

# Fellowship Examination Blueprint: Pediatric Dentistry

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## Blueprint

Competency Domain	Percentage
1. Assessment, Diagnosis, and Prevention	25 – 35%
2. Treatment Planning and Management	40 – 50%
3. Treatment Outcomes, Complications, and Variations	15 – 25%
4. Communication	5 – 15%

## Competencies

### 1. Assessment, Diagnosis, and Prevention

#### 1.1 Assessment and Diagnosis

- 1.1.1 Obtain a comprehensive medical, dental and social history.
- 1.1.2 Identify the effects of medical conditions and special healthcare needs on the provision of oral health care.
- 1.1.3 Explain the pathophysiology of systemic diseases and their impact on pediatric dental care.
- 1.1.4 Identify risk factors for oral diseases and conditions (e.g., diet, oral habits).
- 1.1.5 Conduct complete head and neck and oral examinations.
- 1.1.6 Order and interpret radiographic images of the oral and maxillofacial region, including analysis of cephalometric images.
- 1.1.7 Order appropriate investigations, including head and neck imaging and laboratory tests.
- 1.1.8 Formulate a diagnosis (or a differential diagnosis) of diseases affecting the oral and maxillofacial region.
- 1.1.9 Recognize conditions that require specialized dental care in a hospital setting or referral to other healthcare professionals.
- 1.1.10 Identify anomalies of craniofacial and dento-alveolar growth and development and explain their etiologies (including syndromes, cleft lip and palate, and craniofacial conditions).

- 1.1.11 Identify the psychological impact of anomalies in the general, craniofacial and dento-alveolar growth and development on pediatric patients and their families.
- 1.1.12 Assess, diagnose and document dento-alveolar and maxillofacial traumatic injuries.
- 1.1.13 Recognize traumatic injuries that require urgent and non-urgent medical referrals.
- 1.1.14 Recognize the psychological impact of traumatic injuries on children and their families.
- 1.1.15 Recognize signs of physical abuse and childhood neglect.
- 1.1.16 Recognize and assess oral lesions and other pathological conditions (e.g., oral manifestations of systemic disease).
- 1.1.17 Assess pain of non-dental origin in the oral and maxillofacial region.

## **1.2 Prevention of Oral Disease**

- 1.2.1 Perform a caries risk assessment.
- 1.2.2 Perform a regular periodontal screening.
- 1.2.3 Provide anticipatory guidance on oral hygiene and diet, including perinatal oral care.
- 1.2.4 Prescribe a recall and radiograph schedule as indicated.
- 1.2.5 Prescribe a fluoride regimen as indicated.
- 1.2.6 Prescribe pit and fissure sealants as indicated.

## **2. Treatment Planning and Management**

### **2.1 Treatment Planning**

- 2.1.1 Develop a treatment plan with consideration of the needs and expectations of patients and their parents or guardians.
- 2.1.2 Provide medical management of patients in collaboration with other healthcare professionals.
- 2.1.3 Prescribe or administer pharmacological agents to pediatric patients as indicated.
- 2.1.4 Recognize and manage medical emergencies.

### **2.2 Carious and Non-carious Lesions**

- 2.2.1 Perform non-surgical treatment of caries using the following techniques:
  - 2.2.1.1 Remineralization agents (e.g., fluoride varnish)
  - 2.2.1.2 Arresting agents (e.g., SDF)

- 2.2.1.3 Atraumatic or interim restorative treatment
  - 2.2.1.4 Resin infiltration
  - 2.2.1.5 Hall technique
  - 2.2.2 Perform surgical treatment of caries using the following techniques:
    - 2.2.2.1 Enameloplasty or discing
    - 2.2.2.2 Intra-coronal restorations (e.g., amalgam, composite, glass ionomer, preventive resin)
    - 2.2.2.3 Extra-coronal restorations (e.g., crowns)
  - 2.2.3 Manage non-carious tooth surface loss (e.g., trauma, attrition, abrasion, hypoplasia).
  - 2.2.4 Provide prosthetic management following tooth loss.
- 2.3 Pulp Therapy**
- 2.3.1 Provide pulp therapy for primary teeth, including:
    - 2.3.1.1 Indirect pulp treatment
    - 2.3.1.2 Direct pulp cap
    - 2.3.1.3 Pulpotomy
    - 2.3.1.4 Pulpectomy
    - 2.3.1.5 Lesion sterilization and tissue repair
  - 2.3.2 Provide pulp therapy for young permanent teeth, including:
    - 2.3.2.1 Indirect pulp treatment
    - 2.3.2.2 Direct pulp cap
    - 2.3.2.3 Partial or full coronal pulpotomy
    - 2.3.2.4 Apexification
    - 2.3.2.5 Pulpal regeneration
    - 2.3.2.6 Root canal therapy
- 2.4 Oral Pathology**
- 2.4.1 Prescribe or perform oral biopsies and adjunctive tests.
  - 2.4.2 Interpret oral pathology reports and lab test results.
  - 2.4.3 Prescribe or provide treatment for pain, oral lesions and other pathological conditions.
  - 2.4.4 Manage developmental dental anomalies in pediatric patients.
- 2.5 Oral Surgery**
- 2.5.1 Prescribe or provide oral surgery for pediatric patients, including:
    - 2.5.1.1 Simple and surgical extractions

