

Opioid Intoxication



OPIUM & OPIOIDS



- ◇ Opiates; class of drugs
- ◇ Opioids: natural & un-natural products of opium
- ◇ un-natural
 - ◇ Synthetic
 - ◇ Semi- synthetics

Opioid Receptors

- ◉ *Mu*
 - **mu 1** : supraspinal analgesia, sedation, euphoria, prolactin release
 - **mu 2** : spinal analgesia, respiratory depression, GI dysmotility, physical dependency, bradycardia, pruritis, GH release
- ◉ *kapa (1,2,3*)* : miosis, spinal analgesia, diuresis, dysphoria, psychotomimesis
- ◉ *Delta (1,2)** : inhibit release of dopamine, spinal & supraspinal analgesia
- ◉ *Nociceptin / Orphanin FQ receptor*

Clinical Manifestations

Therapeutic Effects

- ◊ Analgesia & Euphoria
- ◊ Antitussive

Nontherapeutic & Adverse Effects

- ◊ Abuse & Addiction
- ◊ Hyperalgesia
- ◊ Miosis
- ◊ Gastrointestinal
- ◊ Movement Dis
- ◊ Endocrine
- ◊ Hearing Loss

Toxic & Life-Threatening Effects

- ◇ Respiratory Depression
- ◇ ARDS
- ◇ Cardiovascular
- ◇ Seizure

Pure Agonists_(MU1,2,K)

Morphine

Methadone

Fentanyl

Pure Antagonists_(MU1,2,K)

Naloxone

Naltrexone

Agonists-Antagonists (K ago, MU anta)

Pentazocine

Partial Agonists (MU1,2 ago, K anta)

Buprenorphine

- ◊ **Morphine**
- ◊ **Codeine**
- ◊ **Heroin**
- ◊ **Oxycodone**
- ◊ **Fentanyl**
- ◊ **Methadone**
- ◊ **Buprenorphine**
- ◊ **Tramadol**
- ◊ **Diphenoxylate**
- ◊ **Loperamide**
- ◊ **Dextromethorphan**
- ◊ **Meperidine**

Manner Of Poisoning

◆ Accidental

- ◆ Child: opium/ drugs
- ◆ Medication
 - ◆ Underlying disease
 - ◆ Drug interaction
 - ◆ Acid-Base imbalance

◆ Intentional

- ◆ Addict : after quit/ new substance
- ◆ First user
- ◆ Body stuffer or body packer

Presentation

- ◇ Altered mental status
 - ◇ Euphoria, lethargy to coma
- ◇ Pin point pupils
- ◇ Respiratory depression (hypoventilation)
- ◇ Decreased BS
- ◇ Normal or low BP & HR

Opioids Toxidrom (triad)

Pin point pupils

+

Bradypnea

+

LOC

Diagnostic evaluation

- ◇ B.S check
- ◇ CPK (if Hx of prolonged immobilization)
- ◇ CXR; ARDS, ALI, AP
- ◇ EKG; IHD, MTD or propoxyphene toxicity

TREATMENT

- ◆ Early support oxygenation & ventilation
- ◆ Hemodynamic support
- ◆ Opioid Antagonist

