DENT 53 - Introduction to Chairside Assisting

Scope and objectives as required by American Dental Association and CA Code of Regulations

A. Course and professional requirements
B. Dental equipment: use & care
    1. Essential procedures for daily maintenance of the dental operatories and the routine for opening/closing of the office
    2. Identifications of accessories and function and care of each piece of dental equipment in the operatory
    3. Operation and controls of the mobile dental unit, the dental chair, and adjusting the operator/assistant's chairs
    4. Routine care of the operatory cabinets, sinks, dental unit, dental chair, and operatory chairs
    5. Positioning the dental chair, dental units, operator's and chairside assistant's chair for admittance/dismissal of a patient
    6. Procedures and maintenance for the central vacuum and compressed air units
    7. Use of the air/water syringe in various areas of each quadrant of the oral cavity
    8. Care, disinfection and barrier control of equipment to assure a sanitary and safe environment of the dental chair, dental unit, and operator/assistant's chairs to prevent cross contamination
C. Utilization of dental equipment
    1. Expendable supply inventory in treatment areas
        a. Paper towels/liquid soap
        b. PPE items
        c. Paper products/barriers
    2. Correct procedures for infection control with use of barriers/disinfection procedures
    3. Practice of receiving, seating, draping, and dismissing a patient in the dental chair
    4. Patient placement in a reclined position; adjust and position operating light, mobile dental unit, pre-set instrument trays, operator's/assistant's chairs for four-handed chairside assisting
    5. Four-handed dentistry concept, demonstrate assisting at chairside
    6. Assembly and adjustment of the positions of the high-volume evacuation tip and the 3-way syringe
    7. Placement of the HVE tip for operation in each quadrant of the oral cavity using a mirror for retraction
    8. Use of the 3-way syringe and HVE
D. Hand cutting instruments
    1. Parts and function of each hand cutting instruments
    2. Three and four number instrument formulas and the significance of the formula
    3. Hand cutting instruments and different categories of each
    4. Different between cutting instruments, knives, proximal trimmers, examination, carvers, burnishers, condensers, and finishing instruments
    5. Pen, palm, palm-thumb and reverse pen grasp
    6. Delivery/retrieval, and demonstration of selecting, passing, and receiving hand cutting instruments in simulated four-handed dentistry procedures
    7. Four-handed dentistry concept, chairside instruments/materials exchange and tray set-ups
    8. Five categories of motion and classifications
E. Rubber dam

1. Reasons for rubber dam usage
2. IInstruments/materials used for rubber dam application
3. Role of the chairside assistant during assisted rubber dam application/removal; during unassisted rubber dam application/removal
4. Sequence for rubber dam application for a single tooth and a fixed bridge
5. Application and removal of the rubber dam for a designated working quadrant on typodont and on a classmate

F. Rotary instrument
1. Four functions of rotary instruments
2. Use of and types of dental handpiece, i.e., straight, contra angle, (right angle), high speed, fiber optic and individually motorized handpiece
3. Maintenance of hand pieces, i.e., cleaning, sterilizing, and lubricating
4. Type, shape, and use of various dental burs
5. Shape and use of various diamond burs
6. Selection, placement/removal, and sterilization of burs/diamond stones, finishing burs in the contra angle, straight, and high speed handpieces
7. Various types and use of discs, rubber wheels, points, and stones

G. Operative dentistry
1. Five objectives of operative dentistry
2. Dental terms related to operative dentistry, i.e., cavity preparation, cavity walls, cavity angles, enamel wall, dentin wall, dentioenamel function bevels, and cavo-surface margins
3. Black's steps in cavity preparation
4. Composition of caries indicator dyes
5. Indication for using caries indicator dyes
6. Advantages for using caries indicator dyes to locate carious dentin or root canal.
7. Precautions or contraindications when using caries indicator dyes
8. Techniques for placement when using caries indicator dyes
9. Role of the chairside assistant during the operative dental procedures
10. Components and use of stock/custom matrices and wedges
11. Assembly and placement of the matrix band in a retainer
12. Positioning the prepared matrix retainer on a tooth
13. Placement of a wedge on the band to compress the band tightly against the tooth
14. Placement of a sedative restoration in a prepared Class II tooth that seals the margins and establish contact and occlusion
15. Removal of the wedge, band, and retainer

H. Fixed prosthodontics
1. Indications and the contraindications for fixed prosthodontics
2. Differences between the veneer crown, dowel crown, a multi-unit fixed bridge, adhesive bridges, metal/porcelain with metal, abutments, pontics, inlays, and onlays
3. Sequence and laboratory procedures for preparing crown and bridge construction
4. Construction process to create a pin retention crown/build up
5. Role of the assistant when assisting in fixed crown and bridge procedures
6. Gingival retraction in construction of fixed bridgework
7. Three methods and materials used for the retraction of gingival
8. Difference in types of elastomeric materials used to obtain impressions of crown and bridge preparations
9. Fabrication, cementation, and removal of cement of a temporary for anterior/posterior tooth/teeth - acrylic and metal
10. Materials used to obtain in the patient's bite registration and their use in prosthodontics
11. Role of the dental technician in prosthodontics

I. Local anesthesia

1. Two most common forms of topical anesthetics and describe their use
2. Armamentarium for topical anesthetic
3. Method for application of topical anesthetic
4. Landmarks of the oral cavity that relate to local anesthetic placement and operative dentistry anesthesia
5. Two reasons for the addition of vasoconstrictor to a local anesthetic solution
6. Local anesthetic toxic reaction
7. Patient individual differences with regards to systemic toxic reactions to various anesthetic solution
8. Four precautions to minimize unfavorable reactions to local injections
9. Block, infiltration and ligament techniques for local anesthesia
10. Three advantages of local anesthesia
11. Four contraindications to local anesthesia usage
12. Types of anesthetic syringes
13. Assembly/disassembly of the various types of syringes
14. Passing/receiving (protective techniques) of an aspirating syringe
15. Role of the chairside assistant during the injection process
16. Precautions and care taken when disassembling the used syringes
17. Information recorded on the patient's records when local anesthetic is administrated
18. Precautionary measures after injection has been administered

J. Endodontics
1. Indications and contraindications for endodontic treatment
2. Functions in endodontic treatment of tooth or teeth that may be delegated to the Registered Dental Assistant
3. Need for an immediate appointment if a patient is in pain
4. Receiving and preparing the patient for an examination by the dentist
5. Role of the assistant when assisting in a clean and shape obturation endodontic procedure
6. Armamentaria selected for root canal therapy
7. Endodontic instruments and medicaments
8. Care of instruments and the sterilization process
9. Medicaments used in endodontic treatment to eradicate the pulp and to sterilize the pulp canals
10. Materials used for the permanent filling of sterile root canals
11. Process for opening and sterilizing the pulp canals and chamber of a tooth
12. Materials and techniques that may be used for a permanent restoration of a tooth that has been successfullytreated endodontically
13. Cleaning, sterilizing, and storing endodontic instruments
14. Use of each instrument and the buns for cleaning, shaping, and obturating
15. Making endodontic case history entries

K. Pre-set trays
1. Importance of identifying/assembling pre-set instrument trays for dental procedures
2. Assembly of the instruments/materials on the following trays and the sequence of their use:
    a. Amalgam tray
    b. Composite tray
    c. Crown and bridge prep tray
    d. Crown and bridge delivery tray
    e. Endodontic clean & shape tray
    f. Endodontic obturation tray