Kuwait Institute for Medical Specialisations
Kuwait Board in Paediatric Dentistry

Programme Handbook

2024 – 2025

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Welcome

Welcome!

Congratulations, from myself and each member of the Board, on your acceptance in the "Kuwait Board in Paediatric Dentistry" programme. As a distinguished group of Kuwaiti dentists, you have been selected to join this programme.

During your three-year journey in this programme, you will encounter a great number of experiences. Some will be exciting, while others will be extremely challenging. It is this variety in clinical, social and research experiences that will foster the characteristics of capable leaders in you and refine you into exceptional specialists.

Emerging from our strong faith in the unique nature of Paediatric Dentistry as a specialty, and with an understanding of the unique structure and needs of the Kuwaiti community, we have constructed the programme's training curriculum based on the highest universal standards. This involves constant need for effective communication with the children and their families on daily basis, in addition to treating children with special needs.

Our aspiration in the "Kuwait Board in Paediatric Dentistry" programme is to generate highly qualified established Paediatric Dentists. Armed with their distinguished clinical and didactic training, our graduates will contribute to the field of Paediatric Dentistry in our beloved nation Kuwait.

We wish you all the best …

To work hard…

And to enjoy the journey throughout your training period!

Programme Director – Kuwait Board in Paediatric Dentistry

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مرحباً بكم..

ومبارك قبولكم في برنامج البورد الكويتي لطب أسنان الأطفال، فلقد كنتم ضمن الفئة المميزة من أطباء الأسنان الكويتيين الذين تم اختيارهم بعناية للالتحاق بالبرنامج.

خلال رحلتكم في البرنامج والتي ستستمر لمدة ثلاث سنوات، ستمرون بالعديد من التجارب. قد يكون بعضها مثيراً والآخر صعب جداً. إلا أن هذا التنوع في التجارب الإكلينيكية والبحثية والمجتمعية هو الذي سيخلق منكم اختصاصين قياديين ومميزين قادرين على التعامل مع مختلف الحالات التي تواجهكم في حياتكم اليومية أثناء العمل.

لإيماننا بتميز تخصص طب أسنان الأطفال عن غيره من التخصصات وذلك لتعامله عن كثب مع الأطفال في جميع المراحل ومع أسرهم، بالإضافة إلى التعامل مع المرضى من ذوي الاحتياجات الخاصة وملامسة الصعوبات التي يواجهونها، فقد تم إعداد المنهج التدريبي للبرنامج بناء على ذلك وعلى أعلى المقاييس العالمية الحديثة مع الأخذ بعين الاعتبار حاجة وخصوصية المجتمع الكويتي.

نهدف من خلال برنامج البورد الكويتي لطب أسنان الأطفال إلى تخريج اختصاصيي طب أسنان أطفال رائعين، مسلحين بالعلوم الحديثة ومزودين بالخبرة الإكلينيكية والبحثية العالية، قياديين، على دراية بحاجة المجتمع ويسهمون بفعالية في نهوض المستوى الفموي الصحي للأطفال في وطننا الكويت.

نتمنى لكم كل التوفيق..

أن تعملوا بجد..

وأن تقضوا رحلة ممتعة خلال تدريبكم في البرنامج.

مدير برنامج البورد الكويتي لطب أسنان الأطفال

أنفال إبراهيم فريدون

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Introduction to the Kuwait Board in Paediatric Dentistry

The Kuwait Board in Paediatric Dentistry (KBPD), in affiliation with the Kuwait Institute for Medical Specialisations (KIMS), offers a three-year residency training programme in Paediatric Dentistry. The goals of the programme are to provide foundation knowledge and educational experiences in Paediatric Dentistry and offers diverse experiences in all aspects of paediatric dentistry clinical care. The programme has a diverse clinical faculty with varied interests and experiences from multiple backgrounds. Additionally, specialists from other medical and dental departments also contribute to teaching in the programme in an interdisciplinary format.

The programme curriculum is competency based which helps the residents with previous learning experience and background master the required skills and knowledge to become competent paediatric dentists when they graduate. The programme comprises of formal instruction in the basic sciences and clinical and didactic subjects of paediatric dentistry. Learning modalities include didactic courses, including comprehensive reviews of book, guidelines, and literature, seminars, continuing education courses, and clinical experiences. The didactic teaching is further emphasised in clinical-based discussions and case presentation sessions.

Residents receive extensive clinical training in Paediatric Dentistry including, but not limited to, comprehensive care of both healthy and special needs children and adolescents, restorative dentistry, pulp therapy, periodontal therapy, oral surgery, pharmacologic and non-pharmacologic behaviour management techniques, interceptive orthodontic therapy, growth and development, treatment of patients under conscious sedation, treatment of patients in the operating room under general anaesthesia, and management of traumatic injuries and emergency care.

There is a strong hospital component ensuring the resident is able to fully integrate into the medical community, including a hospital-based Special Needs Outreach Clinic and frequent multidisciplinary management under general anaesthesia.

All residents are required to complete approved research and audit projects. Prior to this, the residents will have taken a course in research design and received consultation for the statistical aspects of the project. This project requires residents to learn and demonstrate their ability to understand the scientific process including data collection, statistical analysis, and presentation in a scientific forum or as a submission for publication. They are encouraged to present posters in both national and international conferences.

The goal of the programme is to prepare paediatric dentists to be proficient in providing primary and comprehensive preventive and therapeutic care for infants and children through adolescence, including those with special health needs. It also aims to instil the values and beliefs of the specialty needed to ensure they have the skills to be responsible for care of the growing child. The programme aspires to instil a curiosity and thirst for continued learning for the graduating Paediatric Dentists, and motivate them to make a difference in society, prepare them for a career in in private or hospital practice and/or academics with emphasis on advocacy and community engagement.

Mission Statement

The mission of the Kuwait Board in Paediatric Dentistry (KBPD) is to advance the oral health and overall well-being of children through excellence in education, research, and clinical care. We are committed to training highly skilled paediatric dentists who are compassionate, knowledgeable, and dedicated to providing the highest standard of care. Our programme emphasises evidence-based practices, innovative treatments, and community outreach to ensure that all children receive the best possible dental care. As Kuwait's population continues to grow and new centres and hospitals open, we recognise the increasing need for more paediatric dentists. Our mission includes addressing this demand and focusing on preventive care at the community level to reduce the incidence of dental issues before they require treatment.

Vision Statement

The Kuwait Board in Paediatric Dentistry (KBPD) vision is to be a leading institution in paediatric dental education and care, recognised both regionally and internationally for our contributions to improving children's oral health. We aspire to cultivate a new generation of paediatric dentists who are leaders in their field, advocates for children's health, and innovators in dental science. With the expanding population in Kuwait and the opening of new healthcare facilities, we are dedicated to ensuring an adequate supply of well-trained paediatric dentists. We also emphasise the importance of preventive measures within the community to maintain and enhance oral health. Through our commitment to excellence, collaboration, and continuous improvement, we aim to transform the future of paediatric dentistry and make a significant impact on the health and smiles of children everywhere in Kuwait.

Curriculum Map of the Kuwait Board in Paediatric Dentistry Residency Programme
Residency Year 1-3

<table>
<tr><th>Rotation / Year of Residency</th><th colspan="3">Rotation 1
(October-December)</th><th>Mid-Rotation Assessment</th><th colspan="2">Rotation 2
(January-May)</th><th>Mid-Rotation Assessment</th><th>Rotation 3
(June-September)</th><th>Mid-Rotation Assessment</th><th>Final Assessment</th></tr>
<tr><td rowspan="3">YEAR 1
(R3)</td><td colspan="3">Paeditaric Dentistry I</td><td rowspan="2">Paeditaric Dentistry courses Exam</td><td colspan="2" rowspan="2">Paeditaric Dentistry II</td><td rowspan="3">Quality Improvement Project – Protocol presentation</td><td rowspan="2">Paeditaric Dentistry III</td><td rowspan="3">Quality Improvement Project – First cycle presentation</td><td>Finished cases submission</td></tr>
<tr><td colspan="2">Basic Sciences Course</td><td>Dental Photography</td><td>Paeditaric dentistry Final Year Exam</td></tr>
<tr><td>Dental and Maxillofacial Radiology in Paediatric Dentistry</td><td>Academic Writing and Research Skills</td><td>Medicolegal Considerations in Paediatric Dentistry</td><td>Basic Sciences Exam</td><td>Multidisciplinary Collaboration with Orthodontics</td><td>Conscious Sedation in Paeditaric Dentistry</td><td>Endodontics in Paediatric Dentistry</td><td>Research Protocol and Transfer Assessment</td></tr>
<tr><td rowspan="3">YEAR 2
(R4)</td><td colspan="3">Paeditaric Dentistry IV</td><td rowspan="3">Case Presentation Finished Case</td><td colspan="2">Paeditaric Dentistry V</td><td rowspan="3">MOCK EXAM Written and Structured Oral</td><td rowspan="3">Paeditaric Dentistry VI</td><td rowspan="3">Quality Improvement Project – Second cycle presentation (Final Report)</td><td>Finished cases submission</td></tr>
<tr><td>Advanced Restorative Techniques in Paediatric Dentistry</td><td>General Anaesthesia Course</td><td>Periodontology in Paediatric Dentistry Course</td><td colspan="2">Cleft Lip and Palate course</td><td>Paeditaric dentistry Final Year Exam</td></tr>
<tr><td colspan="3"></td><td colspan="2">Dental Traumatology</td><td></td></tr>
<tr><td rowspan="3">YEAR 3
(R5)</td><td colspan="3">Paeditaric dentistry VII</td><td rowspan="3">MOCK EXAM Written and Structured Oral</td><td>Medical Education Course</td><td>Paeditaric dentistry VIII</td><td>Thesis Submission and Defence</td><td rowspan="2">Paeditaric Dentistry IX</td><td rowspan="3">Finished cases & Portfolio submission</td><td rowspan="3">Paediatric Dentistry Board Exam</td></tr>
<tr><td colspan="3">Hospital Dentistry</td><td colspan="2">Paeditaric Dentistry UG Teaching</td><td></td></tr>
<tr><td colspan="3">Paeditaric Dentistry PG Teaching</td><td colspan="2">Joint Orthodontic-Paeditaric clinic</td><td>FITER</td><td>Paediatric Dentistry Interns Teaching</td></tr>
</table>

Detailed Curriculum Map of the Kuwait Board in Paediatric Dentistry Programme
Residency Year 1-3

Below is the curriculum map for the KBPD program, which provides a structured and detailed plan for the paediatric dentistry postgraduate program. It is organized around key themes, courses, and associated learning outcomes to ensure a balance between foundational knowledge, advanced clinical skills, and professional development. This structure equips graduates with the necessary knowledge and skills for their professional growth.

Program Details					Teaching Methods						Assessment Methods								
Year of Residency (Rotation)	Course Name	Topics/Sessions	Learning Outcomes *At the completion of the course residents will be able to:*	Skills Outcome (CanMEDS Roles)	Lectures	Practical simulation	Clinical practice	CBD	Group discussion	Literature review	Attendance	Participation	Practical/Clinical Task	Written Exam	OSCE	Oral Exam/CBD	Presentations	WBAs	Write-up
YEAR 1 (R3) - ROTATION 1-	Basic Sciences Course	**Research Methods in Clinical Dentistry**	– Understand the meaning and importance of research to science and to clinical dentistry. – Critical consumers of the public health, medical, and dental literature by understanding the basic principles and methods of epidemiology, including disease (outcome) measures, measures of association, study design options, bias, confounding, and effect modification – Able to interpret descriptive epidemiologic results in order to develop hypotheses about possible risk factors for a disease – Design valid and efficient studies to address public health and clinical problems – Organise, summarise, and display quantitative data – Critically reading and reviewing scientific articles in their area of specialisation, with special attention to understanding whether correct statistical analyses were chosen and properly applied – Understand the hierarchy of strength of evidence and the concept of evidence-based practice – Comfortable interpreting statistical methods for calculating summary estimates, measures of variability, and confidence intervals	**Medical Expert** **Communicator** **Scholar** **Health advocate** **Collaborator**															
		Embryology and Oral Histology	- Attain a comprehensive understanding of the general development of the face and nasal cavity. - Gain insight into the development of the palate. - Acquire knowledge about the developmental processes of the tongue. - Understand the developmental aspects of salivary glands. - Explore the development of tooth structures and supporting tissues. - Familiarize oneself with the development of facial malformations and dental anomalies. - Comprehend the structure of enamel, dentin, pulp, cementum, and bone. - Understand the structure of the periodontal ligament. - Recognize the stages and composition of the tooth apparatus formation.	**Medical Expert** **Communicator** **Scholar**															
		Head and Neck Anatomy	- Utilize appropriate terminology for effective communication regarding dental anatomy. - Identify anatomic landmarks in the head, face, neck, and oral cavity. - Describe the anatomy of oral structures, encompassing skeletal, muscular, lymphatic, circulatory, and nervous systems. - Identifying and describing features of cranial and facial bones. - Explaining the anatomy and functions of the temporomandibular joint, both in health and disease. - Recognizing the origin, insertion, and actions of all muscles of mastication and face. - Describing the location, structure, and function of the cranial nerves, including the structures they innervate. - Understanding the location, structure, and function of the salivary glands. - Identifying the location, structure, and function of the lymph nodes in the head and neck. - Recognizing the major blood vessels of the head and neck in terms of location, structure, and function.	**Medical Expert** **Communicator** **Scholar**															

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			- Identifying visible or palpable extra-oral and intra-oral structures and landmarks on a resident partner, including muscles, lymph nodes, bones, nerves, and mucosal landmarks. - Accurately locating all oral structures, discussing their clinical significance, and demonstrating a comprehensive understanding of the complete anatomy of the head and neck. - Applying the reviewed information in daily clinical practice.																
		Local Anaesthesia in Dentistry	– Demonstrate proficiency in performing all intra-oral local anesthesia techniques. – Make informed decisions regarding the administration of local anesthesia in clinical settings. – Identify and manage complications or incidents related to the administration of local anesthesia. – Accurately determine the maximum recommended dose of each local anaesthetic and administer effective local anaesthesia while ensuring the dose does not exceed the recommended limit.	**Medical Expert** **Communicator** **Scholar** **Professional**															
		Medical Emergencies in The Dental Setting	- Recognize the significance of obtaining a comprehensive medical history. - Identify the occurrence of prevalent medical emergencies in the dental setting. - Respond promptly and effectively to medical emergencies as they arise. - Comprehend the local policies governing the management of medical emergencies in dental practice. - Demonstrate competence in providing Basic Life Support (BLS) when necessary. - Acknowledge and understand limitations in dealing with medical emergency cases.	**Medical Expert** **Communicator** **Collaborator** **Leader** **Professional**															
		Oral Pathology and Oral Medicine	– Implement a systematic approach to extra and intra-oral examinations, incorporating screening for head and neck cancers. – Thoroughly document cases through the capture of extra-oral and full-mouth intra-oral photographs, along with comprehensive recording of patient data. – Describe and analyse clinical and radiographic images, formulating differential diagnoses for common oral soft and hard tissue lesions. – Differentiate between normal oral variants and pathological lesions, identifying suspicious or challenging cases for referral consultation. – Choose appropriate diagnostic aids and interpret their results to diagnose various oral lesions effectively. – Demonstrate knowledge of the indications for other extra-oral imaging techniques such as sonography, sialography, MRI, CT, and PET scans in aiding the diagnosis of common orofacial conditions. – Conduct a thorough evaluation and risk assessment of medically compromised patients, adapting dental treatment based on medical history, medications, and interpretation of basic laboratory testing results and imaging. – Exhibit adequate knowledge of the mechanisms of action, clinical use, side effects, and drug interactions of commonly prescribed drugs in dental practice, including local anaesthetic, analgesic, and antimicrobial drugs. – Recognize common oral lesions in the paediatric population. – Understand the role of the paediatric dentist in early diagnosis of oral conditions and in referral or consultation for advanced cases and those requiring different treatment considerations. – Describe the anatomical and physiological substrates of pain, recognizing the most common pain disorders in the orofacial region, including temporomandibular pain disorders. – Screen for non-odontogenic orofacial pain conditions through comprehensive history and clinical examinations, and be familiar with current pharmacological and non-pharmacological treatment modalities for chronic pain conditions. – Demonstrate efficient and professional communication with patients, colleagues, instructors, clinical, and laboratory staff. – Illustrate the importance of lifelong learning and exploration of evidence-based research.	**Medical Expert** **Communicator** **Collaborator** **Scholar** **Health advocate** **Professional**															
		Digital Dentistry and Dental Biomaterials	– Critically evaluate digital dentistry technologies: Analyse the advantages and limitations of intraoral scanners, 3D imaging, and CAM technology for diagnosis, treatment planning, and restoration manufacturing. – Integrate digital workflows into multidisciplinary dental care: Develop a solid understanding of how to seamlessly incorporate digital tools and techniques into existing clinical procedures to improve efficiency and accuracy.	**Medical Expert** **Communicator** **Scholar** **Professional**															

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			– Apply knowledge of biomaterials to patient care: Critically evaluate information on various dental materials (polymers, composites, metals, ceramics) used in different applications across dentistry. – Select appropriate materials based on scientific principles: Utilise knowledge of the fundamental science behind dental materials (chemical, physical, and mechanical properties) to choose the most suitable material for specific clinical situations. – Stay informed about advancements in digital dentistry: Develop skills to continuously learn and adapt to emerging technologies and trends in the field of digital dentistry. – Understand the principles and uses of artificial intelligence in multiple specialties. – Communicate the benefits of digital dentistry to patients: Effectively explain how digital tools and advanced materials contribute to improved accuracy, efficiency, and overall patient experience in dental care.																
		Oral Microbiology	- Acquire foundational knowledge in oral microbiology, oral microbiome, and the oral ecosystem, along with their relevance in dental practice. - Develop a basic understanding of immunology and the immune system, encompassing both innate and adaptive responses. - Demonstrate knowledge of normal oral flora and their characteristic features. - Describe various methods for identifying pathogens, ranging from early microscopic and cultural microbiology investigations to targeted microbiologic analyses, such as immunochemical studies and nucleic acid-based techniques for bacterial identification. - Possess knowledge about dental biofilm, including its formation, structure, and significance in oral health. - Understand the aetiology and microbiology of dental caries, periodontal disease, and endodontic infections. - Develop a basic understanding of oral infectious diseases, covering bacterial, viral, and fungal infections, as well as an awareness of the virulence factors associated with the pathogens involved. - Understand the interaction between orthodontics, periodontics, and endodontics and oral microbiology.	**Medical Expert** **Communicator** **Scholar** **Health advocate** **Professional**																
		Pharmacology in Dentistry	- Comprehend fundamental pharmacological principles, including drug actions, interactions, and adverse reactions. - Gain familiarity with various medications employed in dentistry, including analgesics, antibiotics, antivirals, antifungals, and antiseptics. - Recognize important drug interactions and their impact on patient management. - Acquire awareness of potential oral manifestations resulting from medication side effects. - Demonstrate competence in prescribing relevant medications. - Understand and apply current guidelines for prophylactic antibiotics.	**Medical Expert** **Communicator** **Scholar** **Professional**																
		Introduction to Applied Clinical Dentistry	– Develop fundamental skills required for patient assessment, including comprehensive history taking and accurate clinical examination. – Gain hands-on experience in essential clinical examination techniques, practicing and refining skills in a controlled environment. – Understand the importance of interdisciplinary communication and collaboration in delivering high-quality dental care. – Review and master relevant laws and regulations in Kuwait, ensuring competence in navigating the legal and ethical aspects of dental practice. – Prepare for real-world clinical scenarios, gaining confidence and competence in performing basic history taking, examination, and delivering holistic patient care.	**Medical Expert** **Communicator** **Collaborator** **Professional**																
		Infection Control in Dental Health Care Settings	– Understand and apply basic infection prevention principles and recommendations specific to dental health care settings. – Reaffirm the importance of adhering to standard precautions as the fundamental approach to preventing the transmission of infectious agents during patient care in all dental health care environments.	**Medical Expert** **Health advocate** **Professional**																

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YEAR 1 (R3) -ROTATION 1-	**Paediatric Dentistry I (Pre-Clinical)**	**Introduction to Paediatric Dentistry**	– Demonstrate a systematic approach in collecting comprehensive medical and dental histories, performing clinical examinations, diagnosing, and forming complex treatment plans. – Achieve a theoretical understanding of caries epidemiology and disease mechanisms. – Diagnose and manage caries, non-carious tooth surface loss, intrinsic and extrinsic staining, and dental and orofacial anomalies based on their pathophysiology and presentation. – Apply various behavioural management techniques effectively within the dental setting. – Implement tailored approaches in managing dental care for children with special needs. – Systematically manage children with orofacial trauma, ensuring consistent and structured care. – Maintain medicolegal responsibility by producing accurate and complete clinical records. – Enhance communication with other healthcare workers through professional letter writing. – Prescribe medications correctly for children, considering age-appropriate dosages and indications. – Demonstrate skills in analysing and managing spaces in dentition effectively. – Recognize and manage the most common medical emergencies encountered in dental settings. – Appropriately prescribe intra- and extra-oral diagnostic imaging and identify potential errors in imaging techniques.	**Medical Expert** **Communicator** **Collaborator** **Scholar** **Health advocate** **Professional**															
	Dental Photography		– Comprehend the fundamental concept of "Photography" and illustrate the manipulation of light to achieve accurate exposure. – Proficiently operate in manual mode, aperture priority, and shutter speed priority settings. – Demonstrate the effective use of cheek retractors and mirrors in dental photography. – Understand the concept of depth of field and apply techniques for capturing sharp dental photographs. – Utilize artificial lights to obtain consistent exposure in every instance. – Acquire knowledge on importing photos to computers and effectively managing digital image files.	**Medical Expert** **Communicator** **Professional**															
	Dental and Maxillofacial Radiology in Paediatric Dentistry Course		– Take accurate radiographs for patients, with correct angulation and sizing. – Understand reasoning for prescription of radiographs and CBCT for patients. – Recognise common faults and errors in dental radiography and learn to manage them. – Understand CBCT image interpretation, landmark identification, and navigate CBCT images through from the software. – Learn to manage radiographic challenges when managing uncooperative patients.	**Medical Expert** **Communicator** **Scholar** **Professional**															
	Medicolegal Considerations in Paediatric Dentistry		– Demonstrate a comprehensive understanding of the legal and ethical requirements necessary before administering dental treatment to peadiatric patients and those with special health care needs. – Recognize and differentiate between various internationally recognized dentist-patient relationship models. – Understand the different types of consents required prior to dental treatment for adults, children, and patients with special health care needs. – Make professional and appropriate decisions when faced with controversial issues or situations in dental practice. – Have a thorough understanding of the rights and responsibilities of healthcare providers based on Kuwaiti Law number 70. – Comprehend the role and function of the Agency for Medical Responsibility (AMR) within the context of Kuwaiti healthcare.	**Medical Expert** **Communicator** **Health advocate** **Professional**															
	Academic writing and research skills workshop		– Critically review and assess scientific literature. – Write and present an overview of the relevant literature for a specific research topic. – Design, format, and pilot effective questionnaires to gather reliable data. – Define plagiarism and implement strategies to avoid it in their research. – Apply time management techniques to enhance research productivity. – Understand the role and responsibilities of research supervisors. – Navigate the process of obtaining ethical approval for their research projects. – Implement informed consent procedures to ensure ethical participation. – Apply data protection and confidentiality principles to safeguard participant information.	**Communicator** **Scholar** **Professional**															

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YEAR 1 (R3) -ROTATION 2-	Paediatric Dentistry II	**Guidelines Review (Speciality topics)** – Behaviour management – Prevention – Periodontal screening and management in children and adolescents – Restorative management of dental caries – Pulpal management for primary and immature permanent teeth – Molar incisor hypomineralisation – Extraction of first permanent molars – Management of unerupted maxillary incisors and palatally ectopic maxillary canines – Management of traumatic dental injuries	– Implement behaviour management techniques to modify and manage patients bahaviour during dental procedures. – Develop strategies to prevent dental caries and other oral diseases in children and adolescents. – Identify and manage periodontal conditions in young patients, emphasizing early detection and intervention. – implement appropriate restorative techniques for treating dental caries in primary and permanent teeth, ensuring functional and aesthetic outcomes. – Develop proficiency in diagnosing and managing pulpal conditions in primary and immature permanent teeth, using evidence-based approaches. – Recognize and manage molar incisor hypomineralisation, with a focus on minimizing pain, sensitivity, and aesthetic concerns in affected patients. – Evaluate the indications for and execute the extraction of first permanent molars, considering the impact on occlusion and future dental development. – Diagnose and manage unerupted maxillary incisors and palatally ectopic maxillary canines, using appropriate orthodontic or surgical interventions. – Assess and manage traumatic dental injuries in children and adolescents, ensuring the best possible outcomes for both function and aesthetics.	**Medical Expert** **Communicator** **Scholar** **Health advocate** **Professional**					■		■	■		■		■		■			
		Literature Review ***Behaviour management***	- Assess the impact of parental anxiety, presence, and parenting styles on child dental anxiety and behavior. – Understand how previous dental experiences and dentist's attire affect child anxiety and behavior during treatment. – Evaluate the efficacy of preparatory information, physical restraint, and distraction methods in managing child dental anxiety. – Compare cognitive behavioral therapy and other anxiety management techniques, such as inhalation sedation, for reducing child dental anxiety.	**Medical Expert** **Communicator** **Health advocate**					■	■	■	■		■		■		■			
		Sedation	– Understand and apply guidelines for pediatric sedation and best practices in conscious sedation. – Assess methods to reduce discomfort during local anesthesia and evaluate electronic anesthesia techniques. – Understand the effects, safety, and application of various sedation methods, including nitrous oxide, oral and intranasal midazolam, and intravenous sedation in pediatric dental care. – Compare different sedation methods, including nitrous oxide, oral midazolam, and intravenous sedation. – Compare monitoring techniques for sedated pediatric patients, including conventional and electronic methods. – Recognize and manage adverse reactions associated with pediatric sedation and anesthesia.	**Medical Expert** **Health advocate** **Professional**					■	■	■	■		■		■		■			
		Pulp therapy	– Understand the histological and clinical aspects of pulpal inflammation and the decision-making process in managing carious primary teeth, including the comparative effectiveness of different treatment approaches (e.g., pulpotomy, indirect pulp capping, and direct pulp capping). – Compare the efficacy, outcomes, and long-term success rates of various pulpotomy agents and materials (e.g., Mineral Trioxide Aggregate, Formocresol) in primary teeth, assessing their application in clinical practice. – Evaluate biological approaches to managing caries in primary teeth, such as incomplete caries removal, sealing, and atraumatic restorative treatment, and their impact on treatment success and tooth longevity. – Assess and compare the success rates, indications, and outcomes of different pulp treatment techniques (e.g., pulpotomy vs. pulpectomy, indirect pulp therapy) to determine the most effective strategies for primary teeth.	**Medical Expert** **Scholar** **Health advocate**					■	■	■	■		■		■		■			
		Non-vital pulp therapy	– Assess the effectiveness and outcomes of various non-vital pulp therapies in primary teeth, including pulpectomies, non-instrumentation endodontic treatments, and root canal fillings using different materials (e.g., ZOE, KRI paste, Sealapex, Endoflas). – Compare the success rates of different antibiotic drug combinations and techniques (e.g., rotary vs. manual instruments) used in endodontic treatments of primary teeth.	**Medical Expert** **Scholar** **Health advocate**	■	■			■	■	■	■	■	■				■			

Program Details					Teaching Methods						Assessment Methods								
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			– Evaluate the long-term success, clinical efficacy, and radiographic outcomes of pulpectomy procedures in primary teeth, focusing on different materials and methods used in root canal fillings and their impact on the prognosis of treated teeth. – Explore the use of advanced techniques and materials in pediatric endodontics, such as smart rotary techniques and antibiotic pastes, and their influence on treatment outcomes and infection control in chronically infected primary teeth.																
		Seminars ***Growth & development***	– Understand the physical growth of children and how to assess it, enabling the recognition of growth delays. – Recognize key theories of cognitive, psychological, and social development to effectively communicate with children at different developmental stages. – Understand learning and conditioning theories to guide children's behavior in the dental office. – Familiarize with developmental milestones to comprehend age-appropriate skills, functioning, and behavior in a dental setting.	**Medical Expert** **Communicator** **Collaborator** **Scholar** **Health advocate** **Professional**															
		Behaviour management	– Understand the factors influencing child behaviour, including the role of the dentist, the dental environment, and parental influences. – Recognize and apply appropriate behavior management techniques for each developmental stage (infancy to adolescence), including understanding their indications and contraindications. – Understand the controversial behavior management techniques, explore alternative communicative approaches, and evaluate the evidence supporting them. – Understand the importance of the informed consent when using certain techniques and the necessity of documenting the child's behaviour in the patient's notes.	**Medical Expert** **Communicator** **Health advocate** **Professional**															
		Sedation	– Identify the topical and local anaesthetics used in paediatric dentistry, understand their safe maximum doses, and recognize the effects and prevention of local aesthetic overdose. – Recognize the common analgesics used in children, including their indications, contraindications, pharmacology, and potential side effects. – Understand the sedative agents used in paediatric dentistry, their indications, contraindications, pharmacology, potential side effects, and the different routes of sedation. – Comprehend the chronic adverse events associated with nitrous oxide inhalation sedation and implement measures to monitor and control these events. – Apply the core principles of rescue and monitoring, and effectively manage sedation-related emergencies.	**Medical Expert** **Communicator** **Scholar** **Health advocate** **Professional**															
		Scientific, evidence-based dentistry (Journal Club)	– Critically evaluate scientific papers, focusing on methodology and data interpretation. – Engage in discussions to apply research findings to clinical practice or further studies. – Enhance their presentation skills and stay current with emerging research.	**Communicator** **Scholar** **Professional**															
		Case-based Discussion – History taking, examination, diagnosis and treatment planning – Behaviour management – Medically compromised & special needs – Dental anomalies – Oral pathology	– Enhance their diagnostic and treatment planning skills. – Apply theoretical knowledge to practical scenarios, improving decision-making in pediatric dentistry. – Develop problem-solving skills by addressing complex or unusual pediatric dental cases. – Improve their ability to discuss and justify clinical decisions with peers and mentors in a collaborative setting. – Reflect on clinical experiences and outcomes to identify areas for improvement in patient care. – Integrate current research and guidelines into case discussions to ensure best practices in pediatric dentistry. – Recognize the importance of collaborating with other healthcare professionals in managing complex pediatric dental cases.	**Medical Expert** **Communicator** **Collaborator** **Scholar** **Professional**															
		Clinical Case Review	– Improve their ability to accurately diagnose and analyze clinical cases through structured presentations and interactive discussion. – Develop and articulate comprehensive treatment plans based on case details and current evidence. – Enhance their critical thinking and clinical reasoning by examining and discussing complex cases. – Refine skills in presenting clinical information clearly and effectively to peers and mentors.	**Medical Expert** **Communicator** **Collaborator** **Scholar** **Professional**															

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Year of Residency (Rotation)	Course Name	Topics/Sessions	Learning Outcomes *At the completion of the course residents will be able to:*	Skills Outcome (CanMEDS Roles)	Lectures	Practical simulation	Clinical practice	CBD	Group discussion	Literature review	Attendance	Participation	Practical/Clinical Task	Written Exam	OSCE	Oral Exam/CBD	Presentations	WBAs	Write-up
			– Learn to incorporate relevant research and evidence-based guidelines into case presentations and decision-making. – Gain experience in receiving and integrating constructive feedback to improve clinical practice. – Demonstrate professionalism in presenting and discussing cases, contributing to ongoing learning and improvement.																
		Case Presentation Sessions	– Develop the ability to reflect on personal clinical experiences, identifying key learning points and areas for improvement. – Enhance skills in managing and presenting their own cases, including diagnosis, treatment planning, and outcome evaluation. – Improve self-assessment capabilities by critically evaluating their own clinical decisions and outcomes. – Strengthen the ability to clearly and effectively present their own cases, including detailing the rationale behind their clinical choices. – Learn to incorporate feedback from peers and mentors to refine their approach and improve future clinical practice. – Apply relevant research and evidence-based guidelines to their own cases to support and justify clinical decisions. – Demonstrate professionalism and engage in continuous improvement by sharing their experiences and learning from others.	**Medical Expert** **Communicator** **Collaborator** **Scholar** **Professional**															
	Advanced Multidisciplinary Courses	***Conscious sedation for dental treatment of children and adolescents***	– Comprehend the theoretical aspects of the utilisation of oral and IV sedation for the dental treatment for children and adolescents. – Gain a thorough understanding of the various aspects and causes of dental anxiety. – Learn about the different levels of sedation and their appropriate uses in dental care. – Understand the therapeutic effects and mechanisms of action of nitrous oxide in dental treatment. – Understand and discuss the advantages, disadvantages, indications and contraindications of N_2O/O_2 sedation for dental treatment. – Safely administer N_2O/O_2 sedation in clinical settings. – Be proficient in-patient selection, pre-assessment, equipment setup, monitoring during recovery, and managing potential medical emergencies related to sedation. – Familiarize with the equipment and operational protocols of the inhalation sedation unit. – Identify and manage complications associated with N_2O/O_2 sedation. – Discuss occupational health hazards related to the use of N_2O/O_2 sedation.	**Medical Expert** **Communicator** **Scholar** **Professional**															
		Multidisciplinary collaboration with orthodontics	– Understand and apply the management strategies for developing dentition. – Determine the appropriate timing for orthodontic referrals. – Master the principles of space management in orthodontic treatment. – Diagnose malocclusion and abnormalities in tooth position and eruption effectively.	**Medical Expert** **Communicator** **Collaborator** **Scholar**															
		Endodontics in paediatric dentistry	– Demonstrate proficiency in history taking, clinical examination, conducting special tests, diagnosing, and developing treatment plans specific to endodontic procedures for children and adolescents. – Provide emergency endodontic procedures to alleviate pain and infection originating from endodontic issues in children and adolescents. – Perform non-surgical endodontic treatments on permanent teeth for children and adolescents. – Accurately diagnose the need for and proficiently provide vital pulp therapy and root end closure procedures for children and adolescents. – Carry out intra-coronal bleaching procedures for children and adolescents. – Evaluate the outcomes and prognosis of endodontic treatments in paediatric patients. – Assess the complexity of endodontic cases, integrating this analysis into their treatment planning. – Manage complications arising from endodontic treatments. – Understand the limitations of their specialty and make appropriate referrals to ensure comprehensive patient care.	**Medical Expert** **Communicator** **Collaborator** **Scholar** **Professional**															

