Medical Management of Opioid Abuse- from Prescription Drugs to Street Heroin

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A Day in Psychiatry- 2016
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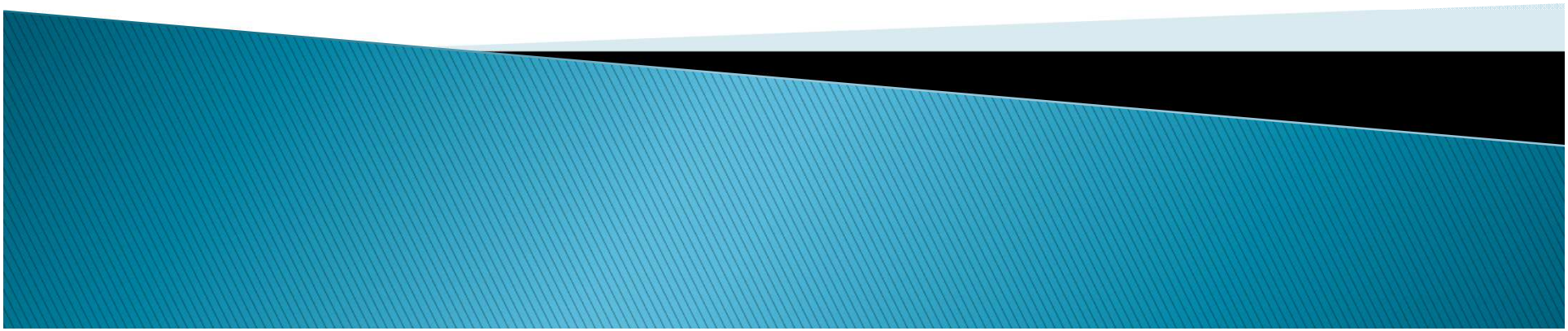

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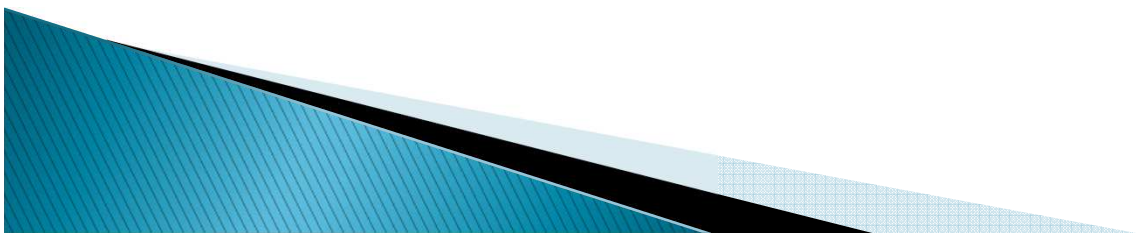
Declaration of Conflict of Interest:

I DO NOT have any affiliation with a pharmaceutical, medical device, or communications organization.

I DO NOT INTEND to make therapeutic recommendations for medications that have not received regulatory approval (e.g. “off-label” use).



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This educational event has received unrestricted educational grants from the following organizations:

