

**LECTURES “PREVENTIVE DENTISTRY” THIRD YEAR, VITH SEMESTER
DISCIPLINE “PREVENTIVE DENTISTRY”**

Curriculum:

15 h lectures

6 lectures of 2 hours and 1 lecture of 3 hours

Ist lecture – 2 h.

Etiology and pathogenesis of dental caries.

IInd lecture - 2 h.

Dental biofilm - development, structure, composition and properties. Microbial metabolism and pathogenic properties of microbial biofilm.

IIIrd lecture - 2 h.

Deminerlization and remineralization of enamel.

IVth lecture - 2 h.

Histopathologic changes of enamel and dentinal structures in the carious process. Current concepts in preventive dentistry - aim, strategies and forms.

Vth lecture - 2 h.

Oral hygiene - aim and theoretical consideration. Oral hygiene assessment – methods and indices. Individual and professional oral hygiene. Educational and motivational programs.

VIth lecture - 2h.

Systematic fluoride supplementation.

VIIth lecture - 3 h.

Topical fluoride supplementation

Program of exercises Discipline “Preventive Dentistry” IIIrd course, VIth semester

15 h exercises
6 exercises of 2 hours
1 exercise of 3 hours

Ist - exercise -2h.

Etiology and pathogenesis of dental caries.

IInd - exercise -2h.

Discussion and consideration of a set of slides, which demonstrate dental plaque on primary and permanent teeth. To run a test “Dental plaque - genesis, structure and pathogenic potential. Test assessment.

IIIrd - exercise -2h.

Discussion and consideration of a set of slides, which show, caries lesion development in enamel and dentin (microscope observations, X-ray examination). Examination of children to diagnose initial carious lesion in enamel. To run a test “Demineralization and remineralization processes in enamel. Histomorphological changes in dental tissue in caries”. Test assessment.

IVth - exercise -2h.

Discussion on common principles, strategies and forms for primary prevention of oral disease. Choice of topic for essay or PowerPoint presentation:

1. Development and structure of dental plaque.
2. Development of caries lesion.
3. Oral biologic defenses in tooth demineralization and remineralization
4. The role of dental plaque in etiology and progress of periodontal diseases in children.
5. Toothbrushes and tooth-brushing methods of oral hygiene in children.
6. Dentifrices, mouthrinses and chewing gums – oral hygiene resources.
7. Endogenous fluoridation for preventing dental caries – forms and effectiveness.
8. Topical fluorides in caries prevention forms and their application in children.

Paper or PP presentation with rating 6.00 brings bonus - points for dispensation from practical exam in the end of course “Prevention of oral diseases”

Vth - exercise -2h.

Discussion: Oral hygiene – resources and methods in children. Frequently used Indices for objectivity and recording of oral-hygiene status – charts for OHI-S Green Vermillion, Plaque index Silness& Loe. Programs for motivation), tailored with the age of the children. Test “Oral hygiene”. Practical task: To set up an antiplaque program to:

- child 14 y old with poor oral hygiene.
- child 3 y old with early childhood caries.
- child 12 y old with dental dysplasia
- child with Down syndrome
- Oral hygiene motivation program for a group of 5 years old children in a kindergarten.

NB! Paper or PP presentation with rating 6.00 brings bonus- points for dispensation from practical exam in the end of course

VIth- exercise -2h.

Discussion: Mechanism of endogenous effect of fluoride in dental structures development. A daily optimum preventive doses of fluorides. Determination of individual daily optimum fluoride preventive dose. Methods of endogenous fluoride prevention – indications and application. Test. “Endogenous fluoridation for preventing dental caries”. Practical task:

1. Solve a task - Determination of individual daily optimum fluoride preventive dose (with tablets, with mineral fluoride water) in children of different ages – 3 -6-10 years old.
2. Set up an individual program of fluoride prevention in case of:
 - Child with early childhood caries,
 - 8 years old child with dental dysplasia,
 - a pregnant woman

NB! Paper or PP presentation with rating 6.00 brings bonus - points for dispensation from practical exam in the end of course

VIIth- exercise -2h.

Discussion: Mechanisms of topical effect of fluoride on dental enamel and dental plaque. Current/ contemporary methods and remedies/ medications. Test – “Topical fluoride prevention”. Practical task:

- Topical placement/ application of fluoride gel- 1 child,
- Prescription of fluoride mouthrinses,
- Fluoride dentifrices – F contents.

Practical work

In VIth semester the students have to perform:

- Take down and record oral-hygiene indices – 1 case
- Motivation for oral hygiene /program/ - 1 case
- Fluoride prevention /program/ - 1 case