

review on stimulants misuse has been performed, including search of following databases: PubMed, ResearchGate, neurology.com, etc.

**Results.** 114 questionnaires have been completed, including: 34 – online and 80 – on sheets. Approximately 14,0% (16 of 114) of surveyed students have used MPH for non-medical purposes. Most of them used it to enhance their ability to concentrate 63,64 % (7 of 11). Next adverse reactions were mentioned: tachycardia/High Blood Pressure (8 of 13); anxiety/fear (5 of 13); headache (5 of 13); seizures/convulsions (2 of 13); sleep disorders (9 of 14). Recent studies put college students' nonprescription use of stimulant drugs — Ritalin and amphetamines such as Adderall and Dexedrine — at rates anywhere between 14 and 38 percent, depending on the type of college and age of student. Main purpose of usage is enhancing the ability to concentrate and memorize. Most frequent adverse reactions (>10%) are: psychiatric disorders, insomnia, irritability, decreased appetite, headache, infections.

**Conclusions.** The prevalence of MPH usage among medical students fits in general statistics. The primary reason of usage also coincides. Some respondents have not mentioned the emergence or absence of adverse reactions. This may be due to refusal to answer or unawareness of the adverse reactions. The literature review revealed that benefic effects of MPH are observed in individuals with lower ability of concentration/memorization, showing that the drug is more effective at correcting deficits than “enhancing performance”. In individuals with good ability of concentration/memorization enhanced motivation has been observed, although associated with higher incidence of adverse reactions.

**Key words:** methylphenidate, stimulants misuse, ADHD, performance, cognition.

### 310. PARACETAMOL - BENEFITS AND DAMAGES

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**Introduction.** Paracetamol and the combined drugs, which belong to the OTC list that are released without a prescription, are most commonly used in the symptomatic treatment or self-treatment of acute respiratory infections. The diversity of trade names often misleads patients who resort to their administration without consulting a doctor. For these reasons, there is an increase in the incidence of acute intoxication and fatal adverse reactions (fulminant hepatic necrosis, etc.).

**Aim of the study.** The aim of the study consisted in analyzing the presence on the pharmaceutical market of mono- and combined drugs containing paracetamol and estimating possible risk of side effects in self-treatment with them.

**Materials and methods.** Based on the study of the State Drug Nomenclature, were selected drugs containing paracetamol with analysis of single dose and combination diversity.

**Results.** In the Republic of Moldova there are 95 mono- or combined drugs containing paracetamol (acetaminophen), including producers from: Moldova - 22, Romania - 20, Ukraine 13, Belarus - 12, Turcia - 5, Russia - 5, Slovenia - 6, Georgia - 4, India - 4, Bosnia and Herzegovina - 2, United Kingdom -1, Germany - 1. The presence of single-dose mono drugs containing paracetamol of 50-250 mg for children and 500-600 mg for adults was found. There is a wide range of combined drugs including: paracetamol + decongestant adrenomimetics (phenylephrine, pseudoephedrine), paracetamol + H1-antihistamines (pheniramine,

chlorphenamine), paracetamol + adrenomimetics + H1-antihistamine +, paracetamol + opacimetamine), paracetamol + H1-antihistamines + opioid analgesics (codeine, promethazine), paracetamol + non-inflammatory anti-inflammatory drugs (propifenazone), paracetamol + antitussive opioid analgesics (codeine, dextromethorphan), which in some cases may have caffeine and / or ascorbic acid added. In accordance with the recommendations of the European Medicines Association the dose of paracetamol in adults for 24 hours is 3.2 g, and in the case of people with pre-existing hepatitis and those who suffer from alcohol abuse, of 2g / 24 hours. The presence of the H1-antihistamine component can result in diminished attention with tragic consequences for drivers, people who do machinery work, as well as the development of dry mucous membranes, including the tracheo-bronchial mucosa, which can enhance the dry cough and decrease the bronchial drainage creating the feeling of ineffectiveness of said drugs. The effect of improved breathing, through the decongestant adrenomimetics, is of short duration (1-2 hours), especially in the first 24-48 hours, which stimulates the more frequent use of drugs with systemic effects, including increased blood pressure, palpitations, tremor.

**Conclusions.** The number and variety of drug combinations of paracetamol impose caution for their use, in order to avoid overdose and the possibility of developing hepatotoxicity.

**Key words:** paracetamol, hepatotoxicity

### 311. CAFFEINE AND PARACETAMOL

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**Introduction.** The diverse commercial names for paracetamol and combinations of this drug are part of the OTC list and do not need a medical prescription. One of the compounds in these combinations is caffeine, which is considered to enhance the effects of non-opioid analgesics in symptomatic treatments or self-treatment of acute respiratory infections. Some patients use these drugs due to the caffeine found in them without the awareness of other components and their influence on the body. These circumstances could be responsible for acute intoxications and fatal side-effects (such as fulminant hepatic necrosis).

**Aim of the study.** The objective of the study was to analyse the presence of caffeine-paracetamol combinations in the pharmaceutical market and argue the rationality of their association.

**Materials and methods.** Based on the study of the State Drug Nomenclature, the combined preparations of paracetamol and caffeine were selected with single dose analysis.

**Results.** In the Republic of Moldova there have been 9 registered drug combinations that contain paracetamol and caffeine. The single doses of paracetamol were between 200-500mg, and between 2-75mg for caffeine. The preparations also contained a wide diversity of components; paracetamol + adrenomimetic decongestants (phenylephrine) + caffeine, paracetamol + H1-antihistamines (chlorpheniramine) + adrenomimetics (phenylephrine) + caffeine, paracetamol+ opioid analgesics (codeine) + caffeine, paracetamol+ non-steroid anti-inflammatory (acetylsalicylic acid, propyphenazone) + caffeine. The results have demonstrated an analgesic effect of caffeine in alleviating headache in dysmenorrhea and migraines, tension-