WEBINAR

Wednesday, 25 November 2020
7– 8 pm AEDT

PRESCRIBING FOR DENTAL PAIN: what are the options?

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PRESCRIBING FOR DENTAL PAIN: WHAT ARE THE OPTIONS?

This multidisciplinary discussion will focus on these actions:

- Formulate therapeutic goals in partnership with the patient for the management of dental pain
- Recognise and describe the limited role of opioids in the management of dental pain
- Evaluate and advise on non-opioid treatments that may be suitable for dental pain
- Outline recent regulatory changes to opioid prescribing and their implication in practice

This webinar was developed with funding from the Therapeutic Goods Administration

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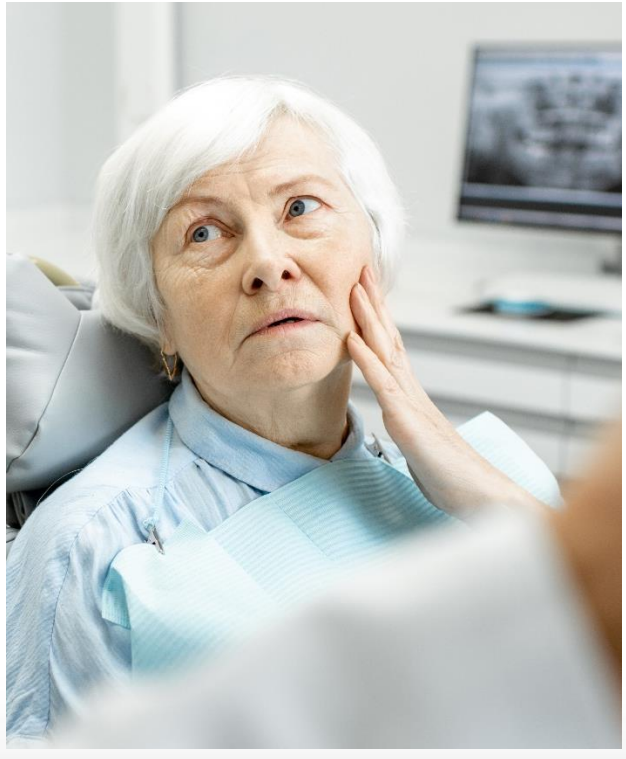
MEET JANE

- 65 year-old woman, presenting with persistent throbbing pain in lower left jaw for the last 2 weeks
- Jane has not attended your practice for 5 years
- Other symptoms: bleeding gums for past few months, one tooth feels loose, occasional bad taste in mouth
- Jane has dysplidaemia (takes simvastatin 40mg PO)



Jane calls your clinic explaining that she can’t come to see you for another week, and requests analgesia until then.

What would you recommend?

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JANE COMES TO YOUR CLINIC

- Jane tells you the anti-inflammatory you recommended is helping but the pain is sometimes worse at night
- Jane is a non-smoker and consumes 2 standard alcoholic drinks on the weekend
- She was recently diagnosed with type 2 diabetes and her GP prescribed a medicine, but she doesn't recall its name
- She is also taking paracetamol for occasional knee pain

MANAGEMENT OF DENTAL PAIN

Dental pain should always be addressed from a diagnostic approach

- Identify cause of pain
- Provide acute care
- Address local cause
- Use non-opioid supportive analgesia, where appropriate
- Restore normal function and monitor healing
- Provide ongoing monitoring, management and education, where appropriate

PLANNING TREATMENT APPROACH

- Establish diagnosis and cause of the pain
- Clarify Jane's medication history with her GP & pharmacist
  - How well controlled is Jane's diabetes?
  - Potential impact of dental infection on diabetes control
- Identify treatment goal for Jane
  - Extraction of infected tooth
  - Control of inflammation
  - Introduction of preventative measures
  - Pain management and role of analgesia
- Agree on review and follow up plan

ROLE OF ANALGESIA – NSAIDs

- Highest association with treatment benefit in dental pain
- Synergistic effect of ibuprofen and paracetamol when taken together
- NSAIDs are the preferred drug class for acute dental pain
  - Effective for bone pain and has anti-inflammatory benefits
  - Attenuates the inflammatory process
- Potential for adverse effects
  - Assess patient for contraindications and risk factors before prescribing

NSAIDS – CONTRAINDICATIONS

- Severe **kidney impairment** (eGFR of less than 30 mL/min)
- Severe **heart failure**
- Active **gastrointestinal ulcer** or **gastrointestinal bleeding**
- **Bleeding disorders** (eg, hemophilia, Von Willebrand's disease)
- Use of **systemic corticosteroids** or **anticoagulants**
- **Multiple risk factors** for increased NSAID toxicity
  (eg, older patients with a history of gastrointestinal bleeding)

