

Learning unit: General principles of intoxication therapy

Impact of the learning unit:

Students will gain knowledge concerning the most frequent basic principles of intoxication therapy. The knowledge of decision tree for therapy of intoxication is in the frame of urgent medicine essential part of pharmacologic curriculum.

Important terms

Toxidroms

- cholinergic
- anticholinergic
- sympathomimetic
- opioid
- sedative/hypnotic
- hallucinogen
- serotonin

Therapy of intoxications

- prevention of further absorption/decontamination
 - gastric lavage
 - induction of vomiting
 - inactivation of toxins in GIT
 - activated charcoal
 - diosmectite
 - increased passage in GIT
 - sorbitol
- elimination of absorbed toxic substances and their metabolites
 - forced diuresis
 - mannitol
 - furosemide
 - extracorporeal elimination
 - haemodialysis
 - hemoperfusion
- specific therapy - antidotes
 - naloxone
 - N-acetylcysteine
 - flumazenil
 - protamine
 - spec. antidotes DOACs (xabans, gatrans)
 - globulinum antidoxinum
 - pralidoxime
 - physostigmine
 - atropine
 - ethanol
 - fomepizole
 - methylene blue
 - deferoxamine

Learning outcomes

Student knows the most frequent cases of intoxications and is able to suggest both specific and non-specific therapy.

Student knows specific antidotes of selected substances.

Recommended study materials

Rang & Dale's Pharmacology E - Book, Humphrey Rang 9th edition, 2020, not found within one chapter - it is necessary to extract from the whole special pharmacology.

Study materials of the course aVLFA0822c and aVLFA0822p

Exam questions

Special pharmacology: 61. General principles of drug poisoning, specific antidotes and their mechanisms of action

“Essential” drugs: atropine, furosemide, acetylcysteine, naloxone