall

ISLHD Falls Forum

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Falls in the elderly

- 30-40% of >65yrs fall each year in the community
- 50% will fall recurrently
- > incidence in NH / RH / hospitals
- 10-25% result in # or laceration
- falls related injuries → 6% all medical expenses in over 65yrs in USA
- unintentional injuries = 5th leading cause of death in older people

Post

- 1/3rd die
- 1/3rd enter long term care settings
- most suffer some loss of independence
- 80% would rather be dead than suffer this loss of independence [1]

[1]Salkeld G, Cameron I et al,
Quality of life related to fear of falling and hip fracture in older women: a time trade off study,
BMJ 2000; 320(7231):341- 6

ED – Falls presentations

Falls account for around 20% of all ED presentations among people aged 65 years and over. Half of all older people presenting to ED with a fall are discharged home.

These people are at high risk of:

- Future falls
- Depression
- Functional decline

…within 6 months of discharge from ED.

Implementation of an evidence based falls risk screening and assessment for older people presenting to ED after a fall. Final Report to the Australian Government Department of Health and Ageing May 2008 (page 8)

Risk factors for falls

- Undernutrition*
- Muscle weakness
- Inadequate sunlight exposure
- Previous falls
- Gait deficit
- Balance deficit
- Use of aid
- Visual impairment
- Arthritis
- Impaired ADL
- Depression
- Cognitive impairment
- Age > 80yrs
- Multiple medications

Why Falls in Hospital for older persons?

- Significant harm to patients
- Many falls are preventable
- Risk of harm from falls increases with:
  - Age and co-morbidities
  - Medications
  - Reducing cognitive function
- In 2016, there were 38 SAC1 and 458 SAC 2 falls across NSW

ISLHD Data

- NSW Falls prevention program for last 12 years
- Remains unwarranted variation in clinical practice and outcomes
- Aim 5% reduction in hospital fall related serious harm in ≥70 years 17-18

Why does nutrition matter?

- Less muscle bulk
- Less padding
- type II fibres show atrophy in vitamin D deficiency

- VDR found in skeletal muscle cells

- influences calcium uptake
  PO4 transport
  phospholipids metabolism
  cell proliferation and differentiation
  immunosuppression

Background

- World over we know that institutionalised elderly are undernourished frequently (20 to 50%)
- Hospitalisation is associated with further nutritional decline (70%)
- Falls is associated with poor nutritional state and is more common in Vit D deficiency
- Fractures more common in undernourished

What can help

- Increased protein and energy intake in hospital prevents nutritional decline and is associated with improved mortality
- Oral nutritional supplements in hospital can improve nutritional intake(annals of internal medicine 2006)
- “family style” meals may improve intake in RACF and improve QOL
- Supplements not proven post hip fracture (A Avenell and HHG Handoll *The Cochrane Database of Systematic Reviews* 2006 Issue 1)
- NG and Peg remain uncertain in effect and safety

Examination as doctor **must** include

- Postural BP (even lying sitting)
- Gait analysis
- CNS review
- Medication review
  - Might be
- cerebrovascular disease
- Parkinson's disease
- proximal myopathy
- Rombergs test
- arthritis
- neck movements
- Murmurs

Follow Up After Discharge

- Acute Geriatrics Outpatient Clinic
- Further detailed Investigation
- Falls clinic Patient reduced risk of falls
- Projected reduction in presentations to ED
- Increasing community options exercise and balance classes

Falls Clinic

- **Medical Assessment**
  - history & examination incl. AMT
  - osteoporosis risk
  - falls risk
  - bloods, Xray, ECG, other Ixs
- **OT**
  - HAV
- **Nursing Assessment**
  - lying / standing BP
  - visual acuity
  - BMI
- **PT**
  - EMS
  - Tinetti

Exercise

- McMurdo-
  - Exercise improves depression
  - Exercise increases BMD
  - Exercise reduces falls
- Tinetti-
  - Exercise improves muscle strength
  - Exercise reduces falls and injury
- Lord-
  - Group exercise reduced falls
  - Group exercise maintained physical function

Results

	Clinic attendees	Clinic non acceptances
Unplanned admissions	10.3%	23.7%
ED presentations	12.8%	39.5%
Medications changed	42%	
Further referrals made	39%	