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		Clinics: ***Consultant Clinic***	– Become proficient in taking thorough case histories using the clinic's standardized history sheet. – Learn to collect and document detailed medical and dental histories systematically. – Apply a systematic approach to patient examination and diagnosis. – Identify and appropriately use diagnostic tools for each clinical case. – Gain understanding of the consent process, including effective communication with the child and guardian. – Learn to conduct prevention treatments, including oral prophylaxis. – Develop skills to manage emergency dental cases effectively. – Acquire the ability to properly pre-assess patient behaviour and plan treatment based on patient cooperation and medical history. – Recognize the need for referral for pharmacological behaviour management such as general anaesthesia or sedation. – Develop skills in managing medically compromised patients, including effective communication with healthcare providers. – Learn to manage patients requiring multidisciplinary care. – Enhance skills in presenting clinical cases clearly and effectively. – Achieve proficiency in maintaining accurate records and notes, including the taking of clinical photographs.	**Medical Expert** **Communicator** **Collaborator** **Leader** **Health Advocate** **Scholar** **Professional**															
		Comprehensive Treatment Clinic	– Develop the skill to collect and document detailed medical and dental histories comprehensively. – Master the process of taking thorough pain and/or trauma histories. – Strengthen communication skills to effectively interact with patients and guardians. – Learn to use diagnostic tools to formulate and adjust treatment plans accurately. – Tailor dental treatments to accommodate each patient's behavioural and medical conditions. – Enhance skills in behaviour management and conduct thorough pre, intra, and post-op assessments of patient behaviour, including the evaluation for pharmacological behaviour management such as conscious sedation and general anaesthesia. – Learn to set up, administer, and monitor Nitrous Oxide sedation safely while maintaining proper records. – Develop expertise in managing medically compromised patients by coordinating multidisciplinary care with dental and other healthcare workers. – Learn to manage patients requiring multidisciplinary care. – Enhance skills in presenting clinical cases clearly and effectively. – Gain proficiency in various dental treatments including: – Restorative procedures, including endodontics and prosthodontics procedures. – Interceptive orthodontic treatment. – Oral surgical procedures, including periodontal management. – Treatment of soft tissue lesions. – Learn clinical management strategies for emergency situations and follow-up care for traumatic injuries to primary and permanent teeth, including fractures, luxation injuries, soft tissue lacerations, and facial bone fractures. – Become adept at managing patient recalls and follow-ups effectively. – Achieve proficiency in maintaining accurate records and notes, including clinical photographs, radiographs, notes, and study models.	**Medical Expert** **Communicator** **Collaborator** **Leader** **Health Advocate** **Scholar** **Professional**															
		Casualty Clinic	– Become proficient in taking comprehensive dental and medical histories using the clinic's standardized history sheet. – Learn to identify and appropriately use diagnostic tools for each emergency case, ensuring accurate and timely assessments. – Develop the ability to diagnose emergency conditions swiftly and accurately. – Gain expertise in the appropriate management of orofacial emergencies, implementing effective and immediate care strategies. – Acquire skills to manage acute dental and medical conditions effectively, including: – **Acute Pain**: Implement pain management strategies that provide immediate relief. – **Dento-Alveolar Fractures**: Learn techniques for the stabilization and treatment of dento-alveolar fractures.	**Medical Expert** **Communicator** **Collaborator** **Leader** **Health Advocate** **Scholar** **Professional**															

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			– **Soft Tissue Laceration**: Master the suturing and care of soft tissue lacerations to optimize healing and aesthetic outcomes. – **Extra-Oral Swelling**: Diagnose the cause of extra-oral swellings and apply appropriate interventions. – **Soft Tissue Lesions**: Identify and manage various soft tissue lesions, understanding when conservative management or more aggressive treatments are indicated.																
		General Anaesthesia	– Learn to effectively assess patient behaviour and develop treatment plans based on patient cooperation and medical history. – Gain the ability to recognize the need for referral for advanced pharmacological behaviour management. – Acquire the skills to appropriately prescribe GA, understanding its indications and contraindications. – Learn to manage the admission process for GA, including how to request and analyse lab results and collect and document detailed medical and dental histories. – Develop competencies in managing medically compromised patients, including effective communication with healthcare providers. – Understand the consent process, including how to communicate effectively with children and their guardians. – Enhance understanding of the different anaesthetic agents, their uses and methods of administration. – Learn to recognize when premedication is necessary prior to administering GA. – Acquire a thorough understanding of setting up and using anaesthetic equipment safely during GA procedures. – Master the process of appropriate treatment planning for patients undergoing GA. – Develop a systematic approach to patient pre-assessment, clerking, and post-operative discharge. – Learn to manage emergency cases and handle pre, intra, and post-operative complications effectively. – Enhance skills in presenting clinical cases clearly and effectively. – Acquire the ability to keep accurate and detailed records, including clinical photographs under GA.	**Medical Expert** **Communicator** **Collaborator** **Leader** **Health Advocate** **Scholar** **Professional**															
	Quality Improvement Project		– Develop the ability to critically evaluate clinical practices against established standards. – Enhance skills in data collection, analysis, and interpretation to assess practice performance. – Identify areas for improvement and implement changes to optimize patient care. – Improve understanding of audit cycles and their role in quality assurance. – Strengthen skills in reporting findings and making evidence-based recommendations.	**Medical Expert** **Communicator** **Collaborator** **Leader** **Health Advocate** **Scholar** **Professional**															
	Research		– Develop advanced research skills, including study design, data collection, and analysis. – Contribute original findings to the field, enhancing both academic and practical knowledge. – Strengthen critical thinking and problem-solving abilities through independent research. – Improve academic writing and communication skills for disseminating research results. – Foster the ability to conduct ethical and responsible research.																
YEAR 1 (R3) -ROTATION 3-	**Paediatric Dentistry III**	**Topic Review** ***Management of the frenulum in paediatric dentistry***	– Explore the clinical guidelines, effectiveness, and trends in frenulum management, particularly in addressing ankyloglossia (tongue-tie) and its impact on breastfeeding, speech, and dental outcomes. – Discuss the association between superior labial frenum and maxillary midline diastema, and evaluate the effectiveness of different surgical interventions, including frenectomy and laser treatment, on these conditions. – Examine the anatomical characteristics of the lingual and maxillary labial frenum, considering different classifications and their relevance to clinical outcomes. – Analyze the role of ankyloglossia as a potential risk factor for maxillary hypoplasia and soft palate elongation, emphasizing functional and morphological implications. – Review various surgical techniques for frenectomy and their clinical outcomes, highlighting best practices and clinical consensus on managing ankyloglossia in pediatric patients. – Assess the effectiveness of interventions designed to reduce unnecessary tongue-tie release surgeries in newborns and the importance of proper diagnosis and treatment planning.	**Medical Expert** **Communicator** **Collaborator** **Leader** **Health Advocate** **Scholar** **Professional**															
		Biological approach in caries management	– Understand the principles of Minimal Intervention Dentistry (MID) for managing dentinal carious lesions in primary teeth, comparing conventional and biological treatments in terms of effectiveness, cost, and patient acceptance.																

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			– Review the rationale behind ART, its development, and how it fits within the broader scope of MID. – Assess the survival rates and long-term outcomes of ART sealants and restorations, particularly in managing early childhood caries with minimal intervention. – Evaluate the efficacy of resin infiltration for managing non-cavitated caries lesions, with a focus on clinical outcomes over the long term. – Understand the preventive role of pit and fissure sealants in dental caries management, including their effectiveness in various populations. – Explore the effectiveness of SDF in arresting dentin caries, particularly in pediatric populations, and its impact on oral health-related quality of life. – Analyze parental perceptions and acceptance of SDF treatment, especially concerning the staining effect associated with its use. – Evaluate the clinical outcomes and acceptability of the Hall Technique in managing carious primary molars, with a focus on its impact on occlusal vertical dimension.																
		Airway and sleep disordered breathing	– Understand the impact of premolar extractions, nasal airway obstruction, and breathing patterns (mouth vs. nasal) on airway dimensions, cephalometric changes, and craniofacial development in orthodontic patients. – Explore the effects of adenoidectomy on mandibular growth direction and the relationship between allergies and orofacial dental deformities in children. – Review experimental evidence on the consequences of oral respiration for craniofacial development and apply this understanding to orthodontic care. – Develop skills in screening for sleep-disordered breathing in children using the FAIREST-6 tool, and understand a multidisciplinary approach to craniofacial growth modification for pediatric patients.																
		Seminars ***Fluoride***	– Understand the mechanism of action of fluoride and its clinical implications for dental health. – Gain knowledge of the different types of fluoride resources available, including their indications, advantages, disadvantages, recommended concentrations, and the evidence supporting their use. – Understand the causes of dental fluorosis and acute fluoride toxicity, along with strategies for their prevention and management. – Comprehend the composition, mechanism of action, clinical applications, and effectiveness of various remineralization pastes used in dentistry.	**Medical Expert** **Communicator** **Scholar** **Professional**															
		Scientific, evidence-based dentistry (Journal Club)	Learning and skills outcomes are aligned with those of a similar session from the previous rotation.																
		Case-based Discussion	Learning and skills outcomes are aligned with those of a similar session from the previous rotation.																
		Clinical Case Review	Learning and skills outcomes are aligned with those of a similar session from the previous rotation.																
		Case Presentation	Learning and skills outcomes are aligned with those of a similar session from the previous rotation.																
		Clinics: – Consultant Clinic – Comprehensive Treatment Clinic – Casualty Clinic – General Anaesthesia	Learning and skills outcomes are aligned with those of a similar session from the previous rotation.																
	Quality Improvement Project		Learning and skills outcomes are aligned with those of a similar session from the previous rotation.																
	Research		Learning and skills outcomes are aligned with those of a similar session from the previous rotation.																

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Year 2 (R4) - Rotation 1-	Paediatric Dentistry IV	**Literature review:** *Growth and development*	– Assess facial profile growth and understand mandibular growth rotations. – Understand the six keys to normal occlusion and cephalometric analysis for primary dentition. – Understand the equilibrium theory to understand factors influencing tooth position. – Evaluate facial and dental changes during adolescence and their clinical implications. – Assess the dental and skeletal effects of early orthodontic treatment. – Apply evidence-based methods in orthodontic diagnosis and treatment.	Medical Expert Communicator Collaborator Health advocate Scholar															
		Mixed dentition analysis	– Assess and compare different methods for predicting arch length. – Evaluate the accuracy of different mixed dentition analysis methods and their applications. – Understand the principles and techniques of space maintenance in pediatric dentistry																
		Oral habits	– Evaluate and manage pediatric oral habits, including digit sucking and their effects on dental health. – Understand the impact of breastfeeding and sucking habits on the development of malocclusion.																
		Ectopic eruption of teeth	– Understand the characteristics and occurrence of ectopic eruption of the maxillary first permanent molar in children. – Identify associated tooth and developmental disturbances related to ectopic eruption of the maxillary first permanent molar. – Evaluate different methods for correcting ectopically erupted first permanent molars. – Understand methods for localizing ectopic maxillary canines using horizontal or vertical parallax. – Evaluate the efficacy of closed versus open eruption techniques for palatally ectopic canines. – Recognize the impact of ectopic maxillary canines on the resorption of maxillary lateral incisors. – Apply early intervention strategies, such as the extraction of primary canines, to manage palatally erupting maxillary canines, and understand the factors contributing to its favorable eruption.																
		Seminars: *Management of developing dentiition*	– Recognise abnormalities in eruption of teeth, their incidence rate, etiological factors, and their management, including the factors affecting decision making to intervene. – Understand the conditions considered for interceptive orthodontic treatment, types of intervention, and their indications based on the available evidence. – Recognise the appropriate time to extract first permanent molar to achieve a favourable outcome. – Identify when balancing, compensating and serial extractions should be planned in the primary, mixed or permanent dentition – Understand the consequences of premature loss of primary teeth and when the space maintenance is indicated. – Know the different types of space maintainers, their indications and contraindications.	Medical Expert Communicator Scholar Professional																

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		Developmental defects of enamel and dentine	– Understand the dental developmental stages and their associated anomalies. – Recognise the types of anomalies in enamel and dentin structure and how to differentiate between them based on their clinical and radiographic features. – Understand the conditions associated with enamel/dentin abnormalities. – Understand the associated clinical problems, factors to consider in treatment planning, the treatment objectives as well as the different management strategies based on the available evidence.																
		Dental management of medically compromised children and adolescents	– Understand the pathophysiology of the most common diseases in children – Understand the implications of medically compromised children undergoing dental treatment – Appreciate the importance of dental prevention and education in medically compromised children – Understand the importance of medical consultation, referral and team approach when managing medically compromised children – Equip the residents with comprehensive knowledge to facilitate a safe delivery of dental treatment to medically compromised children in the clinical setting and in a hospital-based setting – Be familiar with the international protocols governing the dental management of medically compromised children and how to apply them in clinical scenarios – Be introduced to the advancement in technology, medicine and dentistry in the management of medically compromised children	**Medical Expert** **Communicator** **Scholar** **Professional**															
		Scientific, evidence-based dentistry (Journal Club)	– Critically evaluate scientific papers, focusing on methodology and data interpretation. – Engage in discussions to apply research findings to clinical practice or further studies. – Enhance their presentation skills and stay current with emerging research.	**Communicator** **Scholar** **Professional**															
		Case-based Discussion	- Enhance their diagnostic and treatment planning skills. - Apply theoretical knowledge to practical scenarios, improving decision-making in pediatric dentistry. - Develop problem-solving skills by addressing complex or unusual pediatric dental cases. - Improve their ability to discuss and justify clinical decisions with peers and mentors in a collaborative setting. - Reflect on clinical experiences and outcomes to identify areas for improvement in patient care. - Integrate current research and guidelines into case discussions to ensure best practices in pediatric dentistry. - Recognize the importance of collaborating with other healthcare professionals in managing complex pediatric dental cases.	**Medical Expert** **Communicator** **Collaborator** **Scholar** **Professional**															
		Clinical Case Review	– Improve their ability to accurately diagnose and analyze clinical cases through structured presentations and interactive discussion. – Develop and articulate comprehensive treatment plans based on case details and current evidence. – Enhance their critical thinking and clinical reasoning by examining and discussing complex cases. – Refine skills in presenting clinical information clearly and effectively to peers and mentors. – Learn to incorporate relevant research and evidence-based guidelines into case presentations and decision-making. – Gain experience in receiving and integrating constructive feedback to improve clinical practice. – Demonstrate professionalism in presenting and discussing cases, contributing to ongoing learning and improvement.	**Medical Expert** **Communicator** **Collaborator** **Scholar** **Professional**															
		Case Presentation Sessions	– Develop the ability to reflect on personal clinical experiences, identifying key learning points and areas for improvement. – Enhance skills in managing and presenting their own cases, including diagnosis, treatment planning, and outcome evaluation. – Improve self-assessment capabilities by critically evaluating their own clinical decisions and outcomes. – Strengthen the ability to clearly and effectively present their own cases, including detailing the rationale behind their clinical choices. – Learn to incorporate feedback from peers and mentors to refine their approach and improve future clinical practice.	**Medical Expert** **Communicator** **Collaborator** **Scholar** **Professional**															

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			– Apply relevant research and evidence-based guidelines to their own cases to support and justify clinical decisions. – Demonstrate professionalism and engage in continuous improvement by sharing their experiences and learning from others.																
		Clinics: ***Consultant Clinic***	– Become proficient in taking thorough case histories using the clinic's standardized history sheet. – Learn to collect and document detailed medical and dental histories systematically. – Apply a systematic approach to patient examination and diagnosis. – Identify and appropriately use diagnostic tools for each clinical case. – Gain understanding of the consent process, including effective communication with the child and guardian. – Learn to conduct prevention treatments, including oral prophylaxis. – Develop skills to manage emergency dental cases effectively. – Acquire the ability to properly pre-assess patient behaviour and plan treatment based on patient cooperation and medical history. – Recognize the need for referral for pharmacological behaviour management such as general anaesthesia or sedation. – Develop skills in managing medically compromised patients, including effective communication with healthcare providers. – Learn to manage patients requiring multidisciplinary care. – Enhance skills in presenting clinical cases clearly and effectively. – Achieve proficiency in maintaining accurate records and notes, including the taking of clinical photographs.	**Medical Expert** **Communicator** **Collaborator** **Leader** **Health Advocate** **Scholar** **Professional**															
		Comprehensive Treatment Clinic	– Develop the skill to collect and document detailed medical and dental histories comprehensively. – Master the process of taking thorough pain and/or trauma histories. – Strengthen communication skills to effectively interact with patients and guardians. – Learn to use diagnostic tools to formulate and adjust treatment plans accurately. – Tailor dental treatments to accommodate each patient's behavioural and medical conditions. – Enhance skills in behaviour management and conduct thorough pre, intra, and post-op assessments of patient behaviour, including the evaluation for pharmacological behaviour management such as conscious sedation and general anaesthesia. – Learn to set up, administer, and monitor Nitrous Oxide sedation safely while maintaining proper records. – Develop expertise in managing medically compromised patients by coordinating multidisciplinary care with dental and other healthcare workers. – Learn to manage patients requiring multidisciplinary care. – Enhance skills in presenting clinical cases clearly and effectively. – Gain proficiency in various dental treatments including: – Restorative procedures, including endodontics and prosthodontics procedures. – Interceptive orthodontic treatment. – Oral surgical procedures, including periodontal management. – Treatment of soft tissue lesions. – Learn clinical management strategies for emergency situations and follow-up care for traumatic injuries to primary and permanent teeth, including fractures, luxation injuries, soft tissue lacerations, and facial bone fractures. – Become adept at managing patient recalls and follow-ups effectively. – Achieve proficiency in maintaining accurate records and notes, including clinical photographs, radiographs, notes, and study models.	**Medical Expert** **Communicator** **Collaborator** **Leader** **Health Advocate** **Scholar** **Professional**															
		Casualty Clinic	– Become proficient in taking comprehensive dental and medical histories using the clinic's standardized history sheet. – Learn to identify and appropriately use diagnostic tools for each emergency case, ensuring accurate and timely assessments. – Develop the ability to diagnose emergency conditions swiftly and accurately.	**Medical Expert** **Communicator** **Collaborator** **Leader**															

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			– Gain expertise in the appropriate management of orofacial emergencies, implementing effective and immediate care strategies. – Acquire skills to manage acute dental and medical conditions effectively, including: – **Acute Pain**: Implement pain management strategies that provide immediate relief. – **Dento-Alveolar Fractures**: Learn techniques for the stabilization and treatment of dento-alveolar fractures. – **Soft Tissue Laceration**: Master the suturing and care of soft tissue lacerations to optimize healing and aesthetic outcomes. – **Extra-Oral Swelling**: Diagnose the cause of extra-oral swellings and apply appropriate interventions. – **Soft Tissue Lesions**: Identify and manage various soft tissue lesions, understanding when conservative management or more aggressive treatments are indicated.	**Health Advocate** **Scholar** **Professional**															
		General Anaesthesia	– Learn to effectively assess patient behaviour and develop treatment plans based on patient cooperation and medical history. – Gain the ability to recognize the need for referral for advanced pharmacological behaviour management. – Acquire the skills to appropriately prescribe GA, understanding its indications and contraindications. – Learn to manage the admission process for GA, including how to request and analyse lab results and collect and document detailed medical and dental histories. – Develop competencies in managing medically compromised patients, including effective communication with healthcare providers. – Understand the consent process, including how to communicate effectively with children and their guardians. – Enhance understanding of the different anaesthetic agents, their uses and methods of administration. – Learn to recognize when premedication is necessary prior to administering GA. – Acquire a thorough understanding of setting up and using anaesthetic equipment safely during GA procedures. – Master the process of appropriate treatment planning for patients undergoing GA. – Develop a systematic approach to patient pre-assessment, clerking, and post-operative discharge. – Learn to manage emergency cases and handle pre, intra, and post-operative complications effectively. – Enhance skills in presenting clinical cases clearly and effectively. – Acquire the ability to keep accurate and detailed records, including clinical photographs under GA.	**Medical Expert** **Communicator** **Collaborator** **Leader** **Health Advocate** **Scholar** **Professional**															
	Advanced Multidisciplinary Courses	**Periodontology in paediatric dentistry Course**	– Gain knowledge of the anatomy of periodontium, aetiology of gingivitis, and pathogenesis of periodontitis. – Understand the plaque microbiology and host defenses. – Understand the various risk factors and the association with periodontal diseases in children. – Be competent in periodontal examination and diagnostic procedures. – Be familiar with the new classification of periodontal diseases. – Be familiar with the medical conditions and medications that could lead to periodontal diseases in children and adolescents. – Understand the role of paediatric dentist in managing various gingival and periodontal diseases in children and adolescent. – Appreciate the importance of interdisciplinary management of periodontal diseases in adolescents. – Understand the importance of good communication and referral to periodontists for the management of periodontal disease in adolescents	**Medical Expert** **Communicator** **Collaborator** **Health Advocate** **Scholar** **Professional**															
		General anaesthesia	– Uunderstand the patient selection and preparation for general anaesthesia process including the special consideration for anxious or medically compromised children – Understand the importance of having a systematic routine to follow during anaesthesia to guard patient's safety, and that to be reflected in the documentation – Learn the procedure of admitting, monitoring, and discharging children – Show proficiency in operating room protocol	**Medical Expert** **Communicator** **Scholar** **Professional**														

Program Details					Teaching Methods						Assessment Methods								
Year of Residency (Rotation)	Course Name	Topics/Sessions	Learning Outcomes *At the completion of the course residents will be able to:*	Skills Outcome (CanMEDS Roles)	Lectures	Practical simulation	Clinical practice	CBD	Group discussion	Literature review	Attendance	Participation	Practical/Clinical Task	Written Exam	OSCE	Oral Exam/CBD	Presentations	WBAs	Write-up
		Advanced restorative techniques in paediatric dentistry	– Understand the importance of relevant diagnostic criteria leading to the creation of rational treatment plans, ensuring proper identification of appropriate treatment options. – Show proficiency in all areas of restorative dentistry for children and adolescents, including aesthetic management, intra- and extra- coronal restorations of the primary and young permanent teeth. – Prove clinical competency in performing different advanced restorative techniques tailored to each patient's needs while utilizing the appropriate modern dental materials.	**Medical Expert** **Communicator** **Scholar** **Professional**															
	Quality Improvement Project		– Develop the ability to critically evaluate clinical practices against established standards. – Enhance skills in data collection, analysis, and interpretation to assess practice performance. – Identify areas for improvement and implement changes to optimize patient care. – Improve understanding of audit cycles and their role in quality assurance. – Strengthen skills in reporting findings and making evidence-based recommendations.	**Medical Expert** **Communicator** **Collaborator** **Leader** **Health Advocate** **Scholar** **Professional**															
	Research		– Develop advanced research skills, including study design, data collection, and analysis. – Contribute original findings to the field, enhancing both academic and practical knowledge. – Strengthen critical thinking and problem-solving abilities through independent research. – Improve academic writing and communication skills for disseminating research results. – Foster the ability to conduct ethical and responsible research.																
YEAR 2 (R4) -ROTATION 2-	**Paediatric Dentistry V**	**Seminars:** *Oral pathology*	– Understand the dental developmental stages and their associated anomalies, including anomalies of number, size and shape of teeth; and anomalies of eruption; and their associated conditions/syndromes. To recognise these anomalies' prevalence, etiological factors, clinical and radiographic features; and their management. – Recognise oral pathology in children and their associated syndromes; to be able to give differential diagnosis of any oral soft tissue or bony pathology by recognising their clinical features and/or radiographic manifestations; and to understand their prevalence, etiological factors, and their management strategies – Identify the common bacterial, viral and fungal oral infections in children, their clinical presentation, aetiology, and management strategies	**Medical Expert** **Communicator** **Collaborator** **Leader** **Health Advocate** **Scholar** **Professional**															
		Scientific, evidence-based dentistry (Journal Club)	Learning and skills outcomes are aligned with those of a similar session from the previous rotation.																
		Case-based Discussion	Learning and skills outcomes are aligned with those of a similar session from the previous rotation.																
		Clinical Case Review	Learning and skills outcomes are aligned with those of a similar session from the previous rotation.																
		Case Presentation	Learning and skills outcomes are aligned with those of a similar session from the previous rotation.																
		Clinics: – Consultant Clinic – Comprehensive Treatment Clinic – Casualty Clinic – General Anaesthesia	Learning and skills outcomes are aligned with those of a similar session from the previous rotation.																
	Advanced Multidisciplinary Courses	**Dental traumatology**	- Take a history, examine dental injuries, and identify useful radiographs and diagnostic tests. - Distinguish between different injuries to permanent teeth, and provide immediate and definitive treatment. - Recognize non-accidental injuries, and understand the child protection process. - Diagnose and treat displacement injuries in permanent teeth using appropriate splinting techniques, and manage complications like root resorption and pulpal necrosis. - Diagnose and treat injuries to primary teeth.	**Medical Expert** **Communicator** **Collaborator** **Health Advocate** **Scholar** **Professional**																

Program Details					Teaching Methods						Assessment Methods								
Year of Residency (Rotation)	Course Name	Topics/Sessions	Learning Outcomes *At the completion of the course residents will be able to:*	Skills Outcome (CanMEDS Roles)	Lectures	Practical simulation	Clinical practice	CBD	Group discussion	Literature review	Attendance	Participation	Practical/Clinical Task	Written Exam	OSCE	Oral Exam/CBD	Presentations	WBAs	Write-up
			- Understand suture materials, techniques for oral and facial lacerations, and the process of soft-tissue wound healing. - Diagnose and treat alveolar and mandible fractures, classify different types of fractures, and understand the physiology of bone repair. - Diagnose midface fractures (maxilla, zygomatic complex, and nasal bones), understand stabilization techniques, and manage associated clinical findings. - Provide dental first aid in field conditions, using appropriate medications, and understand the psychosocial impact of dental trauma on patients and families.																
		Cleft lip and palate	– Demonstrate an understanding of the causes and prevalence of Cleft Lip and Palate. – Coordinate with a multidisciplinary team to manage CLP treatment. – Perform comprehensive clinical evaluations of patients with CLP. – Differentiate between subcategories of CLP and diagnose these conditions along with other facial clefts. – Develop and implement a management timeline for CLP patients that includes appropriate surgical and orthodontic interventions. – Identify and apply early treatment options for CLP effectively. – Manage the care of infants and newborns with CLP, including feeding techniques and the use of pre-surgical oral appliances such as naso-alveolar moulding (NAM); – Gain a foundational understanding of naso-alveolar moulding and pre-surgical columella elongation techniques and apply these in clinical settings. – Fabricate NAM appliances, taking accurate impressions and adjusting the biomechanics of the appliances as required. – Identify and manage complications arising from the treatment of CLP. – Incorporate clinical dental considerations into the comprehensive management of patients with CLP.	**Medical Expert** **Communicator** **Collaborator** **Professional**														
	Quality Improvement Project		Learning and skills outcomes are aligned with those of a similar session from the previous rotation.																
	Research		Learning and skills outcomes are aligned with those of a similar session from the previous rotation.																
YEAR 2 (R4) -ROTATION 3-	**Paediatric Dentistry VI**	**Scientific, evidence-based dentistry (Journal Club)**	Learning and skills outcomes are aligned with those of a similar session from the previous rotation.																
		Case-based Discussion	Learning and skills outcomes are aligned with those of a similar session from the previous rotation.																
		Clinical Case Review	Learning and skills outcomes are aligned with those of a similar session from the previous rotation.																
		Case Presentation	Learning and skills outcomes are aligned with those of a similar session from the previous rotation.																
		Clinics: – Consultant Clinic – Comprehensive Treatment Clinic – Casualty Clinic – General Anaesthesia	Learning and skills outcomes are aligned with those of a similar session from the previous rotation.																
	Quality Improvement Project		Learning and skills outcomes are aligned with those of a similar session from the previous rotation.																
	Research		Learning and skills outcomes are aligned with those of a similar session from the previous rotation.																

Program Details					Teaching Methods						Assessment Methods								
Year of Residency (Rotation)	Course Name	Topics/Sessions	Learning Outcomes *At the completion of the course residents will be able to:*	Skills Outcome (CanMEDS Roles)	Lectures	Practical simulation	Clinical practice	CBD	Group discussion	Literature review	Attendance	Participation	Practical/Clinical Task	Written Exam	OSCE	Oral Exam/CBD	Presentations	WBAs	Write-up
YEAR 3 (R5) - ROTATION 1-	Paeditaric Dentistry PG Teaching		- Understand the concept of dental education - Demonstrate skills in student's supervision and assessment in clinical setting - Prepare and give lectures/seminars for students of all levels - Enhance knowledge of different didactic and clinical assessment methodologies - Develop self-instructional teaching material	Medical Expert Communicator Collaborator Leader Scholar Professional															
	Paediatric Dentistry VII	Scientific, evidence-based dentistry (Journal Club)	– Critically evaluate scientific papers, focusing on methodology and data interpretation. – Engage in discussions to apply research findings to clinical practice or further studies. – Enhance their presentation skills and stay current with emerging research.	Communicator Scholar Professional															
		Case-based Discussion	- Enhance their diagnostic and treatment planning skills. - Apply theoretical knowledge to practical scenarios, improving decision-making in pediatric dentistry. - Develop problem-solving skills by addressing complex or unusual pediatric dental cases. - Improve their ability to discuss and justify clinical decisions with peers and mentors in a collaborative setting. - Reflect on clinical experiences and outcomes to identify areas for improvement in patient care. - Integrate current research and guidelines into case discussions to ensure best practices in pediatric dentistry. - Recognize the importance of collaborating with other healthcare professionals in managing complex pediatric dental cases.	Medical Expert Communicator Collaborator Scholar Professional															
		Clinical Case Review	– Improve their ability to accurately diagnose and analyze clinical cases through structured presentations and interactive discussion. – Develop and articulate comprehensive treatment plans based on case details and current evidence. – Enhance their critical thinking and clinical reasoning by examining and discussing complex cases. – Refine skills in presenting clinical information clearly and effectively to peers and mentors. – Learn to incorporate relevant research and evidence-based guidelines into case presentations and decision-making. – Gain experience in receiving and integrating constructive feedback to improve clinical practice. – Demonstrate professionalism in presenting and discussing cases, contributing to ongoing learning and improvement.	Medical Expert Communicator Collaborator Scholar Professional															
		Case Presentation Sessions	– Develop the ability to reflect on personal clinical experiences, identifying key learning points and areas for improvement.	Medical Expert Communicator															

Program Details					Teaching Methods						Assessment Methods								
Year of Residency (Rotation)	Course Name	Topics/Sessions	Learning Outcomes *At the completion of the course residents will be able to:*	Skills Outcome (CanMEDS Roles)	Lectures	Practical simulation	Clinical practice	CBD	Group discussion	Literature review	Attendance	Participation	Practical/Clinical Task	Written Exam	OSCE	Oral Exam/CBD	Presentations	WBAs	Write-up
			– Enhance skills in managing and presenting their own cases, including diagnosis, treatment planning, and outcome evaluation. – Improve self-assessment capabilities by critically evaluating their own clinical decisions and outcomes. – Strengthen the ability to clearly and effectively present their own cases, including detailing the rationale behind their clinical choices. – Learn to incorporate feedback from peers and mentors to refine their approach and improve future clinical practice. – Apply relevant research and evidence-based guidelines to their own cases to support and justify clinical decisions. – Demonstrate professionalism and engage in continuous improvement by sharing their experiences and learning from others.	**Collaborator** **Scholar** **Professional**					■		■	■					■			
		Clinics: ***Consultant Clinic***	– Become proficient in taking thorough case histories using the clinic's standardized history sheet. – Learn to collect and document detailed medical and dental histories systematically. – Apply a systematic approach to patient examination and diagnosis. – Identify and appropriately use diagnostic tools for each clinical case. – Gain understanding of the consent process, including effective communication with the child and guardian. – Learn to conduct prevention treatments, including oral prophylaxis. – Develop skills to manage emergency dental cases effectively. – Acquire the ability to properly pre-assess patient behaviour and plan treatment based on patient cooperation and medical history. – Recognize the need for referral for pharmacological behaviour management such as general anaesthesia or sedation. – Develop skills in managing medically compromised patients, including effective communication with healthcare providers. – Learn to manage patients requiring multidisciplinary care. – Enhance skills in presenting clinical cases clearly and effectively. – Achieve proficiency in maintaining accurate records and notes, including the taking of clinical photographs.	**Medical Expert** **Communicator** **Collaborator** **Leader** **Health Advocate** **Scholar** **Professional**			■	■			■		■		■		■		
		Comprehensive Treatment Clinic	– Develop the skill to collect and document detailed medical and dental histories comprehensively. – Master the process of taking thorough pain and/or trauma histories. – Strengthen communication skills to effectively interact with patients and guardians. – Learn to use diagnostic tools to formulate and adjust treatment plans accurately. – Tailor dental treatments to accommodate each patient's behavioural and medical conditions. – Enhance skills in behaviour management and conduct thorough pre, intra, and post-op assessments of patient behaviour, including the evaluation for pharmacological behaviour management such as conscious sedation and general anaesthesia. – Learn to set up, administer, and monitor Nitrous Oxide sedation safely while maintaining proper records. – Develop expertise in managing medically compromised patients by coordinating multidisciplinary care with dental and other healthcare workers. – Learn to manage patients requiring multidisciplinary care. – Enhance skills in presenting clinical cases clearly and effectively. – Gain proficiency in various dental treatments including: – Restorative procedures, including endodontics and prosthodontics procedures. – Interceptive orthodontic treatment. – Oral surgical procedures, including periodontal management. – Treatment of soft tissue lesions. – Learn clinical management strategies for emergency situations and follow-up care for traumatic injuries to primary and permanent teeth, including fractures, luxation injuries, soft tissue lacerations, and facial bone fractures. – Become adept at managing patient recalls and follow-ups effectively.	**Medical Expert** **Communicator** **Collaborator** **Leader** **Health Advocate** **Scholar** **Professional**			■	■			■		■		■		■		

