Non Malignant Pain: Symptom Management

Anica Vasic
Pain Management Unit
St George Hospital

Renal Care Symposium
July 2018

- Definitions
- Prevalence
- Assessment
- Treatment
- Medications
- Newer agents: tapentadol, cannabis
    - Dr Peter Langron

Pain

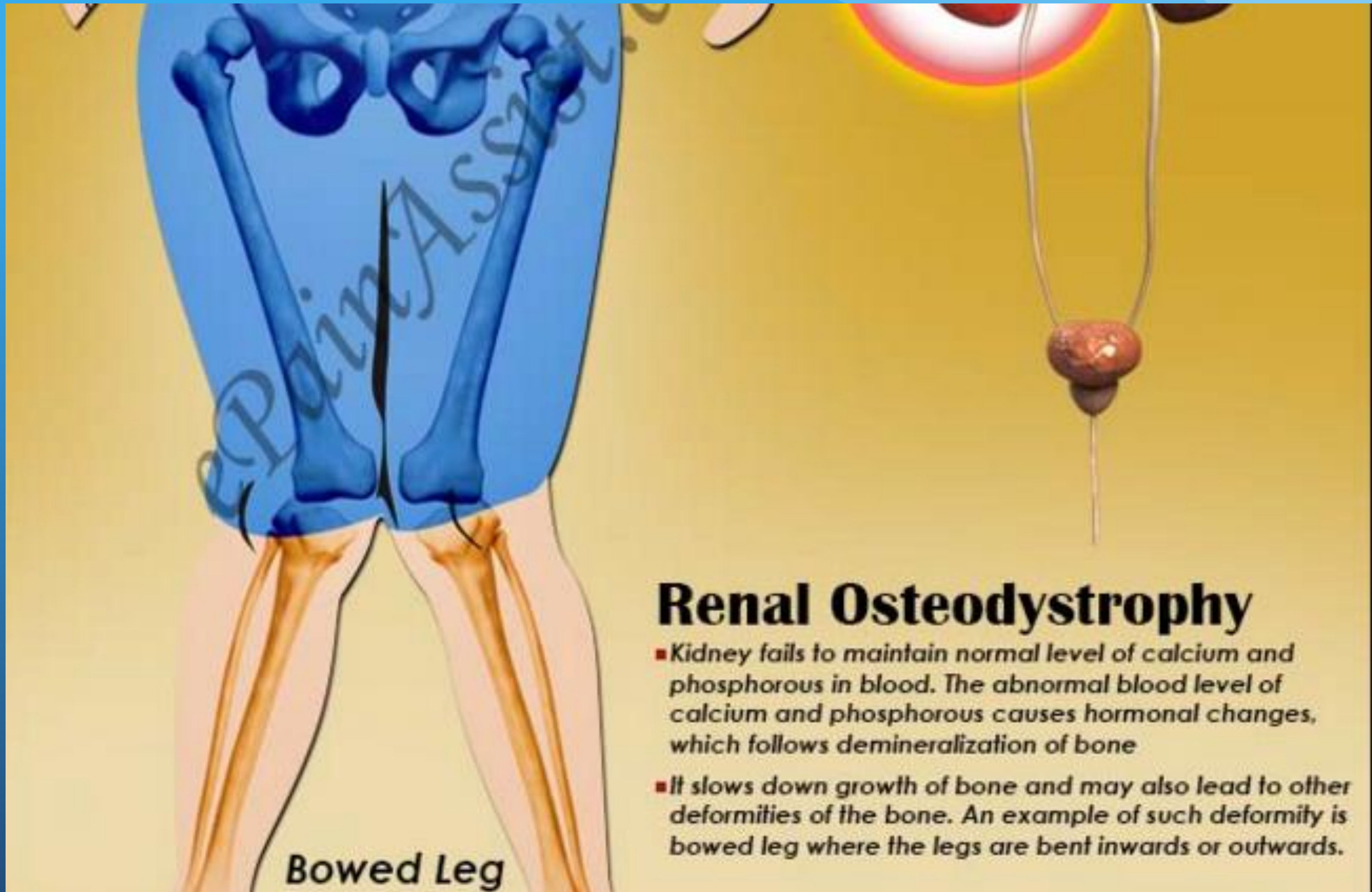
- Unpleasant sensory and emotional sensation +/- potential tissue damage
- Acute ~ sudden onset, usually definite cause, usually resolves, eg trauma, surgery, rupture cyst
- Chronic ~present most days for period 3-6 months or more, last beyond expected time eg after surgery, trauma, may not have definite cause

What causes pain in patients with CKD?

