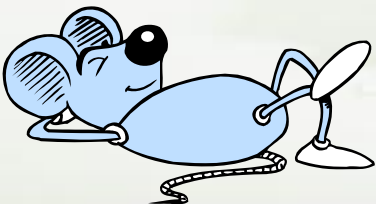


# Reduction in the Use of Night Sedation to Reduce the Risk of Falls

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# Objectives

- Falls initiative at POWH
- Results so far...
- Hypnotic use
- Options for improving sleep



# Aim of Falls Initiative

- Introduction of a **cautionary sticker** attached to medication orders for benzodiazepines and “z” drugs (Zolpidem and Zopiclone) in patients >65 years to highlight to doctors and nurses the risk of falls associated with these drugs in this age group.

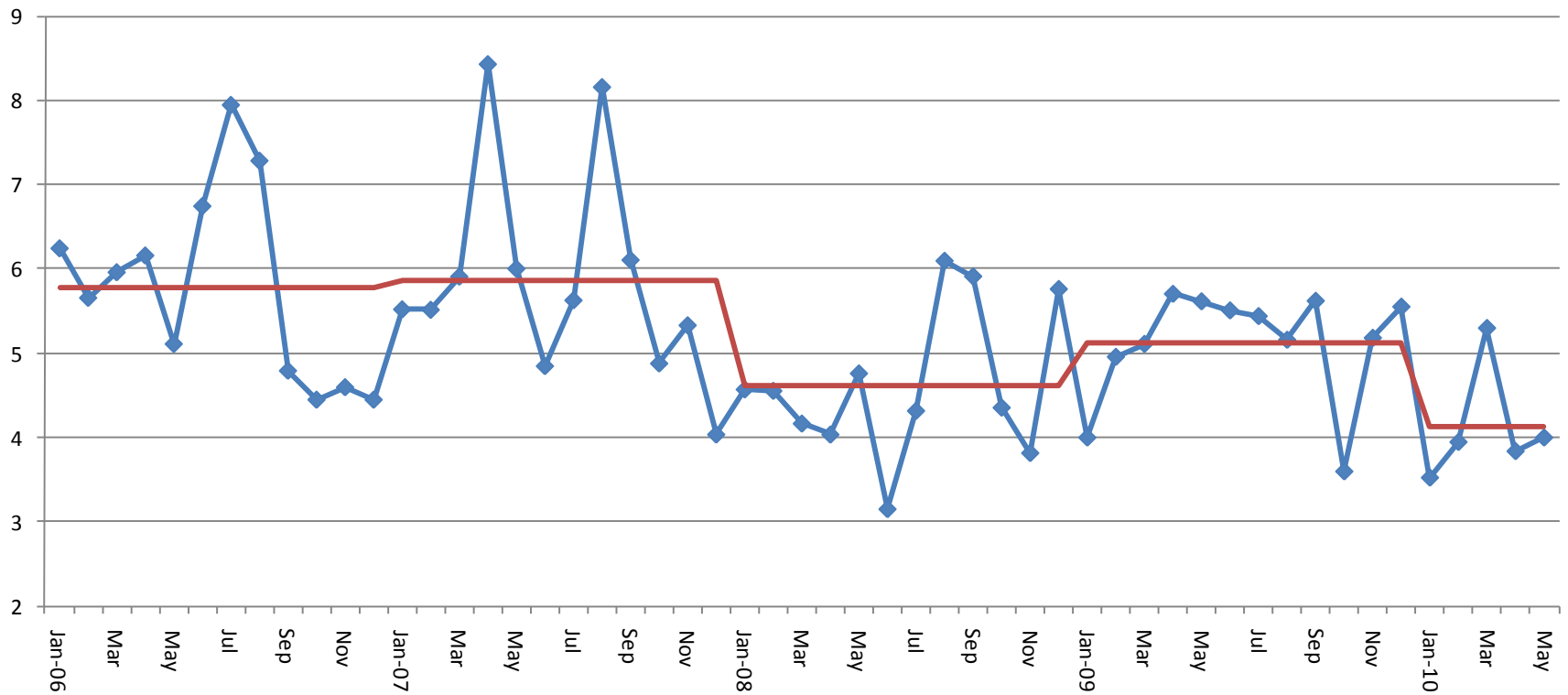
# Cautionary Sticker

**CAUTION**

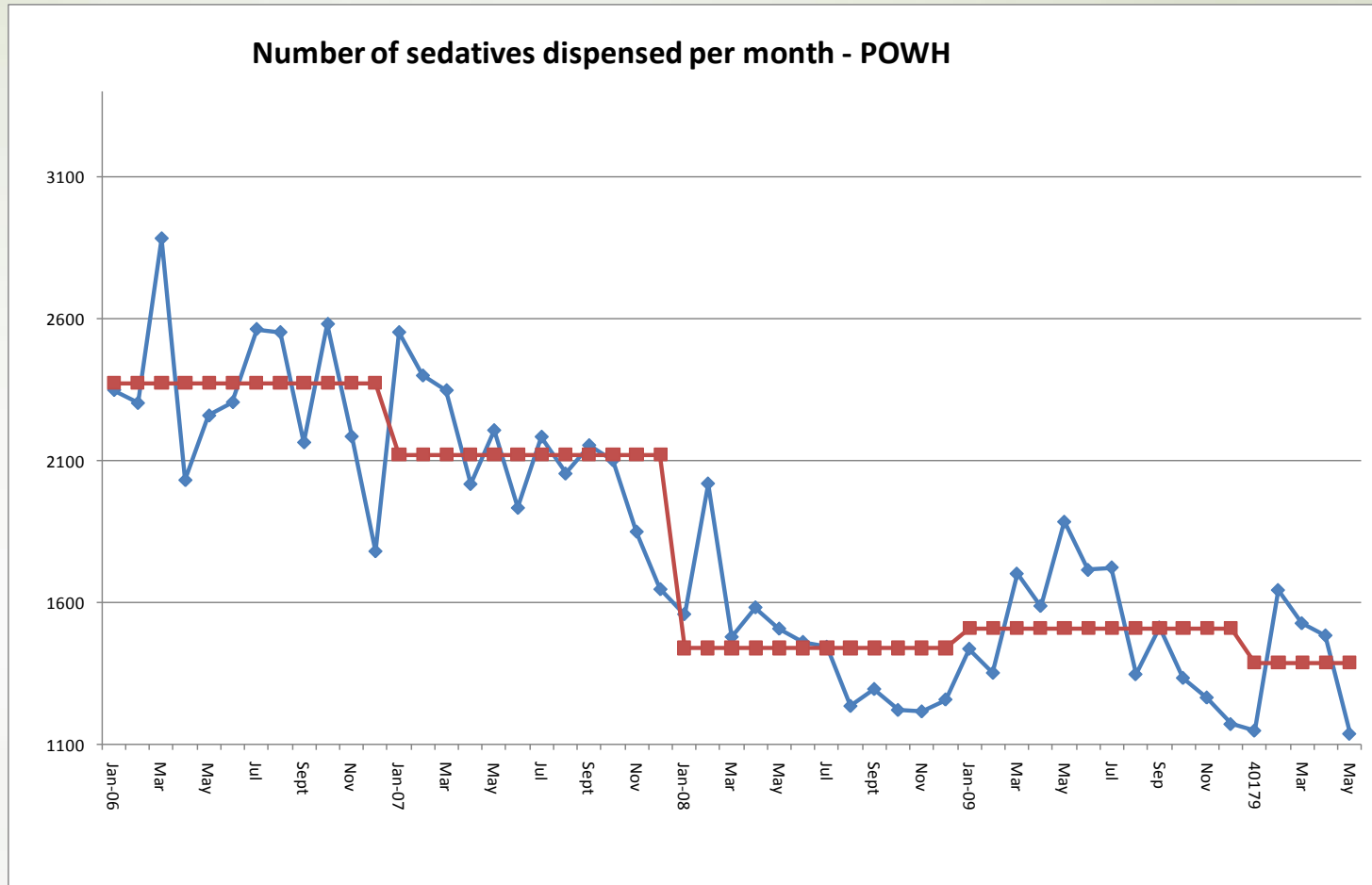
NIGHT SEDATION IS ASSOCIATED WITH AN  
INCREASED RISK OF FALLS AND FRACTURES

# Falls / 1000 bed days occupied Medicine and Surgery Combined

POW Medical & Surgical Wards Falls/1000 bed days occupied



# Hypnotic use - POWH



# Night Sedation in Older People

- Normal changes occur in the sleep pattern with age
  - Increased frequency and duration of awakenings
  - Increased time taken to go to sleep



# Night Sedation in Older People

- Some older people have unrealistic expectations of amount of sleep required and have misperceptions of how long they sleep
- They often have daytime naps which should be included in total sleep duration