Lundbeck

Otsuka

Pfizer

Purdue

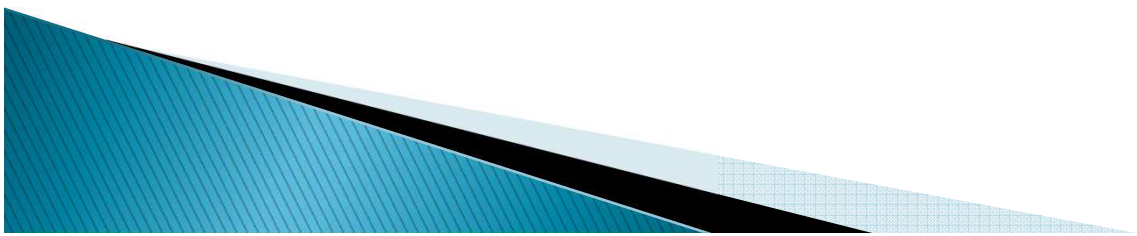
Shire

Sunovion

KW Pharmacy

Janssen

HLS Therapeutics



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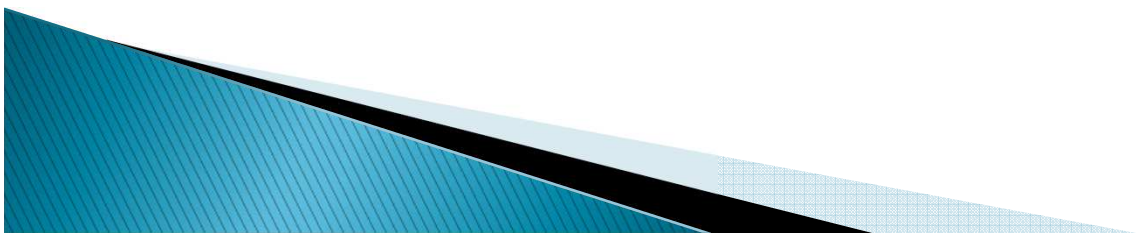
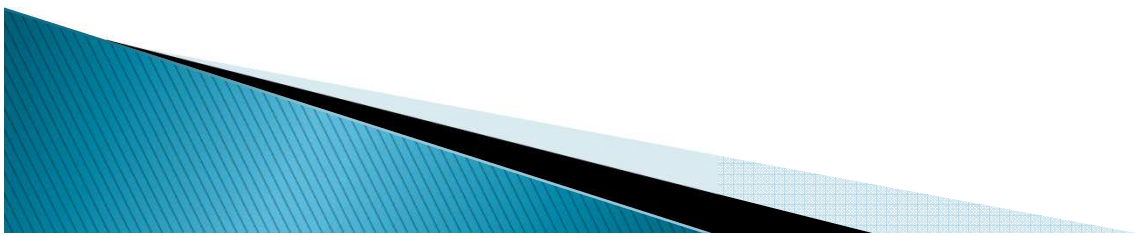
Mitigating Potential Conflicts of Interest:
Not applicable



Opioids

- Are a family of drugs consisting of those derived opium and of those synthesised in a lab to emulate the effects of opium. They have the same effect on the brain.



Poppy plant

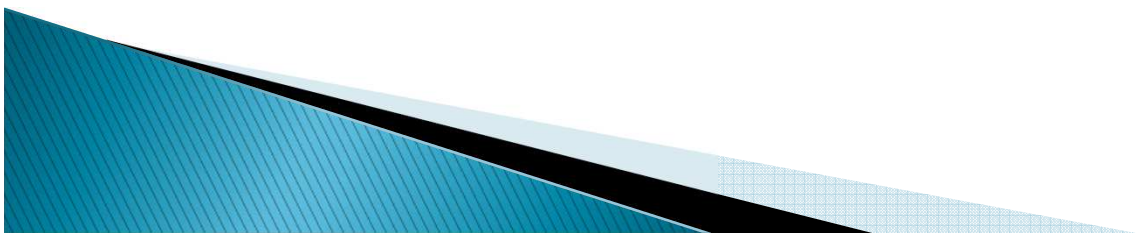
Opium is extracted from the seedpod.