Program Details					Teaching Methods						Assessment Methods								
Year of Residency (Rotation)	Course Name	Topics/Sessions	Learning Outcomes *At the completion of the course residents will be able to:*	Skills Outcome (CanMEDS Roles)	Lectures	Practical simulation	Clinical practice	CBD	Group discussion	Literature review	Attendance	Participation	Practical/Clinical Task	Written Exam	OSCE	Oral Exam/CBD	Presentations	WBAs	Write-up
			– Achieve proficiency in maintaining accurate records and notes, including clinical photographs, radiographs, notes, and study models.																
		Casualty Clinic	– Become proficient in taking comprehensive dental and medical histories using the clinic's standardized history sheet. – Learn to identify and appropriately use diagnostic tools for each emergency case, ensuring accurate and timely assessments. – Develop the ability to diagnose emergency conditions swiftly and accurately. – Gain expertise in the appropriate management of orofacial emergencies, implementing effective and immediate care strategies. – Acquire skills to manage acute dental and medical conditions effectively, including: – **Acute Pain**: Implement pain management strategies that provide immediate relief. – **Dento-Alveolar Fractures**: Learn techniques for the stabilization and treatment of dento-alveolar fractures. – **Soft Tissue Laceration**: Master the suturing and care of soft tissue lacerations to optimize healing and aesthetic outcomes. – **Extra-Oral Swelling**: Diagnose the cause of extra-oral swellings and apply appropriate interventions. – **Soft Tissue Lesions**: Identify and manage various soft tissue lesions, understanding when conservative management or more aggressive treatments are indicated.	**Medical Expert** **Communicator** **Collaborator** **Leader** **Health Advocate** **Scholar** **Professional**																
		General Anaesthesia	– Learn to effectively assess patient behaviour and develop treatment plans based on patient cooperation and medical history. – Gain the ability to recognize the need for referral for advanced pharmacological behaviour management. – Acquire the skills to appropriately prescribe GA, understanding its indications and contraindications. – Learn to manage the admission process for GA, including how to request and analyse lab results and collect and document detailed medical and dental histories. – Develop competencies in managing medically compromised patients, including effective communication with healthcare providers. – Understand the consent process, including how to communicate effectively with children and their guardians. – Enhance understanding of the different anaesthetic agents, their uses and methods of administration. – Learn to recognize when premedication is necessary prior to administering GA. – Acquire a thorough understanding of setting up and using anaesthetic equipment safely during GA procedures. – Master the process of appropriate treatment planning for patients undergoing GA. – Develop a systematic approach to patient pre-assessment, clerking, and post-operative discharge. – Learn to manage emergency cases and handle pre, intra, and post-operative complications effectively. – Enhance skills in presenting clinical cases clearly and effectively. – Acquire the ability to keep accurate and detailed records, including clinical photographs under GA.	**Medical Expert** **Communicator** **Collaborator** **Leader** **Health Advocate** **Scholar** **Professional**																
	Hospital Dentistry		– Communication skills with the patient, guardian, and hospital staff – Management of medically compromised patients, including communications with the healthcare providers – Utilizing diagnostic tools to treatment plan and treat accordingly – Customizing dental treatment per patient behavioural and medical conditions – Recognition of need for advanced pharmacological behaviour management-GA – Recognition of the stable and controlled cases and refer them to their designated specialized dental centre for dental treatment – Record and note keeping	**Medical Expert** **Communicator** **Collaborator** **Scholar** **Professional**																

Program Details					Teaching Methods						Assessment Methods								
Year of Residency (Rotation)	Course Name	Topics/Sessions	Learning Outcomes *At the completion of the course residents will be able to:*	Skills Outcome (CanMEDS Roles)	Lectures	Practical simulation	Clinical practice	CBD	Group discussion	Literature review	Attendance	Participation	Practical/Clinical Task	Written Exam	OSCE	Oral Exam/CBD	Presentations	WBAs	Write-up
	Quality Improvement Project		– Develop the ability to critically evaluate clinical practices against established standards. – Enhance skills in data collection, analysis, and interpretation to assess practice performance. – Identify areas for improvement and implement changes to optimize patient care. – Improve understanding of audit cycles and their role in quality assurance. – Strengthen skills in reporting findings and making evidence-based recommendations.	**Medical Expert** **Communicator** **Collaborator** **Leader** **Health Advocate** **Scholar** **Professional**															
	Research		– Develop advanced research skills, including study design, data collection, and analysis. – Contribute original findings to the field, enhancing both academic and practical knowledge. – Strengthen critical thinking and problem-solving abilities through independent research. – Improve academic writing and communication skills for disseminating research results. – Foster the ability to conduct ethical and responsible research.																
YEAR 3 (R5) -ROTATION 2-	**Medical Education Course**		– Design and Implement Effective Teaching Plans – Provide Constructive Feedback and Assessment – Demonstrate Leadership in Clinical Education – Model Professionalism and Ethical Behaviour – Manage Diverse and Challenging Learning Environments – Incorporate Evidence-Based Practices into Teaching – Promote a Culture of Continuous Improvement	**Medical Expert** **Communicator** **Collaborator** **Leader** **Health Advocate** **Scholar** **Professional**															
	Paeditaric Dentistry UG Teaching		- Understand the concept of dental education - Demonstrate skills in student's supervision and assessment in clinical setting - Prepare and give lectures/seminars for students of all levels - Enhance knowledge of different didactic and clinical assessment methodologies - Develop self-instructional teaching material	**Medical Expert** **Communicator** **Collaborator** **Leader** **Scholar** **Professional**															
	Paediatric Dentistry VIII	**Scientific, evidence-based dentistry (Journal Club)**	Learning and skills outcomes are aligned with those of a similar session from the previous rotation.																
		Case-based Discussion	Learning and skills outcomes are aligned with those of a similar session from the previous rotation.																
		Clinical Case Review	Learning and skills outcomes are aligned with those of a similar session from the previous rotation.																
		Case Presentation	Learning and skills outcomes are aligned with those of a similar session from the previous rotation.																
		Clinics: – Consultant Clinic – Comprehensive Treatment Clinic – Casualty Clinic – General Anaesthesia	Learning and skills outcomes are aligned with those of a similar session from the previous rotation.																
		Joint Orthodontics-Paediatrics (JOP) Dentistry Clinic	- Assess and manage cases involving disturbances in tooth number, including hypodontia and the presence of supernumerary or supplemental teeth. - Diagnose and implement treatment plans for disturbances in tooth eruption such as delayed eruption, impacted teeth, ectopic teeth, asymmetry in eruption patterns, submergence/ankylosis, and primary failure of eruption. - Identify and manage disturbances in tooth formation including severe enamel and dentine defects, as well as fused or geminated teeth.	**Medical Expert** **Communicator** **Collaborator** **Health Advocate** **Professional**															

Program Details					Teaching Methods						Assessment Methods								
Year of Residency (Rotation)	Course Name	Topics/Sessions	Learning Outcomes *At the completion of the course residents will be able to:*	Skills Outcome (CanMEDS Roles)	Lectures	Practical simulation	Clinical practice	CBD	Group discussion	Literature review	Attendance	Participation	Practical/Clinical Task	Written Exam	OSCE	Oral Exam/CBD	Presentations	WBAs	Write-up
			- Develop treatment plans for crossbites, whether with or without displacement, and severe malocclusions involving Class II or III discrepancies. - Recognize and manage cases where upper permanent canines are not palpable by age 10-12 years, including those with or without peg-shaped laterals (due to risk of ectopic or impacted permanent canine). - Provide comprehensive management for severe crowding, overjet, and traumatic overbite. - identify and decide the appropriate management for severely hypomineralised, hypoplastic, or carious first permanent molars with questionable prognosis. - Manage retained primary teeth, especially those with an asymmetric pattern, and manage early loss of primary teeth requiring space maintainers or regain lost space in the dental arch. - Implement strategies to cease persistent non-nutritive habits such as digit sucking and fingernail biting that cause dental misalignments like open bites or crossbites. - Diagnose and coordinate the multidisciplinary management of cleft lip and palate and other related craniofacial anomalies. - Develop comprehensive treatment plans for complex malocclusions and anomalies.														
	Research		- Develop advanced research skills, including study design, data collection, and analysis. - Contribute original findings to the field, enhancing both academic and practical knowledge. - Strengthen critical thinking and problem-solving abilities through independent research. - Improve academic writing and communication skills for disseminating research results. - Foster the ability to conduct ethical and responsible research.	**Medical Expert** **Communicator** **Collaborator** **Leader** **Health Advocate** **Scholar** **Professional**															
YEAR 3 (R5) -ROTATION 3-	**Paeditaric Dentistry Interns Teaching**		– Understand the concept of dental education – Demonstrate skills in student's supervision and assessment in clinical setting – Prepare and give lectures/seminars for students of all levels – Enhance knowledge of different didactic and clinical assessment methodologies – Develop self-instructional teaching material	**Medical Expert** **Communicator** **Collaborator** **Leader** **Scholar** **Professional**															
	Paediatric Dentistry IX	**Scientific, evidence-based dentistry (Journal Club)**	Learning and skills outcomes are aligned with those of a similar session from the previous rotation.																
		Case-based Discussion	Learning and skills outcomes are aligned with those of a similar session from the previous rotation.																
		Clinical Case Review	Learning and skills outcomes are aligned with those of a similar session from the previous rotation.																
		Case Presentation	Learning and skills outcomes are aligned with those of a similar session from the previous rotation.																
		Clinics: – Consultant Clinic – Comprehensive Treatment Clinic – Casualty Clinic – General Anaesthesia	Learning and skills outcomes are aligned with those of a similar session from the previous rotation.																

First Year (R3)

The first training year (R3) of the Kuwait Board in Paediatric Dentistry (KBPD) comprises of both clinical and didactic teaching. Basic science courses will be covered during the first rotation (October – December); Research Methods in Clinical Dentistry, Embryology and Oral Histology, Head and Neck Anatomy, Local Anaesthesia in Dentistry, Medical Emergencies in the Dental Setting, Oral Pathology and Oral Medicine, Digital Dentistry and Dental Biomaterials, Oral Microbiology, Pharmacology in Dentistry, Contemporary Dental Photography, and Infection Control in Dental Health Care Settings. Residents will be assessed at the conclusion of each course as part of the formative assessment process during the first year.

Residents will be introduced to Paediatric Dentistry through a structured program of lectures and laboratory exercises during the first rotation. Furthermore, supplemental courses on Dental and Maxillofacial Radiology in Paediatric Dentistry, Medicolegal Considerations in Paediatric Dentistry Multidisciplinary Collaboration with Orthodontics, Conscious Sedation for Dental Treatment of Children and Adolescents, and Endodontics in Paediatric Dentistry will be conducted throughout the year. These courses are specifically designed to provide foundational knowledge and seamlessly integrate these basic sciences into clinical practice.

Furthermore, book and guidelines review sessions, seminars, case-based discussion sessions, and journal clubs will be conducted throughout the year.

Residents will work under close staff member supervision during consultant, comprehensive treatment, and casualty clinics. During these sessions, they will be treating patients under local anaesthesia with, or without, relative analgesia under multidisciplinary specialists' supervision. Residents will also actively participate in treating medically compromised and special needs children under general anaesthesia in the operation room of the main hospital.

The concept of audit will be introduced to residents early during the first training year. Residents are expected to present the outcome of the first cycle by the end of second rotation.

Residents will be assigned a research supervisor and are expected to select a research topic and develop a plan for conducting their research within the program's timeframe. To facilitate this process, a supplemental course titled 'Academic Writing and Research Skills' will be offered during the first rotation.

Second Year (R4)

The second year (R4) of the Kuwait Board in Paediatric Dentistry (KBPD) comprises of both clinical and didactic teaching. Didactic teaching will concentrate on the Paediatric dentistry specialty as the residents begin to proceed with their patient management from a specialist approach. Advanced Paediatric courses will be covered during the year; dental traumatology; advanced restorative techniques in paediatric dentistry; general anaesthesia; periodontology in paediatric dentistry; and cleft lip and palate. Residents will be assessed by the end of each course. These courses will allow the residents to further integrate into a multidisciplinary team, and collate the separate skills developed in the first year to provide comprehensive patient management.

Literature review sessions, seminars, case-based discussion sessions, and journal clubs will continue throughout the year to enhance knowledge of up-dated advances in the field.

Residents will continue to build on their clinical skills under close staff member supervision during their clinical sessions. They will also develop a better concept of developing rapport and continuation of treatment with their paediatric patients. Residents will actively participate in treating medically compromised, and special needs children, under general anaesthesia in an operation room of a main hospital. During their second year, residents will visit an outreach hospital for their General Anaesthesia sessions to increase their exposure of different hospital settings. Additional outreach clinics/visits will also be arranged during the year to broaden the patient diversification.

Residents will proceed with their quality improvement and research projects, with special attention to the designated time frames.

Third Year (R5)

The third year (R5) of the Kuwait Board in Paediatric Dentistry (KBPD) encompasses all the skills developed over the previous two years. At this point of their training, KBPD residents should have sufficiently built on their critical thinking and treatment planning to be able to manage patients on a specialist level. Advanced Paediatric Courses, such as Hospital Dentistry, will continue to build on more comprehensive and advanced skills that they may use in their future career pathways. These courses will allow the residents to further integrate into a multidisciplinary team, and collate the separate skills developed in the previous years to provide comprehensive patient management.

Teaching will also be part of the residents' responsibilities during their final year. Throughout this final year, residents will deliver lectures and supervise first-year residents in the simulation lab. They will also participate in teaching undergraduate dental students at Kuwait University and clinically supervise dental interns training in the Paediatric Dentistry Units. Residents' teaching roles will also include presentation sessions that further prepare them to effectively communicate complex information to diverse audiences, equipping them for future professional opportunities. To support this, an advanced course on Medical Education will be provided.

Journal Clubs, Case-Based Discussions, and Case Presentation sessions will persist throughout the fifth year. The continuation of these activities allows residents to consistently practice evidence-based dentistry and develops their capacity for autonomous decision-making as they transition into specialist roles.

Additionally, residents will continue to build on their clinical skills under close staff member supervision during their clinical sessions. They will also develop a better concept of developing rapport and continuation of treatment with their paediatric patients. Residents will actively participate in treating medically compromised, and special needs children, under general anaesthesia in an operation room of a main hospital. During their third year, residents will visit an outreach special needs hospital to further increase their exposure of different hospital settings.

Residents will proceed with their research projects, with special attention to the designated time frames.

Topics Covered in the Kuwait Board in Paediatric Dentistry Programme

- Basic sciences course
    - Research Methods in Clinical Dentistry
    - Embryology and Oral Histology
    - Head and Neck Anatomy
    - Local Anaesthesia in Dentistry
    - Medical Emergencies in the Dental Setting
    - Oral Pathology and Oral Medicine
    - Digital Dentistry and Dental Biomaterials
    - Oral Microbiology
    - Pharmacology in Dentistry
    - Introduction to Applied Clinical Dentistry
    - Infection Control in Dental Health Care Settings

- Paediatric Dentistry I-IX
        - Introduction to paediatric dentistry
        - Dental Photography
        - Dental and Maxillofacial Radiology in Paediatric Dentistry Course
        - Academic Writing and Research Skills
        - Book and Guidelines Review
        - Book and Guidelines Review Teaching
        - Literature Review
        - Seminars
        - Journal Club
        - Case Based Discussion Sessions
        - Clinical Case Review Sessions
        - Case Presentation Sessions
        - Paediatric Dentistry Teaching
        - Clinics
        - Consultant Clinic
        - Comprehensive Treatment Clinic
        - Casualty Clinic
        - General Anaesthesia
        - Joint Orthodontics-Paediatric (JOP) Dentistry Clinic

- Advanced Multidisciplinary Courses
    - Medicolegal Considerations in Paediatric Dentistry
    - Conscious sedation for dental treatment of children and adolescents
    - Multidisciplinary collaboration with orthodontics
    - Endodontics in paediatric dentistry
    - General Anaesthesia
    - Advanced Restorative Techniques in Paediatric Dentistry
    - Periodontology in Paediatric Dentistry
    - Dental Traumatology
    - Cleft Lip and Palate
    - Hospital Dentistry
    - Medical Education

- Quality Improvement Project
- Research

Learning Outcomes

At the completion of the programme, residents will be able to:

- Understand the principles of research methodology, critical appraisal, and the hierarchy of evidence in scientific inquiry.
- Adhere to ethical standards when conducting research and interacting with patients and colleagues.
- Acquire a fundamental understanding of general embryonic development, with a specialized focus on the growth and development of head and neck structures, and their importance in patient assessment and treatment.
- Exhibit proficiency in recognizing and interpreting the normal and pathological microscopic structures of various oral tissues.
- Develop detailed knowledge of surface anatomy, osteology, blood supply, innervation, and lymphatic drainage of the head and neck structures.
- Understand the various types of local anaesthesia agents, including their properties, dosages (child-weight considerations), indications, and contraindications.
- Recognize clinical signs and symptoms of oral diseases, and manage these in light of physiological, biochemical, and histopathological changes.
- Develop the ability to diagnose and differentiate common oral mucosal and salivary gland disorders, systemic manifestations, orofacial pain, temporomandibular disorders, and manage medically compromised patients.

- Utilize principles of radiographic interpretation to accurately identify and differentiate maxillofacial hard tissue lesions.
- Take accurate radiographs with correct angulation and sizing, and manage radiographic challenges effectively.
- Understand the physical, chemical, mechanical, and biological properties of materials used in paediatric dentistry.
- Acquire a solid understanding of infectious diseases and lesions affecting the oral cavity.
- Effectively select, collect, and transport clinical specimens while maintaining aseptic procedures in the dental clinic.
- Master the essential principles for capturing high-quality intra- and extra-oral clinical photographs.
- Follow and implement infection control guidelines and regulations diligently.
- Diagnose the need for conscious sedation and effectively and safely deliver and monitor N2O sedation, including proper record-keeping and equipment safety management.
- Assess malocclusion and abnormalities of tooth position and eruption, knowing when to seek orthodontic consultation or make referrals.
- Understand the principles of space management in paediatric dentistry.
- Learn the principles of child cognitive development and behavioural psychology, and the various behaviour management techniques used in paediatric dentistry.
- Use pharmacological methods (sedation and general anaesthesia) effectively to manage dental behavioural problems in children.
- Develop strategies for preventing and managing dental caries in primary and immature permanent dentition, including the use of fluoride products and advanced restorative techniques.
- Investigate and assess the aetiology of traumatic dental injuries in children and adolescents.
- Assess and manage the developing dentition and orofacial traumas of paediatric patients.
- Assess the developing dentition of children for potential issues and anomalies.
- Uphold ethical standards in research and in interactions with patients and colleagues.
- Assessment and management of orofacial traumas of paediatric patients
- Diagnose, manage and treat patients with oral and maxillofacial pathologies or conditions
- Demonstrate an understanding of the Paediatric Dentist’s role in the management of the child with cleft lip and palate (CLP)
- Diagnose, manage and treat patients with cleft lip and palate (CLP)
- Take accurate radiographs for patients, with correct angulation and sizing
- Learn to manage radiographic challenges when managing uncooperative patients
- Understand reasoning for prescription of radiographs for patients
- Recognise common faults and errors in radiographs and learn to manage them

- Understand alternatives to radiographs when determining some diagnoses
- The principles of research methodology, critical appraisal and hierarchy of evidence
- Ethical standards when performing research and dealing with patients and colleagues
- The principles of child cognitive development and behavioural psychology and the different behaviour management techniques used in paediatric dentistry
- The use of specific pharmacological methods [sedation and general anaesthesia] to deal with dental behavioural problems in children
- Ethical standards when performing research and dealing with patients and colleagues
- Dental education: including demonstrating skills in students' clinical supervision and assessment, preparing and conducting lectures/seminars, and develop self-instructional teaching material
- Community dentistry; role of Paediatric Dentists, providing community care to difficult-access population, public health education
- Multidisciplinary care with Orthodontists, and assessment, and management of interceptive orthodontics needs
- The anatomy of the paediatric airway with an understanding of the differences to the adult airway
- The indications and contraindications of GA
- The complications associated with GA, their management and precautions
- GA induction drugs, including their indications and contraindications
- Pre-medication prescription

Skills Outcomes

Following the CanMEDS physician's competency framework, which has been adopted and implemented by KIMS, our residents must develop skills relevant to each CanMEDS domain. These include:

- **Medical experts**
  As Medical Experts, Paediatric Dentists integrate all the CanMEDS Roles, applying medical knowledge, clinical skills, and professional values in their provision of high-quality and safe patient-centred care. Medical Expert is the central physician Role in the CanMEDS Framework and defines the physician's clinical scope of practice.
    a. Residents should practice Paediatric Dentistry within their defined scope of practice and expertise:
        i. Demonstrate a commitment to high-quality care of their patients
        ii. Apply knowledge of the clinical and biomedical sciences acquired

iii. Perform appropriately timed clinical assessments with recommendations that are presented in an organised manner
iv. Carry out professional duties in the face of multiple, competing demands

b. Perform a patient-centred clinical assessment, and establish a management plan:
    i. Prioritise issues to be addressed in a patient encounter
    ii. Elicit a history, perform an intra- and extra-oral exam, select appropriate investigations and interpret their results to aid in diagnosis and management, disease prevention, and health promotion
c. Plan and perform procedures and therapies for assessment and/or management:
    i. Determine the most appropriate procedures or therapies
    ii. Obtain, and document, informed consent, explaining the risks and benefits of, and the rationale for, a proposed procedure or therapy
    iii. Prioritise a procedure or therapy, while considering clinical urgency and available resources
    iv. Perform a procedure in a skilful and safe manner, adapting to unanticipated findings or changing clinical circumstances
d. Establish plans for on-going care and, when appropriate, timely consultation
e. Actively contribute, as an individual and as a member of a team providing care, to the continuous improvement of health care quality and patient safety:
    i. Recognise and respond to harm from health care delivery, including patient safety incidents
    ii. Adopt strategies that promote patient safety and address human and system factors

- **Communicator**

As communicators, Paediatric Dentists form relationships with patients and their families, that facilitate the gathering and sharing of essential information for effective health care.

a. Establish professional therapeutic relationships with patients and their families
    i. Communicate using a patient-centred approach that encourages patient trust and autonomy and is characterized by empathy, respect, and compassion
    ii. Respond to a patient's non-verbal behaviours to enhance communication
    iii. Manage disagreements and emotionally charged conversations
    iv. Adapt to the unique need and preferences of each patient, and to his or her clinical condition and circumstances
b. Elicit and synthesize accurate and relevant information, incorporating the perspectives of patients and their families

i. Use interviewing skills to effectively gather relevant biomedical and psychosocial information
ii. Provide a clear structure, and manage the flow of an entire patient encounter
iii. Seek and synthesize relevant information from other sources including the patients' family

c. Share healthcare information and plans with patients and their families
i. Share information and explanations that are clear, accurate and timely, while checking for patient and family understanding
ii. Disclose harmful patient safety incidents to patients and their families accurately and appropriately

d. Document and share written and electronic information about the medical encounter to optimize clinical decision-making, patient safety, confidentiality, and privacy
i. Document clinical encounters in an accurate, complete, timely and accessible manner, in compliance with regulatory and legal requirements
ii. Communicate effectively using a written health record, electronic medical record, or other digital technology
iii. Share information with patients and others in a manner that respects patient privacy and confidentiality and enhances understanding

- **Collaborator**

As Collaborators, Paediatric Dentists work effectively with other health care professionals to provide safe, high-quality, patient-centred care.

a. Work effectively with dentists, physicians and other colleagues in the health care professions
i. Establish and maintain positive relationships with dentists and other colleagues in the health care professions to support relationship centred collaborative care
ii. Negotiate overlapping and shared responsibilities with dental professionals and other colleagues
iii. Engage in respectful shared decision making with dental professionals and other colleagues

b. Work with dental professionals and other colleagues in the health care professions to promote understanding, manage differences, and resolve conflicts
i. Show respect towards collaborators
ii. Implement strategies to promote understanding, manage differences, and resolve conflicts in a manner that supports a collaborative culture

c. Hand over the care of a patient to another health care professional to facilitate continuity of safe patient care
    i. Determine when care should be transferred to another dental specialist or health care professional
    ii. Demonstrate safe handover of care, using both verbal and written communication, during a patient transition to a different health care professional, setting, or stage of care

- **Leader**

  As Leaders, Paediatric Dentists engage with others to contribute to a vision of a high-quality health care system and take responsibility for the delivery of excellent patient care through their activities as clinicians, administrators, scholars, or teachers.

  - Contribute to the improvement of health care delivery in teams, organizations, and systems
    i. Apply the science of quality improvement to contribute to improving systems of patient care
    ii. Contribute to a culture that promotes patient safety
    iii. Analyse patient safety incidents to enhance systems of care
  - Demonstrate leadership in professional practice
    i. Demonstrate leadership skills to enhance health care
    ii. Facilitate change in health care to enhance services and outcomes
  - Manage career planning, finances, and health human resources in a practice
    i. Set priorities and manage time to integrate practice and personal life
    ii. Manage career and practice

- **Health advocate**

  As Health Advocates, Paediatric Dentists contribute their expertise and influence as they work with communities or patient populations to improve general and dental health. They work with those they serve to determine and understand needs, speak on behalf of others when required, and support the mobilization of resources to effect change.

  a. Respond to an individual patient's health needs by advocating with the patient within and beyond the clinical environment:
     i. Work with patients to address determinants of health that affect them and their access to needed health services or resources
     ii. Work with patients and their families to increase opportunities to adopt healthy behaviours

iii. Incorporate disease prevention, health prevention, and health surveillance into interactions with individuals and patients

- **Scholar**

  As Scholars, Paediatric Dentists demonstrate a lifelong commitment to excellence in practice through continuous learning, evaluating evidence, and contributing to scholarship.

  a. Engage in the continuous enhancement of their professional activities through on-going learning:
     i. Develop, implement, monitor, and revise a personal learning plan to enhance professional practice
     ii. Identify opportunities for learning and improvement by regularly reflecting on and assessing their performance using various internal and external data sources
     iii. Engage in collaborative learning to continuously improve personal practice and contribute collective improvements in practice
  b. Integrate best available evidence into practice
     i. Recognize practice uncertainty and knowledge gaps in clinical and other professional encounters and generate focused questions that address them
     ii. Identify, select, and navigate pre-appraised recourses
     iii. Critically evaluate the integrity, reliability, and applicability of health-related research and literature
     iv. Integrate evidence into decision making in their practice
  c. Contribute to the creation and dissemination of knowledge and practices applicable to health:
     i. Demonstrate an understanding of the scientific principles of research and scholarly inquiry and the role of research evidence in health care
     ii. Identify ethical principles for research and incorporate them into obtaining informed consent, considering potential harms and benefits, and considering vulnerable populations
     iii. Contribute to the work of a research programme
     iv. Pose questions amendable to scholarly inquiry and select appropriate methods to address them
     v. Summarize and communicate to professional and lay audiences, including patients and their families, the findings of relevant research and scholarly inquiry

- **Professional**

  As Professionals, Paediatric Dentists are committed to the health and well-being of individual patients and society through ethical practice, high personal standards of behaviour, accountability to the profession and society, physician-led regulation, and maintenance of personal health.

  a. Demonstrate a commitment to patients by applying best practices and adhering to high ethical standards
     i. Exhibit appropriate professional behaviours and relationships in all aspects of practice, demonstrating honesty, integrity, humility, commitment, compassion, respect, altruism, respect for diversity, and maintenance of confidentiality
     ii. Demonstrate commitment to excellence in all aspects of practice
     iii. Recognize and respond to ethical issues encountered in practice
     iv. Recognize and manage conflicts of interest
     v. Exhibit professional behaviours in the use of technology-enabled communication
  b. Demonstrate a commitment to society by recognizing and responding to societal expectations in health care
     i. Demonstrate accountability to patients, society, and the profession by responding to societal expectations of Paediatric Dentists
     ii. Demonstrate a commitment to patient safety and quality improvement
  c. Demonstrate a commitment to the profession by adhering to standards and participating in dentist-led regulation
     i. Fulfil and adhere to the professional and ethical codes, standards of practice, and laws governing practice
     ii. Recognize and respond to unprofessional and unethical behaviours in Paediatric Dentists and other colleagues in the health care professions
     iii. Participate in peer assessment and standard setting
  d. Demonstrate a commitment to Paediatric Dentist health and well-being to foster optimal patient care
     i. Exhibit self-awareness and manage influences on personal well-being and professional performance
     ii. Manage personal and professional demands for a sustainable practice throughout the physician life cycle
     iii. Promote a culture that recognizes, supports, and responds effectively to colleagues in need

BASIC SCIENCE COURSES

Basic Science Courses

These series of interdisciplinary courses are designed to improve and expand knowledge in the basic science foundation for the practice of Paediatric Dentistry. Some of the courses are brief and basic, while others are more extensive and comprehensive. Didactic lectures will be supplemented with active learning exercises in small-group environments allowing for implementation of these sciences in clinical scenarios. Completing and successfully passing Basic Sciences course is a prerequisite to progressing towards clinical rotations and be eligible to sit the R3 final year exam. Failing to pass this course requirement will automatically result in an unsatisfactory ITER report. Please see the Remediation Policy section for further explanation.

The Course Modules

No.	Course Title
1	Research Methods in Clinical Dentistry
2	Embryology and Oral Histology
3	Head and Neck Anatomy
4	Local Anaesthesia in Dentistry
5	Medical Emergencies in the Dental Office
6	Oral Pathology and Oral Medicine
7	Digital Dentistry and Dental Biomaterials
8	Oral Microbiology
9	Pharmacology in Dentistry
10	Introduction to Applied Clinical Dentistry
11	Infection Control in Dental Health Care Settings

Supplemental recommended courses must be arranged individually through a recognised institute or to ensure validity if completed before, by the residents prior to the start of clinical sessions as per the recommendations of the Ministry of Health of Kuwait. The courses ensure safety of patients in clinical settings and are highly recommended by the KBPD, KBO, KBP, and KBE. Residents that do not show evidence of a valid licence for BLS will not be able to start clinical sessions in the second rotation. Although not compulsory, the other courses are highly

recommended. These courses include Paediatric Advanced Life Support (PALS) and Advanced Cardiovascular Life Support (ACLS).

Examination Policy

Exams will be held after completion of all basic sciences subjects, during the month of December. There are four examinations, which all have a passing score of 70%:

- Two written Exam papers
- Objective Structured Clinical Examination (OSCE)
- Research Methods in Clinical Dentistry Exam

Examination	Details
Written Exam	Two written Exam papers includes multiple choice questions (MCQ) and short answer questions (SAQ) to assess knowledge in the following disciplines of the Basic Sciences Course: • Embryology and Oral Histology • Head and Neck Anatomy • Local Anaesthesia in Dentistry • Medical Emergencies in the Dental Setting • Oral Pathology and Oral Medicine • Oral Microbiology • Digital Dentistry and Dental Biomaterials • Pharmacology in Dentistry • Introduction to Applied Clinical Dentistry
OSCE	The OSCE is a practical examination with multiple stations. This exam will be used to assess clinical competencies in the different disciplines of the Basic Sciences Course, including: • Embryology and Oral Histology • Head and Neck Anatomy • Local Anaesthesia in Dentistry • Medical Emergencies in the Dental Setting • Oral Pathology and Oral Medicine • Oral Microbiology • Digital Dentistry and Dental Biomaterials • Pharmacology in Dentistry • Introduction to Applied Clinical Dentistry
Research Methods in Clinical Dentistry Exam	The Research Methods in Clinical Dentistry Exam is a written exam with MCQ and SAQ questions.

Remediation Policy

Course organisers will offer remediation if a resident is unsuccessful in passing any of the three exams. This remediation policy covers qualification criteria, remediation process, remediation grading, maximum remediation attempts, and examination schedules.

1. Qualification criteria for remediation:

- The resident has completed all assigned work for the course
- The resident has attended the course regularly – not less than 80% of the sessions
- The resident has demonstrated competency in some, but not all, areas of the course

2. Remediation process:

1. Reset Exam 1:

   If a resident has failed one, or more, exams, he or she will complete the following components within four weeks of the unsuccessful exam date: a reset exam within four weeks (reset exam number 1).

2. Reset Exam 2:

   If a resident was unsuccessful in passing the reset exam number 1, he or she will resume regular academic duties. The resident will attend clinical duties as an *observer* only. A further attempt to take the exam will take place four to six weeks after the second rotation starts in January.

   Format of Reset Exam 2 will be as follows:

   1. A written essay (5,000 - 10,000 words) on a topic agreed on by the course organizer.
   2. A 20-minute presentation on the topic agreed on.
   3. Reset exam of the same format as Exam 1 and Reset Exam 1.

In the event the resident is unsuccessful in passing Reset Exam number 2, the resident will **not** be eligible to take the end-of-year R3 exam because they have not passed the Basic Sciences Course which is a prerequisite to taking the exam.