# Statistic

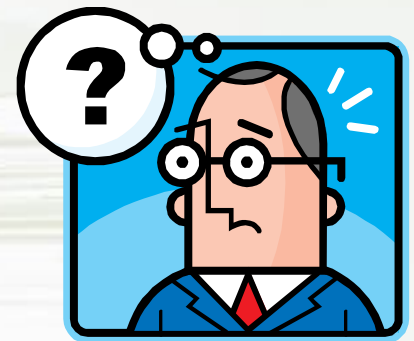
- Between 2006 and 2008 hypnotic medications were prescribed for 95 per 100 insomnia problems encountered in general practice

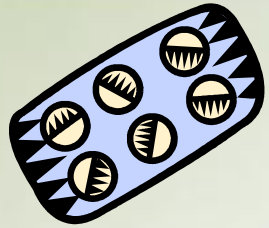


- *Addressing hypnotic medicines use in primary care* - NPS news Vol 67 Feb 2010

# Problems with Hypnotic Medications

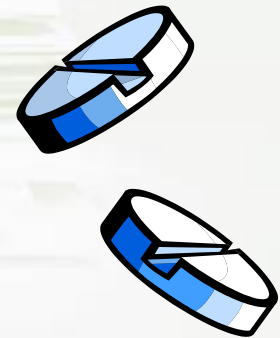
- Excessive sedations → risk of MVAs
- Confusion
- Short term memory impairment
- Falls and fractures
- Dependency





# Problems with Hypnotic Medications

- Hypnotic medications should be avoided where possible especially in older people who are more at risk
- IF NEEDED
  - Limit to short term intermittent use
  - 2 to 5 times a week for < 2 wks of short acting benzodiazepines.



# Benzodiazepines and “z” drug half life

	T $\frac{1}{2}$ (hr)	C <sub>max</sub> (hr)
Zopiclone (Imovane)	3.5 - 6	1.5 - 2
Oxazepam (Serepax)	3 - 10	2 - 3
Temazepam* (Temaze, Normison)	3.5 - 18	0.8 - 2
Lorazepam (Ativan)	10 - 20	2
Alprazolam (Xanax)	11 - 15	1 - 2
Flunitrazepam* (Rohypnol)	6 - 35	2
Nitrazepam (Mogadon)	24 - 30	2

\*Indicates active metabolites  
Allain et al *Drugs Ageing* 2005

# “Benzo’s”



- Nitrazepam and flunitrazepam both have long half lives tend to accumulate and cause
  - Excessive sedation
  - Postural reflexes are impaired for up to 36hrs
  - Hangover with headache, confusion and falls may occur
  - **Should definitely be avoided in older people**
- Temazepam is most appropriate benzodiazepine if one is needed
- Benefits are short lived, hypnotic efficacy is lost after approximately 14 consecutive nights



# “z” Drugs

- Use zolpidem and zopiclone as cautiously as benzodiazepines
- NO evidence that these differ in their efficacy or safety
- Can cause :
  - Tolerance
  - Dependence and withdrawal symptoms
  - Visual hallucinations
  - Psychosis and bizarre behaviour with amnesia e.g. sleep walking, sleep driving have been associated with zolpidem



# Other Options

- Valerian
- Passionflower
- Hops
- Chamomile
- Catnip
- Melatonin
- Warm milk



Are reputed to have hypnotic properties

# Other Options

- Clinical trials evaluating safety and efficacy of herbal products are limited and the products may differ in effectiveness and safety depending on the type of preparation, species and growing conditions of the plant.





# Stopping Hypnotic Medication

- Most long term use occurs in older people who are at greatest risk of harm
- Provide information about benefits of stopping
  - Improved alertness, cognition and sleep quality
  - Reduced risk of falls
- Let the patient know the medication is probably no longer helping them sleep



# Stopping Hypnotic Medication



- Withdraw gradually
  - Halving, quartering the dose
  - Taking on alternative nights or intermittently to minimise withdrawal effects which may last for 6-8 weeks
- Explain that rebound insomnia is a symptom of stopping and not a sign that treatment should continue

# Stopping Hypnotic Medication

- Encourage good sleep practices
  - Comfortable temperature and quiet environment for sleep
  - Limit daytime naps, especially in the late afternoon
  - Suggest relaxing evening activities
  - Use bed only for sleep and sex



# Stopping Hypnotic Medication

- Encourage good sleep practices cont...
  - Avoid alcohol and stimulants such as caffeine and nicotine, for at least 2-3 hours before going to bed
  - Getting up and doing something if unable to sleep
  - Regular daytime exercise where possible



# Conclusion



- Use of hypnotics seems to have plateau'ed but there is always room for improvement
- Hypnotics cause increase risk of falls in older people
- Avoid where possible
- Encourage good sleeping practices and non-drug treatments to manage sleep

**Any questions????**

