Insomnia, pain and substance use

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Learning Objectives

1. To understand the mechanisms linking insomnia, pain and substance misuse

2. To place substance misuse in older people in the context of their co-morbidities

3. To develop management strategies that take into account the complexity of substance misuse in older people.
Experiencing chronic pain

The Örebro model of behavioural emotion regulation for pain

Typical sleep changes with ageing

- Decreased total nocturnal sleep time
- Delayed onset of sleep
- Advanced circadian phase: early to bed, early to rise
- Reduced slow-wave ("deep") sleep
- Reduced rapid-eye-movement (REM) sleep
- Lower threshold for arousal from sleep
- Fragmented sleep with multiple arousals
- Daytime napping

Wolkove N et al Sleep and aging: 1. Sleep disorders commonly found in older people CMAJ 2007;176(9):1299-304
Insomnia & pain

• Pain leads to sleep disorders and sleep disorders increase the perception of pain
• Sleep disorders in individuals with chronic pain remain under-reported, under-diagnosed and under-treated
• Combined with emotional, cognitive and behavioural maladaptive responses, sleep disorders become chronic

Stiefel, F. & Stagno, D. Management of Insomnia in Patients with Chronic Pain Conditions CNS Drugs 2004 18: 285
Pain and substance use

Painful physical symptoms (PPS) strongly and independently associated with major depressive disorder.

PPS influence help seeking behaviour and use of psychotropic medication.

Case 1  A 68 year old woman sharing a flat with her son-in-law and daughter submits a hand-modified prescription for Nitrazepam to a pharmacist. (No.8)

- Daughter and son-in-law are unemployed but spend little time with her.
- Persistent back pain for which GP prescribed NSAIDs and, at her request, occasional small amounts of Nitrazepam.
- Perceived as anxious by GP, but not forthcoming.
- Recent prescription modified, from ‘20’ Nitrazepam to ‘200’.
- Taking Nitrazepam regularly for many years, buying it through her son, who attended a methadone clinic.
- Struggling to afford the amount she needed.

What do you do?
Multi-morbidity

• Care home residents with depression, pain, or sleep problems more likely to have received benzodiazepines

• Chronic BZ use significantly higher among residents with depression, sleep problems, or multiple benzodiazepine regimens and among those who requested medication.

Svarstad BL & Mount JK Effects of residents' depression, sleep, and demand for medication on benzodiazepine use in nursing homes. Psychiatr Serv. 2002 Sep;53(9):1159-65
Benzodiazepines & physical ill-health

BZ use is associated with physical illness and disability such as coronary heart disease, hypertension, pain related joint complaints, smoking, cancer, COPD, diabetes and multimorbidity.


van Eijk JT et al.: Prescribing antidepressants and benzodiazepines in the Netherlands: is chronic physical illness involved? *Depression Research & Treatment* ;2010:105931
Long-acting BZ use 1

In univariate analyses, long-acting benzodiazepine use was associated with:

• female gender,
• low income,
• high consultation rates,
• physical factors (medication for arthritis or joint pain, polypharmacy, difficulties in IADLs, recent pain)
• psychological factors (poor self-perceived health, social isolation, and symptoms of anxiety or agitation).

In multivariate logistic regression analysis only two factors retained statistically significant independent associations with benzodiazepine use:

- receiving only the state pension (OR = 4.0, 95% CI: 1.70, 9.80) and

- pain in the past 4 weeks (OR = 3.79, 95% CI: 1.36, 10.54).

Substance use in older people

Among 88 randomly selected older adults (≥ 65 years of age) presenting to the ED with sub-critical illness or injury, 19% were current opioid users and 6% would require an intervention for prescription opioid misuse.

Problems of improper acquisition, diversion, provider refusal to prescribe opioids, hoarding, and inappropriate use of opioids

Management strategies 1

Barriers encountered by the clinician:
• Little time
• Limited knowledge about the patient
• Limited evidence-base for treatments

Barriers created by the patient
• Denial
• Communication problems
• Discomfort on realizing or admitting and discussing the problem
Management strategies 2

FRAMES

• Feedback about risks
• emphasis on Responsibility
• Advice about changing use
• Menu of change strategies
• Empathy in communication and
• promoting Self-efficacy.

Hunter B, Lubman D  Substance misuse: management in the older population  Austr Fam Physician 2010;39(10); 738-741
Insomnia & pain – therapeutic responses

- Hypnotics routinely prescribed regardless of adverse effects
- Long-term efficacy not supported by robust evidence.
- Antidepressants can improve pain perception and sleep disorders in selected patients.
- Low doses of sedative antipsychotics may improve chronic insomnia in the elderly.
- However, no intervention is likely to be effective unless a good physician-patient relationship is developed.

Insomnia & pain – non-pharmacological responses

Some non-pharmacological interventions especially cognitive and behavioural approaches, can be easily implemented in general practice.

For example, stimulus control, sleep restriction, imagery training and progressive muscle relaxation.

Case 2  An 82 year lady is referred by the care of the elderly medicine service with concerns over poor mobility and pain in her hands (No.1)

- No evidence of bony injury or joint damage
- Prescribed steadily increasing doses of opiate-containing analgesics, plus temazepam for insomnia and small doses of diazepam for anxiety
- Describes pain in hands as “unbearable” and “no-one is taking me seriously”.
- Buys opiate containing analgesics over the counter.
- No social support, financial worries, estranged daughter nearby
- Depression, anxiety, panic attacks- no cognitive impairment.

What do you do?