

**МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ  
БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ»**



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**АКТУАЛЬНІ ПИТАННЯ КЛІНІЧНОЇ ПЕДІАТРІЇ**

**Andriychuk D.R.**

**SOME PECULIARITIES OF PREMEDICATION IN CHILDREN OF DIFFERENT AGE GROUPS**

*Department of Pediatrics and Medical Genetics*  
*Bukovinian State Medical University*

**Introduction.** Premedication is the preliminary medical preparation of the patient for general anesthesia during surgical intervention with the aim of prevention or reduction of possible complications. Premedication is performed after all other preparatory, diagnostic and therapeutic manipulations immediately before the operation or 30-40 minutes before the operation. After all, the injected drugs have to work, which takes about 30-40 minutes, and their effect in the human body can last only up to 2 hours from the moment of administration.

**The aim of the study** was to evaluate some peculiarities of premedication in children of different age groups.

**Results.** The classic scheme of premedication involves the introduction of 3 groups of drugs: analgesics, antihistamines, cholinolytics or M-cholinolytics. The modern scheme of drug preparation for anesthesia, depending on the type and duration of the surgical intervention, requires the administration of analgesics or psychotropic agents with a sedative effect (tranquilizers, antipsychotics). When using cholinergic drugs or possible irritation of the respiratory tract (tracheal intubation, bronchoscopy), mandatory premedication drugs are cholinolytics (anticholinergic drugs) to block vagal reflexes. Violation of this rule can lead to bradycardia with a possible decrease in blood pressure and the development of more serious heart rhythm disorders. Preparations for premedication are most often administered intramuscularly, less often intravenously, orally or rectally. The goals of premedication are the following: 1) reduction of emotional tension; 2) decrease in secretion of exocrine glands; 3) prevention of side effects of drugs for multicomponent anesthesia; 4) creating a background that contributes to the optimal manifestation of the action of anesthesia drugs. For planned operations, premedication can begin the day before, when sedatives and hypnotics are prescribed. Premedication always includes an M-choline blocker and an antihistamine. M-cholinoblockers are necessary for suppressing the secretion of glands (especially salivary glands), reducing the vagotonic effects of anesthetic drugs (practically all general anesthetics, opiate analgesics, and ataratics are vagotonics) and suppressing vagal reflexes both during tracheal intubation and in case of possible irritation of reflexogenic zones under operation time. Premedication may include opiate analgesics, as well as drugs whose administration is dictated by the patient's condition. Features of premedication in children are as follows: 1) presence of three mandatory groups of drugs: blocker of M-cholinergic receptors, analgesics, sedatives; 2) diphenhydramine is not recommended for children under one year of age (convulsions may occur); 3) in the case of microcirculation disorders, drug doses are reduced by 25-30% from the initial dose; 4) sedation is provided by sodium thiopental and sodium oxybutyrate. The nature of children's fears and apprehensions greatly depends on their age. So, younger children are most afraid of being left alone, they are afraid of being separated from their parents. The child will feel much more confident if the parents are allowed to be around until the moment he falls into a drug-induced sleep.

Older children, as a rule, have more complex mental experiences. They worry about what the surgeon will do to their body, what incisions will be made, whether there will be scars on the skin after the operation, whether it will hurt during the operation, and whether they will wake up after the anesthesia.

**Conclusion.** Properly selected and carried out premedication is the key to optimal anesthetic support during various surgical interventions, which allows to significantly reduce the negative effects of anesthesia and surgical intervention in the postoperative period.