- Multifactorial:
  - Ischaemic
  - Neuropathic
  - Bone
  - Musculoskeletal pain (60-70%)

- Primary disease
  - Polycystic renal disease

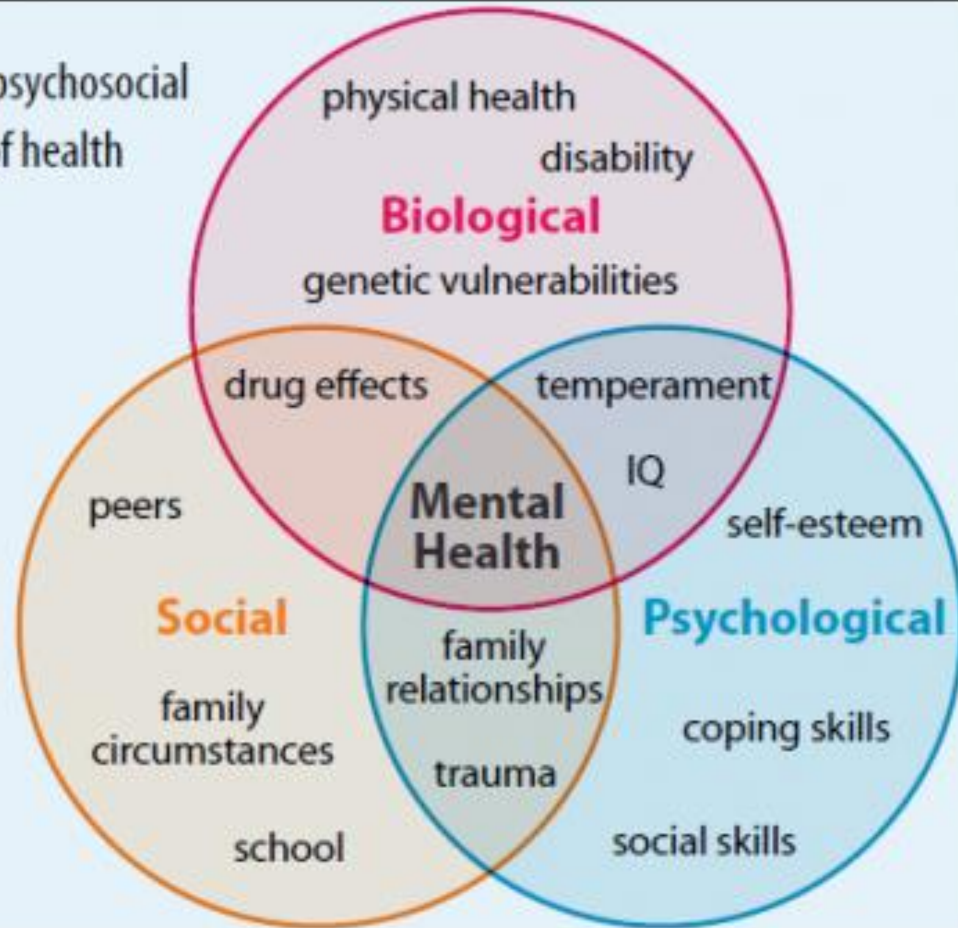
- Bone disease
  - Osteodystrophy
  - Osteomalacia


ePainAssist
Renal Osteodystrophy
Kidney fails to maintain normal level of calcium and phosphorous in blood. The abnormal blood level of calcium and phosphorous causes hormonal changes, which follows demineralization of bone
It slows down growth of bone and may also lead to other deformities of the bone. An example of such deformity is bowed leg where the legs are bent inwards or outwards.
Bowed Leg

- Renal failure
  - Uraemic neuropathy
  - Calciphylaxis
- Co-morbid conditions
  - Cardiovascular disease
  - Ischaemic or diabetic neuropathy
  - Peripheral vascular disease

Assessment

- Ask
- Chronic (persistent) pain has biopsychosocial elements
- Comprehensive assessment must be made
- Formulation of an appropriate treatment plan



