Principles of Fixed and Removable Prosthodontics

Speakers:

Johanna Leven, Consultant in Restorative Dentistry, University Dental Hospital of Manchester.

Rahat Ali, Consultant in Restorative Dentistry, Liverpool University Dental Hospital.

Day 1 – Principles of Removable Prosthodontics.

Overview of Course/ Aim:

- Seminar: To discuss partial denture theory with emphasis on principles of denture design to include acrylic and chrome dentures, clasp selection, connector selection, management of free end saddles and alternative materials available on the market like PEEK and Valplast.
- Seminar: To discuss complete denture theory with emphasis on principles of complete denture design, impression techniques, occlusal registration techniques, management of flabby ridges, and basic implant retained overdentures.
- Practical: To survey casts and design partial dentures on models. Models will be provided but delegates can bring their own models/cases in on the day and are encouraged to do so.
- Practical: To prepare a premolar for a metal ceramic crown with milled features to accept a bespoke cobalt chrome denture framework.

Learning Outcomes:

- Summarise the principles of partial and complete denture design
- Describe which impression and occlusal registration techniques may be appropriate when managing a removable prosthodontic patient.
- Describe the principles of duplicate and immediate denture prosthodontics.
- Describe the attachment systems of basic implant retained overdentures.
- Be able to survey and design a partial denture in acrylic or chrome-based metal alloy.
- Be able to prepare a premolar tooth for a metal ceramic crown with milled features for a chrome denture.

Programme:

9.00 - 9.15am Welcome and coffee

- 9.15 10.30 J Leven: Lecture on Removable Partial Dentures, theory and design.
- 10.30 11.00: Break
- 11.00 12.30: R Ali: Lecture on
- 12.30 13.30: Lunch
- 13.30 1700: Practical sessions.

Session 1: Preparing teeth for crowns with milled features

Session 2: Surveying models and designing partial dentures

Day 2- Principles of Adhesive and Conventional Bridgework

Aim: To help practitioners improve their tooth preparation skills to produce more successful

adhesive and conventional bridge preparations.

Learning Outcomes:

By the end of the event delegates will be able to:

- Explain the indications, design features and limitations of adhesive bridge work.
- Describe the uses, advantages and disadvantages of conventional bridgework.
- Discuss the maintenance requirements and longevity of adhesive bridge work and conventional bridgework.
- Describe the principles of extra-coronal tooth preparation including the importance of retention and resistance form
- Describe the preparation and design features of a conventional metal ceramic crown and zirconia bridge retainer.
- Prepare teeth for a 3-unit conventional metal ceramic bridge and a 3 unit conventional all ceramic bridge.

Programme:

9.00 -9.15: Welcome and coffee

- 9.15 -10.30am J Leven: Lecture on Adhesive Bridgework
- 10.00 -10.30: Break
- 11.00 12.30: R Ali: Lecture on Conventional Bridgework
- 12.30-13.30: Lunch
- 13.30-1700: Practical Session

Preparation of UR4 and UR6 for a 3-unit metal ceramic bridge

Preparation of UL1 and UL3 for a 3 unit all ceramic zirconia bridge

GDC Outcome C.

Equipment required:

Day 1

3 Dental Surveyors – should be able to borrow from lab.

A selection of partially dentate models to survey and design dentures on – will supply.

For all the delegates attending, a set of upper models with a full complement of plastic teeth in the phantom heads to prepare milled crowns. Lower models are not needed as delegates will only have time to prepare maybe 1-2 teeth in the afternoon.

2 sets of 450ml tubs of extrude putty: 2 tubs of base and 2 tubs of catalyst some number 11 or 15 Blades to section the putty.

A selection of blue banded burs to allow for milled crown preparation. The burs should include blue banded, coarse flat ended shoulder burs/blue banded long, fine, tapered needle burs/ blue banded torpedo shaped, burs/blue banded, coarse, rugby shaped burs/ blue banded coarse, pear shaped cavity cutting burs and possibly some white, pointed, triangular shaped white stones for the fast handpiece to allow for smoothening of the crown preparations.

Overhead projector to run our PowerPoint presentations from.

A white board and a selection of different coloured marker pens.

Pencils to draw on models for the delegates and sharpeners

Equipment required:

Day 2

Bridge course requirements:

1) 12 Dental Models with all teeth arranged except for the Maxillary lateral incisors,

maxillary second premolars and mandibular second premolars.

(12, 15, 22, 25, 35, 45) These 6 teeth should be removed to allow for multiple 3-unit

conventional bridge preparations

2) 12 Fast and 16 Slow handpieces

3) 12 sets of dental exam kits with mirrors/probes/carvers/flat

plastics/burnishers/Williams probes.

4) 12 sets of diamond burs for crown preparation to include fine needle burs for proximal reduction and finishing / chamfer type torpedo burs/ flat ended shoulder burs for bulk reduction and shoulder preparation / rugby ball shaped diamond burs. blue banded burs ordered for each of the delegates attending (ie. BES639/642/715/710/726)

5) Pointed white Arkansas stones

6) 2 sets of 450ml tubs of extrude putty: 2 tubs of base and 2 tubs of catalyst

7) 2 Boxes of Size 11 Disposable Scalpels

8) Flip Chart and Pens