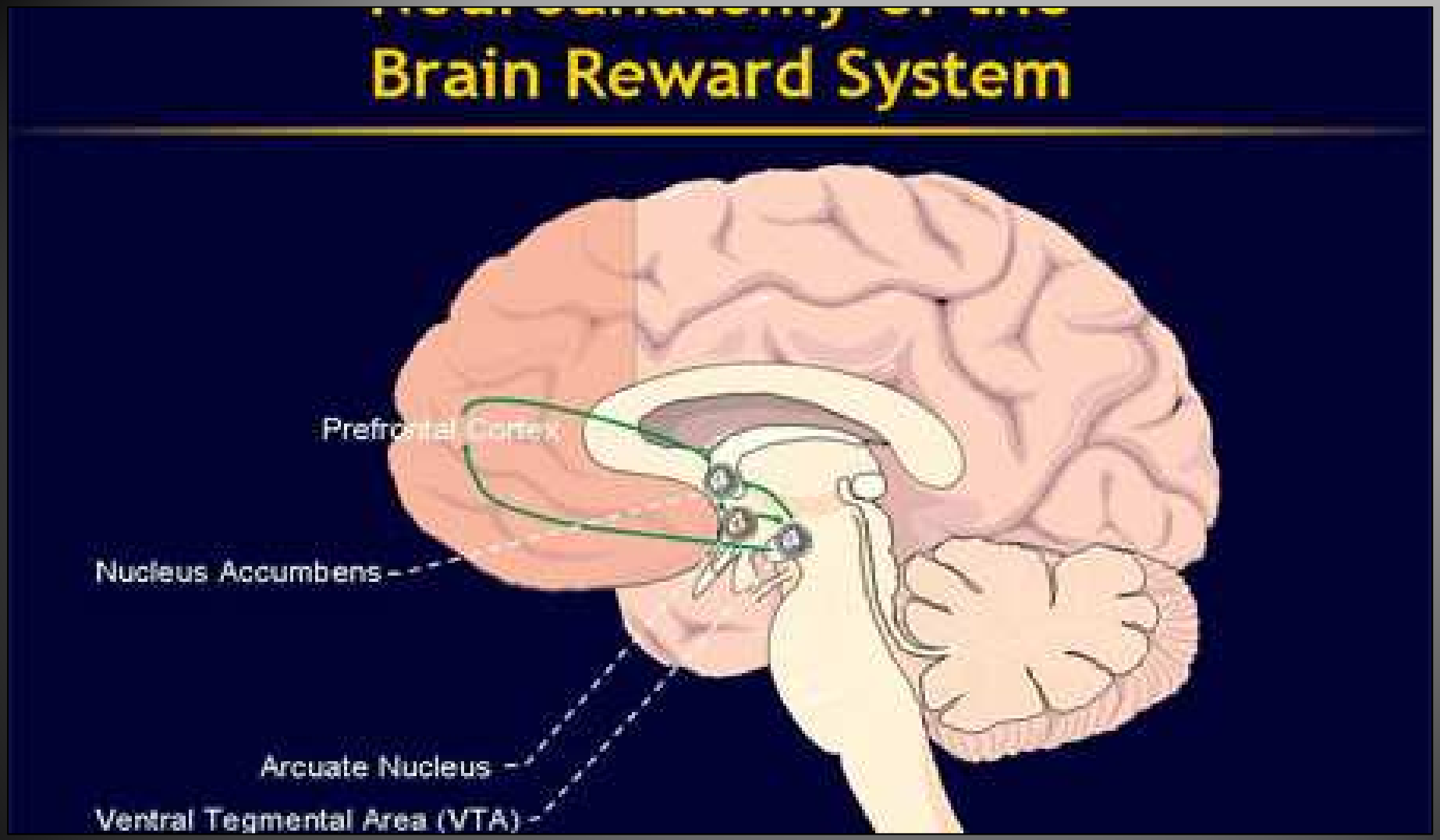
Opium alkaloids are Morphine, Codeine and Thebaine

Classes of opioids

There are 4 broad classes:

- Endogenous-naturally produced in the body as endorphins
- Opium alkaloids are Morphine and codeine
- Semi-synthetic: Heroin and Hydromorphone (Dilaudid), oxycodone and buprenorphine
- Synthetic: Methadone and Fentanyl and its analogues




Brain Reward System
Prefrontal Cortex
Nucleus Accumbens
Arcuate Nucleus
Ventral Tegmental Area (VTA)

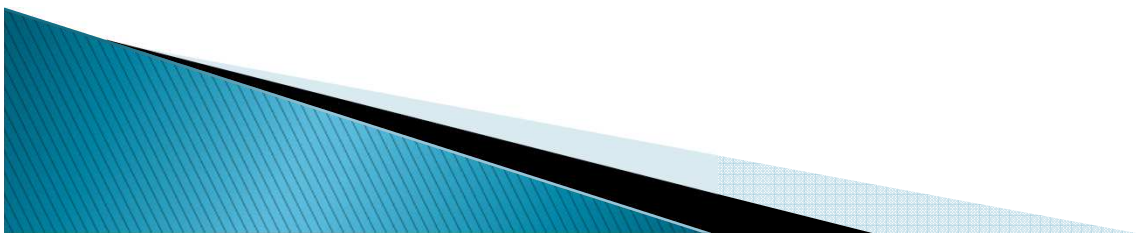
Opioid harm in Canada: How we got here

- 1990s-2010- There was increase in opioid prescription in Canada
- It is now a major public health crisis
- Fentanyl is the leading cause of opioid death in Ontario
- Between 2009-2014 there were at least 655 deaths in Canada due to Fentanyl or contributing to it.
- A lot of overdoses occurred among people who thought they were using Oxycodone, heroin, cocaine and other substance.