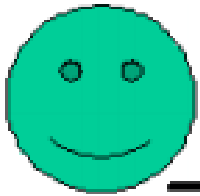
The biopsychosocial model of health
physical health
disability
Biological
genetic vulnerabilities
drug effects
temperament
IQ
peers
Mental Health
self-esteem
Social
Psychological
family relationships
family circumstances
coping skills
trauma
school
social skills

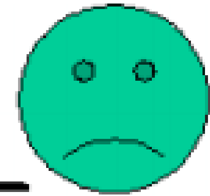
Assessment Tools

- VAS/Faces/Number
- ESAS-Renal Edmonton Symptom Assessment System-revised Renal
  - Allows for assessment other factors associated with pain
    - depression
    - itch
    - nausea

Assessment Tools

VAS: Visual Analogue Scale





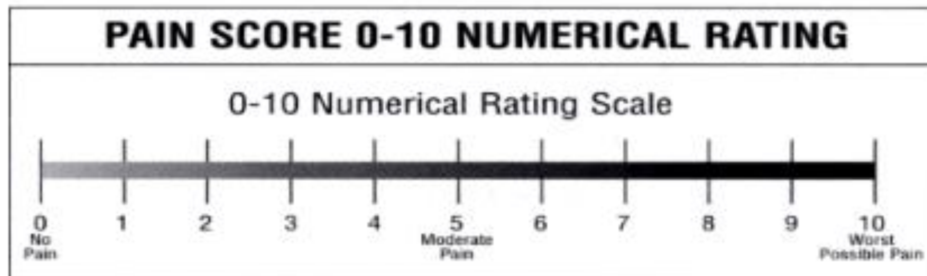
No pain

Worst pain ever

0 1 2 3 4 5 6 7 8 9 10

Numerical Rating Scale Faces Scale

Numerical rating scale (NRS)



Faces rating scale (FRS)

Edmonton Symptom Assessment System Revised: Renal (ESAS-r: Renal)

Please circle the number that best describes how you feel NOW:

No Pain	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	Worst Possible Pain
No Tiredness *(Tiredness = lack of energy)*	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	Worst Possible Tiredness
No Drowsiness *(Drowsiness = feeling sleepy)*	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	Worst Possible Drowsiness
No Nausea	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	Worst Possible Nausea
No Lack of Appetite	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	Worst Possible Lack of Appetite
No Shortness of Breath	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	Worst Possible of Shortness of Breath
No Depression *(Depression = feeling sad)*	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	Worst Possible Depression
No Anxiety *(Anxiety = feeling nervous)*	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	Worst Possible Anxiety
Best Wellbeing *(Wellbeing = how you feel overall)*	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	Worst Possible Wellbeing
No Itching	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	Worst Possible Itching
No Problem Sleeping	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	Worst Possible Problem Sleeping
No ________ Other Problem *(for example constipation)*	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	Worst Possible ________

Patient's Name ______________________________

Date ________________ Time ________________

Completed by (check one):
- ☐ Patient
- ☐ Family caregiver
- ☐ Health care professional caregiver
- ☐ Caregiver-assisted

Pain descriptors

- Neuropathic:
  - Burning, tingling, stabbing, electric shocks
- Somatic/nociceptive:
  - Dull, achy, well localised
- Visceral:
  - Deep, squeezing, cramping, distending, vague, poor localisation

Pain frequency and duration

- Incident pain eg on dialysis
- Pain on movement
- Pain at rest
- Sleep disturbances

Functionality

- Mobilisation/ activity
- Activities
- Social interaction
- Family supports

- Expectations!

DASS-21

- Depression Anxiety Stress Scale- 21 questions
- Lower score better
- Not definitive but “consistent with”…

applied to you **over the past week**. There are no right or wrong answers. Do not spend too much time on any statement.

The rating scale is as follows:

0 Did not apply to me at all
1 Applied to me to some degree, or some of the time
2 Applied to me to a considerable degree or a good part of time
3 Applied to me very much or most of the time

