A P PROVED

Chief of the Chair

Dental propaedeutics ”Pavel Godoroja”

SUMPh “N.Testemiţanu”

Dr.hab.șt.med.,conf. universitar

Uncuța Diana

“ \_\_\_\_” \_\_\_\_\_\_\_\_\_\_\_\_\_\_2018

1. The notion of biomaterials. Their properties.
2. Electrical properties (galvanization).
3. Color selection. Dimensions of color.
4. Mechanical properties (strength, resilience, flexibility) of biomaterials biomaterials.
5. Characteristics of the compressive pressure. Impact strength.
6. Metals and metal alloys. Definition
7. Alloys for fixed dentures (noble, base).
8. Alloy casting, welding and bonding, alloy recycling.
9. Acrylic resins. Types.
10. The properties of heat activated acrylic resins (structure, porosity, volume change, thermal expansion, shrinkage during curing, thermal shrinkage, biological properties).
11. Indications for usage directions of acrylic plastic with thermal polymerization. Self-polymerization acrylic resins. Release forms and their polymerization.
12. Ceramic masses. Definition. Chemical composition.
13. Stages of baking ceramic body on a metal structure.
14. Notion about new ceramic system: Hi-Ceram-Vita, Ceremony, In-Ceram-Vita, Dicor.
15. Notion about empress Technique. Mechanical copying methods. Computerized grinding methods (CAD-CAM).
16. Dental wax. Composition. Classification by the method of application.
17. Wax properties: melting range, flow, thermal expansion, mechanical properties, residual stresses, ductility.
18. Properties and advantages of dental investments and refractory materials.
19. The Definition of” Dental impression”. Characteristic.
20. Impression trays. Characteristic. Classification
21. Stages and technique of taking impressions.
22. The materials used for the manufacture of models. Properties.
23. Secondary properties for impression material (absence of toxic irritation, odor, taste, long storage and easy removal after curing imprint).
24. Technique of manufacturing metal models. Their use in practice.
25. Classification of filling materials.
26. Requirements for permanent filling materials.
27. Temporary filling materials. Requirements.
28. Temporary light-cured filling materials. Properties.
29. Characteristics of artificial dentin. Properties. Chemical composition.
30. Definition and classification of medical liners. The purpose of use of medical liners.
31. Water-based calcium hydroxide paste. Properties and indications for use. Calcium hydroxide cements based on resins. Properties and indications for use.
32. Zinc oxide paste. Properties and indications for use. Combined medical pastes. Properties and indications for use.
33. How to prepare medical liner. The mechanism of action of medical liner.
34. Notion and determination of the chemical composition of glass-ionomer cement. Types, curing glass-ionomer cement.
35. Properties of glass-ionomer cement. Indications for use directions and technology of mixing glass-ionomer cement.
36. Classification of glass-ionomer cement by Wilson and McLean (1988). Classification by G. J. Mount and W.R. Hume (1998).
37. Characteristics of glass-ionomer cement type I. Characteristics of glass-ionomer cement type II. Characteristics of glass-ionomer cement type III.
38. Definition of hybrid glass ionomer cements. Chemical composition. Types of polymerization.
39. Glass ionomer cement with addition of metal particles. Properties. Indications for use.
40. The difference between glass ionomer cement with addition of metal particles and metal ceramic particles (Cermet).
41. Definition of compomers. Indications for use of compomers.
42. Definition of ormocers. Properties. Indications for use.
43. Definition of amalgams. Classification of amalgam by the number of metals in it’s composition, by the content of copper in the silver alloy, silver lathe-cut.
44. Chemical composition of amalgam lathe-cut alloy.
45. Equipment and method for mixing of the amalgam. Capsules for mixing the amalgams.
46. Definition. General principles of adhesion. Physical adhesion mechanisms. Chemical adhesion mechanisms.
47. Features of adhesion to solid tissues of the tooth. Adhesion to enamel, morphofunctional features of enamel. Preparation of enamel for the adhesion.
48. Adhesion to dentin, morphofunctional features of dentin. Factors influencing the adhesion.
49. Classification of adhesive systems in association with (generations, type of polymerization, quantity of stages of imposing, pH, restoration material requiring adhesion).
50. IIIrd generation of adhesive systems (definition of primer and adhesive). IVth generation, characteristics, the procedure of etching, advantages and disadvantages.
51. Vth generation of adhesive systems characteristics, advantages and disadvantages. VIth generation of adhesive systems characteristics, advantages and disadvantages.
52. Definition of composite materials.Classification of composite materials by Lutz, Phillips and Willems.
53. Organic monomers of composite materials. (BIS-GMA, UDMA, DGMA, TGDMA). Inorganic fillers. Silans, polymerizations initiators, stabilizers, colorants and pigments.
54. Composite macro-filled sealing materials (classical and modern). Composite micro-filled sealing materials. Hybrid composite materials. Types of composite materials (powder-liquid, liquid-paste, paste-paste, paste in the syringe).
55. Composite filling materials cured under UV radiation. Composite filling materials cured under the influence of light (halogen lamp).
56. Composite filling materials, cured under the influence of light (laser). Composite filling materials of dual curing. Biocompatibility (the reaction of pulp, microcracks, the irritation caused by the lamp curing, reaction of mucous of the gums).
57. Materials for filling the root canals. Classification. Temporary filling materials based on calcium hydroxide. Indications for use. Properties. Types.
58. Root canal materials for temporary filling based on iodoform. Indications for use. Types. The materials on the basis of paraformaldehyde. Indications for use. Their properties. Types.
59. Root canal materials for permanent filling. Characteristics. Materials for permanent filling based on glass-ionomer cement. Characteristics. Gutta-percha. Characteristics.
60. Root canal materials for permanent filling based on epoxy resins. Characteristics, properties. Primary solid materials for permanent filling of canals.
61. Irrigation and intra canal treatment (irrigation solution, solutions and gels for lubricant and chemical expansion of root canals).