Opioid use disorder

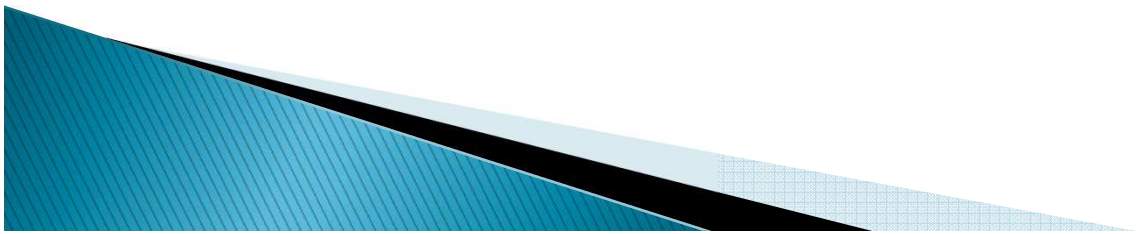
DSM 5: Any 2 of the following 11 items within a 12- month period

- 1. Often takes larger amount than its intended
- 2. Persistent desire to cut down
- 3. Spending a great deal of time in activities necessary to obtain it
- 4. Craving/strong urge to use it
- 5. Recurrent use is resulting in failure to fulfill major role at home, work or school
- 6. Giving up important activities (recreational, occupational activities)
- 7. Continued use despite affecting relationship
- 8. Physical /psychological problem
- 9. Tolerance
- 10. Withdrawal syndrome
- 11. Recurrent use where it is physically hazardous



Medical Treatment

- 1. OPIOID OVERDOSE
- 2. DETOXIFICATION AND MAINTENANCE TREATMENT
- 3. RELAPSE PREVENTION



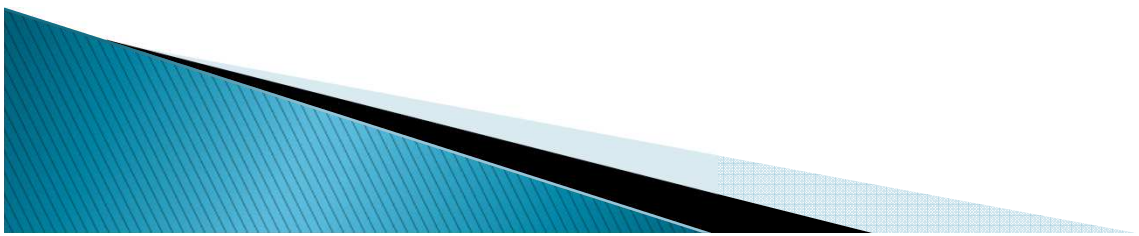
Medical management of Opioid overdose

Naloxone (Narcan)

- Naloxone is an opioid antagonist: It reverses the action of opioid at the opioid receptor site in the brain.
- It is very effective in opioid overdose
- IV/IM/Subcutaneously.
- Health Canada has given temporary approval for the spray to allow it to be imported from the US
- Since March 2016 prescription is no longer required to get it at the community Pharmacy
- It is available as a take home kit in Ontario Pharmacies free (2 ampoules, each 0.4mg to be given by IM)

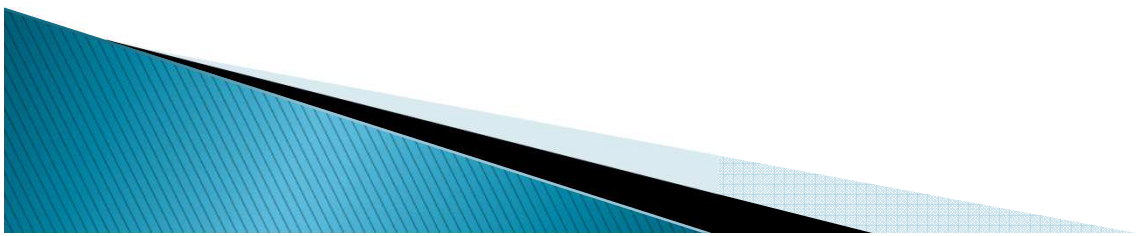
How to use Naloxone in the community:-Unresponsive person with very slow breathing or not breathing

- Call 911
- Breathe for the patient while waiting to get naloxone
- Give 0.4mg-2mg IM Naloxone
- Continue to breathe for the patient (one breath every 5 second and wait for up to 3mins for response)
- If no response in 3mins, repeat another injection and breathe for the patient for 3mins)
- This can be repeated up to max of 10mg per day.
- Note this is a temporary treatment because the effect of naloxone is going to wear off in 30mins and the patient may still go into overdose after 30mins if he still has opioid in his system.



