

provided there is good follow-up, can safely be observed for 48 to 72 h and given antibiotics only if no improvement is seen.

Depending on various factors, antibiotic therapy for the treatment of acute otitis media is divided into basic, antibacterial therapy for allergy to penicillin, therapy for adults with immunodeficiency and body-specific therapy.

**Conclusions.** Preferred antibacterial therapy directed to the use of organism-specific pattern aimed at *Streptococcus pneumoniae*, *Haemophilus influenzae*, *Moraxella catarrhalis*,  $\beta$ -hemolytic streptococci, since it is aimed at eliminating the cause of the disease.

## PHARMACOTHERAPY OF LOW BACK PAIN

Pohribna K.

Scientific supervisor: as. Tolmacheva K.S.

National University of Pharmacy, Kharkiv, Ukraine

kattylady1998@gmail.com

**Introduction.** Low back pain it is a clinical syndrome, which is characterized by pain in the spine. According to WHO, approximately 45% of people around the world experienced back pain at least once in their lives. Back pain is the second most frequent cause of appeals to a doctor after respiratory diseases and the third most frequent cause of hospitalization.

**Aim.** Get to know the protocols for treating back pain.

**Materials and methods.** We reviewed Medscape medical guidelines.

**Results and discussion.** The purpose of pharmacotherapy is to reduce back pain. Pharmacotherapy of low back pain primarily involves the use of nonsteroidal anti-inflammatory drugs for the relief of pain syndrome. Anti-inflammatory drugs have both analgesic and anti-inflammatory properties because they can affect the pathophysiological process mediators. Also used are muscle relaxants with a central mechanism of action. Miorelaksants improve blood supply to spasmodic muscles, thereby reducing spasm. As symptomatic therapy for acute pain in the back, foreign sources recommend using acetaminophen (Paracetamol). With chronic back pain, successfully used anticonvulsants and tricyclic antidepressants. Another group that is used in chronic pain is selective serotonin reuptake inhibitors. This group has shown less side effects than tricyclic antidepressants. Topical therapy is to deliver medication through a sick spot. The drug is transmitted through the skin to shallow depth and operates locally. For topical therapy, 5% of FDA-approved lidocaine patches are used as an effective treatment for chronic low back pain. Also, in the treatment of back pain, the use of non-medicated treatment is in high demand. (orthopedic regime, that is, to reduce the load, sharp movements, magnetotherapy, acupuncture, massage, ultrasound, electric muscle stimulation.

**Conclusions.** Pharmacotherapy for back pain includes pathogenetic and sympathetic therapy.

## MODERN PHARMACOTHERAPY AND PREVENTION OF DIPHTHERIA

Rybalko T. O

Scientific supervisor: assistant professor Zhabotynska N.V.

National University of Pharmacy, Kharkiv, Ukraine

ryballko@ukr.net

**Introduction.** Diphtheria is an acute infectious disease caused by toxigenic cinnabar bacteria with airborne transmission and is characterized by the formation of fibrinous attacks in the site of invasion of the pathogen, most often on the mucous membranes of the oropharynx and respiratory tract, general intoxication, toxic damage to the cardiovascular, nervous systems, adrenal glands, kidney. Diphtheria is a long-standing illness that existed during the days of Hippocrates. Epidemics were recorded in the sixteenth and seventeenth centuries in Spain, in the eighteenth century – in New England and the nineteenth century – in England, Austria, Germany and Denmark. Active immunization with diphtheria