The ITER evaluation will report the resident as **not eligible to progress** to the next academic level (R4).

The Resident will be placed on probation immediately and will be limited to the following:

- Attend academic classes: as a listener and will not be tested or evaluated like their R3 peers
- Attend clinical duties as an observer **only** as passing the Basic Sciences course is a prerequisite to start clinical duties on patients
- Resident will repeat the year

3. Reset Exam 3:

The second failure will place the resident on probation according to KIMS policy. The resident will join the new junior residents in the following academic year for the Basic Sciences course and exam (reset exam number 3).

If successful in passing the exam, the resident resumes their clinical and academic work. **If the resident is unsuccessful in passing reset exam number 3, they will no longer be eligible to complete their training and will exit the programme, in line with KIMS policy.**

Residents should note that they are allowed two probation periods during their studies. Any future probations and failures will result in immediate dismissal from the programme.

3. Remediation grading

Grading for reset exams is individually defined for each subject, as outlined in the handbook. It is important to note that the passing mark for the reset exam is 70%.

Reset Exam 2: The resident must pass each section of the remediation exam. The resident must score no less than 70% in each of the following:

1. Essay
2. Presentation
3. Written exam

Reset Exam 3: the resident is required to repeat the whole course. The resident will be evaluated on the following:

1. Attendance: Excused absences should **not exceed 15%** of the total course content. Failure to attend without a reasonable excuse will result in immediate failure.
2. Course participation and homework must be completed and passed according to each course requirement.
3. End of course exam must be passed with a 70% passing mark.

4. Maximum remediation attempts – 3 attempts

- Remediation attempt number 1: within four weeks of the failed exam: reset exam
- Remediation attempt number 2: within 4-6 weeks after the end of the basic sciences course (along with the essay and presentation)
- Remediation attempt number 3: repeat course attendance and requirements in the following academic year

5. Examination scheduling

Exams dates are set and will be completed within four weeks. The only acceptable excuse for rescheduling an examination, or oral evaluation, is a valid medical excuse. These excuses must be received in advance and accompanied by a letter from the Programme Director.

6. Attendance

Attendance is an essential part of the programme. Although medical leave of absence is accepted, it is essential that residents comply with the policies and procedures for leaves during postgraduate training. Please note that this rotation is a three-month rotation, and therefore leaves must not exceed 10 working days with 75% attendance. Leaves must be approved by the program director/ designee. For a detailed description of various leaves and circumstances, please refer to the 'KIMS manual of policy and procedure' ('policy and procedures for leaves during postgraduate training' section 2.1-2.8.7). Unjustified leaves may not be accepted at the discretion of the Program Director. Any unjustified absences will be reported by course coordinators to their respective Program Directors. Appropriate actions will be agreed upon by the Program Director and KIMS postgraduate office. Further actions will be carried out according to the KIMS rules and regulations. Please refer to the 'KIMS manual of policy and procedure' for further information.

Research Methods in Clinical Dentistry

This course provides a practical introduction to research methodology in clinical dentistry. It is designed to enable residents to gain a familiarity with research in the field, to become conversant in selected methods, and apply principles to issues in public health, medicine, dentistry, and related fields.

The course starts with basic principles of how, where, and what information residents should search for. It then goes on touching on essential topics in epidemiology and biostatistics. Epidemiology is the science underlying public health and is used by individuals in almost all arenas of health. Epidemiology can be used to address issues of environmental health, medicine, dentistry, injuries, psychiatric disorders, genetics, and social inequities, among other topics. Biostatistics is often used to investigate the epidemiology of a disease or health issue, and the course will discuss biostatistics concepts as part of the science of population health.

During the course, residents will learn about the design and interpretation of epidemiological studies and the statistical methods that underpin many of their founding principles. This short course is intended to be an intensive introduction to epidemiology and biostatistics and at the end of the course residents will learn what Evidence-Based Dentistry (EBD) is, how to read a scientific article and be able to critically appraise it well.

Aims:

- Residents should understand how epidemiology and biostatistics can be applied to the scientific methodology in clinical dentistry.
- Residents should be able to read, evaluate and critique scientific articles
- Residents should demonstrate knowledge in evidence-based dentistry and its importance in clinical practice

Learning Outcomes:

At the completion of the course residents will be:

- Able to understand the meaning and importance of research to science and to clinical dentistry.
- Critical consumers of the public health, medical, and dental literature by understanding the basic principles and methods of epidemiology, including disease (outcome) measures, measures of association, study design options, bias, confounding, and effect modification
- Able to interpret descriptive epidemiologic results in order to develop hypotheses about possible risk factors for a disease
- Able to design valid and efficient studies to address public health and clinical problems
- Able to organise, summarise, and display quantitative data

- Be capable of critically reading and reviewing scientific articles in their area of specialisation, with special attention to understanding whether correct statistical analyses were chosen and properly applied
- Able to understand the hierarchy of strength of evidence and the concept of evidence-based practice
- Comfortable interpreting statistical methods for calculating summary estimates, measures of variability, and confidence intervals

Lectures' Timetable:

No.	Session Title	Intended Learning Outcome	Readings	Assignments
1	Introduction to Course and Research (Lecture)	– Describe the course to the student – Outline student responsibility – Outline grading system in the course – Outline the distribution of lectures – Define the meaning of the research – Outline the importance of research – Outline the research process and type of research – Describe writing-up articles	Handout distributed to residents	
	Searching for Scholarly Dental Information (PBL – Self-directed Learning)	– Demonstrate the ability to browse the articles by name or subject – Demonstrate the ability to form a dental search strategy – Compose a keyword for searching procedures – Prepare a search strategy for the topic – Choose the appropriate key words – Operate PUBMED search using the internet – Illustrate how to save and use searched strategy and search output	Handout distributed to residents	
	(PBL - Resident Presentations)		COURSERA Online	

2	Epidemiology I Lecture	– Define epidemiology, epidemic, epidemic and pandemic – Differentiate between prevalence and incidence – Calculate prevalence and incidence – Define exposure, outcome, and covariate – Differentiate between descriptive and analytical studies – Differentiate between observational and interventional studies – Recognize types, advantages, and disadvantage of each study design	Handout distributed to residents	
	Identifying different study designs (PBL – Self-directed Learning)	– Demonstrate the ability to identify the study designs – Demonstrate the ability to form a dental search strategy to identify studies based on design	Handout distributed to residents	
	(PBL - Resident Presentations)		COURSERA Online	Quiz 1
3	Epidemiology II (Lecture)	– Recognize the types of variables – Recognize the confidence interval – Recognize specificity and sensitivity – Recognize steps for hypothesis testing – Recognize the errors of hypothesis testing – Interpret the meaning of p value in hypothesis testing – Understanding errors in hypothesis testing	Handout distributed to residents	
	Understanding hypothesis testing	– Demonstrate the ability to identify the terms p value, type 1 and 2 errors, bias confounding	Handout distributed to residents	

	(PBL – Self-directed Learning)	– Demonstrate the ability to identify bias in studies		
	(PBL - Resident Presentations)		COURSERA Online	Quizzes #10, 11, 16
4	Epidemiology III (Lecture)	– Understand different terms for measurement of association (Odds ratio, risk ratio, etc) – Calculate measure of association for cross sectional, cohort, case control and RCT	Handout distributed to residents	
	Searching for Scholarly Dental Information (PBL – Self-directed Learning)	– Demonstrate the ability to identify and interpret the measures of association in studies	Handout distributed to residents	
	(PBL - Resident Presentations)		COURSERA Online	Quizzes #17, 18
5	Biostatistics I (Lecture)	– Recognize basic terminology in statistics – Describe types and level of measurement of variables – Recognize sampling techniques – Differentiate between probability and non-probability sampling – Interpret frequency tables – Interpret measures of central tendency – Recognize advantages of mean, median and mode – Recognize circumstances whereby measured of central tendency should not be used	Handout distributed to residents	

	Reviewing Statistics of published literature (PBL – Self-directed Learning)	– Interpret results of statistical analysis – Differentiate clinical from statistical significance – Summarise the role of the editor add other scientists in the peer review process – Describe levels of measurement	Handout distributed to residents	
	(PBL - Resident Presentations)		COURSERA Online	Quizzes #2-5, 12-15
6	Biostatistics II (Lecture)	– Recognize features of a box plot – Recognize bar and pie charts as charts used in nominal/ordinal data – Describe features of histogram and stem and leaf plot – Describe trends in a line chart – Recognize advantages of standard deviation, range, variance and interquartile range – Recognize circumstances whereby measured of spread should not be used – Describe the meaning of precision in statistics – Interpret standard error and confidence intervals – Choose an appropriate statistical test for hypothesis	Handout distributed to residents	
	Training on SPSS Statistical Package (PBL – Self-directed Learning)	– Demonstrate who to manipulate and recode numbers in the data sheet – Calculate mean median mode central tendency and central dispersion – Demonstrate ability to categorise variables according to their frequency distribution – Perform recoding of the variables into new variables	Handout distributed to residents	

		– Calculate the p value and values of chi square, t-test and ANOVA – Interpret the meaning of significant association between variables		
	PBL - Resident Presentations:		COURSERA Online	Quizzes #6-9
7	Evidence Based Dentistry I (Lecture)	– Define evidence-based dentistry – Define the art and science of dentistry – Rate the quality of the literature – Define systematic review – Recognize how to conduct a systematic review – Recognize examples of evidence-based dentistry	Handout distributed to residents	
	End Note Hands-on (PBL – Self-directed Learning)	– Explain the different styles of reference – Demonstrate how to manually write reference in Harvard and Vancouver styles – Demonstrate the skill in writing references – Understand the reference styles used in some of the popular dental journals – Explain the process of uploading and importing references from PubMed, google scholar – Demonstrate how to import references from web of science – Explain the process of searching for full text using endnote software – Demonstrate the process of adding a new reference – Explain on how to insert one or move references in a word document – Demonstrate how to format and edit bibliography	Handout distributed to residents	

	(PBL - Resident Presentations)		COURSERA Online	Quiz
8	Evidence Based Dentistry II (Lecture)	– Define the responsibilities of practitioners – Recognize the current state of the science – Recognize the limitations of evidence-based dentistry – Recognize the sources of literature including textbooks and peer-reviewed journals – Judge the quality of a journal including a) peer review b) journals' sponsorship c) editorial board, advisory board, consultants d) nature of the papers e) advertisement f) production standards.	Handout distributed to residents	
	Discussion of Critical Appraisal I (PBL – Self-directed Learning)	– Illustrate the ability of students to critically appraise the literature and present it in a logical manner. – Explain the process of performing critical appraisal of cohort and case control studies – Demonstrate the skill of appraising cohort and case control studies	Handout distributed to residents	
	(PBL - Resident Presentations)		COURSERA Online	Quiz
9	Evidence Based Dentistry III (Lecture)	– Recognize the critical reading-evaluating the quality of a published paper – Recognize the hierarchy of the quality of information – Recognize the quality issues in judging research reports – Judge the quality issues in narrative reviews of the literature	Handout distributed to residents	

		– Judge the quality issues in commentaries – Understand the principles of critical appraisal and its role in evidence-based practice – Appraise the validity and reliability of research papers – Recognize the relevance of published research – Recognize the critical appraisal of different types of study designs – Appraisal of an RCT and Systematic Review using a critical appraisal checklist – Appraise the validity and reliability of research papers – Assess the relevance of published research to your own work		
	Discussion of Critical Appraisal II PBL – Self-directed Learning	– Illustrate the ability of students to critically appraise the literature and present it in a logical manner. – Explain the process of performing critical appraisal of systematic reviews and controlled trials – Demonstrate the skill of appraising systematic reviews and controlled trials	Handout distributed to residents	
	PBL - Resident Presentations		COURSERA Online	Quiz
10	**Final Exam**	**THEORY EXAM** Comprehensive		
		PRACTICAL EXAM Journal Review and Viva		

Assessment Methods:

- **30% Attendance and participation in class discussion- questions and critiques**
- **70% - Final Exam**
  During the exam week of the course, each resident will sit for a written exam which consists of multiple-choice questions. The exam will count towards 70% of the grade.

Recommended Reading:
There are two suggested textbooks for this course, one for the epidemiology part and another for the statistical part.

- **Epidemiology Text:** The epidemiology textbook is *Oral Health Epidemiology: Principles and Practice, 1st Edition by Amit Chattopadhyay.* Other class readings material will be available either in class or online, including journal articles, citations, and weblinks. Please review the syllabus to determine which readings are required and which are optional.
- **Biostatistics Text:** The statistical textbook is *Biostats: Data Analysis for Dental Health Care Professionals, Revised Edition by Jane A. Weintraub.* Other textbooks that a resident may already own may also be acceptable, since the material covered during the course is basic and included in most introductory texts.

Embryology and Oral Histology

This course is intended to provide the residents with fundamental knowledge of general embryonic development and in-depth knowledge about growth and development of structures of the head and neck, and their relevance to the assessment and treatment of patients.

Aims:

- To understand the basic knowledge of general embryonic development
- To understand in-depth knowledge about the embryonic development of head and neck structures
- To describe normal and abnormal facial development including common malformations
- Recognise histological structures in the oral cavity and the surrounding structures

Learning Outcomes:

- Attain a comprehensive understanding of the general development of the face and nasal cavity.
- Gain insight into the development of the palate.
- Acquire knowledge about the developmental processes of the tongue.
- Understand the developmental aspects of salivary glands.
- Explore the development of tooth structures and supporting tissues.
- Familiarize oneself with the development of facial malformations and dental anomalies.
- Comprehend the structure of enamel, dentin, pulp, cementum, and bone.
- Understand the structure of the periodontal ligament.
- Recognize the stages and composition of the tooth apparatus formation.

Lectures' Timetable:

No.	Topic
1	Histology of the oral cavity and surrounding structures
2	Dental Embryology
3	Development of face, oral soft and hard tissues: "Face and teeth disclosed"

Assessment Methods:

- 70% - Final Written Exam and OSCE
- 30% - Attendance and participation in class discussion- questions and critiques

Recommended Reading:

- Langman's Medical Embryology - TW Sadler (14^{th} ed.)

- Student Workbook for Illustrated Dental Embryology, Histology and Anatomy. Mar 12, 2015 – Margaret J. Fehrenbach RDH MS

Head and Neck Anatomy

This course will cover the basic anatomy of the head and neck, with emphasis on the clinical significance of the structures and processes of each region. Lectures will provide an overview of the surface anatomy, osteology, blood supply, innervation, and lymphatic drainage of each of the structures in the head and neck. Small group clinical sessions will allow the residents to assess and transfer theoretical knowledge to clinical situations, such as recognising developmental deformities, infections, and head traumas.

Aims:
Be familiar and recognise important structures in the head and neck region, and transfer this knowledge to clinical applications, and relate to radiological images and studies

Learning Outcomes:
Upon completion of this course, all dental residents should be able to:

- Use appropriate terminology to effectively communicate information related to the anatomy of the head and neck
- Identify anatomic landmarks of the head, face, neck, and oral cavity
- Describe the anatomy of the oral structures including skeletal, muscular, lymphatic, circulatory, and nervous systems. Specifically, students will be able to:
    a. Identify and describe the features of cranial and facial bones.
    b. Identify and describe the anatomy and functions of the temporomandibular joint, in health and disease.
    c. Identify the origin, insertion, and describe the actions of all muscles of mastication and face.
    d. Identify and describe the location, structure, and function of the cranial nerves, including the structures they innervate.
    e. Identify and describe the location, structure, and function of the salivary glands.
    f. Identify the location and structure and describe the function of the lymph nodes of the head and neck.
    g. Identify and describe the location, structure, and function of the major blood vessels of the head and neck.
- Identify all extra-oral and intra-oral structures and landmarks that are visible or palpable on a resident partner, including muscles, lymph nodes, bones, nerves, and mucosal landmarks
- Accurately locate all oral structures, discuss their clinical significance, and demonstrate an understanding of the complete anatomy of the head and neck
- Apply all reviewed information in daily clinical practice

Lectures' Timetable:

No.	Topic
1	Triangles of the Neck
2	Skull, Cranial Cavity, Foramens and Cranial Nerves
3	Infratemporal Region- Muscles of Mastication
	Infratemporal Region- Mandibular n. and Maxillary n.
	Infratemporal Region- Maxillary artery
4	TMJ
5	Oral Cavity and Palate
	Salivary Glands
6	Nasal Cavity and Nasal Sinuses
	Summary of Blood Supply and Lymphatic Drainage
7	Principles of Management of Odontogenic Infections

Assessment Methods:

- 70% - Final Written Exam and OSCE
- 30% - Attendance and participation in class discussion- questions and critiques

Recommended Reading:

- Illustrated Anatomy of the Head and Neck. Jan 19, 2016 – Margaret J. Fehrenbach RDH MS, Susan W. Herring PhD
- Student Workbook for Illustrated Dental Embryology, Histology and Anatomy. Mar 12, 2015 – Margaret J. Fehrenbach RDH MS

Presentation List:

No.	Topic	Reading Materials
1	Anterior and Posterior Triangle of the Neck	Chapter 2 and 11 of M.J. Fehrenbach textbook
2	Skull, Cranial Cavity (The bones of skull, foramens, and cranial nerves only	Chapter 3 and 4 of M.J. Fehrenbach textbook
3	Face and Scalp (Muscles of facial expression with blood and nerve supply)	Chapter 4 of M.J. Fehrenbach textbook
4	Temporal fossa AND Infratemporal Fossa (Mandibular nerve, Maxillary nerve and Maxillary artery)	Chapter 6 and 8 of M.J. Fehrenbach textbook
5	TMJ and Muscles of Mastication	Chapter 5 of M.J. Fehrenbach textbook and Chapter 8: Fundamentals of Oral Histology and Physiology by Hand and Frank
6	Oral Cavity and Palate	Chapter 4 and of M.J. Fehrenbach textbook
7	Parotid Gland and Salivary glands	Chapter 7 of M.J. Fehrenbach textbook and Chapter 11 of Fundamentals of Oral Histology and Physiology by Hand and Frank
8	Nasal Cavity and Nasal Sinuses	Chapter 4 of Clinical Head and Neck Anatomy for Surgeons by Brennan, Mahadevan and Evans
9	Head and Neck Lymphatics	Chapter 10 of M.J. Fehrenbach textbook

Local Anaesthesia in Dentistry

This course comprises concise lectures in local anaesthetics used in dentistry, including their pharmacokinetics, dosages, modes of use and administration techniques. This course will be a reintroduction to dental anaesthesia and aims to improve the resident's local anaesthesia (LA) clinical skills.

Aims:

- Thorough review of the fundamentals of local anaesthesia
- Lay down the foundation for safe practice in dentistry
- Teach the residents how to calculate the maximum dose of different types of LA used in the dental clinic.

Learning Outcomes:

Upon completing the course, residents will be able to:

- Demonstrate proficiency in performing all intra-oral local anesthesia techniques.
- Make informed decisions regarding the administration of local anesthesia in clinical settings.
- Identify and manage complications or incidents related to the administration of local anesthesia.
- Accurately determine the maximum recommended dose of each local anaesthetic and administer effective local anaesthesia while ensuring the dose does not exceed the recommended limit.

Lectures' Timetable:

No.	Topic
1	Local anaesthesia review a. Structures b. pH c. MOA d. Onset, potency and duration e. Types of LA f. Systemic effect g. Metabolism
2	Calculating the correct dose
3	Management of failed local anaesthesia
4	New devices for local anaesthesia delivery

5	Complications and management of local anaesthesia administration
6	Anxiety control in the dental field

Assessment Methods:

- 70% - Final Written Exam and OSCE
- 30% - Attendance and participation in class discussion- questions and critiques

Recommended Reading:

- Fonseca R, Barber H, Matheson J, 2009 Oral and Maxillofacial Surgery 2nd Edition. US Saunders.
- Andersson L, Kahnberg K, Pogrel MA 2010 Oral and Maxillofacial surgery. UK, Wiley-Blackwell
- Moore P & Hersch E Local anesthetics: Pharmacology and toxicity. Dent Clin N Am 2010; 54: 587-599
- Baker E 2010 Head and Neck Anatomy for Dental Medicine. New York, Thieme Medical Publishers
- Meechan J, How to overcome failed local anaesthesia. BDJ 1999; 186(1): 15-20
- Malamed et al, Needle Breakage: incidence and prevention. Dent Clin N Am 2010; 54: 745-756.

Medical Emergencies in the Dental Setting

This one-day course is intended to provide the residents with fundamental knowledge of the most commonly occurring medical emergencies in the dental setting. It enhances knowledge on the practical aspects of recognizing and managing these cases. Additionally, the residents will review the updates on the basic life support (BLS) protocols and have the chance to practise them. Also, each resident will be assigned a topic and will be asked to make a presentation on that topic and should include all relevant information from the scientific literature. The residents will be assessed based on the accuracy, suitability, and completeness of the information provided as well as ability to answer questions.

Aims:

- Thorough review of the most common medical emergencies that occur in the dental setting
- Lay down the foundation of safe practice in the dental clinic

Learning Outcomes:

- Recognize the significance of obtaining a comprehensive medical history.
- Identify the occurrence of prevalent medical emergencies in the dental setting.
- Respond promptly and effectively to medical emergencies as they arise.
- Comprehend the local policies governing the management of medical emergencies in dental practice.
- Demonstrate competence in providing Basic Life Support (BLS) when necessary.
- Acknowledge and understand limitations in dealing with medical emergency cases.

Lectures' Timetable:

No.	Topic
1	Obtaining medical history
2	The most common medical emergency occurring in the dental setting
3	Recognise the signs and symptoms of medical emergencies
4	Management of the most common medical emergency cases
5	Reviewing the BLS protocol
6	Introduction to the crash cart's medication and how to use them
7	The local protocol for dealing with medical emergencies

Assessment Methods:

- 50% - Final Written Exam and OSCE
- 20% Attendance and participation in class discussion- questions and critiques
- 30% - Presentation;
    - 10% - Outline and preparation
    - 10% - Content
    - 5% - Adhering to allocated time (40–45-minute presentation)
    - 5% - Captivating audience attention

Recommended Reading:

- Scottish Dental Effectiveness Programs (SDCEP), Emergency Dental Care, Dental Clinical Guidance

Oral Pathology and Oral Medicine

This course is designed to advance residents' clinical knowledge of the principles that govern oral diseases, and the clinical and patho-biological aspects of diseases that affect the oral and maxillofacial region. Residents will build on basic knowledge and expand their understanding of the clinical signs and symptoms of oral diseases and their management in view of known physiological, biochemical and histopathological alterations. The course will provide residents with enhanced knowledge of common oral mucosal and salivary gland disorders, oral manifestations of systemic diseases, orofacial pain conditions including temporomandibular disorders and the dental management of medically compromised patients. Residents will also be able to apply the principles of radiographic interpretation for identification and differentiation of maxillofacial hard tissue lesions.

Aims:

- Provide opportunities for review and analysis of a wide range of oral disorders and orofacial pain conditions
- Expand the analytical and clinical skills of residents relative to clinical signs and symptoms of oral diseases and oral manifestations of systemic diseases
- Provide fundamental knowledge on the dental management of medically compromised patients

Learning Outcomes:

Upon completion of this course residents will have an increased ability to:

- Adopt a systematic approach to extra and intra-oral examinations, including screening for head and neck cancers
- Perform full documentation of cases by taking extra-oral and full mouth intra-oral photographs, and recording of all patient data
- Describe clinical and radiographic images and formulate differential diagnoses of common oral soft and hard tissue lesions
- Differentiate between normal oral variants and pathological lesions, and distinguish suspicious or difficult to manage lesions for consultation referral
- Select appropriate diagnostic aids and interpret their results to reach diagnosis of a variety of oral lesions
- Demonstrate knowledge of the indications of other extra-oral imaging techniques like sonography, sialography, MRI, CT and PET scans in the aid of the diagnosis of common orofacial conditions

- Display proper evaluation and risk assessment of the medically compromised patients and make appropriate modifications to dental treatment based on the medical history, medications, and interpretation of basic laboratory testing results and imaging
- Demonstrate adequate knowledge concerning the mechanisms of action, clinical use, side effects and drug interactions of commonly prescribed drugs in dental practice, including local anaesthetic, analgesic, and antimicrobial drugs
- Recognize common oral lesions in the paediatric population
- Understanding the role of the paediatric dentist in early diagnosis of oral conditions, and referral or consultation for advanced cases and cases that need different treatment considerations
- Describe the anatomical and physiological substrates of pain, and recognize the most common pain disorders in the orofacial region, including temporomandibular pain disorders
- Screen for non-odontogenic orofacial pain conditions by completing comprehensive history and clinical examinations, and be familiar with current pharmacological and non-pharmacological treatment modalities for chronic pain conditions
- Show efficient and professional communication with patients, colleagues, instructors, clinical and laboratory staff
- Illustrate the importance of lifelong learning and exploring evidence-based research

Lectures' Timetable:

No.	Topic
1	Introduction: Evaluation of the Dental Patient
2	Management of the Medically Compromised Patients – I
3	Management of the Medically Compromised Patients – II
4	Common Oral Mucosal Disorders – I
5	Common Oral Mucosal Disorders – II
6	Oral Cancer and Precancerous Lesions
7	Oral Manifestations of Systemic Diseases
8	Orofacial Pain Disorders
9	Temporomandibular Joint Disorders
10	Developmental Defects of the Oral and Maxillofacial Region
11	Oral Radiology: Interpretation of Common Jaw Lesions
12	Odontogenic Cysts and Tumours

Assessment methods:

- 70% - Final Written Exam and OSCE
- 30% Attendance and participation in class discussion- questions and critiques

Recommended Reading:

- Burket's Oral Medicine, 12th edition
- Dental Management of the Medically Compromised Patients - Little and Falace, 9th edition
- Orofacial pain: Guidelines for Assessment, Diagnosis, and management 5th edition
- Oral and Maxillofacial pathology - Neville, 4th edition
- Oral Radiology principles and interpretation - White & Pharoah's, 8th edition

Digital Dentistry and Dental Biomaterials

This program will equip you to be a leader in the future of dentistry. Digital dentistry is revolutionising every aspect of dental care, from diagnosing problems with intraoral scanners and 3D imaging to planning treatments with computer-aided design (CAD) software and creating custom restorations with computer-aided manufacturing (CAM) technology. This course will get you up to speed on these cutting-edge tools and techniques, so you can integrate them seamlessly into your practice and improve efficiency, accuracy, and patient satisfaction.

We will also delve into the materials used in modern dentistry, across various applications in the clinic and lab. You will learn to critically evaluate information about these materials to make informed choices for each patient's treatment. The course covers the fundamental science of dental materials, including polymers, composites, metals, and ceramics, used in all branches of dentistry. By understanding their chemical, physical, and mechanical properties, you will gain a strong foundation for selecting the most suitable material for any dental situation. You will graduate from this course with a comprehensive grasp of how these materials behave in the clinic and lab, allowing you to make evidence-based decisions for optimal patient care.

Aims:

- To maintain up-to-date knowledge related to dental materials.
- To sufficiently understand the benefits and shortcomings of digital dentistry on a didactic and practical level to be able to apply this technology predictably in the dental practice.

Learning Outcomes:

- Critically evaluate digital dentistry technologies: Analyse the advantages and limitations of intraoral scanners, 3D imaging, and CAM technology for diagnosis, treatment planning, and restoration manufacturing.
- Integrate digital workflows into multidisciplinary dental care: Develop a solid understanding of how to seamlessly incorporate digital tools and techniques into existing clinical procedures to improve efficiency and accuracy.
- Apply knowledge of biomaterials to patient care: Critically evaluate information on various dental materials (polymers, composites, metals, ceramics) used in different applications across dentistry.
- Select appropriate materials based on scientific principles: Utilise knowledge of the fundamental science behind dental materials (chemical, physical, and mechanical properties) to choose the most suitable material for specific clinical situations.
- Stay informed about advancements in digital dentistry: Develop skills to continuously learn and adapt to emerging technologies and trends in the field of digital dentistry.

- Understand the principles and uses of artificial intelligence in multiple specialties.
- Communicate the benefits of digital dentistry to patients: Effectively explain how digital tools and advanced materials contribute to improved accuracy, efficiency, and overall patient experience in dental care.

Lecture timetable:

No.	Topic
1	Impression materials
2	Introduction to digital dentistry – Present and future
3	Intra oral scanning & data acquisition
4	Introduction to dental materials
5	Computer aided manufacturing in dentistry
6	Multidisciplinary approaches
7	Dental Restorations

Assessment method:

- 70% - Final written exam and OSCE
- 30% - Attendance and participation in class discussion- questions and critiques

Recommended Reading:

1. Sakaguchi and Powers. Craig's Restorative Dental Materials, 13/14th ed. Mosby
2. Shen, C., Rawls, H. R., & Esquivel-Upshaw, J. F. (2022). Phillip's Science of Dental Materials, 13th ed. Elsevier
3. Sakaguchi, R., Ferracane, J., & Powers, J. (2018). Craig's Restorative Dental Materials, 14th ed. Elsevier
4. Ritter, A. V., Boushell, L. W., & Walter, R. (2019). Sturdevant's Art and Science of Operative Dentistry, 7th ed. Elsevier
5. Rosenstiel, Land, Fujimoto CONTEMPORARY FIXED PROSTHODONTICS, FIFTH EDITION
6. Herbert T. Shillingburg,Donald L. Mitchell, Edwin L. Wilson, FUNDAMENTALS OF FIXED PROSTHODONTICS, FOURTH EDITION

Oral Microbiology

This course is based on a series of lectures on oral microbiology and its clinical application in dental practice. Residents will develop a better understanding of oral infectious diseases and related pathogens as this short course is intended to be an intensive review of oral microbiology and related topics. Lectures and discussions will be based on published scientific papers whether classic or current literature. The course starts with an introduction to oral microbiology, oral microbiome, and oral ecosystem. It then touches on topics related to different dental specialties, such as endodontics, periodontics, and orthodontics and their interaction with oral microbiology. Lastly, the course will cover the subject of immunology and immune system in the oral cavity.

Aims:

By completing this course, residents will be able to understand and discuss a wide range of topics in oral microbiology and microbial diseases of the oral cavity. In addition, residents will understand the clinical implications of oral microbiology.

Learning Outcomes:

Upon completing this course, residents should be able to:

- Have basic education in oral microbiology, oral microbiome, and oral ecosystem, and their relevance in dental practice.
- Have basic understanding in immunology and the immune system, both the innate and the adaptive.
- Have knowledge about normal oral flora and their characteristics.
- Describe different methods in identifying pathogens, which include early microscopic and cultural microbiology investigations to targeted microbiologic analysis, such as immunochemical studies and nucleic acid-based techniques for bacterial identification.
- Have knowledge about dental biofilm, its formation, structure, and significance.
- Understand the aetiology and microbiology of dental caries, periodontal disease, and endodontic infections.
- Develop basic understanding of oral infectious diseases, including bacterial, viral, and fungal infections and the virulence factors of pathogens involved.
- Understand the interaction between orthodontics, periodontics, and endodontics and oral microbiology.

Lectures' Timetable:

No.	Lecture's Title
1	Introduction to Oral Microbiology
2	Oral microbiome and the oral ecosystem
3	Microbiology of periodontal disease
4	Microbiology in dental caries
5	Microbiology in orthodontics
6	Microbiology in endodontics and dental caries

Assessment Methods:

- 70% Final written exam and OSCE
- 30% Attendance and participation in class discussion- questions and critiques

Recommended Reading:

1. Essential Microbiology for Dentistry by Lakshman Samaranayake (4th or 5th Edition); Churchill, Livingstone
2. He, X. S., & Shi, W. Y. (2009). Oral microbiology: past, present and future. International journal of oral science, 1(2), 47-58.

Pharmacology in Dentistry

This course is intended to provide the residents with fundamental pharmacological knowledge in dentistry. It will go through a brief revision and updates of basic pharmacological principles, such as drug actions, interactions, and adverse reactions. Residents will learn how to manage pharmacotherapy of medically compromised and special needs populations. Residents will also be familiar with different medications used in dentistry, such as analgesics, antibiotics, antivirals, antifungals, and antiseptics. The course will also provide residents with enhanced knowledge of oral manifestation of medications' side effects.

Aims:

Establish the core pharmacological knowledge and attitude to drug information that will ensure comprehensive and safe dental practice throughout a dentist career.

Learning Outcomes:

- Comprehend fundamental pharmacological principles, including drug actions, interactions, and adverse reactions.
- Gain familiarity with various medications employed in dentistry, including analgesics, antibiotics, antivirals, antifungals, and antiseptics.
- Recognize important drug interactions and their impact on patient management.
- Acquire awareness of potential oral manifestations resulting from medication side effects.
- Demonstrate competence in prescribing relevant medications.
- Understand and apply current guidelines for prophylactic antibiotics.

Lectures' Timetable:

No.	Lecture's Title
1	Introduction
2	Assessment of the patient
3	Prescribing for special patients' groups
4	Prescription writing
5	Pain (Odontogenic pain and Facial pain)
6	Bacterial infections
7	Viral infections
8	Fungal infections
9	Mucosal ulceration and inflammation
10	Dose calculation for commonly used medications
11	Oral manifestation of medications
12	Drug interactions

Assessment Methods:

- 70% - Final Written Exam and OSCE
- 30% Attendance and participation in class discussion- questions and critiques

Recommended Reading:

- The Dentist's Drug and Prescription Guide, Second Edition, 2020
- Antimicrobial Prescribing in Dentistry – Good Practice Guidelines, Third Edition, 2020, Faculty of General Dental Practice (FGDP), UK.
- Drug Prescribing for Dentistry – Dental Clinical Guidance, Third Edition, 2016, Scottish Dental Clinical Effectiveness Programme (SDCEP), UK.
- Useful Medications for Oral Conditions, The Reference Manual of Pediatric Dentistry, 2020, American Academy of Pediatric Dentistry
- Prevention of Viridans Group Streptococcal Infective Endocarditis, A Scientific Statement from the American Heart Association, 2021
- Oral Health Management of Patients at Risk of Medication-related Osteonecrosis of the jaw, Guidance in Brief, 2017, Scottish Dental Clinical Effectiveness Programme (SDCEP), UK.

