# isting of Standards By Task

#### **CROWN & BRIDGE**

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- 2. Assess the prescription for completeness
- 3. Determine the correct shading for the restoration
- 4. Document changes to the prescription and/or design requirements
- 5. Determine the quality of the impression and the bite registration
- 6. Fabricate a master model and separate dies
- 7. Mount the models on the articulator
- 8. Prepare dies
- 9. Wax-up the restoration
- 10. Select the alloy to be used in casting
- 11. Invest wax pattern
- 12. Burn-out the wax pattern
- 13. Cast and de-vest the restoration
- 14. Fit the restoration to the master die
- 15. Send the restoration to the Health Professional for try-in
- 16. Prepare the restoration for ceramic/composite application
- 17. Oxidize the restoration
- 18. Apply the veneering material to the restoration
- 19. Contour the veneer
- 20. Glaze and/or stain the restoration
- 21. Polish the exterior metal portions of the restoration and microblast the fitting surfaces
- 22. Determine the restoration's quality
- 23. Prepare the restoration for shipping



Given a shipment of an impression or model from a Health Professional

#### Task:

Disinfect the impression and/or model

### Criteria:

### Safety:

- So that gloves are worn at all times until disinfecting is completed
- So that the disinfectant used is compatible with the impression and/or model
- So that manufacturer's specifications for disinfectant used, are followed
- So that the packaging material that was in direct contact with the impression or model, is discarded
- So that the impression and/or model is disinfected according to the Universal Precautions -- at the minimum -- low level, as defined by the RCDSO guidelines, dated June 1995

### Timing:

• Before proceeding any further

Given a prescription from a Health Professional

#### Task:

Assess the prescription for completeness

### Criteria:

#### Technical Quality:

- The prescription must include:
  - ⇒ the patient's name or identification number
  - ⇒ the authorized Health Professional's name
  - ⇒ type and/or description of prosthesis or treatment objectives
  - ⇒ type of alloy to use (i.e. noble, high noble, non-precious)
  - $\Rightarrow$  shade
  - ⇒ date sent and date required
- So that if in doubt, the dental technologist will consult the Health Professional before proceeding with the work

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If the shading was not established by a Health Professional, and given that colour corrected lighting is used and that patient is present

#### Task:

Determine the correct shading for the restoration

### Criteria:

#### Technical Quality:

- So that the shade blends with the shade of the adjacent teeth
- So that the shade selected is recorded

#### Interpersonal Quality:

- Ensuring that you explain to the patient what you are going to do and why
- Ensuring that you ask the patient for his/her expectations regarding the shading
- Ensuring that if the patient's expectations cannot be met, you (the RDT) explain to the patient why
- So that while taking the shading, touching the patient only in the area around the mouth
- So that consent to take the shade is obtained from the patient

### Safety:

- So that if the patient needs help, assist him/her onto the chair
- So that hands are washed prior to gloves being worn
- So that new examination gloves are worn at all times
- So that all colour matching tabs are disinfected
- So that all instruments used in the patient's mouth are disinfected

Given that clarification and/or changes are needed due to an incomplete or unclear prescription from a Health Professional

#### Task:

Document changes to the prescription and/or design requirements

### Criteria:

- So that any changes or modifications to a prescription or design as a result of discussions with the Health Professional, are documented and dated
- Documentation must include:
  - ⇒ date and time of discussion
  - ⇒ name of contact from the Health Professional's office
  - ⇒ changes and modifications agreed to
  - ⇒ signature of the RDT or that of the person designated by the RDT



Given a completed impression and bite registration (provided by a prescribing Health Professional)

### Task:

Determine the quality of the impression and the bite registration

### Criteria:

- The impression must:
  - ⇒ not have any air bubbles, drags or visible distortions
  - ⇒ replicate the Health Professional's preparation entirely
  - ⇒ if impression copings are used, they must be secure in the impression material (i.e. must be locked into the impression)
- The bite registration must be accurate, i.e. not distorted
- If in doubt at any stage, the dental technologist should consult with the Health Professional

Given an impression with no air bubbles, drags or visible distortions and the following equipment and materials: a vibration device, mixing container, vacuum mixer, die stone, epoxy resins, and a removable die system

#### Task:

Fabricate a master model and separate dies

#### Criteria:

#### Technical Quality:

- So that the model is a true reproduction of the impression
- So that there is a clear outline of the prepared margins
- So that the space between opposing teeth is consistent with the manufacturer's specifications for the restoration materials used
- So that the die system allows repeated removal and replacement of the die to its precut position

### Safety:

• Wearing gloves while pouring the model



Given the requirement to articulate, and using an articulator

### Task:

Mount the models on the articulator

# Criteria:

### Technical Quality:

• So that the models are mounted in the relationship required by the prescription

Given a hand piece, burs, block-out material, marking pencil, die spacer, die hardener and dust extractor and a magnification device