Clinical problems associated with Dementia

- Behavioural Psychological Signs Symptoms Dementia
  - BPSSD
- Neuropsychiatric symptoms in 60 – 98% of demented
- These cause more distress to carers than the memory loss or cognitive functional loss
- Medications often used increase falls
- Strong predictors of institutionalization and of death
- Strong association with elder abuse (both of patient and of carer)

BPSSD

- Agitation
- Aggression
- Delusions and hallucinations
- Repetitive vocalizations
- Wandering
- Screaming
- others

Alternative causes of BPSSD

- Intercurrent Illness
  - Any physical – MI, visual change, constipation
  - Any psychological
- Medication change
- Alcohol or Benzo. withdrawel
- Pain
- Grief

Delirium – acute fluctuating mental disorder with impaired consciousness, alertness and global impairment of cognition.

- Common in hospitalized elderly 45-60%
- Often first clue of underlying cognitive impairment
- Vulnerability high = minor precipitant
- Longer lengths of stay, higher morbidity (iatrogenic, falls, chest infections etc), Increased cost of care
- Worse outcomes and frequent non recovery

Assessing cause of BPSSD

- make sure its not delirium or new problem

- Full physical assessment
  - ECG,troponin,pyrexia,o2sats,
- Exclude metabolic problem
- Explore mood
- Look at recent routines and changes
- Identify triggers
- Involve carers

Ongoing care if behaviour modifying treatments are used

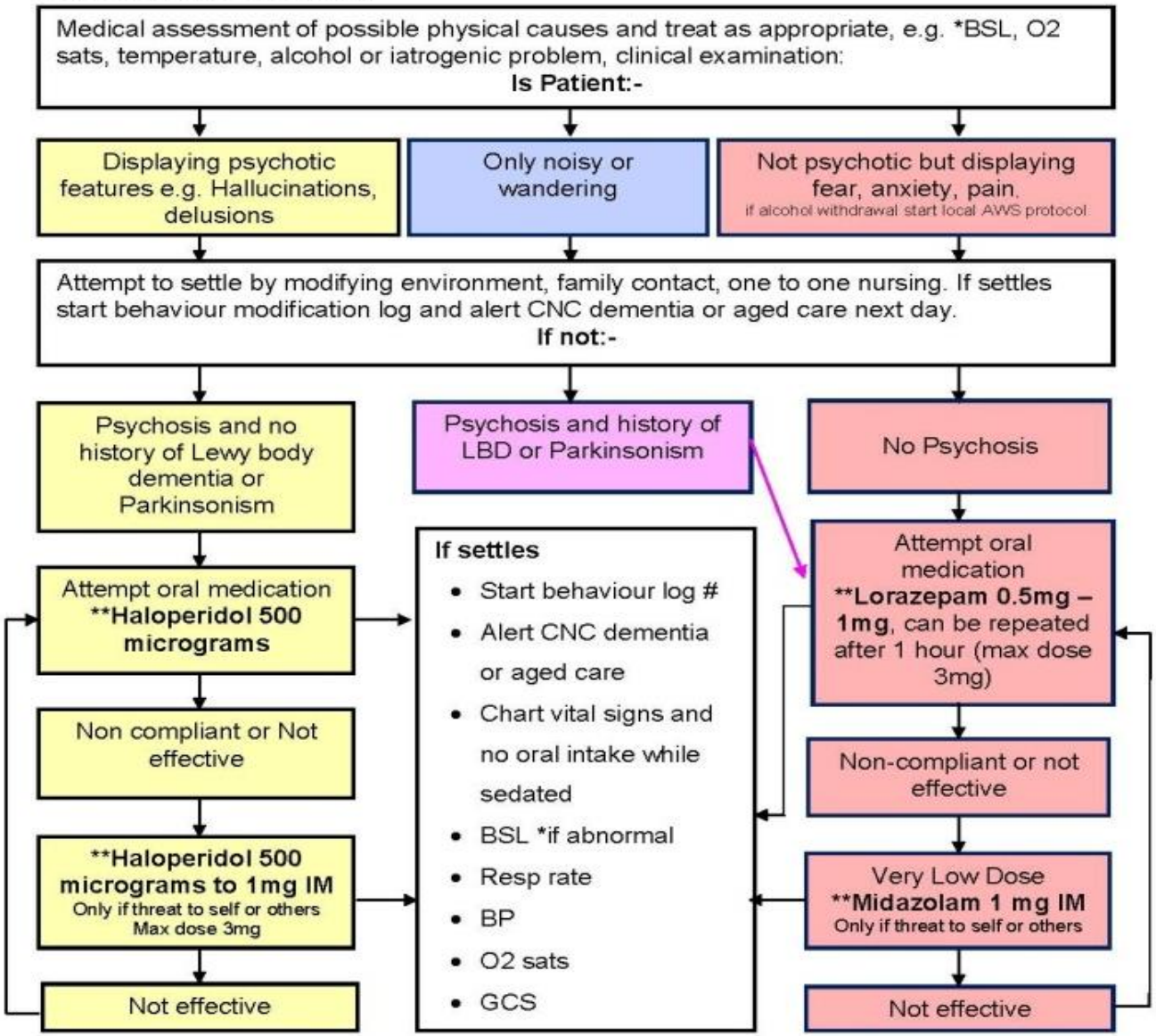
- RCT show that 45% to 70% of NH residents receiving antipsychotics can be safely withdrawn with no adverse consequences
- Frequent review of medications and confounders needed
- Given risks of stroke and TIA short duration may be important