Applied Clinical Dentistry

This intensive two-day module is designed to provide hands-on training and practical application of essential skills required across all dental specialties. It aims to equip residents with the skills necessary to link theoretical concepts covered in the basic sciences course to clinical practices, emphasising key aspects of holistic patient care such as history taking, and examination. In addition to mastering basic clinical competencies, residents will gain a thorough understanding of the legal and regulatory frameworks governing dental practice in Kuwait, ensuring compliance and ethical decision-making in clinical settings. The module aims to prepare residents for clinical practice by offering practical experiences and real-world scenarios that reinforce the core competencies necessary for comprehensive patient management.

Teaching Methods:

- Practical sessions on history taking and patient examination
- Hands-on practice with simulated cases and peer-to-peer exercises
- Workshops on interdisciplinary communication and referral writing
- Review and application of legal and ethical considerations in dental practice

Aims:

- Develop essential clinical competencies
- Hands on training
- Interdisciplinary collaboration
- Understanding legal and regulatory framework
- Preparation for clinical practice

Learning Outcomes:

- Develop fundamental skills required for patient assessment, including comprehensive history taking and accurate clinical examination.
- Gain hands-on experience in essential clinical examination techniques, practicing and refining skills in a controlled environment.
- Understand the importance of interdisciplinary communication and collaboration in delivering high-quality dental care.
- Review and master relevant laws and regulations in Kuwait, ensuring competence in navigating the legal and ethical aspects of dental practice.
- Prepare for real-world clinical scenarios, gaining confidence and competence in performing basic history taking, examination, and delivering holistic patient care.

Sessions' Timetable:

No	Topic
1	History Taking Medical History
2	Examination Extra-Oral Exam Lymph Nodes, Muscles of Mastication, Facial Nerves, TMJ)
3	Examination Intraoral Exam (Molar, Incisor, Canine relationship) Extra-oral Exam (Facial Symmetry, AP Skeletal Classification, ect)
4	Interdisciplinary Management
5	Laws and Ethics
6	Cases and Practical
7	Case Based Discussion

Assessment Methods:

- 50 % participation in the sessions
- 50 % Final written exam and OSCE

Recommended Reading:

- Head and Neck Anatomy Lecture Notes
- Oral Pathology and Oral Medicine Lecture Notes

Infection Control in Dental Health Care Settings

This one-day supplemental course focuses on the standards that should be followed to ensure the prevention of transmission of diseases among members of the dental team and/or the patients. It details the protocols each member of the dental team should implement to ensure infection control and hence safe practice for themselves and the patients. This course is not compulsory, but attendance is highly recommended.

Aims:
This course aims to build participants' confidence with their infection prevention and control strategies by highlighting policies to reduce risk, ensure best practice and improve efficiency.

Learning Outcomes:

- Understand and apply basic infection prevention principles and recommendations specific to dental health care settings.
- Reaffirm the importance of adhering to standard precautions as the fundamental approach to preventing the transmission of infectious agents during patient care in all dental health care environments.

PAEDIATRIC DENTISTRY I-IX

Paediatric Dentistry Courses

These interdisciplinary courses are a combination of both didactic and clinical/practical comprehensive sessions designed to improve and expand knowledge in paediatric dentistry. The residents will be exposed to review sessions, seminars, and multidisciplinary clinics relevant to Paediatric Dentistry. As the residents proceed through the residency, they will move through the nine rotations of essential Paediatric Dentistry courses. Each Academic Year compromises of three rotations, with each rotation including one of the Paediatric Dentistry components; R3 (I-III); R4 (IV-VI); R5 (VII-IX). The courses are designed to allow the gradual progression of the skills and knowledge of the residents to the level of a specialist Paediatric Dentist.

Location and Session Times:

Main Training Facility: Farwaniya Specialised Dental Centre and Farwaniya Main Hospital
Some sessions may be off-site, which could take place in the morning (AM) and/or evening (PM). Weekend/on-call sessions may also be scheduled. Residents will be notified of session locations and timings prior to the course/clinic date.

Out-reach Paediatric Dentistry Units (PDU), School Oral Health Program (SOHP) and Out-Patient Dental (OPD) clinical sessions may be in Farwaniya Specialised Dental Centre, or offsite in other areas.

Preclinical Requirement:

Residents MUST ensure that BLS is up to date, otherwise patient clinical interaction will be delayed until verified certification is established

Obligatory Attendance:

100% didactic sessions
Minimum of 80% clinical sessions

Any exceptions or requests for rescheduling of lectures or clinical sessions are left to the Programme Director's discretion.

Exam Prerequisites:

A set of clinical and academic requirements need to be completed for the candidates to become eligible to sit the final exam;

Clinical requirements: clinical procedure requirements, finished cases, case reports, Work-based Assessments (CBD, Mini-CEX, DOPS) - see Appendix for details

Academic requirements:

- **R3:** Quality improvement project Protocol and Cycle 1, Research Protocol and Transfer Assessment
- **R4:** Research (Data collection, Analysis, and Results), Quality improvement project (Cycle 2)
- **R5:** Quality improvement project final report, Successful research submission and viva.

Mock Exam and Viva

Residents will have a Mock Exam and Oral Viva scheduled during the residency. This is to familiarise them with the format and layout of the examinations, as well as provide an opportunity to organise, interpret, and verbalise their knowledge to demonstrate their clinical and academic competency.

Final Assessment:

Annual end-of-year assessments will evaluate the didactic and clinical skills in all topics in the paediatric dentistry courses, and advanced multidisciplinary courses, covered over the corresponding year of the programme. In order to graduate to the following year, the resident will have to pass these series of assessments. The format of the examination may include:

- Written Paper - Multiple Choice Questions (MCQ) and Short Answer Questions (SAQ)
- Structured Oral Examination (SOE) - Simulated Case Scenarios
- Objective Structured Clinical Examination (OSCE)

As per KIMS Examinations policy, the candidate must pass all components in order to pass the exam with a minimum pass mark of 70%.

Timeline for Examination Registration

Timelines for examinations are developed by KIMS Examinations Office for each academic year and will be communicated to the residents once the dates are set by KIMS.

Residents must officially register for the final examinations; details and timeline will be announced by the KIMS Examination Office.

Resit Exam

For the first and second year, if residents fail to pass all components of the exam with a minimum pass mark of 70%, they will have the opportunity to apply to resit the full examination within four weeks of the unsuccessful exam date with a minimum pass mark of 70%.

For the third year, if residents fail to pass all components of the exam with a minimum pass mark of 70%, they will have the opportunity to apply to resit the full examination the following academic year. This is according to KIMS Examination Policy, as all KIMS residency exams are held once at the end of each academic year.

For further details, please refer to *KIMS Examinations Policies and Procedures* on the KIMS website.

Introduction to Paediatric Dentistry

This course is an introductory course to Paediatric Dentistry. Residents will be exposed to several essential topics in Paediatric Dentistry through a series of lectures, practical sessions in a simulation lab, and book reviews during the first rotation of their first year (R1).

Book reviews are series of seminars that involve reviewing specific topics in one, or more, chapters of a book per session. An instructor will lead the session, while encouraging residents to participate in the topics' discussion. Each resident will be expected to have read the chapter prior to the session and may be requested to present a verbal review. The book review topics will also be included in the end of year written examination.

Aims:

To provide residents with didactic teaching allowing them to systematically approach clinical examinations, diagnoses, and treatment of paediatric patients.

Learning Outcomes:

At the completion of the course, residents will be able to:

- Demonstrate a systematic approach in collecting comprehensive medical and dental histories, performing clinical examinations, diagnosing, and forming complex treatment plans.
- Achieve a theoretical understanding of caries epidemiology and disease mechanisms.
- Diagnose and manage caries, non-carious tooth surface loss, intrinsic and extrinsic staining, and dental and orofacial anomalies based on their pathophysiology and presentation.
- Apply various behavioural management techniques effectively within the dental setting.
- Implement tailored approaches in managing dental care for children with special needs.
- Systematically manage children with orofacial trauma, ensuring consistent and structured care.
- Maintain medicolegal responsibility by producing accurate and complete clinical records.
- Enhance communication with other healthcare workers through professional letter writing.
- Prescribe medications correctly for children, considering age-appropriate dosages and indications.
- Demonstrate skills in analysing and managing spaces in dentition effectively.
- Recognize and manage the most common medical emergencies encountered in dental settings.

- Appropriately prescribe intra- and extra-oral diagnostic imaging and identify potential errors in imaging techniques.

Recommended Reading:

- Dean, Jeffery A., et al. McDonald and Averys Dentistry for the Child and Adolescent. Elsevier 2021
- Nowak, Arthur J., et al. Paediatric Dentistry Infancy through Adolescence. Elsevier 2019

Book reviews, Lectures, and Practical Sessions' Schedule:

No.	Topic
1	**Lectures:** • From History Taking to Treatment Planning • Clinical Records and Letter Writing • Cariology and Principles of Prevention
	Practical Session: • Growth Chart • Caries Risk Assessment • Prevention: Dental Prophylaxis, Brushing Technique, Diet Analysis and Fluoride Application
2	**Book Review:** Pit and Fissure Sealants - Nowak (Ch33)
	Lecture: Tooth Surface Loss and Principles of Prevention

	Practical Session:
	• Restorative Dentistry- I
	  ○ Administration of Local Anaesthesia
	  ○ Rubber Dam Placement
	  ○ Fissure Sealant on 6s
	  ○ PRR and Class I on primary & permanent molars

3	**Book Review:** Restorative Dentistry for the primary dentition- Nowak (Ch22)
	Lectures: • Behaviour Management • Restorative Management in Primary Dentition

	Practical Session:
	• Restorative Dentistry- II
	  ○ Rubber Dam Placement
	  ○ Class II on primary & permanent molars

4	**Book Review:** Pulp Therapy for the Primary Dentition – Nowak (Ch23)
	Lecture: Management of First Permanent Molars

	Practical Session:
	• Restorative Dentistry- III
	  ○ Rubber Dam Placement
	  ○ Pulpotomy on primary molars
	  ○ Preformed Metal Crowns (PMCs) on primary molars

5	**Book Review:** Antimicrobials in Paediatric Dentistry - Nowak (Ch9)
	Lecture: Medication Prescription & Calculations

	Practical Session:
	• Restorative Dentistry- IV
	  ○ Silver Diamine Fluoride (SDF)
	  ○ Hall Technique

6	**Book Review:** Managing Traumatic Injuries in the Primary and Young Permanent Dentitions - Nowak (Ch16 & 35)
	Lecture: Dento-alveolar Trauma
	Practical Session: • Restorative Dentistry- V ○ Composite Build-ups for Fractured Upper Permanent Incisors using Celluloid Crown Matrix
7	**Book Review:** Gingivitis and Periodontal Disease – Dean (Ch15)
	Lecture: Summary of New Classification of Periodontal Diseases (2017)

	Practical Session:
	• Clinical Assessment of OH and Periodontal Disease
	  ○ Plaque free score
	  ○ Marginal Bleeding Free score
	  ○ Basic Periodontal Examination (BPE)

8	**Book Review:** Congenital Genetic Disorders and Syndromes - Nowak (Ch17)
	Lecture: Dental and Orofacial Anomalies

	Practical Session: • Access Cavity for RCT on Upper Permanent Incisors • Trauma Splint Placement and Removal
9	**Lecture:** Management of Children with Special Health Care Needs
	Practical Session: • Restorative Dentistry- VI ○ Strip Crowns on Upper Primary Incisors
10	**Book Review:** Dental Problems of Children with Special Health Care Needs – Dean (Ch26)
	Lectures: • Medical Emergencies in Dental Clinic • Medical Emergencies Policy at Farwaniya Specialised Dental Centre
	Practical Session: • Emergency Room Orientation: Demonstrating the Crash Cart and AED to Residents • Suturing Techniques
11	**Book Review:** Space Maintenance in the Primary Dentition and Oral Habits - Nowak (Ch26 & 27)
	Lecture: Basic Orthodontic Concepts for Paediatric Dentists
	Practical Session: • Space Analysis • Cephalometric Analysis • Wire Bending • Band Selection for Space Maintainers • Impression taking
12	**Book Review:** Hospital Dental Services for Children and the Use of General Anaesthesia - Dean (Ch19)
	Lecture: Introduction to Hospital Dentistry
	Practical Session: Catch up session

Assessment Methods:

- Attendance and participation (30%):
  - 10% lectures
  - 10% practical sessions
  - 10% book review
- Practical task completion (10%)
- Final Exam (40%):
  - 25% Witten Examination – Multiple Choice Questions (MCQ) and Short Answer Questions (SAQ)
  - 15% Objective Structured Clinical Examination (OSCE)

Remediation:

This course serves as a prerequisite for commencing clinical training in paediatric dentistry clinics. Should a resident fail the course, they will be offered a resit exam after four weeks, which will follow the same format as the final exam. Upon passing the resit, the resident may proceed with their clinical training. If the resident dose not pass the first resit, they will be given a second resit exam4-6 weeks later. Passing the second resit allows the resident to continue their clinical training; however, failure to pass will require the resident to undergo a remediation process. The remediation requirements are the following:

- Submit a written paper (between 5000 to 10000 words)
- Deliver a 20-minute presentation on a topic agreed upon between the course director and the Programme Director

Should the resident fail to meet the remediation standards, they will attend the clinical sessions as observers and will be required to repeat the course in the following academic year.

Guidelines Review

These series of seminars will involve reviewing specific guidelines each session. This course is an extension to the Introduction to Paediatric Dentistry Course. An instructor will lead the session, while encouraging residents to participate in the topics' discussion. Each resident will be expected to have read the papers scheduled prior to the session and may be requested to present a verbal review. The guideline review topics will also be included in the end of year written examination.

Recommended Guidelines
American Academy of Paediatric Dentistry (AAPD): AAPD policies: www.aapd.org/research/oral-health-policies--recommendations AAPD best practice and guidelines: www.aapd.org/research/oral-health-policies--recommendations AAPD endorsements and resources: www.aapd.org/research/oral-health-policies--recommendations
Royal college clinical guidelines (Current and archived): www.rcseng.ac.uk/dental-faculties/fds/publications-guidelines/clinical-guidelines
Scottish dental clinical effectiveness programme guidelines: www.sdcep.org.uk/published-guidance
British Society of Paediatric Dentistry (BSPD)- Policy statements, position statements and clinical guidelines: www.bspd.co.uk/Resources/BSPD-Guidelines
International Association of Dental Traumatology (IADT) - dental traumatology guidelines: www.iadt-dentaltrauma.org
Arabian Academy of Paediatric Dentistry www.arapd.org
International Association of Paediatric Dentistry www.iapdworld.org/publications/iapd-consensus-recommendations/
European Academy of Paediatric Dentistry www.eapd.eu/index.php/policies-and-guidelines
European Society of Endodontology www.e-s-e.eu/for-professionals/resources-for-clinicians/

Guidelines Review Schedule:

No.	Topic
1	**Behaviour Management (BM):** • Non-pharmacological BM techniques. UK National Guideline. Revised 2011 • Behavior Guidance for the Pediatric Dental Patient. AAPD. Revised 2024 • Protective Stabilisation for the Paediatric Dental Patients and Children with Special Health Care Needs. ArAPD. 2020 • Position Statement on the Use of Hand-Over-Mouth Exercise. ArAPD. 2020
2	**Prevention:** • Delivering Better Oral Health: An Evidence-based Toolkit for Prevention. DoH. Revised 2021 • Perinatal and Infant Oral Health Care. AAPD. Revised 2021 • Adolescent Oral Health Care. AAPD. Revised 2020
3	Guidelines for **Periodontal** Screening and Management of Children and Adolescents Under 18 years of Age. BSPD. Revised 2021
4	**Restorative I:** • Prevention and Management of Dental Caries in Children. SDCEP. 2nd ed: 2018 • Use of Fissure Sealants including Management of the Stained Fissure in First Permanent Molars. UK National Guideline. Revised 2018
5	**Restorative II:** • Stainless Steel Preformed Crowns for Primary Molars. UK National Guideline. Revised 2008 • Pediatric Restorative Dentistry. AAPD. Revised 2022
6	**Restorative III:** • European Society of Endodontology position statement: Management of deep caries and the exposed pulp. ESE. 2019 • Pulp Therapy for Primary and Immature Permanent Teeth. AAPD. Revised 2020
7	Best Clinical Practice Guidance for Clinicians dealing with Children presenting with **Molar-Incisor-Hypomineralisation (MIH)**: an Updated European Academy of Paediatric Dentistry policy document. Lygidakis et al. EAPD. Revised 2022

8	• Guidelines for **Extraction of First Permanent Molars** in Children. RCS. Revised 2023 • Interceptive extractions for first permanent molars: a clinical protocol. Ashley and Noar. 2019
9	• Management of **unerupted maxillary incisors**. RCS. Yaqoob et al. Revised 2022 • Management of **Palatally Ectopic Maxillary Canine**. RCS. Revised 2022
10	I. Management of **Traumatic Dental Injuries**. IADT. 2020: o General introduction o Fractures and Luxation
11	II. Management of **Traumatic Dental Injuries**. IADT. 2020: o Avulsion of Permanent teeth o Injuries in the Primary Dentition

Dental Photography

The course comprises a sequence of lectures and workshops emphasizing the practical aspects of configuring the camera, lens, and flash for achieving consistent results. Residents will be instructed on, and given the opportunity to practice, setting up the camera, assistant, and patient in an optimal position to capture a standardized series of views. Additionally, the course will offer a comprehensive overview of digitally storing, managing, and editing photographs.

Aim:

- To facilitate hands-on training in the art of clinical dental photography, enhancing proficiency in clinical record-taking and ensuring the consistent capture of high-quality diagnostic images.

Learning Outcomes:

- Comprehend the fundamental concept of "Photography" and illustrate the manipulation of light to achieve accurate exposure.
- Proficiently operate in manual mode, aperture priority, and shutter speed priority settings.
- Demonstrate the effective use of cheek retractors and mirrors in dental photography.
- Understand the concept of depth of field and apply techniques for capturing sharp dental photographs.
- Utilize artificial lights to obtain consistent exposure in every instance.
- Acquire knowledge on importing photos to computers and effectively managing digital image files.

Assessment Methods:

Attendance

Recommended Reading:

1. Digital Photography for Dentistry by Fardin Javaherpour
2. Digital Dental Photography: A Contemporary Revolution by Klaus-Richard Bumann and Markus Tröltzsch
3. Clinical Photography in Dentistry: A New Perspective by Peter Sheridan
4. Mastering Digital Dental Photography by Wolfgang Bengel
5. Photography in Dentistry: Theory and Techniques in Modern Documentation by Christian Coachman
6. Clinical Photography in Dentistry by Irfan Ahmad

Dental and Maxillofacial Radiology II

This course is a series of clinical and practical-based sessions. Didactic teaching will be followed by clinical training in a radiology department with Paediatric Dentistry Board Faculty. The residents will be able to utilise the didactic learning from the previous courses and learn to manage challenges in radiology and dental cone beam computed tomography (CBCT) with young patients.

This course enables residents to take their own radiographs, especially when children are uncooperative. It is essential for residents to be able to prescribe radiographs and CBCT appropriately for children and adolescents, while following the radiographic guidance. Furthermore, residents will understand the indications for the different types of radiographs and CBCT imaging views, and recognise radiographic errors, and how to avoid their future occurrences.

Aim:
To appropriately take and prescribe radiographs and CBCT imaging for paediatric patients and manage their challenges, while prioritising patient safety.

Learning Outcomes:

- Take accurate radiographs for patients, with correct angulation and sizing
- Understand reasoning for prescription of radiographs and CBCT for patients
- Recognise common faults and errors in dental radiography and learn to manage them
- Understand CBCT image interpretation, landmark identification, and navigate CBCT images through from the software
- Learn to manage radiographic challenges when managing uncooperative patients

Timetable:

	TOPIC
1	Didactic teaching – **Dental radiography**: • Radioprotection & radiation equipment in the radiography department • Dental radiographic techniques and reasoning for prescription: bitewing, periapical, occlusal, panoramic, and lateral obliques • Localization methods of objects/teeth using dental radiography • Recognition of common faults and errors in radiographs Hands-on practical: • Participants will practice taking intraoral and panoramic radiographs: Equipment preparation, patient preparation/ positioning, infection control measures • Justification & interpretation of radiographs requested and taken • Adapting safe radiographic techniques in uncooperative children
2	Didactic teaching – **Cone beam computed tomography (CBCT):** • Main indications of CBCT in dentistry, advantages, and disadvantages • Prescribing field of view (FOV) related to clinical applications • CBCT scanning/image creation process: 1. Data acquisition, 2. Primary reconstruction, 3. Secondary or multiplanar reconstruction • Localization methods of objects/teeth using dental CBCT • Case studies and discussion Hands-on practical: • Understanding and filling-out a CBCT request form • Using the CBCT software to navigate image orientation, landmark identification, interpretation, and localization methods

Assessment methods:

Clinical assessment; taking radiographs for paediatric patients

All materials will be included in the Final Examination

Recommended Reading:

Whaites, E., & Drage, N. (2020). *Essentials of Dental Radiography and Radiology Book*. Elsevier Health Sciences.

Literature Review

These series of seminars will involve reviewing relevant papers each session. An instructor will lead the session, while encouraging residents to participate in the topics' discussion. Residents will not be specifically assigned to papers, and so will be expected to have read all the papers scheduled prior to the session. A verbal critical review of the papers will be expected from the residents, having reached an informed, evidence-based opinion on the topic at the end of the session. The articles selected include articles of historical importance in terms of research and clinical practice. Papers reviewed may also be included in the end of year written examination. Some topics may be accompanied with practical sessions. A list of the literature and schedule will be provided at the beginning of each Academic Year.

No.	Topic
1	Behaviour Management
2	Sedation
3	Pulp Therapy
4	Non-Vital Pulp Therapy
5	Management of the Frenulum in Paediatric Dentistry
6	Biological Approach in Caries Management
7	Airway & Sleep Disordered Breathing
8	Growth and Development
9	Mixed Dentition Analysis
10	Oral Habits
11	Ectopic Eruption of Teeth
12	Periodontology in Paediatric Dentistry
13	Dental Traumatology

Seminars

These series of seminars will primarily be led by an instructor. Residents will be delegated specific topics based on current literature updates prior to the seminar date. They will be expected to review the literature and present, with an additional written handout, a summary of the topics. The resident will be graded on both their presentation skills and handout summary. The seminar topics will also be included in the end of year written examination.

No.	Seminar Topic
1	Growth and Development
2	Behaviour Management
3	Sedation
4	Fluoride
5	Management of Developing Dentition
6	Developmental Defects of Enamel and Dentine
7	Dental Management of Medically Compromised Children and Adolescents
8	Oral/Dental Developmental Anomalies, Oral Pathology and Oral Infections

Journal Club

(Scientific, Evidence-Based Dentistry)

During these sessions, residents will be expected to review current papers for discussion. The papers may be chosen by the resident if an article had sparked their interest or may be assigned by the instructor beforehand. Residents are required to send their chosen article to their resident colleagues and staff prior to the meeting to allow ample time for them to pre-read the article. The key points of the papers should be summarised in written form with a thorough critical evaluation of the paper by the resident. Residents are advised to seek papers from credible journals such as Paediatric Dentistry, IJPD, EAPD, J Dent Child, BDJ, JADA, Acta Odont Scand, etc.

Learning outcomes:

By the end of these sessions, residents will be able to:

- Critically evaluate scientific papers, focusing on methodology and data interpretation.
- Engage in discussions to apply research findings to clinical practice or further studies.
- Enhance their presentation skills and stay current with emerging research.

Case Based Discussion Sessions

These sessions involve comprehensive discussions of clinical cases between residents and an instructor. The instructor will choose a case that reflects the residents' level of experience and be linked to relevant topics covered previously in seminars or literature review sessions. The instructor will provide a case (clinical photographs, radiograph, study models) to the residents at the beginning of the session. The residents will be allowed to study and summarise the case for 20 minutes, followed by an interactive discussion led by the instructor. The aim of this session is to guide the residents learning through structured feedback. It improves the clinical decision making, clinical knowledge, and patient management. In addition, this discussion session provides the residents with an opportunity to discuss their approach to the case and identify strategies to improve their practice. Furthermore, it enables the instructors to share with residents their clinical experience and professional knowledge.

Learning outcomes:

By the end of these sessions, residents will be able to:

- Enhance their diagnostic and treatment planning skills.
- Apply theoretical knowledge to practical scenarios, improving decision-making in paediatric dentistry.
- Develop problem-solving skills by addressing complex or unusual paediatric dental cases.
- Improve their ability to discuss and justify clinical decisions with peers and mentors in a collaborative setting.
- Reflect on clinical experiences and outcomes to identify areas for improvement in patient care.
- Integrate current research and guidelines into case discussions to ensure best practices in paediatric dentistry.
- Recognize the importance of collaborating with other healthcare professionals in managing complex paediatric dental cases.

Clinical Case Review Sessions

During these weekly one-hour sessions, residents will discuss clinical cases that the residents managed the prior week. Residents from all levels will attend these sessions. These case review sessions also allow residents to recognise cases they may wish to continue onto as final complex case reports.

At the end of each week, residents will have sent a list of medical or other multidisciplinary cases they encountered throughout the week to all faculty members. The residents will be expected to present the conditions verbally with, or without, clinical photographs and radiographs of their patients. The presenting medical and/or dental conditions need to be thoroughly discussed during these sessions. The residents will be expected to provide a written summary of the medical conditions, including any dental implications the conditions may present with. Precautions and contraindications need to be thoroughly discussed, in addition to any specific adjustments to the treatment plans that were required. The discussion will then continue as an open discussion, with encouragement for other residents to participate in.

These sessions will allow the residents to recognise and diagnose medical and dental conditions requiring multidisciplinary care they may be exposed to in a clinical setting. Additionally, it aids them in understanding how medical and dental conditions may affect dental treatment, both in behaviour management and in medical precaution considerations.

Learning outcomes:

By the end of these sessions, residents will be able to:

- Improve their ability to accurately diagnose and analyse clinical cases through structured presentations and interactive discussions.
- Develop and articulate comprehensive treatment plans based on case details and current evidence.
- Enhance their critical thinking and clinical reasoning by examining and discussing complex cases.
- Refine skills in presenting clinical information clearly and effectively to peers and mentors.
- Learn to incorporate relevant research and evidence-based guidelines into case presentations and decision-making.
- Gain experience in receiving and integrating constructive feedback to improve clinical practice.
- Demonstrate professionalism in presenting and discussing cases, contributing to ongoing learning and improvement.

Case Presentation Sessions

Case presentation sessions will be held once residents have started clinical sessions, prior to the end of the first year (R3), where residents are required to present the progress of the treatment for at least three completed cases. Residents should provide full documentation and submit a case report for each case.

Case selection:

Residents should submit cases that, when considered in totality, cover as many aspects of the case matrix as possible. This will allow them to demonstrate a broad range of clinical and patient management skills for different stages of developing dentitions in children across all three cases. Cases should demonstrate skills expected of a specialist in paediatric dentistry. The submitted cases should illustrate comprehensive care of a patient, either child or adolescent. The sequence of records illustrated by photographs, radiographs, and models as appropriate should indicate management and treatment success over a minimum period of follow-up of 12 months. Clinical cases should be chosen based on the case complexity matrix (below), which may be useful as an aide memoire to refer to.

Criteria	Primary dentition	Mixed dentition	Permanent dentition
Disability/impairment/chronic systemic disease			
Fear/anxiety			
Dental caries			
Dento-alveolar trauma			
Non-carious tooth wear			
Teeth with malformed enamel/dentine			
Craniofacial and/or dental anomalies			
Malocclusion			
Periodontal and soft tissue lesions			
Need for multidisciplinary care			

Written report: Residents are required to provide written reports on the progress of their three cases, on the day of their case presentation. Case reports submitted must follow the case template provided – see APPENDIX.

Power point presentation: Residents are required to present the progress of their cases in PowerPoint format. Residents will be assessed on:

- Presentation skills
- Case organization
- Treatment planning
- Quality of photographs, radiographs, cast models, etc.
- Ability to justify their treatment plan
- Use of evidence-based approach in case management

General discussion and questions:

The aim of this session is to check the progress of complex paediatric cases that the residents have been treating during the programme. The residents will be assessed on the level of their clinical knowledge and skills. The residents will also be assessed on their ability to identify alternative treatment options, and areas where they could have approached the case differently.

Evaluation and grading of cases based on:

- Case complexity
- Case write-up
- Case presentation

Learning outcomes:

By the end of these sessions, residents will be able to:

- Develop the ability to reflect on personal clinical experiences, identifying key learning points and areas for improvement.
- Enhance skills in managing and presenting their own cases, including diagnosis, treatment planning, and outcome evaluation.
- Improve self-assessment capabilities by critically evaluating their own clinical decisions and outcomes.
- Strengthen the ability to clearly and effectively present their own cases, including detailing the rationale behind their clinical choices.
- Learn to incorporate feedback from peers and mentors to refine their approach and improve future clinical practice.
- Apply relevant research and evidence-based guidelines to their own cases to support and justify clinical decisions.
- Demonstrate professionalism and engage in continuous improvement by sharing their experiences and learning from others.

Paediatric Dentistry Teaching

Teaching of will be a fundamental part of the Kuwait Board in Paediatric Dentistry training. Teaching sessions will ensure that residents develop the attitude, knowledge and skills for clinical teaching of Paediatric Dentistry to dental students and/or junior colleagues in the future.

All residents will be required to participate in ongoing teaching during their third year in training (R5). Teaching opportunities may vary depending on the current circumstances and availability of resources. Teaching may include one, or more, of;

- Weekly teaching and supervision of undergraduate dental students at the dental clinics of the Kuwait University Faculty of Dentistry
- Clinical observation and guidance teaching of trainee internship residents carrying out their paediatric dentistry rotations and junior dentists acquiring clinical experience prior to initiation of their paediatric dentistry specialty training
- Clinical observation and guidance teaching of junior residents in hands-on practical sessions at the simulation lab.

Learning Outcomes:

Residents will be able to:

- Understand the concept of dental education
- Demonstrate skills in student's supervision and assessment in clinical setting
- Prepare and give lectures/seminars for students of all levels
- Enhance knowledge of different didactic and clinical assessment methodologies
- Develop self-instructional teaching material

Clinics

Introduction to Clinical Paediatric Dentistry

During the first rotation, residents will shadow assigned clinicians in their clinics. The purpose of this rotation is to allow residents to familiarise themselves with clinical work, behaviour management and shadow a variety of different Paediatric Dentistry clinicians before working on their own patients in second rotation.

The clinical sessions will take place between the didactic teaching on the provided schedule. Residents are expected to attend all clinical shadowing sessions.

Clinical Sessions

Clinics are a vital part of Paediatric dentistry training and have been planned to run parallel to didactic teaching. The sessions offer a broad exposure to different clinical situations and conditions that a Paediatric dentist may encounter in their clinical practice. Clinical sessions will begin on the second rotation in R3, once the Basic Sciences courses are completed.

Clinical requirements must be recorded in the residents' logbook and signed by the clinical supervisor – see APPENDIX. Logbooks must be maintained by the residents and will be required to bring to staff-resident meetings as evidence of progress. Additional clinic time will be compulsory if clinical requirements are not met.

Specific evaluations will also take place during these clinical sessions, which are noted with each clinical session below. Should a resident wish to be assessed on a skill or competency, the clinical supervisor should be informed prior to the start of the treatment/case. These Work-Based Assessments (WBA's) include Direct Observation of Procedural Skills (DOPS), Mini-Clinical Evaluation Exercises (Mini-CEX), and Case-Based Discussions (CBD) – see APPENDIX.

Work-Based Assessments (WBA's) are established assessment forms that assess practices carried out by trainees and residents in the workplace itself, rather than evaluating solely on knowledge-based assessments. The primary aim of WBA's is to facilitate formative feedback, where residents can receive instant feedback, and allows them to self-assess simultaneously. This allows for better awareness of strengths and weaknesses that will constructively build on the residents' clinical development.

- **Direct Observation of Procedural Skills (DOPS)** assess competence in performing basic diagnostic and interventional procedures. The assessor observes the resident performing a practical procedure. Clinical knowledge, and use of this information during a procedure, clinical skills and professionalism with communication skills are evaluated during this assessment.

- **Mini-Clinical Evaluation Exercises (CEX)** allows the assessor to observe a resident interacting with a patient during a typical clinical encounter. The competencies include

history taking, physical examination, professionalism, clinical judgement, communication skills, organisation/efficiency, and overall clinical care.

- **Case-Based Discussions (CBD)** assess clinical judgement, decision making and application of medical and dental knowledge in relation to patient care. It is used to evaluate the residents' ability to carry out a thorough assessment, diagnose and appropriately treatment plan. CBD's encourage residents to challenge their systematic thinking with regards to diagnosis and patient long-term management.