INDIVIDUALISE NSAID CHOICE

Patient risk factors	NSAID choice
Risk of renal toxicity	▹ Consult with a medical practitioner before prescribing an NSAID
Risk of cardiovascular toxicity	▹ Avoid diclofenac and COX-2–selective NSAIDs other than celecoxib ▹ Use celecoxib or ibuprofen but limit treatment to 5 days ▹ If celecoxib, ibuprofen and naproxen cannot be used, consider paracetamol alone
Risk of gastrointestinal toxicity	▹ Avoid nonselective NSAIDs (eg, ibuprofen) ▹ Use a COX-2–selective NSAID (eg celecoxib)
Risk of NSAID-related bronchospasm	▹ avoid nonselective NSAIDs (eg ibuprofen) ▹ Use a COX-2–selective NSAID (eg celecoxib)

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COMMONLY USED NSAIDs

NSAID (oral)	Adult dosage
Non-selective NSAIDs	
ibuprofen	200–400 mg 3–4 times/day
naproxen	250–500 mg twice daily (immediate release) 750–1000 mg once daily (modified release)
Selective cyclo-oxygenase-2 inhibitor	
celecoxib	100 mg twice daily if needed (maximum 5 days treatment)

MINIMISE NSAID HARMS

Advise patients to:

- take the medicine as prescribed (eg, regularly Vs as required)
- use it for the shortest duration possible (≤ 5 days)
- combine the NSAID with paracetamol initially, then cease NSAID and use paracetamol only
- seek medical advice if the NSAID is still required after 5 days

Note, taking NSAIDs with food delays peak concentration, reduces absorption rate and can lead to reduced NSAID efficacy

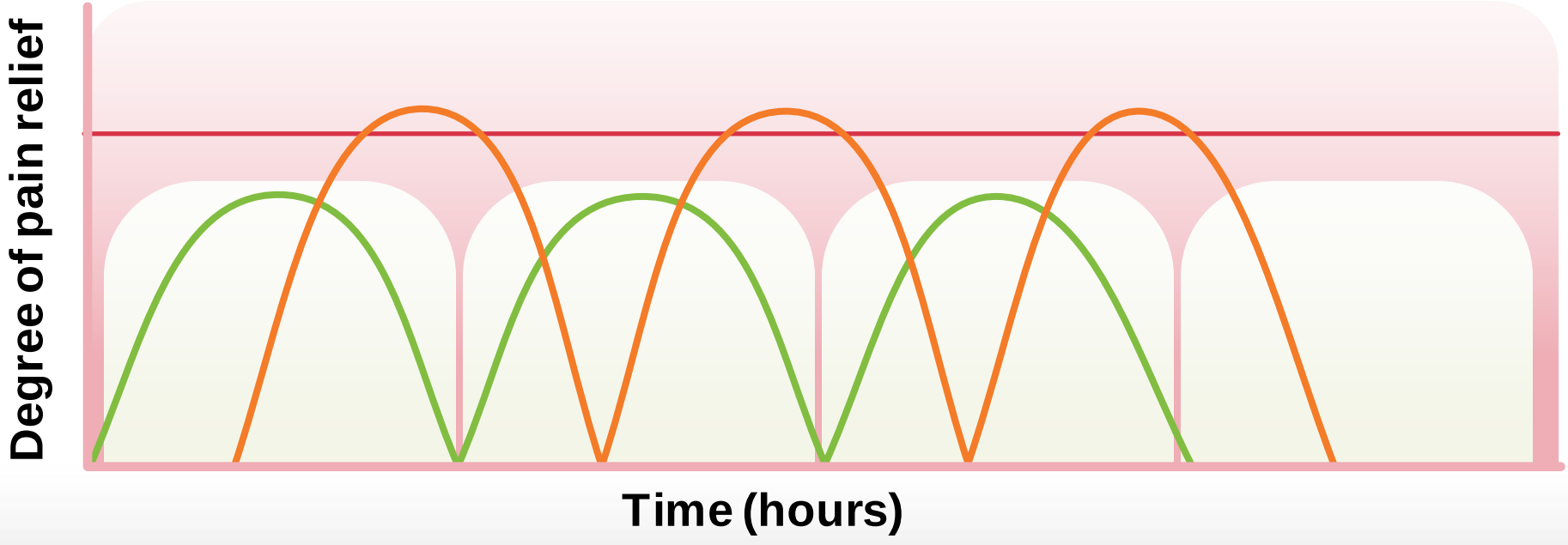
ROLE OF ANALGESIA – PARACETAMOL

- Analgesic and antipyretic action with low incidence of adverse effects
  - Drug of choice when NSAIDs are inappropriate
  - Available in many formulations, strengths and combinations
- Dose reduction required in certain circumstances (eg, underweight, significant liver disease, cachectic or frail)
  - Doses in obese children should be calculated on ideal body weight
- Paracetamol overdose can lead to liver damage (refer ≥ 10g per 24 hours to emergency services)
  - Increased risk of harm with doses > 4g in 24 hours