1 (s)	I found it hard to wind down	0	1	2	3
2 (a)	I was aware of dryness of my mouth	0	1	2	3
3 (d)	I couldn't seem to experience any positive feeling at all	0	1	2	3
4 (a)	I experienced breathing difficulty (e.g. excessively rapid breathing, breathlessness in the absence of physical exertion)	0	1	2	3
5 (d)	I found it difficult to work up the initiative to do things	0	1	2	3
6 (s)	I tended to over-react to situations	0	1	2	3
7 (a)	I experienced trembling (e.g. in the hands)	0	1	2	3
8 (s)	I felt that I was using a lot of nervous energy	0	1	2	3
9 (a)	I was worried about situations in which I might panic and make a fool of myself	0	1	2	3
10 (d)	I felt that I had nothing to look forward to	0	1	2	3
11 (s)	I found myself getting agitated	0	1	2	3
12 (s)	I found it difficult to relax	0	1	2	3
13 (d)	I felt down-hearted and blue	0	1	2	3
14 (s)	I was intolerant of anything that kept me from getting on with what I was doing	0	1	2	3
15 (a)	I felt I was close to panic	0	1	2	3
16 (d)	I was unable to become enthusiastic about anything	0	1	2	3
17 (d)	I felt I wasn't worth much as a person	0	1	2	3
18 (s)	I felt that I was rather touchy	0	1	2	3
19 (a)	I was aware of the action of my heart in the absence of physical exertion (e.g. sense of heart rate increase, heart missing a beat)	0	1	2	3
20 (a)	I felt scared without any good reason	0	1	2	3
21 (d)	I felt that life was meaningless	0	1	2	3

PSEQ: Pain self efficacy questionnaire

- 10 item questionnaire
- Confidence performing activities with pain
- Includes home chores, socialising, work
- Functioning without medications
- Lower score better

What next?

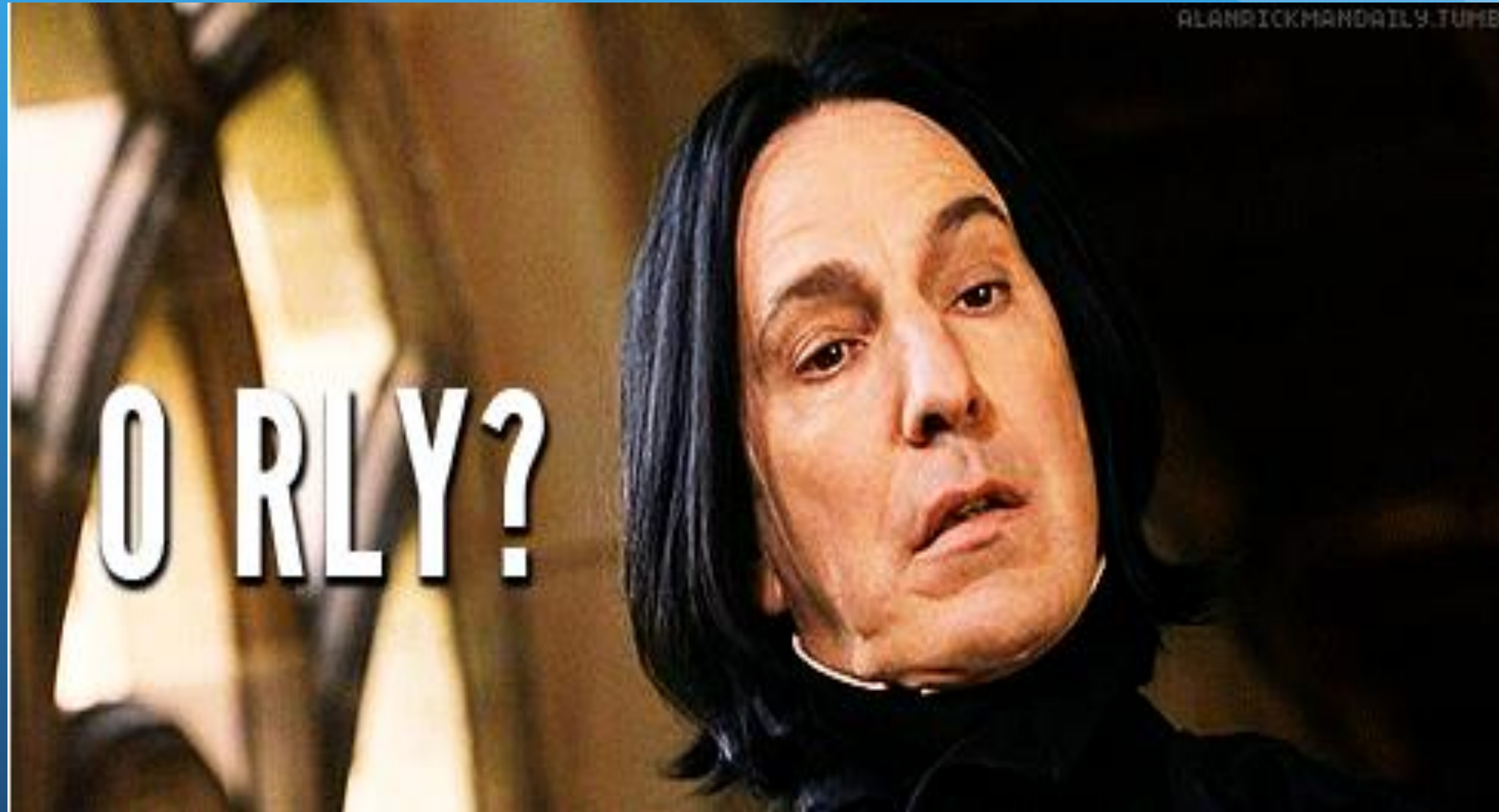
- Multidisciplinary approach
- Optimise
- Revascularise, improve, modify