Patient Criteria Complexity

Paediatric Dentistry Cases

Inclusion Criteria:

- Dento-alveolar trauma cases
- Patients requiring multidisciplinary care
- Special needs/medically compromised patients
- Comprehensive restorative care, requiring treatment in > 2 quadrants
- Dental/orofacial anomalies
- Periodontal disease
- Dental anxiety or behavioural concerns, requiring pharmacological behaviour management
- Disruption in normal growth patterns (impacted teeth, growth concerns)
- Soft/hard tissue pathology (referral to OMFS if advanced sinister pathology suspected)
- Surgical extractions (up to second permanent molars)
- Dental emergencies (during Casualty Clinic)
- Endodontic and Orthodontic cases as per below mentioned
- Up to 16 years old

Endodontic Cases

Inclusion Criteria:

- Trauma cases; anterior teeth (up to 16 years old)
- Anterior teeth (incisors and canines) and first molars
- Vital pulp therapy
- Open apex (simple case)
- Requiring prefabricated post-and-core (anterior teeth)

Exclusion Criteria:

- Re-treatment cases
- Previously accessed with complications (e.g., perforation, non-negotiated canal, ledge, separated instrument)
- External/internal resorption (with chance of communication)
- Large open apex requiring microscope (>1.5mm)
- Cases requiring crown lengthening

- Calcified canals
- Complex canal systems (significant deviation from normal tooth root form):
    - C-shaped morphology
    - Extreme curvature (>30°) or S-shaped curve
    - Mandibular premolar or anterior with 2 roots
    - Maxillary premolar with 3 roots
    - Canal divides in the middle or apical third
    - Very long tooth (>25 mm)
- Premolars, Second and third molars
- Crowned teeth
- Extreme inclination (>30%) of tooth
- Extreme rotation (>30%) of tooth
- Difficult access/limited mouth opening
- Requiring laboratory fabricated post-and-core

Interceptive Orthodontics Cases

Inclusion Criteria:

- Space maintainers
- Space-regainer
- Correction of ectopic first molars
- Expansion: fixed or removable*
- Functional appliance (e.g., facemask, twin-block, headgear) *
- Single/sectional tooth movement of crossbite (fixed or removable)
- Habit breaker
- Treatment duration: up to 12 months

Exclusion Criteria:

- Comprehensive orthodontic treatment
- Surgical (orthognathic) cases
- Craniofacial anomalies (e.g., cleft lip/palate)
- Impacted canines (requiring surgical exposure)
- Treatment duration: more than 12 months

* Patients receiving interceptive orthodontic treatment (Phase 1 Orthodontic Treatment) that have been initiated at the KBPD department must be made aware that further comprehensive orthodontic treatment will be required in the future. For these cases, the Orthodontic Department must have prior knowledge, and agreement**,** to continue the treatment once the first phase is completed. In cases where the patient was previously not seen by the Joint Orthodontic-Paediatric (JOP) Clinic, or do not fit the Ministry's Orthodontic department inclusion criteria, patients must be made aware that their treatment will not be continued in the Orthodontic Department at the Ministry of Health and must be completed elsewhere. A consent form must be signed prior to initiation of treatment.

Consultant Clinic

Aim:

To provide residents with clinical skills enabling them to utilise their didactic knowledge to appropriately examine, diagnose, present and treatment plan paediatric dental cases at a specialist level.

Learning Outcomes:

Residents will be able to:

- Become proficient in taking thorough case histories using the clinic's standardized history sheet.
- Learn to collect and document detailed medical and dental histories systematically.
- Apply a systematic approach to patient examination and diagnosis.
- Identify and appropriately use diagnostic tools for each clinical case.
- Gain understanding of the consent process, including effective communication with the child and guardian.
- Learn to conduct prevention treatments, including oral prophylaxis.
- Develop skills to manage emergency dental cases effectively.
- Acquire the ability to properly pre-assess patient behaviour and plan treatment based on patient cooperation and medical history.
- Recognize the need for referral for pharmacological behaviour management such as general anaesthesia or sedation.
- Develop skills in managing medically compromised patients, including effective communication with healthcare providers.
- Learn to manage patients requiring multidisciplinary care.
- Enhance skills in presenting clinical cases clearly and effectively.
- Achieve proficiency in maintaining accurate records and notes, including the taking of clinical photographs.

Requirements:

Attending at least 80% of consultant clinics

Case Complexity:

The submitted cases should illustrate comprehensive care of a patient, either child or adolescent. The sequence of records illustrated by photographs, radiographs, and models as appropriate should indicate management and treatment success over a minimum period of follow-up of 12 months. Clinical cases should be chosen based on the case complexity matrix.

Patient criteria:

Child patients (up to 16 years). Residents will be seeing patients from School Oral Health programme (SOHP) clinics, and Paediatric Dentistry Unit.

Workplace Based Assessment (WBAs):

R3:

WBA	Number	Recommended Scenarios
Mini CEX	4	• 2 new patient consultations of patients with significant medical history • 2 new patient consultations of patients requiring multidisciplinary care

R4:

WBA	Number	Recommended Scenarios
Mini CEX	6	• 3 new patient consultations of patients with significant medical history • 3 new patient consultations of patients requiring multidisciplinary care

R5:

WBA	Number	Recommended Scenarios
Mini CEX	4	• 2 new patient consultations of patients with significant medical history • 2 new patient consultations of patients requiring multidisciplinary care

Comprehensive Treatment Clinic

Aim:

To provide residents with clinical skills and knowledge enabling them to deliver complete dental care for a child patient under local anaesthesia (LA) or under conscious sedation (Nitrous Oxide sedation). Residents will also be trained in delivering comprehensive care for a child patient who presents with orofacial trauma.

Learning Outcomes:

Residents will be able to:

- Develop the skill to collect and document detailed medical and dental histories comprehensively.
- Master the process of taking thorough pain and/or trauma histories.
- Strengthen communication skills to effectively interact with patients and guardians.
- Learn to use diagnostic tools to formulate and adjust treatment plans accurately.
- Tailor dental treatments to accommodate each patient's behavioural and medical conditions.
- Enhance skills in behaviour management and conduct thorough pre, intra, and post-op assessments of patient behaviour, including the evaluation for pharmacological behaviour management such as conscious sedation and general anaesthesia.
- Learn to set up, administer, and monitor Nitrous Oxide sedation safely while maintaining proper records.
- Develop expertise in managing medically compromised patients by coordinating multidisciplinary care with dental and other healthcare workers.
- Learn to manage patients requiring multidisciplinary care.
- Enhance skills in presenting clinical cases clearly and effectively.
- Gain proficiency in various dental treatments including:
    - Restorative procedures, including endodontics and prosthodontics procedures.
    - Interceptive orthodontic treatment.
    - Oral surgical procedures, including periodontal management.
    - Treatment of soft tissue lesions.
- Learn clinical management strategies for emergency situations and follow-up care for traumatic injuries to primary and permanent teeth, including fractures, luxation injuries, soft tissue lacerations, and facial bone fractures.
- Become adept at managing patient recalls and follow-ups effectively.
- Achieve proficiency in maintaining accurate records and notes, including clinical photographs, radiographs, notes, and study models.

Requirements:

- Attending at least 80% of comprehensive dental treatment sessions
- Presenting the progress of the treatment for at least three complex cases during the first year (R3) during the case presentation sessions
- Completion of at least 10 successful sedation sessions
- Completing the management of at least 15 trauma cases, providing full documentation, and submitting a case report for at least 3 cases by the end of the third year (R5)
- **Case Complexity:** The submitted cases should illustrate comprehensive care of a patient, either child or adolescent who has suffered dento-alveolar trauma. The sequence of records illustrated by photographs, radiographs, and models, as appropriate, should indicate management and treatment success over a minimum period of follow-up of 12 months.

Workplace based assessment (WBAs):

R3:

WBA	Number	Recommended Scenarios
Mini CEX	2	Pre-assessment, armamentarium of sedation unit, and post-operative instructions for sedation patients
	1	New patient consultation with significant dento-alveolar trauma
DOPS	2	Routine dental procedures
	2	Treatment of sedation cases
	1	Management of dento-alveolar trauma
CBD	2	Treated in-progress/completed cases for patients requiring multidisciplinary management/special needs
	2	Treatment planning, post-consultation write-up for sedation cases
	1	Treatment planning, post-consultation write-up and correspondence for patients with significant dento-alveolar trauma
	1	Treated in-progress/completed cases for patients with dento-alveolar trauma

R4:

WBA	Number	Recommended Scenarios
Mini CEX	2	New patient consultation with significant dento-alveolar trauma
DOPS	4	Routine dental procedures
	4	Treatment of sedation cases
	2	Management of dento-alveolar trauma

CBD	4	Treated in-progress/completed cases for patients requiring multidisciplinary management/special needs
	2	Treatment planning, post-consultation write-up for sedation cases
	2	Treatment planning, post-consultation write-up and correspondence for patients with significant dento-alveolar trauma
	2	Treated in-progress/completed cases for patients with dento-alveolar trauma

R5:

WBA	Number	Recommended Scenarios
Mini CEX	2	Pre-assessment, armamentarium of sedation unit, and post-operative instructions for sedation patients
	1	New patient consultation with significant dento-alveolar trauma
DOPS	2	Routine dental procedures
	2	Treatment of sedation cases
	1	Management of dento-alveolar trauma
CBD	2	Treated in-progress/completed cases for patients requiring multidisciplinary management/special needs
	2	Treatment planning, post-consultation write-up for sedation cases
	1	Treatment planning, post-consultation write-up and correspondence for patients with significant dento-alveolar trauma
	1	Treated in-progress/completed cases for patients with dento-alveolar trauma

Supervision by Specialist senior staff member:

These sessions are typically prebooked by residents with an established treatment plan. Paediatric Dentist supervisors will always have to be involved in the treatment planning and supervising over all treatments. Unless it is routine dental treatment, it is the residents' responsibility to inform the relevant on-call specialist senior staff member, prior to the appointment, of the case and ensure their availability during the session.

Oral Surgeon – on-call in emergency cases (other – by appointment only)
Endodontist – on allocated days
Orthodontist – on allocated days
Restorative Dentists – by appointment only

Patient criteria:

Child patient (up to 16 years)

Casualty Clinic

Aim:

To provide residents with clinical skills and knowledge enabling them to deliver emergency care for child patients requiring urgent care. These clinics may take place in the Farwaniya Specialised Dental Centre Paediatric Dental Units (PDU), School Oral Health Programme Clinics, or in outreach clinics. Therefore, residents will have to take into consideration travel time to distant locations. Additionally, sessions may be scheduled for morning and afternoon sessions, accordingly.

Learning outcomes:

Residents will be able to:

- Become proficient in taking comprehensive dental and medical histories using the clinic's standardized history sheet.
- Learn to identify and appropriately use diagnostic tools for each emergency case, ensuring accurate and timely assessments.
- Develop the ability to diagnose emergency conditions swiftly and accurately.
- Gain expertise in the appropriate management of orofacial emergencies, implementing effective and immediate care strategies.
- Acquire skills to manage acute dental and medical conditions effectively, including:
    - **Acute Pain**: Implement pain management strategies that provide immediate relief.
    - **Dento-Alveolar Fractures**: Learn techniques for the stabilization and treatment of dento-alveolar fractures.
    - **Soft Tissue Laceration**: Master the suturing and care of soft tissue lacerations to optimize healing and aesthetic outcomes.
    - **Extra-Oral Swelling**: Diagnose the cause of extra-oral swellings and apply appropriate interventions.
    - **Soft Tissue Lesions**: Identify and manage various soft tissue lesions, understanding when conservative management or more aggressive treatments are indicated.

Requirements:

- Attending at least 80% of casualty clinic during the weekdays
- Attending 100% of scheduled weekend casualty clinics

Any changes to the schedule need to be adjusted accordingly with the Programme Director and other residents to ensure that casualty clinics are covered at all scheduled times.

Patient criteria:

Child patient (up to 16 years) with orofacial emergencies

Workplace based assessment (WBAs):

R3:

WBA	Number	Recommended Scenarios
DOPS	3	Treatment of emergency cases

R4:

WBA	Number	Recommended Scenarios
DOPS	5	Treatment of emergency cases

R5:

WBA	Number	Recommended Scenarios
Mini CEX	2	Pre-assessment, armamentarium of sedation unit, and post-operative instructions for sedation patients
	1	New patient consultation with significant dento-alveolar trauma
DOPS	2	Routine dental procedures
	2	Treatment of sedation cases
	1	Management of dento-alveolar trauma
CBD	2	Treated in-progress/completed cases for patients requiring multidisciplinary management/special needs
	2	Treatment planning, post-consultation write-up for sedation cases
	1	Treatment planning, post-consultation write-up and correspondence for patients with significant dento-alveolar trauma
	1	Treated in-progress/completed cases for patients with dento-alveolar trauma

General Anaesthesia

Aim:

To provide residents with clinical skills enabling them to utilise their didactic knowledge to appropriately treat patients under general anaesthesia (GA). Sessions may take place in different hospitals throughout Kuwait; therefore, residents will have to take into consideration travel time to distant locations. Residents should also be proficient and confident in liaising with hospital staff.

Learning outcomes:

Residents will be able to:

- Learn to effectively assess patient behaviour and develop treatment plans based on patient cooperation and medical history.
- Gain the ability to recognize the need for referral for advanced pharmacological behaviour management.
- Acquire the skills to appropriately prescribe GA, understanding its indications and contraindications.
- Learn to manage the admission process for GA, including how to request and analyse lab results and collect and document detailed medical and dental histories.
- Develop competencies in managing medically compromised patients, including effective communication with healthcare providers.
- Understand the consent process, including how to communicate effectively with children and their guardians.
- Enhance understanding of the different anaesthetic agents, their uses and methods of administration.
- Learn to recognize when premedication is necessary prior to administering GA.
- Acquire a thorough understanding of setting up and using anaesthetic equipment safely during GA procedures.
- Master the process of appropriate treatment planning for patients undergoing GA.
- Develop a systematic approach to patient pre-assessment, clerking, and post-operative discharge.
- Learn to manage emergency cases and handle pre, intra, and post-operative complications effectively.
- Enhance skills in presenting clinical cases clearly and effectively.
- Acquire the ability to keep accurate and detailed records, including clinical photographs under GA.

Requirements:

- Observation and assisting of a faculty member or a senior resident in five cases under GA (R3 - Rotation 2)
- Completion of at least 20 successful GA cases by end of R3
- Attendance of weekly meetings for pre-GA case discussion
- Attendance of monthly multidisciplinary in-hospital GA meetings

Workplace Based Assessment (WBAs):

R3:

WBA	Number	Recommended Scenarios
Mini CEX	3	Work-up, clerking and post-operative instructions for GA patients
DOPS	3	Treatment of GA cases
CBD	3	Treatment planning, post-consultation write-up and correspondence for patients requiring multidisciplinary management / special needs and significant medical histories for GA cases

R4:

WBA	Number	Recommended Scenarios
DOPS	3	Treatment of GA cases
CBD	3	Treatment planning, post-consultation write-up and correspondence for patients requiring multidisciplinary management / special needs and significant medical histories for GA cases

R5:

WBA	Number	Recommended Scenarios
DOPS	10	Treatment of emergency cases

Patient criteria:

Child patients (up to the age of 14 years)

Joint Orthodontics-Paediatric (JOP) Dentistry Clinic

Weekly joint clinics with both Orthodontic and Paediatric Dentistry staff take place to discuss the management of young patients requiring interceptive orthodontic treatment. During their third year (R5), residents will attend these sessions to further their experience in direct multidisciplinary care. Treatment plans are discussed, and management is shared and collaborated between orthodontists and paediatric dentists depending on the developmental dental age of the patient, and the severity and complexity of the case.

The Joint Ortho-Paeds Clinic (JOP Clinic) is a multidisciplinary collaboration between School Oral Health Program (SOHP) Dentists, Orthodontists, and Paediatric Dentists. Referrals to the JOP SOHP Dentists refer patients to the JOP Clinic when patients present with occlusal problems in the dentition requiring further investigation, advice on treatment-planning, and management.

Learning Outcomes:

By the end of these sessions, residents will be able to:

- Assess and manage cases involving disturbances in tooth number, including hypodontia and the presence of supernumerary or supplemental teeth.
- Diagnose and implement treatment plans for disturbances in tooth eruption such as delayed eruption, impacted teeth, ectopic teeth, asymmetry in eruption patterns, submergence/ankylosis, and primary failure of eruption.
- Identify and manage disturbances in tooth formation including severe enamel and dentine defects, as well as fused or geminated teeth.
- Develop treatment plans for crossbites, whether with or without displacement, and severe malocclusions involving Class II or III discrepancies.
- Recognize and manage cases where upper permanent canines are not palpable by age 10-12 years, including those with or without peg-shaped laterals (due to risk of ectopic or impacted permanent canine).
- Provide comprehensive management for severe crowding, overjet, and traumatic overbite.
- identify and decide the appropriate management for severely hypomineralised, hypoplastic, or carious first permanent molars with questionable prognosis.
- Manage retained primary teeth, especially those with an asymmetric pattern, and manage early loss of primary teeth requiring space maintainers or regain lost space in the dental arch.
- Implement strategies to cease persistent non-nutritive habits such as digit sucking and fingernail biting that cause dental misalignments like open bites or crossbites.
- Diagnose and coordinate the multidisciplinary management of cleft lip and palate and other related craniofacial anomalies.
- Develop comprehensive treatment plans for complex malocclusions and anomalies.

ADVANCED MULTIDISCIPLINARY COURSES

Advanced Multidisciplinary Courses

These series of multidisciplinary courses enhance the residents' clinical and didactic skills. The courses cover more specialised topics allowing them to deliver optimal care to their patients. Practical, clinical, and didactic training will be essential parts of these courses.

No.	Course Title
1	Medicolegal Considerations in Paediatric Dentistry
2	Conscious Sedation for Dental Treatment of Children and Adolescent Course
3	Multidisciplinary Collaboration with Orthodontics
4	Endodontics in Paediatric Dentistry – Permanent teeth
5	General Anaesthesia
6	Advanced Restorative Techniques in Paediatric Dentistry
7	Dental Traumatology
8	Cleft Lip and Palate
9	Periodontology in Paediatric Dentistry
10	Hospital Dentistry
11	Medical Education

Recommended Reading:
All literature may be subject to change, accordingly, based on evidence-based updates and lecturer preferences.

Assessment Methods:

- Attendance – 100% attendance is required
- Participation
- Assignments/presentations

Note: Assessment methods may vary from one course to another, with different weights to each component according to the courses' individual requirements. However, all study material will be included in the final year exam.

Remediation:

If an assessment is failed in any of the disciplinary courses, the residents must complete two components, each accounting to 50% of the final adjusted grade:

- Submit a written paper (between 5000 to 10000 words) and deliver a 20-minute presentation on a topic agreed upon between the course director and the program director
- Retake, and pass the assessment designed for the course within four weeks

As per KIMS policy, failing the exam for the second time will result in probation and requirement to retake the assessment the following year
Exams cannot be rescheduled on an individual basis. The only excuses for absence at an examination or oral evaluation are medical. These excuses must be received in advance and accompanied by a letter from the Programme Director

Medicolegal Considerations in Paediatric Dentistry

Paediatric dentistry is one of the more complex dental specialties concerning medicolegal considerations. It is important that Paediatric Dentists remain aware of existing and updated local and international regulations when treating a child patient. One of the major differences is that most legal discussions must occur with a third party (parent/guardian) rather than the patient themselves. Additionally, the ethical and legal responsibility that a Paediatric Dentist has towards their patients' needs to be thoroughly understood and practiced throughout their career. This two-days series of lectures will cover updates on the most current legal, and ethical, requirements that Paediatric Dentists will be encountering throughout their patient management.

Aims:
To understand the legal and ethical requirements prior to dental treatment for paediatric patients and patients with special health care needs.

Learning Outcomes:

At the completion of the course residents will be able to:

- Demonstrate a comprehensive understanding of the legal and ethical requirements necessary before administering dental treatment to paediatric patients and those with special health care needs.
- Recognize and differentiate between various internationally recognized dentist-patient relationship models.
- Understand the different types of consents required prior to dental treatment for adults, children, and patients with special health care needs.
- Make professional and appropriate decisions when faced with controversial issues or situations in dental practice.
- Have a thorough understanding of the rights and responsibilities of healthcare providers based on Kuwaiti Law number 70.
- Comprehend the role and function of the Agency for Medical Responsibility (AMR) within the context of Kuwaiti healthcare.

Course Schedule:

NO.	TOPICS
1	Introduction
2	Informed Consent for Minors
3	Chid Protection in the Dental Office – Responsibility, Recognising, and Responding
4	Ethical Decision-making: How it is Applicable to Kuwait
5	Ethical & Legal Issues Faced by Dentists
6	Medical Profession Law in Kuwait and Agency for Medical Responsibility (AMR) in Kuwait

Assessment Method:

- Participation in discussion during the session
- Study material is included in the final exams

Conscious Sedation for Dental Treatment of Children and Adolescent Course

This course is designed to provide didactic and practical information on dental treatment under sedation, focusing on inhalation sedation using Nitrous Oxide/Oxygen (N_2O/O_2).

Aim:

The course will provide a comprehensive knowledge on the use of inhalation, oral and IV sedation to aid the provision of dental treatment for children and adolescents; and will enable residents to be competent in the administration of N_2O/O_2 sedation for dental treatment

Learning Outcomes:

- Comprehend the theoretical aspects of the utilisation of oral and IV sedation for the dental treatment for children and adolescents .
- Gain a thorough understanding of the various aspects and causes of dental anxiety.
- Learn about the different levels of sedation and their appropriate uses in dental care.
- Understand the therapeutic effects and mechanisms of action of nitrous oxide in dental treatment.
- Understand and discuss the advantages, disadvantages, indications and contraindications of N_2O/O_2 sedation for dental treatment.
- Safely administer N_2O/O_2 sedation in clinical settings.
- Be proficient in-patient selection, pre-assessment, equipment setup, monitoring during recovery, and managing potential medical emergencies related to sedation.
- Familiarize with the equipment and operational protocols of the inhalation sedation unit.
- Identify and manage complications associated with N_2O/O_2 sedation.
- Discuss occupational health hazards related to the use of N_2O/O_2 sedation.

Course Schedule:

No.	Topic
1	Introduction to inhalation sedation – Pharmacology of N_2O – Indications and contraindications of N_2O/O_2 sedation – N_2O/O_2 sedation techniques, monitoring and documentation – N_2O armamentarium – Basic Life Support (BLS)
2	N_2O adverse effects, occupational health and safety
	Introduction to sedation clinic
	N_2O Administration – hands on
	Dental Treatment under inhalation sedation - Simulation
3	IV and Oral sedation - Agents - Indications and contraindications - Advantages and disadvantages - Potential side effects
4	Seminars: Conscious sedation for dental treatment of children and adolescents
5	Literature Review Session: Conscious sedation for dental treatment of children and adolescents

Assessment Methods:

- Written Exam - Multiple Choice Questions (MCQ) and Short Answer Questions (SAQ) within the final year exam
- Workplace-based Assessment (WBA) during daily clinical sessions

Multidisciplinary Collaboration with Orthodontics

This course is designed to enhance the residents' existing knowledge and provide additional fundamental knowledge of the presentation and features of malocclusion and abnormalities of tooth position and eruption. It will allow them to recognise developing malocclusions and anomalies in growing children and be able to communicate these findings with parents and colleagues. Residents should be able to demonstrate an understanding of when an orthodontic opinion should be sought, or appropriate referral be done, and the principles of space management.

The course consists of lectures, lab simulation, and clinical experience treating patients. The initial part of the course will be lecture-based, but then will later continue as weekly case-based discussions as the residents begin clinical case management. During the case-based discussions, the residents will be expected to, through literature reviews, cover specific topics pertaining to common orthodontic conditions found in their clinics.

Aims:

The residents will be expected to gain thorough understanding of;

- The presentation and features of malocclusion and abnormalities of tooth position and eruption
- The use of appliances to correct minor tooth ectopia and crossbites in the primary and mixed dentitions
- The application and design of space-maintainers in the primary and mixed dentitions
- The presentation and features of abnormalities of tooth hypodontia
- The presentation and features of abnormalities of habits and the use of habit breakers to correct them
- The fundamental components of removable appliance for simple tooth movement.

Learning Outcomes:

During the lecture-based sessions;

- Understand and apply the management strategies for developing dentition.
- Determine the appropriate timing for orthodontic referrals.
- Master the principles of space management in orthodontic treatment.
- Diagnose malocclusion and abnormalities in tooth position and eruption effectively.

During the cased-based discussions, residents will be expected to discuss and diagnose cases, and present them in a case-based discussion, while covering the literature related to the conditions, including;

- Impacted teeth
- Hypodontia
- Open-bite, secondary to habits
- Design removable appliances for simple tooth movements

Course Schedule:

No.	Topic
1	Craniofacial Growth
2	Dental Development
3	Comprehensive Orthodontic Assessment & Treatment Planning **Clinic simulation**: History & examination, diagnostic summary, treatment plan
4	Occlusal Features of Malocclusions in growing children
5	Problems in the Developing Dentition
6	Ectopic Eruption and Impacted Teeth: Diagnosis and Management
7	Interceptive Orthodontics Appliance Design and Clinical Applications
8	**Case-based discussion**

Assessment Methods:

- Attendance 40%
- Case-based discussion – 60%

All study materials will be included in the final year exam

Endodontics in Paediatric Dentistry – Permanent teeth

This course will provide the Paediatric Dentistry residents a basic understanding of the format, content, protocols, and expectations of the advanced endodontic techniques for children and adolescents. The course will take place over one week, covering both didactic and simulation lab practical training.

Aim:

The goal of this course is to introduce the residents to the specialty practice of endodontics for children and adolescents and to develop a basic entry level technique. Residents will be able to manage paediatric cases requiring simple endodontic treatment, assess case complexities and refer appropriately. Once the course is completed, residents may initiate endodontic treatment in the clinical rotations under Endodontist supervision.

Learning Outcomes:

After completion of the course, the resident will be able to:

- Demonstrate proficiency in history taking, clinical examination, conducting special tests, diagnosing, and developing treatment plans specific to endodontic procedures for children and adolescents.
- Provide emergency endodontic procedures to alleviate pain and infection originating from endodontic issues in children and adolescents.
- Perform non-surgical endodontic treatments on permanent teeth for children and adolescents.
- Accurately diagnose the need for and proficiently provide vital pulp therapy and root end closure procedures for children and adolescents.
- Carry out intra-coronal bleaching procedures for children and adolescents.
- Evaluate the outcomes and prognosis of endodontic treatments in paediatric patients.
- Assess the complexity of endodontic cases, integrating this analysis into their treatment planning.
- Manage complications arising from endodontic treatments.
- Understand the limitations of their specialty and make appropriate referrals to ensure comprehensive patient care.

Course Schedule:

No.	Topic	Practical Session
1	Endodontic Diagnosis: pulpal and periapical	- Access cavity - Working length determination
	Restorability Assessment	
	Case Difficulty Assessment - when to treat or refer?	
	Endodontic Tooth and Root Morphology: mature and immature teeth	
	RCT: Access Cavity, Working Length Determination	
2	Root Canal Therapy (RCT): • Cleaning & Shaping: using Hand and Rotary Instrumentation Techniques • Interappointment Medicaments • Obturation Techniques: Cold Lateral Condensation, Warm Vertical Condensation • Temporization / Coronal Seal	RCT (closed apex) - Cleaning & Shaping: Rotary - Obturation: Warm Vertical Condensation - Temporization / Coronal Seal
3	Vital VS Non-Vital Pulp Therapy • Permanent tooth pulpotomy (Vital pulp therapy in young permanent teeth)- Anterior and Posterior teeth • Apexification ○ Apical Barrier Technique ○ MTA Barrier technique	RCT (open apex) - Access cavity - Working length determination - Cleaning & Shaping - Apical barrier placement - Obturation - Temporization / Coronal Seal
	Bioceramics/Bioactive Medicaments: Calcium Hydroxide, Calcium Silicate Materials (MTA, Biodentine, etc)	
4	Management of Endodontic Complications	Anterior RCT - Open apex - Closed apex
	Management of Endodontic Emergencies	
	Bleaching of Non-vital Discoloured Permanent Teeth	
5	-	- Posterior RCT - Assessment for anterior RCT

Assessment Methods:

- Attendance – 30%
- Simulation lab completion – 30%
- Unseen Case [Case-Based Discussion (CBD)] – 40%

All study materials will be included in the final year exam

General Anaesthesia

This course will provide the foundation for enhanced specialist training to treat and manage children in the hospital under general anaesthesia.

Aim: To ensure that residents develop a systematic evidenced-based approach to provide a safe and highest-quality care for dental children undergoing treatment under general anaesthesia.

Learning Outcomes:

At the completion of the course residents will be able to:

- Uunderstand the patient selection and preparation for general anaesthesia process including the special consideration for anxious or medically compromised children
- Understand the importance of having a systematic routine to follow during anaesthesia to guard patient's safety, and that to be reflected in the documentation
- Learn the procedure of admitting, monitoring, and discharging children
- Show proficiency in operating room protocol

Course Topics:

No.	Topics
1	• Patient Selection and Preparation for General Anaesthesia – Indications & contraindications – Pre-operative evaluation and documentation – Outpatient versus inpatient surgery – Informed consent and potential medical complications – Instructions to parents • Drugs and Agents used for General Anaesthesia • Intubation & Physiologic Monitoring during and after the procedure • Recovery and Discharge Criteria • Documentation • Anesthesia Emergencies and treatment algorithms
2	• Demonstration Session in the Operating Room: – Observe different airway management of anaesthesia cases – To be familiar with anaesthetic agents and monitoring devices – Clinical monitoring and documentation of the general anaesthesia process

Recommended Reading:

- Guidelines for Monitoring and Management of Pediatric Patients Before, During, and After Sedation for Diagnostic and Therapeutic Procedures. AAPD. 2019
- Use of Anesthesia Providers in the Administration of Office-based Deep Sedation/General Anesthesia to the Pediatric Dental Patient. AAPD. 2023

Dental Traumatology

This course is an in-depth course covering dental traumatology. Having been exposed to clinical situations involving orofacial trauma in their first year, residents will also be expected to present active, or completed, cases to their peers. Extensive lectures, seminars and literature reviews will facilitate the delivering of the didactic teaching to the residents, allowing them to provide evidence-based gold-standard treatment to patients suffering with orofacial injuries.

Aims:

To provide residents with up-to-date knowledge on the management of dental trauma in paediatric patients. This will allow them to systematically approach clinical examinations, diagnoses, treatment planning and delivery of treatment of paediatric patients.

Learning Outcomes:

Upon completion of the course, the residents will be able to carry out the following:

- Dental-Trauma Initial Assessment of Patient:
  - Describe how to take a history and examine a patient with dental injuries
  - Indicate what radiographs are useful in evaluating the dental-trauma patient
  - Indicate various diagnostic tests; when and how to use them
- Diagnosis of Injuries to Permanent Teeth:
  - Distinguish between different types of injuries to permanent teeth
  - Describe various types of crown fractures
  - Describe various types of root fractures, reach a diagnosis and provide immediate and definitive treatment
- Management of Displacement of Permanent Teeth:
  - Discuss the pathophysiology of injuries to the teeth
  - Provide treatment options for injuries to permanent teeth
  - Describe the advantages of semi-rigid and rigid splinting techniques
  - Explain how to monitor and treat pulpal complications of dental injuries
  - Discuss how to monitor and treat root resorption caused by dental injuries
  - Describe neurovascular injury, pulpal necrosis. periodontal ligament injury and resorption
  - Describe lateral displacement (luxation), extrusion, intrusion, avulsion of permanent teeth, reach diagnoses, and provide immediate and definitive treatment
- Management to Injuries to Primary Teeth:
  - Explain the diagnosis and treatment options for injuries to primary teeth
  - Describe concussion and subluxation of primary teeth, make a diagnosis and provide treatment
  - Describe dislocation of the mandible, make a diagnosis, and provide treatment

- Management of Soft-Tissue Lacerations:
  - List the advantages of various types of suture materials used to treat lacerations
  - Describe the benefits and applications of absorbable and non-absorbable sutures
  - Provide the rationale and steps for suturing oral and facial lacerations
  - Explain wound healing in soft-tissue lacerations
- Management of Alveolar Fractures*:*
  - Understand the diagnosis and treatment of alveolar fractures
  - Take history, make a diagnosis, and provide treatment for alveolar fractures
- Management of Mandible Fractures:
  - Discuss the physiology of bone repair
  - Identify various causes of mandible fractures
  - Provide a classification of mandible fractures by location, type of fracture, severity of fracture, and the direction or displacement of fracture
  - List symptoms of patients who have sustained fractures of the mandible
  - Make a diagnosis of specific fractures of the mandible and understands its management.
- Management of Midface Fractures:
  - Describe three types of fractures of the maxilla and be able to diagnose each type
  - Describe the fractures of the zygomatic complex, zygomatic arch and nasal bones
  - Understand stabilization techniques for the patient
  - List the clinical findings of fractures of the midface, zygoma, and nose
- Provide Dental First Aid in the Field:
  - Discuss methods of dental first aid in field conditions
- Understand of the Use of Pharmacology in the Field:
  - Be familiar with all topical and systemic medication used in the treatment of traumatic dental injury
- Understand Psychosocial impact of Dental Trauma:
  - Become familiar with the effects of traumatic dental injuries on the psychosocial wellbeing
  - Become familiar with the impact on the patient and their family's quality of life
  - Identify potential non-accidental injury and to define the child protection process

Method of Instruction:

The course is taught as a small group literature review and discussion. Residents will be expected to prepare to present the literature according to topic. Topics will be assigned to residents ahead of time.

The course layout will be as follows:

- Dental traumatology lectures
- Hands-on practical session
- Seminars
- Literature review
- Case Presentation (R4 Paediatric Dentistry Residents)

Course Topics:

No.	Title
1	Trauma to primary teeth: sequelae and treatment
2	Infractions and uncomplicated crown fractures (Enamel/ Enamel-Dentine)
3	Crown fractures: complicated (vital pulp techniques)
4	Root fractures
5	Luxations
6	Avulsions
7	Post-trauma resorption and ankylosis
8	Treatment of non-vital teeth with and without complete root formation
9	Management of poor prognosis anterior teeth
10	Auto-transplantation (Premolar Transplant)

Recommended Reading:

Andreasen, J.O., Andreasen, F.M. and Andersson, L. eds., 2018. *Textbook and color atlas of traumatic injuries to the teeth*. Wiley-Blackwell.

