Opioid use after an injury

Focus: falls risk in the elderly

Conference for General Practice

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Accident Compensation Corporation

Sunita Goyal, Principal Clinical Advisor

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ACC Opioid Research

What we did

- Matched 8.1 million injury claims between 1Jan 2009 and 31 Dec 2013 with the Ministry of Health pharmaceutical dataset for opioids dispensed for those claims (20 million dispensings)

- Deleted patient identifiers on the matched dataset

- Looked at opioid dispensings between 1 Jan 2008 – 31 Dec 2014 to capture pre-injury and post injury use for up to one year

ACC Opioid Research - Why?

Context

- Increasing international and New Zealand evidence:
  - High rates of opioid use,
  - Harm from prolonged use, and
  - Slower recovery after injury (international workers compensation agency evidence).

Burning questions

- Was opioid use a barrier to rehab after injury in our client group?
- Did opioid use cause further injury or harm to our clients?

Results: Trends and Prevalence

Opioid Type

•Strong Opioids	Intermediate Opioids	Weak Opioids
Trends •slight decrease (10.1% vs 9.2%) **Prevalence** •Female •**75 plus age group** followed by the 50-74 year olds •European •history of cancer, •need for social or vocational rehabilitation or weekly compensation	**Trends** • Claims quadrupled (12.1% vs 34.9%): (tramadol subsidised) **Prevalence** •Males •25-49 year olds and 50-74 year olds •Pacifica and Maori •need of social or vocational rehabilitation or weekly compensation	**Trends** •decreasing proportion : 85% vs 73% (tramadol subsidy impact?) **Prevalence** •0 – 24 year olds •Less need for social or vocational rehab or weekly compensation

Results: Summary Findings

- **Overall: 6.5% of our claims used an opioid after injury or surgery (~500,000 claims)**
- Of these

    - 94% of claims started opioid within seven days of injury or elective surgery
    - 99% of claims used opioids for one duration only during the life of the claim (acute or after elective surgery)
    - 80% of claims with a single duration completed opioid use within two weeks
    - 95% completed use within six weeks
    - 3% received opioids for 6 – 12 weeks
    - 2% used opioids for longer than 12 weeks post injury date
    - The longer the duration of use, the more likely a strong opioid would be used

Opioids and the elderly: ACC Research

Prevalence:

- Female, 75 plus age group were the higher number of strong opioid users

Influencer for Use

Age

- Older age group had OR 1.7 of using strong opioids compared to 50-74 year olds

Supports Needs

- Social rehab needs
- Co-morbidity management

Increased Falls Risk?

The literature: Falls risk increasing drugs (FRIDS)

Definition: Group of medicines which may increase falls risk

- Includes opioids, antipsychotics, anxiolytics, hypnotics/sedatives, antidepressants, polypharmacy, antiepileptics
- Antihypertensive can lead to orthostatic changes – which may lead to a fall

- Journal of the American Medical Directors Association, Volume 19, Issue 4, April 2018: Fall-risk-Increasing Drugs: A systematic review and Metal-analysis: 1.Cardiovascular Drugs; 2: Psychotropics; 3: Others

The literature: ACC Rapid Research Summary

Opioid use and falls risk in the elderly

- FRIDs alone may not cause a fall

- Three key falls risk factors associated with a prescription of FRIDs are
  - Elderly patient
  - Diagnosed perception disorder or visual and balance impairment
  - Reduced mobility, low walking speed and mobility pain.

- The highest falls risk period is during initiation of the opioid: within four weeks, the falls risk becomes comparable to those not taking opioids

- Short acting opioids may have a lower falls risk when compared to long acting opioids

Do opioids increase falls risk in the elderly?

- Literature is inconclusive

Daoust et al (2018) studied predictors and clinical variables associated with falls in the elderly: concluded that:

Recent opioid use is associated with an increased risk of falls and an increased likelihood of death in older adults

Daoust, R, et al. Recent opioid use and fall-related injury among older patients with trauma. CMAJ, 2018. 190 (16): p E500-e506

Opioids and the elderly

Pain management, falls risk and recovery after injury

Where to from here?

