

Division of Graduate Dental Studies



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ENDODONTIC

**Residency Training Programme
leading to the degree of
Master of Dental Surgery (MDS)**

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1 TEACHING STAFF

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2 INTRODUCTION

The Residency Training Programme in Endodontics is a three-year full-time programme designed to provide advanced training in Endodontics, leading to the degree of Master of Dental Surgery (Endodontics). Residents enrolled in this programme will be trained at the Faculty of Dentistry, National University of Singapore and the National Dental Centre.

OBJECTIVES

At the end of the residency training, a resident will -

- 1 have had basic sciences education as a foundation for diagnosis, treatment planning and case management
- 2 develop advanced diagnostic and clinical skills needed of a specialist in endodontics
- 3 effectively integrate with other specialties and disciplines in the care of patients requiring multidisciplinary therapy
- 4 effectively integrate with other specialties and disciplines in the care of patients requiring interdisciplinary therapy
- 5 develop skills to conduct research and teaching

VENUES FOR TRAINING

During the three-year training programme, residents will be trained at two institutions.

- a Faculty of Dentistry, National University of Singapore
- b National Dental Centre, Singapore

3 COURSE CONTENTS

1 Basic Medical Sciences Course

To be in line with the current standards for advanced specialty education program internationally, the Endodontic Residency Training Program incorporates basic medical science courses at an advanced level to provide sound biological basis for the diagnosis and treatment of endodontic pathology and to provide strong scientific foundation for the Endodontics-related research.

2 Didactic Courses in Endodontics

Clinical training is corroborated with instruction in the basic principles of endodontics, in addition to the basic biomedical sciences. Seminars, lectures (including guest lectures), literature reviews, diagnostic and treatment planning sessions are regular features in the programme as is exposure to undergraduate teaching.

3 Basic & Advanced Pre-clinical Technic Courses

The basic and advanced technic courses are designed to complement the relevant skills for the first and the second year residents to allow them to handle the routine and complex endodontic cases, respectively.

4 Clinical Training

The resident will be trained to diagnose, treat and manage patients with endodontic needs of varying degree of complexity. These include endodontics with complex root and canal morphology and management of procedural errors, endodontic retreatment, endodontic emergency, endodontics in children, non-surgical micro-endodontics, endodontic micro-surgery, treatment of traumatic injuries and bleaching as well as management of medically compromised patients. The resident will also be exposed to multidisciplinary care and management to integrate and interact with other disciplines like Periodontics, Prosthodontics and Oral and Maxillofacial Surgery.

5 Treatment Conference

The residents will be train to develop a biological-sound defensible philosophy and rationale for Endodontic Therapy through critical review of the treatment planning or treatment cases.

6 Research Methodology

This course covers principles of biostatistics, research design and scientific writing, which provides foundation and equips residents to better design a study protocol and to critically review literatures.

7 Research

Research is an important part of the programme. Each resident is required to complete a research project and defend his thesis as partial fulfilment of the MDS degree in Endodontics. The resident is also encouraged to write up the manuscript for publication in a refereed journal and to present the research findings, conduct table-clinics, etc. at scientific meetings.

Year 1:

The resident must identify the topic of investigation and review the literature. This is to be presented to the examiners at the Year 1 exam.

Year 2:

The resident must submit research proposal to the Committee. The resident is also encouraged to make as much progress in his/her research project as time allows, preferably completing it by the end of second year. A progress report is to be presented to the examiners at the Year 2 exam.

Year 3:

The resident will complete the research project, if he/she has not already done so, and defend his/her thesis three to six months before the Final exam. At the Final exam, the resident will make a short presentation of his/her research.

8 Teaching

Each resident will be involved in the undergraduate pre-clinical and clinical teaching.

9 Attachment at Overseas Institutions

In order to increase the educational and learning experiences, each resident will be given the opportunity for a 3-4 weeks attachment at reputable overseas institutions in USA using own grants sought for airfare, accommodation and other expenses. This will likely to be scheduled for April-May to coincide with the annual AAE conference that is held within the U.S. The attending residents will follow the prevailing timetable at the attached institutions and attend seminars, literature reviews and lectures, etc. They are encouraged to network and actively engaged in intellectual interaction.

ANNUAL ASSESSMENT

Residents will be assessed annually through:

- 1 written paper at year-end examinations for years 1 & 2
- 2 presentation at the treatment conference and literature review/seminar
- 3 term paper where applicable
- 4 continual assessments, including clinical performance

A candidate will only be allowed to proceed to the second year subject to favourable performances.

4 EXAMINATIONS

PART I MDS EXAMINATION

The candidate must pass the Part I MDS examination, which consists of basic medical sciences related to Endodontics. This examination will be held in January/February of Year 1. A second examination will be held in May/June of Year 1. Should the candidate fail at the second attempt, he/she would have to leave the program.

Candidates who have passed the Part I MDS or its equivalent will be exempted from this examination.

PART II MDS EXAMINATION

The Part II MDS examination will be conducted in May/June of Year 3. Residents will only be permitted to sit for the examination after having met the requirements set by the Committee.

AWARD OF MDS (ENDODONTICS)

The degree of Master of Dental Surgery in Endodontics will be awarded to the candidate on -

- 1 passing the Part I and Part II examinations; and
- 2 successful defence of thesis.

5 COURSE OUTLINE

1 ST YEAR	2 ND YEAR	3 RD YEAR
Basic Medical Science Course	Biostatistics & Research Design	-
Basic Endodontic Techniques	Advanced Endodontic Techniques	-
Introduction to Clinical Endodontics	-	-
Clinical Dental Photography	-	-
Advanced Endodontics I	Advanced Endodontics II	Advanced Endodontics III
Current Literature Review	Current Literature Review	Current Literature Review
Treatment Conference	Treatment Conference	Treatment Conference
Clinical Training	Clinical Training	Clinical Training
-	Research	Research
-	Teaching (Pre-Clinical)	Teaching (Clinical)
-	USA Attachment (optional)	-
Part 1 MDS Examinations	-	Part 2 MDS Examination

Equipment Requirement

Whilst the resident will be provided with most of the endodontic instruments and materials that are necessary for clinical, he/she will be required to purchase his/her own clinical camera system with ring flash and close-up lens for documentation, apex locators and ultrasonic tips. Some knowledge of computer and its applications will also be useful.