References and Supplementary Reading:

A list of scientific articles will be provided and updated, accordingly, in the form of a reading list in the literature review sessions (Refer to Literature Review section)

Assessment Methods:

- Attendance
- Participation in discussion, seminars, literature review sessions and a case presentation.
- Materials will be included in final year exam

Remediation:

The course coordinator will assess the need for extra didactic sessions and/or additional placement on the trauma clinic**.**

Advanced Restorative Techniques in Paediatric Dentistry Course

This course will provide the foundation for enhanced specialist dental practice and specialist training in restorative dentistry for children and adolescents, including aesthetic dentistry and prosthodontics.

Aim:

To ensure that residents develop an evidenced-based approach to advanced restorative techniques in paediatric dentistry, including appropriate use of dental materials.

Learning Outcomes:

At the completion of the course residents will be able to:

- Understand the importance of relevant diagnostic criteria leading to the creation of rational treatment plans, ensuring proper identification of appropriate treatment options.
- Show proficiency in all areas of restorative dentistry for children and adolescents, including aesthetic management, intra- and extra- coronal restorations of the primary and young permanent teeth.
- Prove clinical competency in performing different advanced restorative techniques tailored to each patient's needs while utilizing the appropriate modern dental materials.

Course Topics:

	Topic
1	**Aesthetic Management of Discoloured Anterior Teeth – *Conservative approach:*** – Micro-abrasion – Resin Infiltration – Vital Bleaching
	Practical Session **-** Demonstration of the materials and the clinical techniques of the discussed conservative aesthetic management
2	**Aesthetic Management of Discoloured Anterior Teeth – *Restorative approach:*** – Localized Composite Resin Restorations – Composite Resin Veneers- Direct/Indirect – Intro to anterior ceramic crowns: Lithium disilicate, zirconia, etc.
	Practical Session*:* – Composite Layering Technique to mask the Discolouration – Composite Build-ups using putty index and enamel/dentine shades – Preparation for Direct Composite Resin Veneers

	Topic
3	**Advanced Aesthetic Restorations of Primary Teeth using:** – Prefabricated Zirconia Crowns – Bioflex Crowns
	Practical Session **-** Preparation & Cementation of Prefabricated Zirconia Crowns & Bioflex Crowns
4	***Prosthodontic Treatment of the Adolescent Patient:*** – Inlays/Onlays/Overlays – Resin-Bonded Prosthesis – Immediate Removable Prosthesis – Post and Core in Permanent Anterior Teeth
	Practical Session*:* – Teeth Preparation and Cementation of Resin-Bonded Prosthesis – Designing Immediate Removable Prosthesis – Placement of Post and Core in Permanent Anterior Teeth

Assessment Methods:

- Attendance
- Participation in discussions and seminars
- Simulation lab completion
- Materials will be included in final year exam

Cleft Lip and Palate

This course is a collaboration between Orthodontists and Paediatric dentists. Patients with cleft lip and/or palate (CLP) may present to a Paediatric Dentist at any stages of their management. Treating patients with CLP is a multidisciplinary approach. Understanding the roles of each specialty will allow the Paediatric Dentist to refer accordingly, and to learn to work parallel to the timeline of the complex patient's overall management. This course will have both a didactic aspect, as well as an opportunity to develop more specialised clinical skills required to manage patients with CLP.

The course will be spread over two months, once a week; the one full day of didactic teaching will be followed by six clinical shadowing sessions in a CLP Clinic, followed by hands-on training on the fabrication of a NAM appliance in a lab on the last session.

Aim:
The goal of this course is to introduce the Paediatric dentists to the multidisciplinary management of children with CLP at all stages of their treatment.

Learning Outcomes:

At the completion of the course residents will be able to:

- Demonstrate an understanding of the causes and prevalence of Cleft Lip and Palate.
- Coordinate with a multidisciplinary team to manage CLP treatment.
- Perform comprehensive clinical evaluations of patients with CLP.
- Differentiate between subcategories of CLP and diagnose these conditions along with other facial clefts.
- Develop and implement a management timeline for CLP patients that includes appropriate surgical and orthodontic interventions.
- Identify and apply early treatment options for CLP effectively.
- Manage the care of infants and newborns with CLP, including feeding techniques and the use of pre-surgical oral appliances such as naso-alveolar moulding (NAM);
    - Gain a foundational understanding of naso-alveolar moulding and pre-surgical columella elongation techniques and apply these in clinical settings.
    - Fabricate NAM appliances, taking accurate impressions and adjusting the biomechanics of the appliances as required.
- Identify and manage complications arising from the treatment of CLP.
- Incorporate clinical dental considerations into the comprehensive management of patients with CLP.

Teaching Schedule:

No.	Topic
1	Diagnosis of CLP
	Aetiology and Prevalence of CLP
	Prenatal and Birth Considerations and Management
	Management of CLP – Multidisciplinary Team
2	Early Management of CLP - Pre-Surgical Infant Orthopaedics (PSIO) - Surgical Correction
3	Late Management of CLP
4	Clinical dental considerations in CLP management

Recommended Reading:

- Ahmed MM, Brecht LE, Cutting CB, Grayson BH. 2012 American Board of Pediatric Dentistry College of Diplomates annual meeting: the role of pediatric dentists in the presurgical treatment of infants with cleft lip/cleft palate utilizing nasoalveolar molding. Pediatr Dent. 2012;34(7):e209-14.
- Grayson BH, Maull D. Nasoalveolar Molding for Infants Born with Clefts of the Lip, Alveolus, and Palate. Semin Plast Surg. 2005;19(4):294-301.
- Abbott MM, Meara JG. Nasoalveolar molding in cleft care: is it efficacious? Plast Reconstr Surg 2012;130:659-66.
- Sischo L1, Chan JW, Stein M, Smith C, van Aalst J, Broder HL Nasoalveolar molding: prevalence of cleft centers offering NAM and who seeks it. Cleft Palate Craniofac J. 2012;49(3):270-5
- Campbell A, Costello BJ, Ruiz RL. Cleft Lip and Palate Surgery: An Update of Clinical Outcomes for Primary Repair, Oral Maxillofacial Surg Clin N Am 2010;22 (2010): 43–58

Assessment Methods:

- Attendance
- Participation in discussion sessions
- Material covered will be included in the final exam

Periodontology in Paediatric Dentistry

Periodontal disease comprises a group of conditions that affect the gingiva, periodontal ligament, cementum, alveolar bone and tissue structure that support the tooth. A variety of periodontal diseases can present in children and adolescents, some of which are rapidly destructive. Paediatric dentists have an important role to play in the recognition, diagnosis and treatment of gingival and periodontal diseases in children and adolescents. This one-day course is designed to update the residents with the anatomy of the periodontium, the pathogenesis and the plaque microbiology. In addition, it sheds light on the most common oral conditions involving periodontal health in children. Residents should acquire up-to-date knowledge and clinical practice techniques in periodontology classifications, diagnosis and management.

Aim:
This course aims in updating the residents with the anatomy of the periodontium, the pathogenesis and the plaque microbiology. It also sheds light on the most common oral conditions involving periodontal health in children.

Learning Outcomes:

At the completion of the course residents will be able to:

- Gain knowledge of the anatomy of periodontium, aetiology of gingivitis, and pathogenesis of periodontitis.
- Understand the plaque microbiology and host defences.
- Understand the various risk factors and the association with periodontal diseases in children.
- Be competent in periodontal examination and diagnostic procedures.
- Be familiar with the new classification of periodontal diseases.
- Be familiar with the medical conditions and medications that could lead to periodontal diseases in children and adolescents.
- Understand the role of paediatric dentist in managing various gingival and periodontal diseases in children and adolescent.
- Appreciate the importance of interdisciplinary management of periodontal diseases in adolescents.
- Understand the importance of good communication and referral to periodontists for the management of periodontal disease in adolescents.

Course Schedule:

No.	Topic
1	Introduction to Periodontal Diseases
2	Risk Factors and Periodontal Diseases
3	Classification of Periodontal Diseases
4	Medications and Medical Conditions in Periodontology

Recommended Reading:

- American Academy of Paediatric Dentistry (2019). Classification of Periodontal Diseases in Infants, Children, Adolescents, and Individuals with Special Health Care Needs. Dentistry, 451,65.
- Trombelli L, Farina R, Silva CO, Tatakis DN (2018) Plaque-induced gingivitis: Case definition and diagnostic considerations. J Clin Periodontol 45 Suppl 20:S44-S67.
- Löe, H., Theilade, E., & Jensen, S. B. (1965). Experimental gingivitis in man. The Journal of periodontology, 36(3), 177-187.
- Löe, H., Anerud, A., Boysen, H., & Smith, M. (1978). The natural history of periodontal disease in man: the rate of periodontal destruction before 40 years of age. Journal of periodontology, 49(12), 607-620
- Albandar, J. M., Susin, C., & Hughes, F. J. (2018). Manifestations of systemic diseases and conditions that affect the periodontal attachment apparatus: Case definitions and diagnostic considerations. Journal of clinical periodontology, 45, S171-S189.

Teaching Methods:

- Literature Review
- Seminars

Assessment Methods:

- Attendance
- Participation in the discussion and presentation
- All covered material will be included in the final exam

Hospital Dentistry

The main role of the hospital dental service is the provision of specialist advice and treatment for cases that requires special care. These are medically compromised cases that are referred, by their healthcare provider, to the in-hospital dental clinic for assessment and management. In addition, dentists are requested to assess and treat severely ill patients in hospital wards where possible. Sessions will take place possibly in Al-Sabah and NBK hospitals and other main hospitals and specialised paediatric clinics.

Aims:

To provide residents with clinical skills and knowledge enabling them to utilize their didactic knowledge to appropriately examine, diagnose, treatment plan and manage the medically compromised patients in both the out-patients and in-patient settings.

Learning Outcomes:

At the completion of the course residents will be proficient in the following:

- Communication skills with the patient, guardian, and hospital staff
- Management of medically compromised patients, including communications with the healthcare providers
- Utilizing diagnostic tools to treatment plan and treat accordingly
- Customizing dental treatment per patient behavioural and medical conditions
- Recognition of need for advanced pharmacological behaviour management-GA
- Recognition of the stable and controlled cases and refer them to their designated specialized dental centre for dental treatment
- Record and note keeping

Teaching methods:

- Clinical management
- Literature review

Clinical Teaching and Leadership in Paediatric Dentistry

This course aims to prepare residents not only to be skilled clinicians but also effective educators and leaders in the field of paediatric dentistry. It will help residents develop a set of skills that encompass not only teaching and clinical expertise but also leadership and professionalism, which are crucial for effective clinical educators.
The sessions will be structured to include a mix of lectures, workshops, role-playing, and peer discussions to enhance learning and application.

Aims

1. **Develop competent clinical educators:** Equip final-year paediatric dentistry residents with the knowledge, skills, and attitudes necessary to become effective clinical teachers and mentors.
2. **Foster leadership and professionalism:** Cultivate leadership abilities and professional behaviours essential for guiding and training students, internships and residents to promote a positive learning environment and ensure high standards of patient care.
3. **Integrate evidence-based teaching practices:** Encourage the use of evidence-based educational strategies to enhance student learning, clinical decision-making, and patient outcomes.

Learning Outcomes

By the end of this course, residents will be able to:

1. Design and Implement Effective Teaching Plans:
    - Create structured teaching plans aligned with curriculum goals and learning objectives.
    - Use diverse teaching methodologies tailored to different learning styles.
2. Provide Constructive Feedback and Assessment:
    - Assess student performance using objective, fair, and comprehensive methods.
    - Deliver constructive feedback that fosters student improvement and professional growth
3. Demonstrate Leadership in Clinical Education:
    - Lead clinical teams and supervise students effectively in a paediatric dentistry setting.
    - Facilitate collaboration among students, faculty, and other healthcare professionals.
4. Model Professionalism and Ethical Behaviour:
    - Exhibit and promote high standards of professionalism and ethical behaviour in clinical practice and teaching.
    - Address and resolve ethical dilemmas in a clinical teaching context.
5. Manage Diverse and Challenging Learning Environments:

- Adapt teaching strategies to meet the needs of diverse learners.
- Handle difficult situations and conflicts with students or colleagues constructively.

6. Incorporate Evidence-Based Practices into Teaching:
    - Integrate the latest research and evidence-based practices into clinical teaching.
    - Teach students how to apply evidence-based principles to their clinical decision-making.
7. Promote a Culture of Continuous Improvement:
    - Reflect on personal teaching practices and seek opportunities for ongoing professional development.
    - Encourage a mindset of lifelong learning and continuous improvement among students.

QUALITY IMPROVEMENT & RESEARCH PROJECTS

Quality Improvement (QI) Project

Quality Improvement (QI) project in dentistry focuses on enhancing the quality of dental care and patient outcomes through systematic, data-driven approaches. QI project represents a main component of the clinical governance concept, which aims to improve and maintain high standards of healthcare provision and is in-line with Kuwait Vision 2035 strategic development plan.

Clinical Audit and Service Evaluation are part of the broader umbrella of QI project:

- *Clinical Audit* compares current practices against established standards to ensure compliance and identify areas for improvement.
- *Service Evaluation* focusses on assessing the current state of a service and identifying areas for improvement.

	Clinical Audit	**Service Evaluation**
Purpose	• To assess current practice meets the established standards or guidelines	• To assess the effectiveness, efficiency, and quality of a service
Role in QI project	• Serve as a diagnostic tool to identify areas where practices deviate from standards – and therefore highlight specific areas for improvement	• Provide a broader assessment of service performance, patient outcomes, and experiences – and therefore guide initiatives to enhance overall service delivery
Example	*Adherence to infection control protocol*	*Patient satisfaction with appointment scheduling*

Integrating clinical audits and service evaluations within a QI project provides a comprehensive approach to enhancing paediatric dental care services.

It is crucial to understand that *a QI project is not research*. A research project aims to generate new scientific knowledge or validate existing knowledge through structured inquiry and hypothesis testing. In contrast, QI projects such as clinical audit and service evaluation is practical to perform and focuses on enhancing healthcare processes and outcomes within a healthcare setting.

A completed QI project is required for each resident. A list of possible topics will be available for the residents to choose from. However, should a resident choose a topic not in the list, it must be agreed upon prior to the start of the auditing process.

Teaching Method:

- A detailed lecture explaining the process, use and application of a QI project will be given at the start of the course to allow the residents sufficient time to collect data, write up and present their findings

- Continuous follow-up and guidance from two mentors
- At least two cycles or phases should be presented following the pre-determined timeline
- A brief report should be submitted after completion of the 2nd cycle or phase. The report should contain no more than 1000 words excluding the title and the references (please see the template attached in appendix)

Time Point	Event
R3 - Rotation 1	• Introductory lecture • Assign QI project topics • Assign supervisors/mentors
R3 – Rotation 2	• Presentation of QI Project Protocol • Completion of 1st cycle or phase
R3 - Rotation 3	• Presentation of 1st cycle or phase
R4 - Rotation 2	• Completion of 2nd cycle or phase
R4 - Rotation 3	• Presentation of 2nd cycle or phase • Submit QI report (clinical audit or service evaluation)
R5 – Rotation 1	• Submit transcript for publication

Grading Criteria:
See APPENDIX for 'Assessment of Quality Improvement Project' form

Research

Residents of the Kuwait Board in Paediatric Dentistry (KBPD) must complete a research project as part of their program requirements. Upon joining the KBPD, residents will be provided with a selection of research topics in paediatric dentistry, curated by the faculty. However, if a resident has a particular interest in a specific topic, they have the opportunity to develop their own research proposal. This proposal must be approved by the KBPD and submitted by the specified deadline.

Benefits of Research

Research is crucial for establishing a scientific foundation for teaching paediatric dentistry in the KBPD programme. To support this, residents will receive formal mentoring from assigned supervisors throughout the research process. The goal is to produce high-quality research that will add value to paediatric dentistry in Kuwait through rigorous and well-documented research findings.

Mentorship and Support

- Each resident will be paired with assigned supervisors who will provide guidance and support throughout their research journey.
- Supervisors will help residents aim for excellence in their research projects, ensuring they meet high standards and contribute valuable insights to the field.
- Supervisors will assist residents in publishing their research projects, enhancing the visibility and impact of their work.

Research Meetings

Regular meetings between the resident and their research supervisor are essential for the successful planning and progression of the research project within the KBPD residency timeline.

Meeting Frequency

- **Monthly Meetings:** It is recommended to hold meetings on a monthly basis.
- **Minimum Requirement:** At least 10 meetings per calendar year, starting from January of R3.

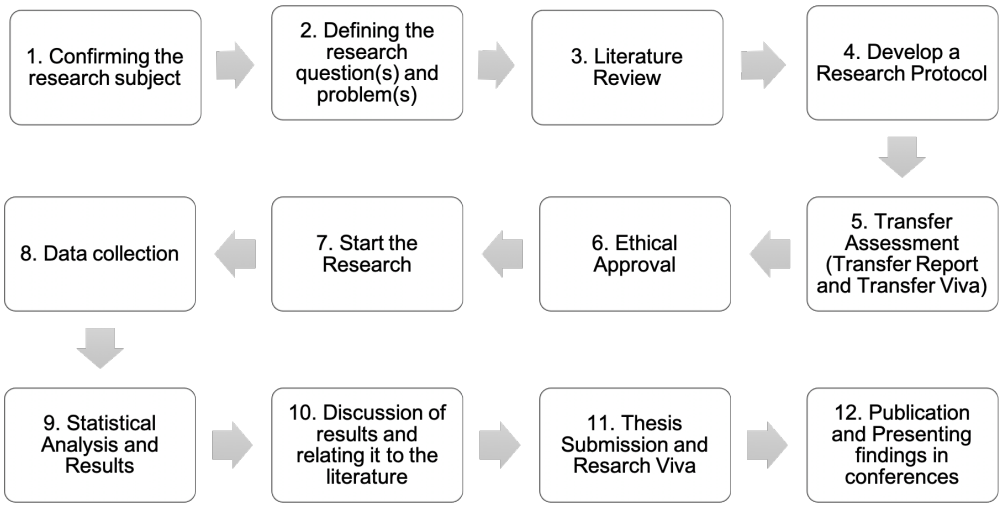
Resident Responsibilities

- **Meeting Arrangement:** The resident is responsible for scheduling formal meetings with their supervisor.
- **Meeting Formats:** Meetings can be conducted virtually or in-person, depending on convenience.

Documentation

- **Record of Research Meeting:** After each meeting, the form titled "Record of Research Meeting" should be completed and signed by both the resident and the supervisor.

Brief Summary of Research Process



Literature Review

Research begins with conducting a comprehensive search of the literature related to your research problem and questions. Information on Evidence-Based Learning will be provided, which will give you valuable tools to plan and perform an effective literature search.

A Literature Review provides an overview to give a clear picture of all the subjects related to the research topic. It gives you the ability to:

- Demonstrate your familiarity with the subject and its academic background (demonstrate comprehension and critical ability)
- Develop a theoretical and methodological structure for your research
- Demonstrate how your research will relate to existing research
- Show how your research addresses a problem or fills a gap or contributes to a debate

A good literature review involves summarizing the current literature, as well as critically analysing and evaluating them, identifying the themes, discussing what you found, and identifying gaps in the literature.

Referencing

There are many referencing styles available, so it is important to be consistent and use the same referencing style within the text as well as the references list. For simplicity, it is recommended to stick to the Harvard Referencing style.

Referencing should be done within the text, as well as in the reference list:

1. Citing within the text: In the beginning, middle, or end of a sentence
2. Citing in the Reference List: Organised in alphabetical order, and formatted depending on the source used (Book, Journal Article, Webpage, etc.). Below are some examples:

Book	Surname, INITIALS. (year) Title. Edition. Place of publication: Publisher.
Journal article	Surname, INITIALS. (year) Journal, Volume (Issue), Pages.
Webpage	Author or Organisation. (year) Title [Online]. Available from: <URL> [Accessed Date]

Plagiarism

Plagiarism is defined as the use of someone else's language, ideas, or other original material without proper acknowledgment of the source. Any instance of plagiarism, including the copying of full sentences or paragraphs, is strictly forbidden. To prevent unintentional plagiarism, it is essential to cite all sources both within the text and in the reference list.

Ethical Review

Research involving human subjects, personal or patient data, or human tissues must be conducted with the utmost respect for all participants and in compliance with local and international laws. This ensures the welfare, dignity, and rights of both researchers and participants are protected. The ethical review process comprehensively evaluates all ethical issues, including the risks and benefits for both researchers and participants. The research protocol must be submitted to an Ethical Review Committee for approval. Throughout this process, research supervisors are available to provide necessary support. Ethical approval must be obtained after the research protocol is confirmed and before commencing the research.

Transfer Assessment

The Transfer assessment involves the Transfer Report and Transfer Viva. This is held at the end of the second rotation of the second year of the programme (R2) to ensure research projects are achievable within the standard period of study for the residency programme; also, to

identify residents who are struggling with the research and require further support and intervention at an early stage.

The assessment is based on a written report (Transfer Report) and an oral examination (Transfer Viva) by a panel of members of the academic staff and an independent assessor. The panel will meet with the resident to discuss the contents of the report and the project. It is a mini version of the Thesis and the Viva.

Transfer Report

The transfer report should demonstrate that the resident is capable of conducting original research at a specialist level. Detailed guidelines on what to include in the Transfer Report are provided below. Residents should be proficient in using Microsoft Word® for preparing the Transfer Report and Thesis. If any difficulties arise, they are advised to seek support from their supervisor. The report format should adhere to the following specifications:

- Arial font, size 11 for the body of the text
- 1.5 line spacing
- Accurately numbered headings and subheadings that correspond to the Table of Contents
- All figures and tables should be properly annotated
- The total word count should ideally be within the 6,000-word limit

Transfer Viva

The oral viva will take place after the submission of the Transfer Report. The resident must prepare a PowerPoint presentation summarizing the contents of the Transfer Report. During the viva, the resident should demonstrate in-depth knowledge of the project's aims, justify the chosen methodologies, and show an understanding of the clinical impact of the research and its relationship to existing literature. Additionally, the resident should present a clear future plan, including a Gantt chart, outlining how they will complete the project within the specified timeframe.

Structure of Transfer Viva

The Transfer Viva will proceed as follows:

- The resident will give a 10–15-minute PowerPoint presentation.
- The panel will lead a discussion with the resident regarding the presentation and Transfer Report.
- The panel will hold a brief 5-minute meeting to deliberate.
- The panel will then inform the resident of the outcome of the Transfer Assessment and provide feedback.

Transfer Assessment criteria

A successful Transfer Assessment, which includes both the Transfer Report and Transfer Viva, must contain a thorough literature review, clearly stated aims and objectives, and a critical assessment of the relevant literature. The research should make an original contribution to the field and be prepared according to the specified structure (see Transfer Report section). Additionally, the Gantt chart timetable should be realistic and fit within the standard period of study.

Outcomes of Transfer Assessment

- Resident will pass the transfer process and is eligible to commence the proposed research project, with or without minor corrections
- Resident will require corrections to their proposed research project and will need to re-submit the amended Transfer Report only
- Resident will require corrections to their proposed research project, and will need to re-submit the amended Transfer Report, and a second Transfer Viva to be arranged

Time Point	Event
R3 – Rotation 1	• Assign research supervisor • Assign research topic • Introductory research lecture • Academic Writing and Research Skills Workshop
R3 – Rotation 3	• Submit Literature Review • Submit Transfer Report • Transfer Viva
R4	• Data collection, analysis, and results • Drafting of thesis
R5 – Rotation 2	• Research Thesis Submission • Research Viva

Structure of the Transfer Report

I. **Title page:**
   - Title of research
   - Name of resident
   - Level of training
   - Month and year of submission
   - Specialty and organisation

II. **Abstract (up to 250 words)**

III. **Table of Contents, Table of Figures and Tables**

IV. **List of Abbreviations or Glossary**

V. **Introduction**

- Literature Review: Background to the research as well as a comprehensive
- Summary and evaluation of existing literature within the research themes
- Context of the research problem
- Include relevance of the research (Rationale), showing originality

VI. **Aims and Objectives of the Research**

- Project Aim: Define the research problem(s)/question(s)
- Objective(s): explain how you are going to solve the problem(s)
- Hypothesis/Null hypothesis (if relevant)

VII. **Methodology**

- Study Design
- Materials/equipment to be used
- Sample size calculations (if available)
- Ethical considerations

VIII. **Results**

- **Include any preliminary results (if available)**

IX. **Discussion**

- Discuss your progress to date
- Considerations of any barriers to data collection
- Timeline/Gantt chart: an outline plan of your future research timeline

X. **References**

XI. **Appendices (supplementary material, as necessary), for example:**

- Ethical approval form
- Patient Information sheet
- Consent form
- Record form
- Survey questionnaire
- Letters

Academic Writing and Research Skills Workshop

Before embarking on their research journey, first-year residents in the KBPD program will participate in a two-day workshop on academic writing and research skills. This workshop is designed to guide residents in structuring their research and developing effective scientific writing skills. It includes interactive sessions and hands-on training in small groups. Additionally, the workshop instructors will provide individualized attention, follow-up, and further guidance in the field of research.

Day one

Duration	**5 hours**
Session Summary	This session provides residents with hands-on experience in crafting an effective introduction for their research topics and reflecting on a key question. The goal is to help them develop the skills needed to frame and structure a research question using relevant evidence. By the end of this session, residents should be able to: · Identify a research topic of personal interest. · Utilize strategies to search for relevant evidence on the topic. · Write a concise literature review.
Learning outcomes	· Critically review and assess scientific literature. · Write and present an overview of the relevant literature for a specific research topic.
Resources	Facilitators Slides, Handouts
Visual Aids	PowerPoint projector, screen and laptop with endnote software installed
Topics	· Research topic selection · Identifying a research question · Introduction to Literature Review · Steps of Literature Review · Writing the Introduction/ Literature Review · Referencing: Cite while you write (Endnote)

Day Two

Duration	**5 hours**
Session Summary	This session provides an in-depth exploration of essential topics in research methodology and ethical practices. Participants will gain insights into designing and piloting questionnaires, understanding and avoiding plagiarism, and managing their time effectively. The session will also cover the role of research supervisors, the process of obtaining ethical approval, and the principles of informed consent, data protection, and confidentiality.
Learning outcomes	By the end of this session, participants will be able to: · Design, format, and pilot effective questionnaires to gather reliable data. · Define plagiarism and implement strategies to avoid it in their research.

	· Apply time management techniques to enhance research productivity. · Understand the role and responsibilities of research supervisors. · Navigate the process of obtaining ethical approval for their research projects. · Implement informed consent procedures to ensure ethical participation. · Apply data protection and confidentiality principles to safeguard participant information.
Resources	Facilitators Slides, Handouts
Visual Aids	PowerPoint projector, screen and laptop with endnote software installed
Topics	· **Questionnaires: Format, Design, and Piloting** o Explore the best practices for creating effective questionnaires, including format, design, and the importance of piloting to ensure reliability and validity. · **Plagiarism** o Definition: Understand what constitutes plagiarism. o Ways to Avoid Plagiarism: Learn strategies to prevent plagiarism and maintain academic integrity. · **Time Management** o Techniques for effectively managing time during the research process to enhance productivity and meet deadlines. · **The Role of Research Supervisors** o Understand the responsibilities and expectations of research supervisors in guiding and supporting research activities. · **Obtaining Ethical Approval** o Overview of the process for obtaining ethical approval from relevant authorities to ensure research adheres to ethical standards. · **Informed Consent** o Learn about the principles of obtaining informed consent from research participants, ensuring they are fully aware of the study's purpose and their rights. · **Data Protection and Confidentiality** o Understand the importance of protecting data and maintaining confidentiality to uphold participant privacy and comply with legal requirements.

SELF-DEVELOPMENT COURSES

& ACTIVITIES

Self-Development Courses and Activities

Throughout the programme, lectures, seminars, or small group discussions will be conducted around a variety of topics. Some may help develop skills that residents may benefit from for future use in their careers, other may include extra-curricular activities or non-dental activities. These sessions may vary year-to-year depending on circumstances, or availability of new activities. Residents are recommended to attend these sessions and take part whenever possible. Residents are encouraged to present in national and international conferences and have exposure to future roles in academia.

Residents' Development Day

The Kuwait Board in Paediatric Dentistry acknowledges the significant of the resident development programme and arranges an annual residents' development day. It is a dedicated event organised by the residents and supported by the KBPD faculty. This event aims at enhancing the professional growth and personal development of the residents. The residents will have the opportunity to organise and engage in a variety of activities that foster their progression as future specialists in paediatric dentistry. It is a unique opportunity to invest in the holistic development of the residents empowering them to thrive in their future career.

Autism Day

As part of the World Autism Awareness Day, the residents will have the opportunity to be involved in the Autism Day at Farwaniya Dental Centre. The department organises several activities in collaboration with Occupational Therapists with the patients and the parents.

- 'Autism Spectrum Disorder (ASD)' lecture

  A lecture the day prior to the World Autism Awareness Day will be given to the residents, covering symptoms, diagnosis and clinical management of patients with ASD.

- Clinical Examination

  Residents and faculty will carry out clinical examinations, preventative treatment, educate caregivers on the importance of oral health and how to manage their home oral hygiene. Treatment plans, including a thorough behaviour analysis, utilizing the pre-written questionnaires.

- Activities

  Leaflets (story book) and educational information regarding the importance of oral hygiene and reviews to help desensitise the patients prior will be emphasized. Occupational Therapists will also be present to educate the caregivers on their services, and management of children with ASD at home.

Humanitarian Activities

The KBPD encourages residents to fulfil the feeling of responsibility of giving back to the community. By engaging in this type of activity, the residents will appreciate that their future role 'in the community' is not limited to delivering healthcare in their dental clinics to those who seek, and can access, the care.

As healthcare providers, we are obliged to deliver the necessary treatment to those most in need; reaching out to the people in need of such care with limited access is a humanitarian duty that the KBPD believes should be broadly carried out.

The KBPD will support and facilitate the residents should they wish to pursue this route during or after their residency.

Feedback to Residents

The goal of the supervisors and instructors is to provide step-by-step guidance and support to the residents. An open-door policy is followed by all the faculty at the Kuwait Board in Paediatric Dentistry. Therefore, both formative and summative forms of feedback will be provided to the residents throughout the course. Some of the feedback will be informal and oral, while others may be formal with both oral and written feedback. Concerns and advice may also be discussed during these sessions from both the residents and the faculty.

Immediate Feedback

Verbal feedback may take place during clinical sessions while active treatment is taking place. Other modes of feedback will be written as part of the assessment of the progress of the resident. The three types of assessments are as follows (see APPENDIX):

- Direct Observation of Procedural Skills (DOPS) – These will assess the overall clinical skills of the resident during a specific clinical competency
- Case-Based Discussion (CBD) – evaluate communication skills and professionalism of the residents, in addition to the didactic knowledge of specific clinical situations
- Clinical Evaluation Exercise (CEX) – technical management of clinical situations will be tested in these assessment forms.

Meetings

As per KIMS Policy & Procedure on In-training Evaluation of Resident, mandatory progress meetings are required for all residents. The meetings will be led by the Programme Director and Assigned Advisor with open discussions with the residents. A meeting record will be filled by the Advisor and the resident at each meeting, then acknowledged by the Programme Director. It is the resident's responsibility to follow the recommendations and progress plans after each meeting.

Monthly meeting with Assigned Advisor

- Review last month's progress (Wellness Report)
- Review current month's focus and calendar
- Address individual student needs (including requirements)
- Recognise areas of concern
- Recognise areas of improvement
- Progress plan with timelines

Meeting with residents once every three months (end of semester) with Programme director and Assistant Director

- Review last semester's progress (Wellness Report)
- Review Trainee Evaluation Form
- Assess progress and evaluations

- Address individual resident needs (including requirements)
- Faculty feedback
- Progress plan with timelines

Resident end of year meeting with Assigned Advisor, Programme director and Assistant Director

- Review last year's progress (Wellness Report)
- Review Trainee Evaluation Form
- Assess progress and evaluations
- Address individual student needs (including requirements)
- Follow-up on research, cases and audit progress
- Faculty feedback
- Progress plan with timelines

Resident Portfolio

Residents are advised to maintain an updated portfolio throughout the programme. Portfolios are an excellent way to demonstrate competencies, progress, developed skills, and achievements. It allows the resident to have an updated reference to the programme and previous achievements and serves as evidence of relevant skills and abilities. Additionally, the portfolio will be a very useful adjunct to their Curriculum Vitae (CV) in the future when applying for jobs or applying for conferences.

During the programme, the portfolio encourages the resident to reflect on their progress and motivates them to improve on any deficiencies. It aids them to set goals and visualise paths for their future careers.

At the end of the final year (R5), residents will be requested to present their portfolios to ensure that all competencies and requirements have been completed.

A template of a Resident Portfolio is included in the APPENDIX.

Holidays and Leaves

Holidays/Leaves

In addition to the National and Religious Holidays recognised by the Ministry of Health of Kuwait, two official one-week breaks are scheduled during the year; one in winter and one in spring, if circumstances permit.

An additional 15 days may be requested during the summer (July - September), ensuring that the break does not coincide with any examinations or compulsory classes or courses. This will equate to the total of the 30-day annual leave period as per the KIMS regulations. Leaves must be requested **at least six weeks in advance**.

The protocol for sick leaves will be as per the Ministry of Health of Kuwait.

* Please note, days off during the course are allocated study and research days. Residents are expected to use this time to study for upcoming examinations or work on their research projects.

Dress Code

Dress Code

Establishing a strict dress code in the Kuwait Board in Paediatric Dentistry is essential in fostering professionalism, adherence to rules and regulations, and cultivating the skills necessary for residents to become exemplary specialists in the future.