Conclusions

- BPSSD are very common.
- They tend to follow in the later half of the disease progression but dominate the quality of life of the patient and carers, both family and professionals.
- Best managed by close analysis and careful trials of various behavioural strategies. Family members can give crucial insights to what behaviours mean.
- Drug therapy is not usually very helpful and often causes more problems.

Sedation for Elderly Patients with Acutely Disturbed Behaviour — **ISLHD CLIN PROC 01**

10. APPENDIX 1 - Flowchart



Dr Jan Potter, Clinical Director, Division of Aged Care, ISLHD, March 2014

Summary

- Good nutrition key in maintaining mobility
- vitamin D may reduce falls in older people
- Exercise helps all groups
- Comprehensive assessment needed – why are people falling
- Fall might mean illness
- Covert presentation in elderly
- Care in treating confusion and BPSSD wont solve BPSSD will cause fall

ISLHD – Osteoporosis Refracture Prevention Service

Based at Port Kembla Hospital and Shoalhaven District Memorial Hospital

- **Aim**: decrease repeat fractures in patient with unidentified osteoporosis
- **Inclusion**: >50yrs minimal trauma fracture (fall, slip, trip from standing height), and > 40yrs Aboriginal and Torres Strait islander people
- **Exclusion**: MVA/trauma/fall from height
- Usual care for minimal trauma fracture, before being discharged from hospital care is investigation of bone health

The service provides:

- DEXA bone mineral density scanning (have ceiling hoist for wheelchair bound patients to access) – Port Kembla Hospital
- Education Osteoporosis risk factors and falls
- Review by specialist doctor
- Development of a personalised management plan
- Self management of Chronic Disease
- Referrals to other services as required.

Falls Research

- Frailty Assessment in Elderly: A systematic review of quantitative assessment methods and clinical approaches – Yasmeen Panhwar – submitted for publication

- M. Ghahramani, F. Naghdy, D. Stirling, G. Naghdy & J. Potter, "Fall Risk Assessment in Older People," The International Journal of Engineering and Science, vol. 5, (11) pp. 1-14, 2016.
- Both PhD students – Gait Analysis for older people.

Fit for Frailty

Today not Tomorrow

Four Main Action Plans

- Screen and identify frailty early
- Early Comprehensive Geriatric Assessment
- Discharge to Assess
- Proactive case management of inpatients to minimise deconditioning

If you had 1000 days left to live, how many would you choose to spend in hospital?

- 48% of people over 85 die within one year of hospital admission[1]
- 10 days in a hospital bed (acute or community) leads to the equivalent of 10 years ageing in the muscles of people over 80[2]

Fit for Frailty
Today not Tomorrow

1 *Imminence of death among hospital inpatients: Prevalent cohort study*
David Clark, Matthew Armstrong, Ananda Allan, Fiona Graham, Andrew Carnon and Christopher Isles, published online 17 March 2014
Palliat Med