- 2.5.1.2 Decoronation
- 2.5.1.3 Frenotomy and frenectomy
- 2.5.1.4 Incision and drainage

## **2.6 Periodontics**

- 2.6.1 Prescribe or provide periodontal disease treatment for pediatric patients, including:
  - 2.6.1.1 Non-surgical (e.g., scaling or root planing)
  - 2.6.1.2 Surgical (e.g., gingivectomy, gingival grafting)

## **2.7 Prosthodontics**

- 2.7.1 Prescribe or provide prosthodontic treatment for pediatric patients, including:
  - 2.7.1.1 Removable prostheses
  - 2.7.1.2 Fixed prostheses

## **2.8 Growth and Development**

- 2.8.1 Provide guidance on eruption and modification of associated dento-alveolar growth.
- 2.8.2 Recognize the need for and prescribe appliances for space maintenance.
- 2.8.3 Apply interceptive orthodontics in the management of dental malocclusions.
- 2.8.4 Identify comprehensive orthodontic treatment techniques and indications for referral to orthodontics and/or other specialties.

## **2.9 Traumatic Injuries**

- 2.9.1 Provide treatment for traumatic injuries to the following structures:
  - 2.9.1.1 Primary and permanent dentitions
  - 2.9.1.2 Pulpal, periodontal, and associated hard and soft tissues
  - 2.9.1.3 Discuss a prognosis and expected outcomes for the injuries.

## **2.10 Behaviour Guidance**

- 2.10.1 Identify the stages of physical, cognitive, social, and emotional development from infancy to young adulthood.
- 2.10.2 Assess patient's ability to cooperate with procedures based on age, emotional status, cognitive and physical development.

- 2.10.3 Recognize when child's behaviour requires additional support and/or referral.
- 2.10.4 Use non-pharmacological behaviour guidance techniques as indicated.
- 2.10.5 Identify the indications for and safely implement protective stabilization in accordance with established guidelines.
- 2.10.6 Prescribe and/or use pharmacological behaviour guidance techniques as indicated and in accordance with relevant standards.
  - 2.10.6.1 Inhalational
  - 2.10.6.2 Oral
  - 2.10.6.3 Parenteral
  - 2.10.6.4 General anesthesia

### **3. Treatment Outcomes, Complications, and Variations**

- 3.1 Assess treatment outcomes.
- 3.2 Develop an alternative treatment plan as needed (e.g., change in medical or social history or compliance).
- 3.3 Develop a follow-up and maintenance plan for each individual patient.
- 3.4 Identify and manage complications from treatment (e.g., pain).
- 3.5 Establish an injury-specific follow-up plan that includes trauma prevention.
- 3.6 Recognize and treat complications of traumatic injuries and refer patients to the appropriate specialists as necessary.
- 3.7 Manage adverse events during sedation.

#### 4. Communication

- 4.1 Communicate effectively with patients, their families, and other healthcare professionals.
- 4.2 Adapt communication based on the patient's age and stage of development.
- 4.3 Obtain informed consent from patients and/or their parents or guardians.
- 4.4 Collaborate with members of the interdisciplinary healthcare team.
- 4.5 Demonstrate collegiality when discussing differing opinions with other healthcare professionals.
- 4.6 Ensure the continuity and coordination of patient care through the appropriate transfer of information.
- 4.7 Consistently apply accurate, discipline-specific terminology when communicating clinical reasoning and decisions.
- 4.8 Communicate in a structured, clear, concise, and logical manner.
- 4.9 Clearly and transparently articulate clinical reasoning and decision-making processes.