DETOXIFICATION AND MAINTENANCE TREATMENT

- Methadone and Buprenorphine are the 1st line medications for withdrawal and maintenance treatment.
- There is also symptomatic treatment of withdrawal.

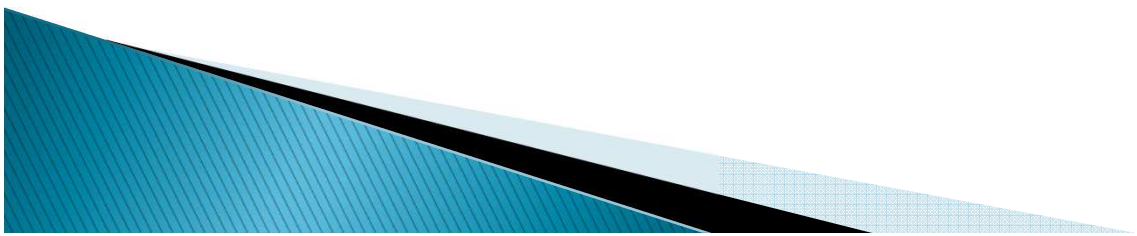


Buprenorphine: Buprenorphine alone (Subutex) and Buprenorphine / Naloxone combination 4:1 (Surboxone)

- No certification is required to prescribe it
- It can be prescribed in your office based practise
- It is covered by Ontario works and Ontario Disability(2mg and 8mg)
- It is easy to prescribe and effective in keeping patients from the use of street drugs
- In Overdose it is generally regarded as a safer drug with less risk of respiratory depression due to its ceiling effect

Buprenorphine: Pharmacology and side effect

- It is a partial agonist
- It as a high affinity for opioid receptors and as a result it can act as an antagonist in the presence of a full agonist
- It is sublingual dosing for maintenance/detoxification
- Half life is between 3-44hrs
- Side effect: Nausea, vomiting, constipation, dizziness, sedation, headache and sweating
- Contra-indication: Allergic to Buprenorphine, severe liver disease and in pregnancy especially Surboxone.

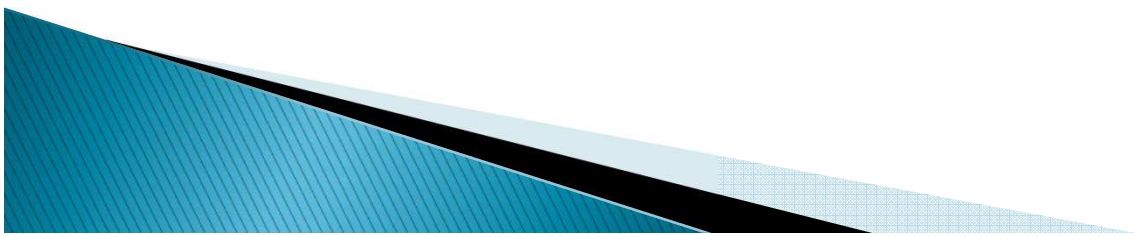


Prescribing Surboxone: For detoxification and maintenance treatment

Prior to commencing Surboxone:

1. Establish hx. of daily use
2. Positive urine test
3. Get informed consent 4. Evidence of withdrawal symptoms

- Other relevant information: type of opioid (short acting agents >12hrs of sobriety or long acting >24hrs of sobriety), other substance use or medical history
- Day 1: 2-4 mg under the tongue and observe 2 hrs after for symptoms /signs of withdrawals and repeat another dose if still in withdrawal up to max of 8mg per day
- Day2: add 2-4mg/day if patient is still having symptoms of withdrawals