### Task:

Prepare dies

### Criteria:

- So that all aspects of the margin are visible and accessible
- So that the dies are not over trimmed
- So that the preparation is parallel to the path of insertion
- So that minor undercuts and imperfections are blocked out
- So that the margins are marked visibly
- So that the spacer covers all preparation areas as per technique



Given a Health Professional's prescription (for metal or veneered to metal crown & bridge), the articulated model, wax, die separator, and hand instruments

### Task:

Wax-up the restoration

### Criteria:

- So that if any of the occlusal contacting surfaces are in metal, functional and anatomical harmony must be achieved
- So that the margins are sealed with no under or over extensions as defined by the penciled markings except when otherwise required by the prescription
- So that copings are designed to support the veneer to the veneer manufacturer's specifications

Given a prescription from a Health Professional

#### Task:

Select the alloy to be used in casting

### Criteria:

#### Technical Quality:

- So that the properties of the alloy are suitable for restoration
- So that the selected alloy complies with the requested alloy on the Health Professional's prescription

### Safety:

- So that materials used are either ADA, CDA, Health Canada or FDA approved
- So that if materials do not have either ADA, CDA, Health Canada or FDA approvals, the RDT must inform the prescribing Health Professional and record the Health Professional's approval and materials used

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Given a casting ring, vacuum mixer, sprue form, debubbilizer, spatula, hand instruments, wax and investment system

# Task:

Invest wax pattern

# Criteria:

# Technical Quality:

• So that manufacturer's specifications are followed

Given a mold, furnace and crucible

### Task:

Burn-out the wax pattern

# Criteria:

### Technical Quality:

• So that the temperature used and time allowed for burn-out follows alloy manufacturer's specifications

Given a selected alloy for casting, mold that has been burnt out, a casting system, and a de-vesting system

### Task:

Cast and de-vest the restoration

### Criteria:

- So that porosity is not present in the restoration
- So that all details of the wax pattern are present in the casting
- So that all casting, de-vesting and cleaning procedures are followed according to the instructions of alloy and equipment manufacturers

Given a cleaned restoration, a lathe and/or hand piece, trimming tools and a magnification device

#### Task:

Fit the restoration to the master die

### Criteria:

- So that if any of the occlusal contacting surface are in metal, functional and anatomical harmony must be achieved
- So that the margins are seated with no under or over extensions as defined by the penciled markings except when otherwise required by the prescription
- So that copings are designed to support the veneer to the veneer manufacturer's specifications
- So that there is no damage to the die



Given a restoration fitted to the master model, a request specified in the prescription or the RDT's decision that try-in is required

### Task:

Send the restoration to the Health Professional for try-in

# Criteria

#### Technical Quality:

• So that the restoration will be received by the Health Professional without damage or visible distortions

Using ceramic/composite compatible trimming tools

### Task:

Prepare the metal restoration for ceramic/composite application

# Criteria:

- So that the ceramic can bond to the metal
- So that the surface has a smooth and even finish, and has no sharp edges (if ceramic)
- So that retention is provided for composite bonding

Using a ceramic furnace and a metal substructure

### Task:

Oxidize the restoration

# Criteria:

# Technical Quality:

According to the manufacturer's specifications of the alloy used

Given prepared metal restoration, the ceramic furnace, hand instruments, and veneering materials

#### Task:

Apply the veneering materials to the restoration

### Criteria:

#### Technical Quality:

• So that the form, function and the desired shade of the restoration is achieved

#### Safety:

- So that materials used are either ADA, CDA, Health Canada or FDA approved
- So that if materials do not have either ADA, CDA, Health Canada or FDA approvals, the RDT must inform the prescribing Health Professional and record the Health Professional's approval and the materials used

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Given a veneered restoration, hand piece and trimming tools

#### Task:

Contour the veneer

### Criteria:

- So that if any of the occlusal contacting surfaces are in the veneering material, functional and anatomical harmony are achieved
- So that the margins are sealed with no under or over extensions as defined by the penciled markings except when otherwise required by the prescription
- So that the fit, form and function are harmonious with the neighbouring teeth unless otherwise required by the prescription

Given a ceramic furnace or curing unit, stains, hand instruments and the trimmed veneered restoration

# Task:

Glaze and/or stain the restoration

# Criteria:

### Technical Quality:

• So that the prescribed shade and surface characteristics are achieved



Given a completed restoration and using trimming tools

### Task:

Polish the exterior metal portions of the restoration and microblast the fitting surfaces

# Criteria:

- So that all oxide and debris is removed from the fitting surfaces
- So that the surface has a mirror-like finish

Given the clean restoration and a Health Professional's prescription

### Task:

Determine the restoration's quality

# Criteria:

- The restoration must be correct in accordance with the prescription
- The restoration must fulfil the required intra-oral function and intent of the prescription

Given a completed (porcelain/composite), glazed and polished cast restoration, and shipping bag/container

# Task:

Prepare the restoration for shipping

# Criteria:

#### Technical Quality:

 Packing it so that it will be received by the Health Professional with no damage or distortion