ALTERNATING REGIMEN

Analgesic effect of one drug

— = paracetamol — = ibuprofen



Geraldine Moses, Alternating vs simultaneous administration of ibuprofen and paracetamol

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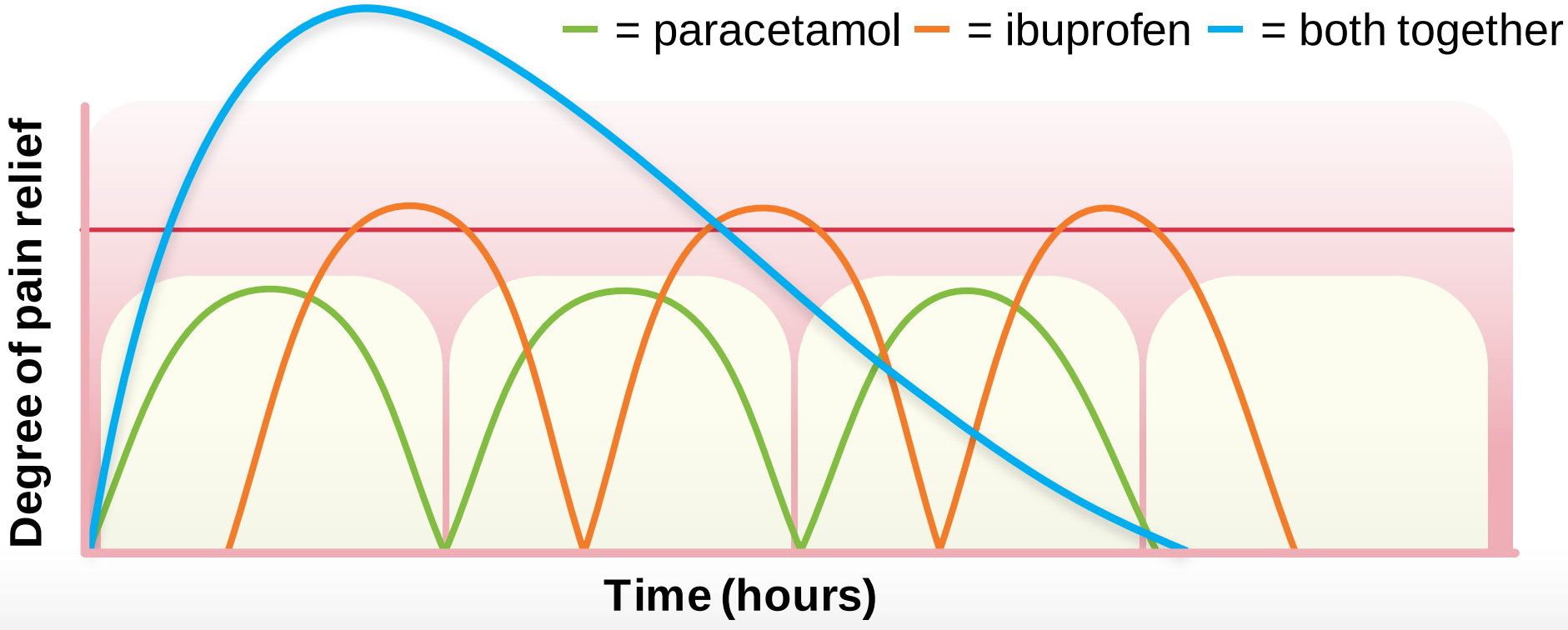
GIVING BOTH TOGETHER – “STRONGER FOR LONGER”



Geraldine Moses, Alternating vs simultaneous administration of ibuprofen and paracetamol

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ROLE OF ANALGESIA – OPIOIDS

- Opioids should not be prescribed as first line for dental pain
  - NSAIDs (with/without paracetamol) are more effective than opioid combinations for dental pain
  - Opioids only interrupt the nociceptive pathway and have no effect on inflammation
  - Significant risk of harms, diversion and misuse
- If opioids are deemed appropriate
  - Prescribe the lowest effective dose for shortest duration
  - Ensure patient is well informed on use, storage and risk of harms

HOW EFFECTIVE IS CODEINE?

Best et al, 2017

- 131 participants; surgical 3rd molar extractions
- Two groups of patients:
  - Group 1: Ibuprofen, paracetamol and codeine
  - Group 2: Ibuprofen and paracetamol
- Codeine (60mg, 4/day) did not improve analgesia when added to a regimen of paracetamol 1g 4/day and ibuprofen 400mg 3/day

DO WE NEED OPIOIDS?