Clinical Attire: Residents are expected to maintain a professional appearance in the clinic. This includes wearing clean, pressed clinical attire, which typically consists of navy scrubs, along with appropriate footwear. Personal protective equipment (PPE) must be worn as required, and residents should adhere to all safety and infection control protocols. Hair should be neatly groomed and tied back if long. Jewellery should be minimal to avoid contamination risks. Wearing Kuwaiti national attire, such as the dishdasha and abaya are allowed during the didactic sessions and examinations but is not allowed in the clinic. Female residents who wear face cover (niqab) are permitted to do so during exams and didactic sessions. However, during clinical sessions, they must either replace the niqab with a medical face mask or securely tie it and cover it with a face mask for infection control purposes.

Didactic Sessions: For didactic sessions, residents should dress in business casual attire. This includes slacks, skirts, button-down shirts, blouses, or dresses. Casual clothing such as jeans, t-shirts, or athletic wear is not appropriate for these sessions. Short dresses, skirts, and shorts above the knee are not permitted. In addition, sleeveless dresses and blouses are not permitted during these sessions. Wearing Kuwaiti national attire, such as the dishdasha and abaya are allowed during the didactic sessions and examinations but is not allowed in the clinic. Female residents who wear face cover (niqab) are permitted to do so during exams and didactic sessions. The aim is to maintain a professional environment that reflects the academic nature of the programme.

Examinations: During examinations, residents are expected to dress in formal business attire. This level of dress coveys respect for the examination process and the seriousness of the assessment. Appropriate attire includes suits, ties, dress shirts, blouses, and formal shoes. Short dresses, skirts, and shorts above the knee are not permitted. In addition, sleeveless dresses and blouses are not permitted during exams. Wearing Kuwaiti national attire, such as the dishdasha and abaya are allowed during the didactic sessions and examinations but is not allowed in the clinic. Female residents who wear face cover (niqab) are permitted to do so during exams and didactic sessions. Overall adherence to the dress code is essential in reflecting the professionalism expected in the field of paediatric dentistry.

Support and Wellbeing

Support and Wellbeing

The Kuwait Board of Paediatric Dentistry ensures having a supportive environment for its residents. Although the residency program is challenging and intensive, it is rewarding at the same time. *Residency* is a new experience that differs from a resident's previous educational and training experiences. There may be some difficult times when residents may need additional support and help to manage their clinical, academic, and personal pressure. The KBPD programme believes that the residents' well-being and mental health are a priority. Therefore, an open-door policy is being followed in this programme, and the residents are encouraged to discuss any struggles directly with the programme director, the assistant programme directors, or the academic year coordinator.

Additionally, the program conducts a monthly wellness meeting to ensure the resident's progress is well-met (see APPENDIX for "wellness report"), ensuring the privacy and confidentiality of any discussed matters. In addition, as the program is under the umbrella of KIMS, residents can benefit from services provided by KIMS wellness office.

APPENDIX

Course and Instructor Evaluation Form

Course Title/Rotation	
Site	
Instructor	

Scholar	**1**	**2**	**3**	**4**	**N/A**
Shows enthusiasm about teaching and enjoys interacting with residents					
Conducts discussions that are interesting and stimulating and include topics that are important and relevant to resident					
Teaches approaches to problems and basic principles					
Facilitates discussions in clear, organized, focused fashion and involves residents					
Provides constructive feedback and criticism in a supportive way					
Provides good supervision, allowing the resident to take responsibility, but willing to help when necessary and appropriate					
Teaches critical appraisal and evidence-based dentistry					
Medical Expert	**1**	**2**	**3**	**4**	**N/A**
Provides teaching that is clinically oriented, accurate, in-depth and up to date					
Role model with good knowledge and good clinical and problem-solving skills					
Communicator	**1**	**2**	**3**	**4**	**N/A**
Provides feedback to learners about their interactions with patients, families and colleagues					
Teaches communication skills by demonstrating good inter-personal skills					
Collaborator	**1**	**2**	**3**	**4**	**N/A**
Role model working collaboratively with other health care professionals					
Manager	**1**	**2**	**3**	**4**	**N/A**
Provides support for team, and helps work run smoothly and efficiently					
Includes quality assurance / quality improvement and patient safety issues in teaching					
Advocate	**1**	**2**	**3**	**4**	**N/A**
In discussions, identifies advocacy issues, such as health risks, disease prevention, and public health issues					
Professional	**1**	**2**	**3**	**4**	**N/A**
Includes ethical issues and professionalism in teaching					
Is accessible and available, spends appropriate time with resident					

Course evaluation	**1**	**2**	**3**	**4**	**N/A**
The objectives of the course were clear					
The objectives of the course were met					
Appropriate recourses on the topic were provided					
The course increased awareness on the topic					
This course increased my confidence in clinical management of my patients					

Additional comments: _____

_____

_____

Grading Score

Strongly Disagree	**1**
Disagree	**2**
Agree	**3**
Strongly Agree	**4**
Not Applicable to this course/rotation	**N/A**

Tutor Evaluation Form

Course Title/Rotation	
Site	
Tutor	

Scholar	**1**	**2**	**3**	**4**	**N/A**
Shows enthusiasm about teaching and enjoys interacting with residents					
Conducts discussions that are interesting and stimulating and include topics that are important and relevant to resident					
Teaches approaches to problems and basic principles					
Facilitates discussions in clear, organized, focused fashion and involves residents					
Provides constructive feedback and criticism in a supportive way					
Provides good supervision, allowing the resident to take responsibility, but willing to help when necessary and appropriate					
Teaches critical appraisal and evidence-based dentistry					
Medical Expert	**1**	**2**	**3**	**4**	**N/A**
Provides teaching that is clinically oriented, accurate, in-depth and up-to-date					
Role model with good knowledge and good clinical and problem-solving skills					
Communicator	**1**	**2**	**3**	**4**	**N/A**
Provides feedback to learners about their interactions with patients, families and colleagues					
Teaches communication skills by demonstrating good inter-personal skills					
Collaborator	**1**	**2**	**3**	**4**	**N/A**
Role model working collaboratively with other health care professionals					
Manager	**1**	**2**	**3**	**4**	**N/A**
Provides support for team, and helps work run smoothly and efficiently					
Includes quality assurance / quality improvement and patient safety issues in teaching					
Advocate	**1**	**2**	**3**	**4**	**N/A**
In discussions, identifies advocacy issues, such as health risks, disease prevention, and public health issues					
Professional	**1**	**2**	**3**	**4**	**N/A**
Includes ethical issues and professionalism in teaching					
Is accessible and available, spends appropriate time with resident					

Additional comments:

_____

_____

_____

Grading Score

Strongly Disagree	1
Disagree	2
Agree	3
Strongly Agree	4
Not Applicable to this course/rotation	N/A

Practical Skills Evaluation Form

Resident's Name:

No.	Practical Task	Comments		
		Acceptable	Not Acceptable	Not Completed
1	- Growth Chart - Caries Risk Assessment - Diet Analysis - Prevention: Dental Prophylaxis, Brushing Technique, Diet Analysis and Fluoride Application			
2	- Administration of Local Anaesthesia - Rubber Dam Placement - Fissure Sealant on 6s - PRR and Class I on Primary and Permanent molars			
3	- Rubber Dam Placement - Class II on Primary and Permanent molars			
4	- Rubber Dam Placement - Pulpotomy on Primary molars - Preformed Metal Crowns on Primary Molars			
5	- Rubber Dam Placement - Access Cavity for RCT on Upper Permanent Incisors - Trauma Splint Placement and Removal			
6	- Clinical Assessment of OH and Periodontal Disease • Plaque free score • Marginal Bleeding Free score • Basic Periodontal Examination (BPE)			
7	- Silver Diamine Fluoride (SDF) - Hall Technique			
8	- Composite Build-ups for Fractured Upper Permanent Incisors using Celluloid Crown Matrix			
9	- Strip Crowns on Upper Primary Incisors			
10	- Space Analysis - Cephalometric Analysis - Wire Bending - Band Selection for Space Maintainers - Impression taking			
11	- Suturing Techniques			
12	- Catch up Session • Clinical procedure:			

Paediatric Dentistry Procedure Requirements

Procedure	R3	R4	R5	Total
Examination and treatment planning	30	30	50	110
Full mouth prophylaxis	30	30	50	110
Topical fluoride application	30	30	50	110
Fissure sealants	20	20	20	60
Mouth guard		2		2
Anterior resin restoration	10	10	20	40
Posterior resin restoration	20	20	40	80
Strip crown	4	4	6	12
Prefab SSC primary tooth	10	20	30	60
Prefab SSC permanent tooth	4	4	8	16
Pulpotomy primary tooth	10	20	20	50
Pulpotomy permanent tooth	2	4	8	14
Pulpectomy primary tooth	2	2	4	8
RCT anterior	2	2	2	6
Simple primary tooth extraction	20	20	40	80
Simple permanent tooth extraction	10	10	10	30
Space maintainer	5	5	5	15
Interceptive orthodontic treatment	2	2	2	6
Habit breaking appliance		2		2
N_2O sedation	10	15	20	45
N_2O sedation assist	5	3	2	10
General anaesthesia	10	15	20	45
Finished cases	15	15	15	45
Submitted cases	3	3	3	9

Grading	Description		Action Required
1	Unsatisfactory	Unable to complete procedure – assessor required to take over entirely	Repeat of intense training for procedure
2	Needs improvement	Unable to complete procedure without significant assessor assistance	Further intense training required
3	Meets expectations	Procedure completed successfully with some assessor guidance	Continue exposure to procedure with guidance
4	Exceeds expectations	Minimal assessor interference required	Continue exposure to procedure
5	Outstanding	No assessor interference required	None
NA	Not applicable		None

Work-Based Assessment (WBA's)
First Year (R3)

WBA	Number	Recommended Scenarios	Completed
Mini CEX	3	New patient consultations of patients with significant medical history	
	3	New patient consultations of patients requiring multidisciplinary care	
	2	New patient consultation with significant dento-alveolar trauma	
	3	Work-up, clerking and post-operative instructions for GA patients	
	2	Pre-assessment, armamentarium of sedation unit, and post-operative instructions for sedation patients	
DOPS	5	Treatment of emergency cases	
	4	Routine dental procedures	
	3	Treatment of GA cases	
	4	Treatment of sedation cases	
	2	Management of dento-alveolar trauma	
CBD	2	Treatment planning, post-consultation write-up for sedation cases	
	4	Treated in-progress/completed cases for patients requiring multidisciplinary management/special needs	
	3	Treatment planning, post-consultation write-up and correspondence for patients requiring multidisciplinary management / special needs and significant medical histories for GA cases	
	2	Treatment planning, post-consultation write-up and correspondence for patients with significant dento-alveolar trauma	
	2	Treated in-progress/completed cases for patients with dento-alveolar trauma	

Work-Based Assessment (WBA's)
Second Year (R4)

WBA	Number	Recommended Scenarios	Completed
Mini CEX	3	New patient consultations of patients with significant medical history	
	3	New patient consultations of patients requiring multidisciplinary care	
	2	New patient consultation with significant dento-alveolar trauma	
	0	Work-up, clerking and post-operative instructions for GA patients	
	0	Pre-assessment, armamentarium of sedation unit, and post-operative instructions for sedation patients	
DOPS	5	Treatment of emergency cases	
	4	Routine dental procedures	
	3	Treatment of GA cases	
	4	Treatment of sedation cases	
	2	Management of dento-alveolar trauma	
CBD	2	Treatment planning, post-consultation write-up for sedation cases	
	4	Treated in-progress/completed cases for patients requiring multidisciplinary management/special needs	
	3	Treatment planning, post-consultation write-up and correspondence for patients requiring multidisciplinary management / special needs and significant medical histories for GA cases	
	2	Treatment planning, post-consultation write-up and correspondence for patients with significant dento-alveolar trauma	
	2	Treated in-progress/completed cases for patients with dento-alveolar trauma	

Work-Based Assessment (WBA's)
Third Year (R5)

WBA	Number	Recommended Scenarios	Completed
Mini CEX	2	New patient consultations of patients with significant medical history	
	2	New patient consultations of patients requiring multidisciplinary care	
	1	New patient consultation with significant dento-alveolar trauma	
	0	Work-up, clerking and post-operative instructions for GA patients	
	2	Pre-assessment, armamentarium of sedation unit, and post-operative instructions for sedation patients	
DOPS	10	Treatment of emergency cases	
	2	Routine dental procedures	
	3	Treatment of GA cases	
	2	Treatment of sedation cases	
	1	Management of dento-alveolar trauma	
CBD	2	Treatment planning, post-consultation write-up for sedation cases	
	2	Treated in-progress/completed cases for patients requiring multidisciplinary management/special needs	
	3	Treatment planning, post-consultation write-up and correspondence for patients requiring multidisciplinary management / special needs and significant medical histories for GA cases	
	1	Treatment planning, post-consultation write-up and correspondence for patients with significant dento-alveolar trauma	
	1	Treated in-progress/completed cases for patients with dento-alveolar trauma	

Direct Observation of Procedural Skills (DOPS)

Resident: R3 R4 R5	**Clinic:**				**Site:**	
Supervisor:	**File number:**					
	Procedure:					
Specialty:						
		Emergency		**Routine**		**Trauma**
Date:		**Sedation**		**GA**		**Other**

O-SCORE Entrustability Scale

The purpose of this scale is to evaluate the trainee's ability to perform this procedure safely and independently. With that in mind please use the scale below to evaluate each item, irrespective of the resident's level of training in regards to this case.

Scale	Descriptor
1	**"I had to do"** *i.e., Requires complete hands-on guidance, did not do, or was not given the opportunity to do*
2	**"I had to talk them through"** *i.e., Able to perform tasks but requires constant direction*
3	**"I had to prompt them from time to time"** *i.e., Demonstrates some independence, but requires intermittent direction*
4	**"I needed to be in the room just in case"** *i.e., Independence but unaware of risks and still requires supervision for safe practice*
5	**"I did not need to be there"** *i.e., Complete independence, understands risks and performs safely, practice ready*

1.	**Pre-procedure plan** *Gathers/assesses required information to reach diagnosis and determine correct procedure required*	**1**	**2**	**3**	**4**	**5**
2.	**Case preparation** *Patient correctly prepared, understands approach and required instruments, prepared to deal with probable complications*	**1**	**2**	**3**	**4**	**5**
3.	**Knowledge of specific procedural steps** *Understands steps of procedure, potential risks, and means to avoid/overcome them*	**1**	**2**	**3**	**4**	**5**
4.	**Technical performance** *Efficiently performs steps, avoiding pitfalls* *Administers effective analgesia or safe sedation* *Infection control (good asepsis, safe use of instruments and sharps disposal)*	**1**	**2**	**3**	**4**	**5**
5.	**Visuospatial skills** *3D spatial orientation and able to position instruments were intended* *Use of appropriate isolation*	**1**	**2**	**3**	**4**	**5**
6.	**Post-procedure plan** *Appropriate complete post procedure plan* *Delivers clear post-operative instructions to patients/carer*	**1**	**2**	**3**	**4**	**5**
7.	**Efficiency and flow** *Obvious planned course of procedure with economy of movement and flow* *Behaviour management*	**1**	**2**	**3**	**4**	**5**

Gofton *et al.* The Ottawa surgical competency operating room evaluation (O-SCORE): a tool to assess surgical competence. Acad Med. 2012;87(10);1401-7

8. Professionalism/Communication Skills *Develops good rapport with patients/legal guardian* *Obtains informed consent from patient/legal guardian* *Communicates with patient/carer and staff in a respectful and professional manner*	**1**	**2**	**3**	**4**	**5**
9. Organisation and time management *Thorough record documentation*	**1**	**2**	**3**	**4**	**5**
10. Resident is able to safely perform this procedure independently	**YES**			**NO**	

FEEDBACK

Give at least 1 specific aspect of procedure that was done well:

Give at least 1 specific suggestion for improvement:

Other comments:

Resident's signature:	**Supervisor's signature:**

Residents are required to retain a copy for their progress folders

Gofton *et al.* The Ottawa surgical competency operating room evaluation (O-SCORE): a tool to assess surgical competence. Acad Med. 2012;87(10);1401-7

Mini-Clinical Evaluation Exercise (CEX)

Resident: R3 R4 R5	**Clinic:**	**Site:**
	File number:	
Supervisor:	**Specialty:**	**Date:**

New Patient Consultation:
☐ Complex Medical History ☐ Multidisciplinary Care ☐ Trauma

Management of Sedation Cases:
☐ Pre-assessment & Armamentarium Set-Up ☐ Post-Operative Instructions

Management of GA Cases:
☐ Clerking & Post-Operative Instructions

1- Unsatisfactory 2- Needs improvement 3- Satisfactory 4- Outstanding NA- Not assessed

1.	**History taking skills** *Collects/checks relevant history (medical, dental, social)* *Understands precautions for medical concerns of patient*	**1**	**2**	**3**	**4**	**NA**
2.	**Physical examination skills**	**1**	**2**	**3**	**4**	**NA**
3.	**Diagnostic skills and underlying knowledge base** *Prescribe diagnostic images* *Use of clinical symptoms, signs and other diagnostic tools to aid in diagnosis*	**1**	**2**	**3**	**4**	**NA**
4.	**Management and follow-up planning** *Constructs an appropriate treatment plan* *Behaviour management techniques utilised*	**1**	**2**	**3**	**4**	**NA**
5.	**Clinical judgment and decision making**	**1**	**2**	**3**	**4**	**NA**
6.	**Professionalism/Communication Skills** *Develops good rapport with patients/legal guardian* *Obtains informed consent from patient/legal guardian* *Delivery of proper prevention plan and/or clear post-operative instructions* *Communicates with patient/carer and staff in a respectful and professional manner* *Appropriate communication with other healthcare workers involved in patient care*	**1**	**2**	**3**	**4**	**NA**
7.	**Organisation and time management** *Thorough record documentation*	**1**	**2**	**3**	**4**	**NA**
8.	**Overall clinical competence**	**1**	**2**	**3**	**4**	**NA**

FEEDBACK

Give at least 1 specific aspect of the resident's performance that was done well:

Give at least 1 specific suggestion for improvement:

Other comments:

Resident's signature:	**Supervisor's signature:**

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Case-Based Discussion (CBD)

Resident: R3 R4 R5	**Clinic:**		**Site:**	
	File number:			
Supervisor:		**Treatment Planning**		
		Clinical Management: ☐ Completed ☐ In-Progress		
Specialty:		Sedation		GA
		Trauma		Multidisciplinary Care
Date:		Complex Medical History		Other

1- Unsatisfactory 2- Needs improvement 3- Satisfactory 4- Outstanding NA- Not assessed

1.	**History taking skills** *Collects/checks relevant history (medical, dental, social)* Understands relevance of medical history *Understands precautions for medical concerns of patient* *Understanding relevance of dental history and chief complaint*	**1**	**2**	**3**	**4**	**NA**
2.	**Clinical assessment** *Caries risk assessment*	**1**	**2**	**3**	**4**	**NA**
3.	**Diagnostic skills and underlying knowledge base** *Prescribe diagnostic images* *Use of clinical symptoms, signs and other diagnostic tools to aid in diagnosis*	**1**	**2**	**3**	**4**	**NA**
4.	**Management and follow-up planning** *Constructs an appropriate treatment plan* *Behaviour management techniques utilised*	**1**	**2**	**3**	**4**	**NA**
5.	**Clinical judgment and decision making**	**1**	**2**	**3**	**4**	**NA**
6.	**Professionalism/Communication Skills** *Obtains informed consent from patient/legal guardian* *Communicates with patient/carer and staff in a respectful and professional manner* *Appropriate communication with other healthcare workers involved in patient care*	**1**	**2**	**3**	**4**	**NA**
7.	**Thorough record documentation**	**1**	**2**	**3**	**4**	**NA**
8.	**Reflective practice**	**1**	**2**	**3**	**4**	**NA**
9.	**Verbal case presentation**	**1**	**2**	**3**	**4**	**NA**

FEEDBACK

Give at least 1 specific aspect of the resident's performance that was done well:

Give at least 1 specific suggestion for improvement:

Other comments:

Resident's signature:	**Supervisor's signature:**

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Assessment of Quality Improvement Project

Date:

Resident	Assessor
Name:	**Name:**
Training Level:	**Position:**
Title of Audit:	

Assessment Category	Rating			
	Outstanding	Satisfactory	Below Average	Not Assessed
Relevance of audit topic				
Standards chosen for audit				
Methodology				
Results and Interpretation				
Conclusions and Plan for Implementation				
Plan for Further Evaluation				

FEEDBACK: Verbal feedback is mandatory component of this assessment
What aspects were done well?
Areas for Improvement:
Agreed Action:

Overall Quality of Audit Based on this observation please rate the level of overall quality of clinical audit shown		
Rating	**Possible Descriptors:**	
Outstanding	Audit topic related to important clinical problem, detailed and exhaustive methodology applied, resulting in conclusions with significant importance. Plans for future direction of audit highlighted. An exemplary clinical audit	
Satisfactory	Limited guidance required throughout audit process. Good audit methodology in a relevant topic, resulting in conclusions with practical clinical importance. Plans for future direction of audit highlighted.	
Development Required	Significant guidance required throughout the audit process. Inappropriate audit topic and/or poor methodology resulting in conclusions of limited practical use. Inadequate consideration of future direction of audit.	

Resident's Signature:	**Assessor's Signature:**

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QUALITY IMPROVEMENT PROJECT TEMPLATE

DATE OF PROJECT: [mm/yyyy] to [mm/yyyy]

CANDIDATE NUMBER: [N]

PROJECT TITLE: XXXXXXXX

Quality Improvement Project Report

- Title
- Introduction/Background
- Aim(s)
- Standard(s)
- Process/ Materials & Methods
- Results
- Action Plan or Implementation of Findings
- Discussion
- References

Record of Research/Quality Improvement Project Meeting

Resident's Name:	**Year:** R3 R4 R5
Supervisor:	**Date:**
Meeting Attendees:	**Meeting Format:**

Summary of research progress since last meeting, including any problems or concerns:

Brief summary of what was discussed in today's meeting:

Agreed actions for the next meeting:

Long term plan:

Supervisor's comments:

Date of next meeting	

Supervisor Name and Signature:	Date:
Resident Name and Signature:	Date:

Presentation Evaluation Form

Presentation Title: ☐ **Topic presentation** ☐ **Case presentation** ☐ **Article appraisal**	**Resident Name:** **Training Level:** **R3** **R4** **R5** **Site:**
Assessor:	**Date:**

1- Unsatisfactory 2- Needs improvement 3- Meets expectations 4- Exceeds expectations 5- Outstanding NA- Not applicable

PRESENTATION CONTENT						
Overview/introduction of topic or case	1	2	3	4	5	NA
Clear aims/objectives	1	2	3	4	5	NA
Emphasised key points of the topic/case/article clearly	1	2	3	4	5	NA
Presentation is organised an easy to follow	1	2	3	4	5	NA
Used evidence/references to support the topic	1	2	3	4	5	NA
Summary/conclusions, critique	1	2	3	4	5	NA

PRESENTATION DELIVERY						
Eye contact, voice, and gestures	1	2	3	4	5	NA
Use of visual aids/ media	1	2	3	4	5	NA
Manner: confidence in knowledge, fluency and enthusiasm	1	2	3	4	5	NA
Handling of questions	1	2	3	4	5	NA
Time Management: **Total time**_____	1	2	3	4	5	NA

Comments:

Assessor's signature:

End of Year Clinical Cases Log

Resident's Name:	Level of Training: □ R3 □ R4 □ R5	Log Submission Date:

Case No.	File No.	Patient Initials	Case Category	Criteria	Start Date	Finish Date	Treatment	Follow-up	Assessor	Assessment Date	Final Assessment	Comments
1			□Documented □Undocumented				Period: Visits:	Period: Visits:			□ Pass □ Fail	
2			□Documented □Undocumented				Period: Visits:	Period: Visits:			□ Pass □ Fail	
3			□Documented □Undocumented				Period: Visits:	Period: Visits:			□ Pass □ Fail	
4			□Documented □Undocumented				Period: Visits:	Period: Visits:			□ Pass □ Fail	
5			□Documented □Undocumented				Period: Visits:	Period: Visits:			□ Pass □ Fail	
6			□Documented □Undocumented				Period: Visits:	Period: Visits:			□ Pass □ Fail	
7			□Documented □Undocumented				Period: Visits:	Period: Visits:			□ Pass □ Fail	
8			□Documented □Undocumented				Period: Visits:	Period: Visits:			□ Pass □ Fail	
9			□Documented □Undocumented				Period: Visits:	Period: Visits:			□ Pass □ Fail	
10			□Documented □Undocumented				Period: Visits:	Period: Visits:			□ Pass □ Fail	

Assessor 1 Name: Signature:	Assessor 2 Name: Signature:

Case Template

(Based on the Tricollegiate Diploma of Membership in Paediatric Dentistry)

DATE OF EXAMINATION: [month, year of examination]

CANDIDATE NUMBER: [N]

CASE NUMBER: [1-3]

PATIENT'S INITIALS: [X X X]

Patient's age at start of treatment (years, months)

*Please note a maximum of 2000 words and no more than 20 photographic and radiographic images in total may be used. This includes the summary and all titles of photographs and radiographs.

CASE SUMMARY

[A brief description of the case, maximum 100 words, Arial font 11]

PATIENT DETAILS

Initials:

Gender:

Age at start of treatment:

Age at last review:

PRE-TREATMENT ASSESSMENT

HISTORY OF PRESENTING PATIENT'S COMPLAINT(S)

RELEVANT MEDICAL HISTORY DENTAL HISTORY

CLINICAL EXAMINATION

GENERAL RADIOGRAPHIC EXAMINATION

Radiographs taken and why:

Radiographic findings:

PRE-TREATMENT PHOTOGRAPHS: EXTRAORAL *(if relevant)*

PRE-TREATMENT PHOTOGRAPHS: INTRA-ORAL

DIAGNOSTIC SUMMARY
[Ensure that the case matches the criteria for the particular type of case required]

AIMS AND OBJECTIVES OF TREATMENT
[Add as few or as many as are appropriate to the case]

1.

2.

3.

TREATMENT PLAN
[Add as few or as many as are appropriate to the case]
1.

2.

3.

TREATMENT UNDERTAKEN
[Provide a sequential summary of clinical treatment provided with a time-line. Identify any treatment not undertaken by yourself]

1.

2.

3. etc.

POST-TREATMENTPHOTOGRAPHS*:* EXTRAORALANDINTRAORAL
[Insert clearly dated and labelled photographs]

POST-TREATMENT RADIOGRAPHS:
[Insert radiographic images clearly dated and labelled]

LONG TERM TREATMENT PLAN AND FUTURE CONSIDERATIONS
(following the completion of the treatment you provided)

DISCUSSION AND REFLECTION ABOUT CASE PRESENTED
[This is an important part to reflect on the case history presentation. Consider what you have learnt from providing care for this patient and what alternative methods, techniques you could have used. Think about any long-term sequelae there may be. Do not provide an extensive literature review]

REFERENCES
(no more than 6 are permitted)

Clinical Case Evaluation

Resident's Details:

Name:	Level of Training: ☐ R3 ☐ R4 ☐ R5

Patient's Details:

Initials:	File Number:

Period of Care:

Start Date:	Finish Date:
Total Treatment Period: Months	Total Number of Visits:
Total Follow-up Period: Months	

Case's Details:

Case Number:	Assessment Date:
Case Category: □ Documented □ Undocumented	**Dentition:** □ Primary □ Mixed □ Permanent
Criteria: □ Comprehensive Care □ Management of Medically Compromised □ Dentoalveolar Trauma □ Dental Anomalies □ Multidisplinary Care	**Treatment Modality:** □ Local Anaesthesia □ General Anaesthesia □ Relative Analgesia □ Biological Approach/Minimally Invasive
Clinical Photographs: Pre-Op: □ Yes □ No Acceptable: □ Yes □ No	**Clinical Photographs:** Post-Op: □ Yes □ No Acceptable: □ Yes □ No
Radiographs: Pre-Op: □ BWs □ OPT □ PAs □ Occlusal □ CBCT Acceptable? □ Yes □ No	**Radiographs:** Post-Op: □ BWs □ OPT □ PAs □ Occlusal □ CBCT Acceptable? □ Yes □ No
Diagnosis: Documented: □ Yes □ No Acceptable: □ Yes □ No	**Treatment Plan:** Documented: □ Yes □ No Acceptable: □ Yes □ No

Narrative Notes:

Letters and Correspondence: □ Other Dental Specialty □ Medical Specialty □ Nutrition □ Legal Documents □ Social Workers □ School □ Other:	**Prevention Regimen:** □ Oral Hygiene Instructions □ Diet Analysis □ Fluoride Application □ Plaque Score □ Fissure Sealants □ Other:
Operative Treatment: □ Anterior Composite Restoration □ Strip Crown □ Posterior Composite Restoration □ Amalgam □ Preformed Metal Crown □ Onlay □ Inlay □ Silver Diamine Fluoride □ Glass-Ionomer Restoration □ Other:	**Surgical Treatment:** □ Simple Extraction □ Surgical Extraction □ Incision and Drainage □ Biopsy □ Surgical Extrusion □ Decoronation □ Splint □ Referral to Oral and Maxillofacial Surgery □ Other:
Pulp Therapy – Primary Teeth: □ Indirect Pulp Cap □ Direct Pulp Cap □ Pulpotomy □ Pulpectomy □ LSTR □ Other:	**Pulp Therapy – Permanent Teeth:** □ Indirect Pulp Cap □ Direct Pulp Cap □ Pulpotomy □ Pulpectomy □ Apexogenesis □ Apexification □ RCT for Permanent Tooth □ Regenerative Endodontic Therapy □ Referral to Endodontics □ Other:
Orthodontic Treatment: □ Interceptive orthodontic Treatment: □ Removable □ Fixed □ Workup of Comprehensive Case □ Mouthguard □ Habit Breaker □ Orthodontic Extrusion □ Referral to Orthodontics □ Other:	**Behaviour Management:** Assessment Made in every visit: □ Yes □ No Frankl Score: □ F1 □ F2 □ F3 □ F4 Approach Acceptable: □ Yes □ No

Comments:

Final Assessment:

□ PASS	□ FAIL

Evaluated by:

Name: Signature:

Wellness Report

-

Resident: R3 R4 R5	**Faculty:**

Note: This form must be filled by the Resident and faculty at the time of the meeting

Date:	**Concerns?** If No – indicate NONE If Yes – please elaborate in box	**N/A**
Academic Progress		
Courses/ Classes		
Examinations		
Research		
Audit		
Clinical Progress		
Requirements		
Clinics (e.g. patients, clinical skills)		
Evaluations		
Clinical		
Didactic		

Other Areas of Concern

Areas of Improvement

Progress Plan	Timeline

Faculty Comments

Resident's signature:	Supervisor's signature:	Program Director signature:

Residents are required to retain a copy for their progress folders

Trainee Evaluation Form

Program	Kuwait Board in Paediatric Dentistry		
Rotation	First Training Year – First Rotation – October to December 2019		
Site	Farwaniya Specialised Dental Centre	**Level of Training**	R3
Supervisor's Name			
Trainee's Name			

1. Unsatisfactory 2. Needs improvement 3. Meets expectations 4. Exceeds expectations 5. Outstanding

Medical Expert	1	2	3	4	5	NA
Basic science knowledge						
Clinical knowledge						
Data gathering (History and physical examination)						
Choice and use of ancillary tests (e.g. Lab. Tests)						
Soundness of judgment and clinical decision						
Performance under emergency conditions						
Self-assessment ability (insight)						
Performs diagnostic and therapeutic procedures required in the rotation						
Minimizes risk and discomfort to patients						
Communicator	1	2	3	4	5	NA
Establishes therapeutic relationship with patients/families						
Delivers understandable information to patients/families						
Maintains professional relationship with other health care providers						
Provides effective counseling to patients/families						
Provides clear and complete records and reports						
Collaborator	1	2	3	4	5	NA
Demonstrates ability to accept, and respects opinions of others						
Work effectively in a team environment						
Consults effectively with other physician and healthcare providers						
Manager	1	2	3	4	5	NA
Manages time effectively						
Allocates health care resources effectively						
Works effectively in a health care organization						
Utilizes information technology effectively						
Practices evidence-based medicine						
Health Advocate	1	2	3	4	5	NA
Is attentive to preventive measures						
Is attentive to issue of public health						
Advocates on behalf of patients						
Involve patients/families in decision making						
Scholar	1	2	3	4	5	NA
Attends and contribute to rounds, seminars and learning events						
Accepts and acts on constructive feedback						
Takes an evidence-based approach to the management of problems						
Contributes to the education of other trainees, and health care professionals						
Professional	1	2	3	4	5	NA
Recognizes limitations and seeks advice when needed						
Discharges duties and assignments responsibly and in timely manner						
Report facts accurately, including own errors						
Maintains appropriate boundaries in work and learning situations						
Attend duties and report to work regularly (Punctuality)						
OVERALL COMPETENCE	1	2	3	4	5	

Trainee Evaluation Form

Additional Comments:

I certify that I have read all parts of this evaluation report and have discussed it with my supervisor

Trainee's name/signature: **Date:**	**Supervisor's name/signature:** **Date:**

Residents are required to retain a copy for their progress folders
Please send completed and signed form to the program director

Kuwait Institute for Medical Specialisation

Kuwait Board in Paediatric Dentistry

Resident Portfolio

Resident's Name:
Civil ID Number:

Contents:

Contravention Record

Resident's Name: _____

Area of Contravention:	Punctuality	Infection Control	Time Management	Clinical	Documentation	Professionalism	Other

Area of Contravention	**Comments**	**Mentor's Name & Sign**	**Date**