Transferring from methadone to Surboxone

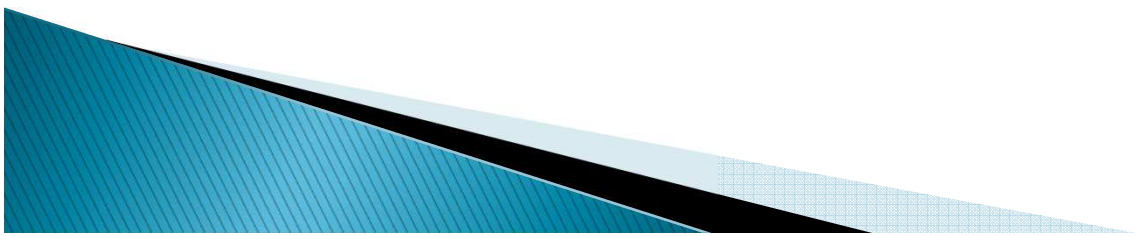
- Gradually reduce the dose of methadone to 30mg and stop methadone.
- Allow patient to come back after 24hrs to commence Surboxone by then they are in withdrawals

Methadone

- Certification is required
- Specialised clinic is required

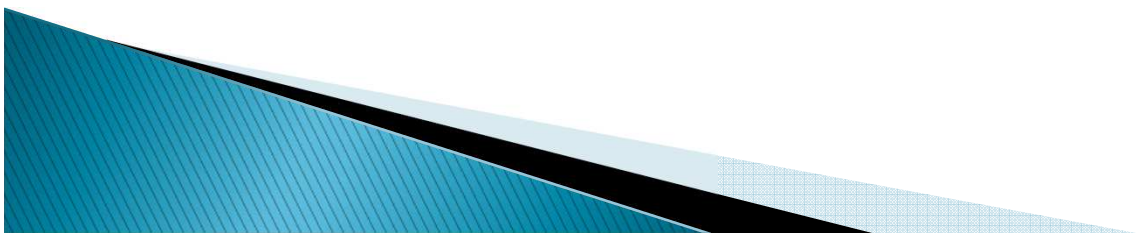
Important things to know:

- Temporary licence to continue methadone treatment for a patient in special circumstances.
- Exercise caution when prescribing other medications that can cause respiratory depression to avoid cumulative toxicity, medications that can cause QT Prolongation or inhibit CYP450 3A4.



In Pregnancy

- Methadone is the treatment of choice.
- Detoxification is contraindicated in the first and 3rd trimester because of spontaneous abortion and preterm delivery respectively



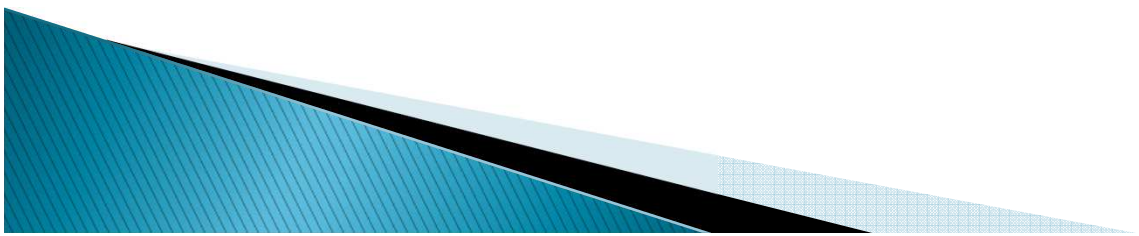
Symptomatic treatment of withdrawal symptoms

- Clonidine an alpha 2 adrenergic agonist- tachycardia, sweating, runny nose, hair standing on end, shivering and goose bumps
- Loperamide for diarrhoea ; starting dose of 4mg and can repeat 2 mg for every loose stool up to max of 16mg day
- Sedating antidepressant/ anti Histamine
- Ibuprofen 400mg qid prn for pain
- Buscopan 20mg tid prn for stomach cramps

Relapse prevention following detox. / abstinence

Naltrexone : 25mg initial daily orally and increase to 50mg daily if well tolerated

- Opioid antagonist .
- It can cause withdrawals if patient is using opioid and he is commenced on the medication. Clonidine may be given to the patient to minimize withdrawals if this happens.
- During abstinence tolerance to opioid will decrease and the risk of overdose is high.
- Evidence for its effectiveness is inconclusive.



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