Resnick et al, 2019

- Prospective cohort study, 81 patients – surgical 3rd molar extractions (varying degrees of bony impaction)
- Aim was to quantify the need for opioids after 3rd molar extractions
  - Prescribed ibuprofen (600mg), paracetamol (650mg) and oxycodone (5mg) to be taken 6/hourly as needed
- Only 7% of patients (n=6) took oxycodone during the post-op period (from days 1–4)

RISK WITH PRESCRIBING OPIOIDS FOR DENTAL PAIN

Harbaugh et al, 2018

- An opioid prescription provided prior to wisdom tooth extraction has been shown to be an independent risk factor for persistent opioid use

Schroeder et al, 2019

- In 2015 in the US, 6% of adolescents who were exposed to opioids through their dentist went on to develop an opioid abuse related diagnosis, compared to 0.4% of the control group

UNINTENTIONAL PERSISTENT USE

Roughead et al. 2019 – Retrospective cohort study of DVA Gold Card holders aged 18–100, naïve to opioids

- Outcome: time to opioid cessation, follow-up at 14 and 90 days
- Of 24,854 surgical patients, 3907 (15.7%) discharged on opioids
  - At 90 days, 3.9% were still taking opioids
  - Rate similar to other studies (3–6%)
  - Opioid frequently prescribed: oxycodone, paracetamol/codeine, tramadol, oxycodone with naloxone

DENTAL PATIENTS ARE NOT MORE "SATISFIED" IF GIVEN OPIOIDS

Nalliah et al. 2020 – Retrospective telephone survey (n = 329)

- 2 groups: routine(53%) and surgical (47%) dental extraction
- Asked if received an opioid prescription, instructions provided, usage, storage and pain level
- In both groups, patients who used opioids reported higher levels of pain compared with those who did not use opioids
- **No statistically significant difference in satisfaction**

OPIOID HARMS

80% of patients on long-term opioids will develop at least one opioid-induced adverse effect

- Gastrointestinal effects
- Hormonal effects
- Depression
- Respiratory effects
- Overdose and death
- Falls and fractures
- Motor vehicle collisions
- Tolerance, physical dependence and withdrawal
- Opioid-induced hyperalgesia

RISK FACTORS

- Concomitant use with other CNS depressants (eg, alcohol, benzodiazepines, gabapentinoids, antidepressants)
- Other comorbidities (eg, mental health conditions)
- Renal or hepatic insufficiency; age > 65 years
- Pregnancy – potential for additional risks to both mother and foetus
- Personal of family history of substance use disorder
- Patients already on an opioid
  - Increased risk of harms with increased doses and duration of use
  - Risk of diversion
  - Risk of opioid use disorder

REGULATORY CHANGES

Changes made to both immediate release (IR) and modified release (MR) formulations.

TGA reforms:

- Smaller pack sizes of IR opioids (10–12 tablets/capsules)
- Updated safety information on PI and CMI documents
- Updated indication: IR opioids are indicated when other analgesics are not suitable or have proven to be ineffective

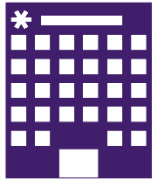
PBS changes:

- Additional listings for smaller pack sizes of IR opioids
- New and amended criteria for prescribing opioids
- Restriction level changes to PBS listings

WHY?

Every day...

3 deaths



150 hospitalisations

14 emergency department presentations

Pharmaceutical opioids are responsible for more deaths than heroin.

Australian Institute of Health and Welfare. Opioid harm in Australia and comparisons between Australia and Canada. Canberra: AIHW, 2018.

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ENGAGE THE PATIENT

- Discuss treatment plan with the patient and check their understanding
  - Instructions on how to take/use the medicine
  - What to expect when taking the medicine (eg, degree of pain relief)
  - Potential adverse effects and any precautions
  - When to return for a review and who to contact in case of emergency
- Provide resources for the patient to read in their own time - patients may not remember verbal instructions
  - Managing pain and opioid medicines patient leaflet
  - Consumer Medicine Information

SEEK HELP IF NOT SURE

Online and printed resources

- Therapeutic guidelines
- Australian Medicines Handbook
- NPS MedicineWise – Australian Prescriber articles and podcasts, National Prescribing Curriculum modules

Australian Dental Association services

- Pharmaceutical Advice Line

Local network

- GPs
- Pharmacists

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RESOURCES

- Australian Dental Association – Resources for dental professionals
- NPS MedicineWise – National Prescribing Curriculum modules for dental students
- Australian Prescriber
  - Management of dental pain in primary care (article and podcast)
  - Managing acute dental pain without codeine (dental notes)
  - Dental pain and antibiotics (Letter to the editor)
- Therapeutic Goods Administration – Prescription opioids hub