The goal of therapy is

**Adequate
ventilation**

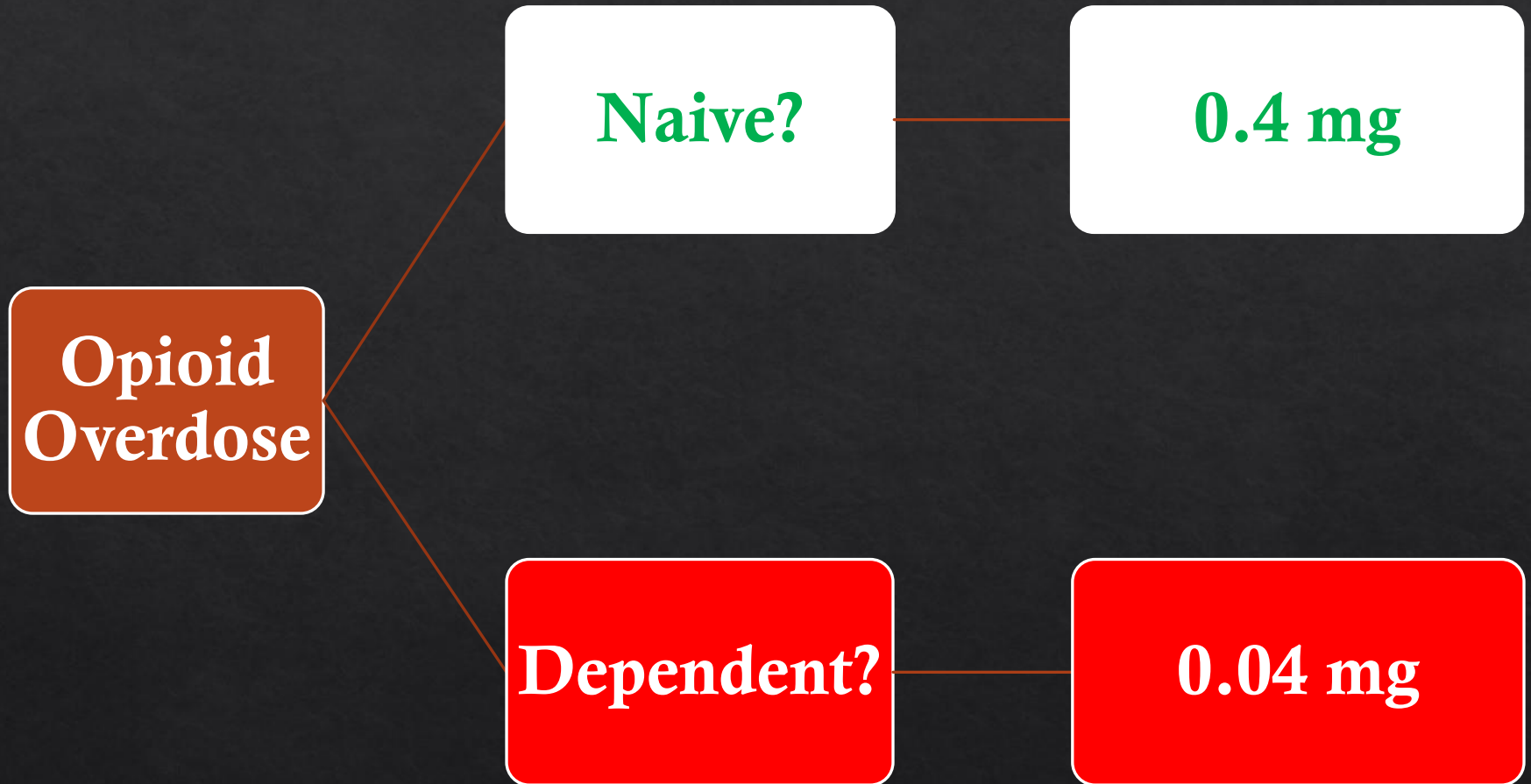
Not normal mental status

Antidotal Therapy

- ◇ Indications
- ◇ Depend on cases
 - ◇ **Non-addict person(naïve)**
 - ◇ **Addicted**
 - ◇ **Underlying disease**
 - ◇ **Complicated**
- ◇ Narrow half life
- ◇ Few contraindication: **IHD/CAD**

Doses Of Naloxone

- ◇ Low dose(titrated)
- ◇ Full dose / Response dose/ Bolus
- ◇ Maintenance Dose / Continuous Infusion
- ◇ Rout



◇ 0.04 mg

◇ 0.2-0.4 mg increased(30 sec,3 min)

◇ Up to 2mg

◇ Even up to 10 mg

Evaluation Redevelopment Of Respiratory Depression

- ◇ Continuous Infusion Of Naloxone
- ◇ Two-Thirds Bolus Dose(12-24h)