

Name of the teaching unit: Opioid analgesics

Impact of the learning unit

Opioid analgesics are among the indispensable substances in the treatment of pain. They block the transmission of pain signals between CNS cells by stimulation of opioid receptors. Knowledge of these drugs is considered to be the basic knowledge of each student of medicine.

Important terms

strong opioid analgesics

- morphine
- pirtamide
- fentanyl
- sufentanil
- remifentanil
- oxycodone
- methadone
- pethidine
- heroin (diamorphine)

moderate and weak opioid analgesics

- codeine
- dihydrocodeine

atypical opioids

- tramadol
- tapentadol

Partial agonists and mixed agonist-antagonists

- buprenorphine
- nalbuphine

antagonists of opioid analgesics

- naloxone
- naltrexone
- nalmeferne (nalmetrene)

Learning outcomes

Student knows basic pharmacological profile (mode of action, unwanted effects, indications and contraindications) of opioid analgesics.

Student describes basic principles of pharmacotherapy of the acute and chronic pain.

Student distinguishes opioid and non-opioid analgesics.

The student characterizes basic classes of opioids - agonists, antagonists, partial agonists, atypical opioids and gives examples.

Student gives examples of opioids used in anaesthesiology, opioids used as antitussives, antidiarrhoeal agents and opioids used in the substitution therapy of opioid addiction.

Student describes the management of the acute intoxication with opioids.

Study materials

Rang & Dale's Pharmacology, 8th edition, 2016, chapter 42, pp. 509-529 (Analgesic drugs, Section Opioid drugs)

Study materials for courses aVLFA0721p and aVLFA0721c.

Exam questions

Special pharmacology: 13. Opioid analgesics

Essential drugs: 39. buprenorphine, 40. morphine/naloxone, 41. sufentanil, 42. tramadol