General non-pharmacologic

- Improve activity
  - Pacing, stretches, aquarobics, hydrotherapy
- Improve strength
  - Strength and weight classes, walking
- Improve socialisation
  - Support groups, walk and talk groups

Psychological therapies

- Medications- antidepressants, antipsychotics
- Sleep hygiene
- CBT
- Mindfulness

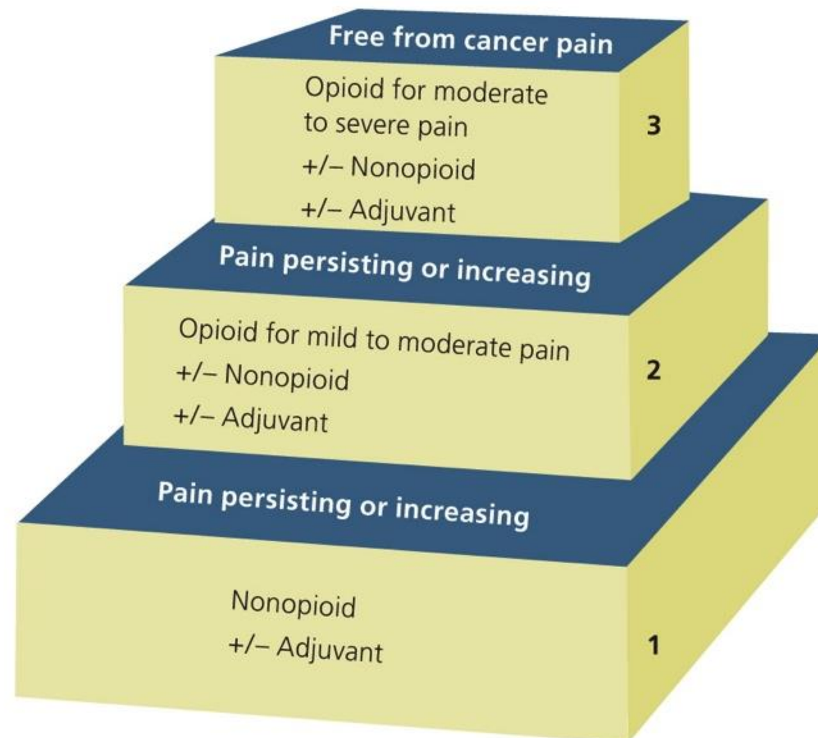

O RLY?

Case Profile: CT 67 female

- Post-Renal transplant
- Generalised pain
- Arrived clinic in wheelchair/crying
- Generalised anxiety disorder
- Prescribed minimal analgesics
- Prescribed psychology and psychiatry interventions
- Now walking freely, using walker for confidence in public
- Cracking jokes!
- Asked about reducing meds further

Let's talk meds……..