Principles of analgesic medicine use

ADMINISTRATION OF ANALGESIC MEDICINE

BY MOUTH

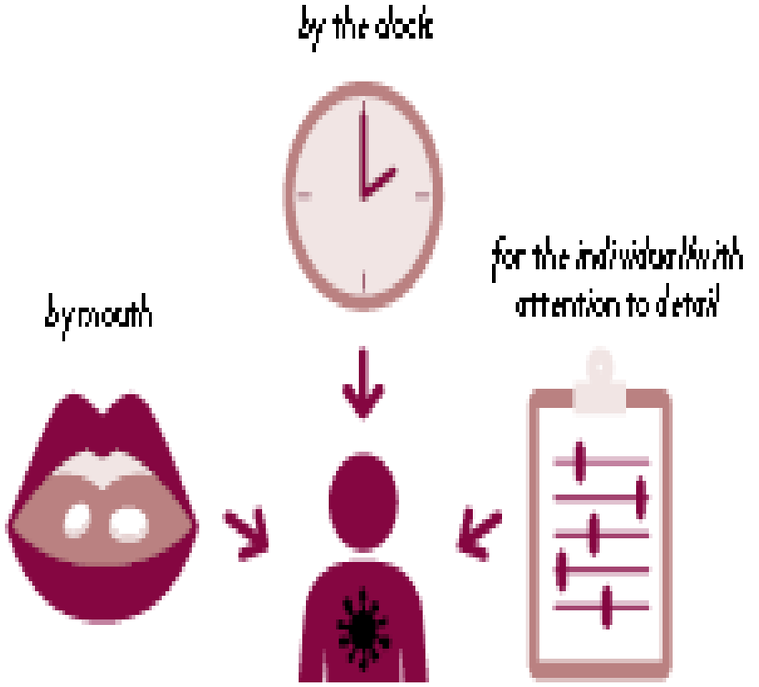
Oral administration is preferred to parenteral administration.

BY THE CLOCK

Analgesics should be given on a regular basis *by the clock* rather than *on demand*.

FOR THE INDIVIDUAL, WITH ATTENTION TO DETAIL

The dose of an analgesic should be determined on an individual basis.



WHO Guidelines for the pharmacological and radiotherapeutic management of cancer pain in adults and adolescents
https://www.who.int/ncds/management/palliative-care/cancer-pain-guidelines/en/ : publication date: January 2019

Live Stronger for Longer

A whole of system approach to improving falls & facture outcomes for older people

- ACC, the Ministry of Health, Health Quality & Safety Commission, DHBs, GPs, health professionals, home carers and community groups, all deliver services to older people.
    - Live Stronger for Longer aims to unite and streamline these services

- All health professionals can help by:
    - identify if an older person is at risk of a fall and take action to get them the help they need (refer to services or provide services)
    - minimise the risk of slips, trips and falls in the home
    - medications review
    - connect older people and/or their families with information about Live Stronger for Longer (website or print resources)

- For further information and to order print resources, visit our website: www.LiveStronger.org.nz

Resources

1. **Health, Quality and Safety Commission Atlas of Healthcare Variation**
   https://www.hqsc.govt.nz/our-programmes/health-quality-evaluation/projects/atlas-of-healthcare-variation/falls/
   https://www.hqsc.govt.nz/our-programmes/health-quality-evaluation/projects/atlas-of-healthcare-variation/opioids/

2. **Health, Quality and Safety Commission: Medicines: managing intended benefits and increased falls risk**
   https://www.hqsc.govt.nz/assets/Falls/10-Topics/2017_Topic_8_-_Medicines_-_balancing_intended_benefits_and_increased_falls_risk.pdf

3. **Journal of the American Medical Directors Association**, Volume 19, Issue 4, April 2018: Fall-risk-Increasing Drugs: A systematic review and Metal-analysis: 1.Cardiovascular Drugs; 2: Psychotropics; 3: Others

4. **Opioid use and falls risk in the elderly – Rapid Research Summary**, Accident Compensation Corporation, August 2018

5. **Daoust, R et al**. *Recent opioid use and fall-related injury among older patients with trauma.* CMAJ, 2018. 190(16): p E500-E506

6. **WHO Guidelines** for the pharmacological and radiotherapeutic management of cancer pain in adults and adolescents
   https://www.who.int/ncds/management/palliative-care/cancer-pain-guidelines/en/ : publication date: January 2019

7. **www.LiveStronger.org.nz**

Questions/Comments