Addiction: A pattern of drug use characterised by aberrant drug-taking behaviours & the compulsive use of a substance in order to experience it’s psychic effects, or to avoid the effects of it’s absence (withdrawal). There is continued use despite the risk of physical, psychological or social harm to the user.
Physical Dependence: A physiological adaptation to a drug characterised by the emergence of a withdrawal (abstinence) syndrome if the drug is abruptly stopped, reduced in dose, or antagonised.
Tolerance: A decrease in sensitivity to opioids, resulting in less effect from the same dose, or the need for progressively larger doses to maintain the same effect.

Pseudo addiction: Drug-seeking behaviour caused by a need for better pain relief.
Addiction to Opioids

- Develops due to more than just exposure to a drug
- Genetic reasons
- Socioeconomic factors
- Psychological factors
- Used to stop pain, both physical & emotional
- Euphoria
Methods of Treatment

- Cold Turkey withdrawal (Risky)
- Harm minimisation approach by Federal Government since 1985
- Move patients off of Heroin onto Methadone since 1969
- Buprenorphine since 2000
Withdrawal Syndromes…

CNS Depressants

- **Alcohol**
  - Anxiety, agitation, restlessness, sleep disturbances, N&V, hallucinations, confusion, disorientation & seizures.
  - 12-48hrs onset following last intake.

- **Benzodiazepines**
  - Similar Signs + Symptoms to ETOH. Severe abdominal cramping
  - Onset 1-5 days following last dose.

- **Nicotine**
  - GIT disturbances, irritability, difficulty in concentrating, increased appetite
  - Onset ~ 24 hrs from last intake
Opioid Receptors

- Mu-μ-activation produces analgesia, sedation, respiratory depression & constipation
- Kappa-K-activation produces analgesia, pupil constriction & resp. depression
- Delta-δ—activation is likely to produce analgesia
Withdrawal Syndromes…

CNS Stimulants

- Cocaine, Ice, Speed
  - Associated with a psychological, rather than a physical dependence
  - Withdrawal symptoms more related to affect (mood) rather than physical symptoms (irritability, aggression, sedation, somnolence)
Opioid Withdrawal Symptoms

- Anxiety
- Nausea & Vomiting
- Runny nose, watery eyes
- Aches & Pain
- Muscle Cramps

The greater the doses used and the faster the onset of the Opioid of preference: the longer and more severe the withdrawal
Methadone

- Long acting synthetic opioid agonist
- Rapidly absorbed, peak levels 2 to 4 hrs, half life 15 to 40 hours
- Metabolised by the liver, excreted by kidneys
- No significant metabolites
- Dose accumulation occurs, 5 days to steady state
Methadone

- Doses 60 to 80 mg once daily, no higher than 150 mg
- Persistent Pain doses are bd
- Has some effects at NMDA receptor- useful for neuropathic pain
- If diverted and injected more intense ‘high’
Buprenorphine

- Semi synthetic Opioid
- Partial agonist at mu receptor
- Antagonist at kappa receptor
- High affinity and binds tightly to mu and delta receptors
- If injected will antagonise opioid from mu receptor leading to withdrawal
- Patches are for persistent pain patients
Treating Acute Pain in these Patients

- Analgesic adjuvants, Paracetamol, NSAIDS, Ketamine & Local Anaesthetics
- Continue Opioid substitution regimen as prescribed
- IV pain protocol, may need larger dose
- Doctors to verify prescription
- Opioids as charted, may require larger doses
Treating acute Pain cont…

- Be realistic about what you can achieve, you will not be able to remove all pain
- Keep it *Clinical!*
  - Nursing Process,
  - Document.
- Don’t judge!
A word of warning…

- Pain Perception is likely to be enhanced in this group.
- May report higher than expected pain scores, often due to opioid-induced sensitisation to pain as well as psychosocial & emotional factors
- Opioid Induced Hyperalgesia = opioid receptors "worn-out" + pain receptors become over-stimulated
- No endorphins…
- Very difficult to treat pain in this group!
Interesting Facts

- Approx. 7.5% of prescriptions of s8 are for Drug replacement therapy.
- High abuse potential of prescribed Opioids
- 15% of Australians used an illicit drug in 2014
References

- Henning R, 2015, Opioid dependency: Patients that make your heart sink

http://www.druginfo.adf.org.au