Medications



Pharmacokinetics

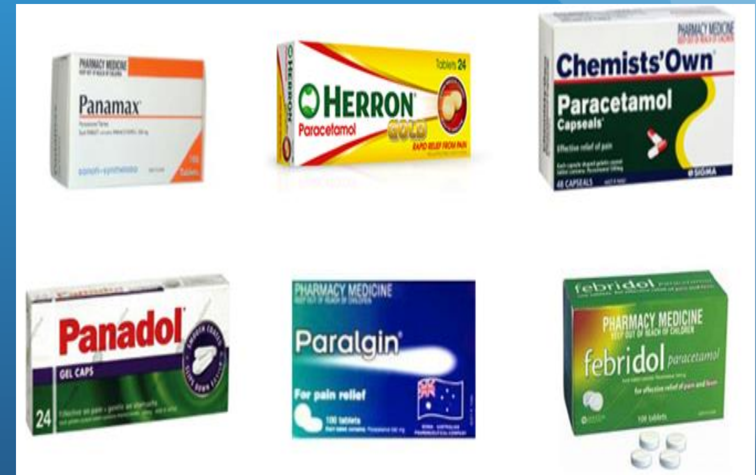
- Percentage excreted in urine
- Active metabolites
- Dialysed?
  - Haemodialysis
  - Peritoneal dialysis
- Signs of toxicity

Preferred medications CKD 4+5

WHO Step	Recommended	Use with caution	Do not use
1	paracetamol		NSAIDS
2		tramadol	
3	HYDROmorphone Fentanyl Methadone Buprenorphone	oxycodone	Morphine Pethidine Propoxyphene
Adjuvants	Gabapentin pregabalin	TCAs	

Paracetamol

- First line analgesic for CKD patients
- <5% excreted via kidneys
- Extensively metabolised in liver
- No dose modification recommended



NSAIDS

- Reduced GFR
- Hypertension/hyperkalaemia/Na water retention
- BUT

Tramadol

- 90% tramadol and metabolites renal excretion
  - 30%unchanged/60%metabolites
- Lower doses used ~ 20% usual dose (100 bd max)
- Dialyzed (h, ?p)
- S/E: CNS depression/twitches/nausea

Morphine

- Active metabolites rapidly accumulate= do not use
- 10% excreted in urine
- Can be dialyzed
- S/E sedation/confusion/myoclonus/respiratory depression

Oxycodone

- <10% excreted in urine
- Metabolised in liver
- Active metabolites but small percentage
- Dialyzed
- Case reports of toxicity BUT consensus is that it is safe to use if monitored

Methadone

- 15-16% excreted in urine
- Excreted in faeces
- Not dialyzed
- General considered safe
- Long variable half life (13-47 hours)
- Effective in neuropathic pain

Buprenorphine

- Metabolized by liver, minimal renal excretion
- Metabolites (bup-3-glucuronide and norbuprenorphine) are inactive and can accumulate
- Dialyzed
- Give in standard doses
- Said to have ceiling effect for respiratory depression
- Considered safe to give in CKD

HYDROmorphone

- 6% excreted in urine
- Metabolised in liver with active H3G conjugate which accumulates
- Active metabolite dialyzed
- Useful with careful monitoring
- S/E as with morphine: myoclonus/ sedation/ resp depression

HYDROmorphone or oxycodone??

- HYDROmorphone=5x morphine dose=3.5 oxycodone
  - Ie 10mg HYDROmorphone= 50mg morphine=35 oxycodone

- Similar metabolite profile

- Multiple formulations of HYDROmorphone
  - Jurnista slow release, Dilaudid immediate release

Download your FREE Opioid Calculator app

Developed by the Faculty of Pain Medicine, Australian and New Zealand College of Anaesthetists

An essential clinical tool:

- Simplifying the calculation of total oral Morphine Equivalent Daily Dose (oMEDD).
- Using evidence-based, conservative limits for opioids.
- Utilising a "traffic light" opioid dose warning system to provide a new level of clinical caution.
- Useful links to further information and education about safe opioid dosing.
- Clear, simple and user-friendly format.
- For prescribers and patients alike.

Android, Google Play and the Google Play logo are trademarks of Google Inc. Apple and the Apple logo are trademarks of Apple Inc., registered in the U.S. and other countries. App Store is a service mark of Apple Inc.

Contact us at opioidcalculator.fpm@anzca.edu.au

Opioid Calculator – A new horizon in safety

Recognised in the top 20 of best medical apps released in 2015.

- Better to learn how to use a few drugs
  - Know their effects
  - Know their side effects
  - Know their dosages

Neuropathic Pain

TCA and duloxetine

- <2% excreted
- Not dialyzed
- No dose modification BUT recommended start at lower doses due to anticholinergic side effects.

Gabapentin and Pregabalin

- 100% renal excretion
- Dialyzed
- Modify dose according to eGFR
- Dose post dialysis
- S/E neurotoxicity

What's new ????