



Clinical Fellowship in Pediatric Otolaryngology

The Stollery Children's Hospital, University of Alberta, Edmonton

This clinical fellowship is a relatively new endeavor. The first fellow started in October 2004, and his successors have since followed his footsteps keeping the program uninterrupted. We aspire to enhance our educational role locally, nationally and abroad.

The Stollery Children's Hospital

The Stollery Children's Hospital, located within the University Of Alberta Hospital, is home to a mosaic of highly skilled child health professionals from many countries around the world. They have made this "hospital within a hospital" into a well-recognized centre for complex and specialized services.

We care for children from Northern Alberta including Edmonton and metropolitan area, as well as Saskatchewan, British Columbia, Manitoba, the Northwest Territories, Yukon and Nunavut. For Pediatric Otolaryngology the population served is arguably in excess of 2 million.

Highlights of facilities:

- Western Canada's largest pediatric liver transplant program.
- The major pediatric cardiac programs in the province.

- One of only two Pediatric Intensive Care Units in Alberta. The 16-bed unit is the referral centre for 800 critically ill children each year; it supports the Stollery Transplant Program for pediatric organ transplants, trauma, general surgery, and cardiac surgery.
- One of only four centers in Canada with a specialized Pediatric and Neonatal Extra Corporeal Membrane Oxygenation (heart-lung bypass) program.
- The only Specialized Pediatric Emergency in Central and Northern Alberta.
- A very active internationally recognized pediatric neurosurgical and neurological teams.

In 2001/02 there were:

- 5,033 inpatients;
- 17,472 Emergency Room visits;
- 3,744 day surgeries; and
- 58,500 outpatient clinic visits.

The Stollery has 133 beds:

- 77 inpatient (plus 2 flex beds);
- 8 observation;
- 4 day medicine;
- 14 neonatal intensive care;
- 16 pediatric intensive care; and
- 12 intermediate care

Pediatric Otolaryngology Faculty:

Dr. Hamdy El-Hakim, FRCS(Ed) FRCS (ORL-HNS) - Fellowship Program Director and Research Director

Dr. Eduard Eksteen, MD, FRCSC

Dr. Trina Uwiera, MD, FRCSC

The service is a busy and evolving subspecialty in the Stollery. While the vast majority of the services are delivered in the Stollery, we cover all city hospitals and visits will be made to the other NICUs.

The Team

Physician staff consists of 3 full time, fellowship trained, Pediatric Otolaryngologists, 1 Clinical fellow, 1 Resident and a full time Clinical Nurse Specialist.

Description of services

The *surgical case-load* had approximately 750 procedures that were performed in 2005-2006 (for each full time surgeon). A broad range of surgical repertoire is offered; open and endoscopic airway procedures (LASER and microdebrider assisted), cochlear implantation, mastoidectomies and tympanoplasties, saliva control procedures, sleep nasopharyngoscopies, open approach septoplasty, microdebrider assisted lingual tonsillectomy, microdebrider assisted turbinoplasty and endoscopic sinus procedures, developmental and oncological neck dissections and excisions, branchial apparatus surgery.

Mutli-disciplinary cases with Pediatric Neurosurgeons (e.g. complicated otogenic and sinogenic infections), Plastic surgeons (e.g. Robin complex/sequence, cleft palate), adult Skull-base surgeons and Head and Neck Surgeons, (e.g. complex

neck swellings, anterior skull base lesions), are often undertaken. Navigation systems for guiding complex resections are utilized. Joint endoscopic assessments along with pediatric Pulmonologists and Gastroenterologists are common occurrence for swallowing and aspirating disorders and complex children with respiratory multi-factorial disease.

There are over 3000 *clinic* visits each year (for each full time surgeon). The in-house consults are 400 annually (half of which are converted into procedures under anesthetic). Three combined clinics exist: the Cleft clinic, the Tracheostomy clinic and the Voice Clinic. The clinics are fully equipped with image capture systems and full range of rigid and flexible endoscopes. Close interaction with Pediatric Pulmonology and Gastroenterology offers a unique experience to learn the basics of sleep medicine and management of swallowing disorders, gastroesophageal reflux disease and eosinophilic esophagitis.

Allied services

- Audiology service. All modern investigative techniques are available and provide a wealth of experience to the fellows. Another rehabilitation centre (The Glenrose hospital) houses advanced Speech and Audiology services; their scope is mainly children with multiple disabilities.
- Speech & Language Pathology. The team covers out-patient and inpatient consults with bedside, functional endoscopic evaluation of swallowing and video-fluoroscopic assessments.

Eligibility:

The fellowship position requires the applicant to have completed residency training in Otolaryngology and to have successfully passed licensing examinations in their country of origin. The fellowship is open to Canadian, as well as non-Canadian trained Otolaryngologists. Foreign medical graduates must be able to obtain a training Visa for Canada and an educational license for Alberta.

Accreditation:

The fellowship is not accredited, given the lack of an accreditation body and process for accreditation in Canada for Pediatric Otolaryngologists fellowships.

Affiliation

The program is affiliated with the division of Otolaryngology. The training and education is under the jurisdiction of the Fellowship Training Committee in Otolaryngology. This is chaired by the Divisional Head of Otolaryngology.

Duties and Responsibilities of Fellows

The Fellowship Program in Pediatric Otolaryngology is a 1 year duration which is primarily clinical in nature.

Specific clinical responsibilities for the fellow are as follows:

- help maintain the consultative service for otolaryngology
- provide direct and daily input to the neonatal and pediatric intensive care units with respect to airway management.
- attend to all surgical or endoscopic operative cases that evolve out of the above activities.
- attend major surgical cases unique to the practice of pediatric otolaryngology.

- attend daily ward rounds, weekly Pediatric grand rounds (relevant subjects), weekly Otolaryngology grand rounds (Friday a.m.), monthly Pediatric Surgery grand rounds and journal clubs.
- maintain a collegial and collaborative working relationship with the resident(s) and other staff.
- attend and participate in the 2 major pediatric otolaryngology meetings in North America (SENTAC & ASPO).
- Provide on call cover, under supervision of staff pediatric Otolaryngologists. The fellow observes a 1:3 on-call roster; this is complimented by the rotating otolaryngology resident and the pool of otolaryngology residents attached to the adult service.

Research Scope and Activity

Despite the overwhelming clinical nature of the training program, clinical research is desirable and encouraged. Presentations in Surgical, Otolaryngology and Pediatrics Grand Rounds are strongly supported. Attendance and participation in Otolaryngology residents' rounds and monthly journal clubs are mandatory.

The Research Director, Dr. El-Hakim, guides and supervises the process; from the inception, planning and allocation stages to the execution and analysis.

Monthly meetings for monitoring research progress are undertaken.

The current interests are:

- sleep disordered breathing (endoscopic patterns),
- laryngeal paralysis management with botulinum toxin type A,
- management of deficient saliva control with clipping of major ducts,
- sensori-neural hearing loss,
- otolaryngologic manifestations of eosinophilic esophagitis.

The critical appraisal journal club serves as a hunt for ideas with structured literature searches and evaluations directed at clinical problems seen on a

regular basis in the center.

Journal Clubs / Meetings

- Pediatric Otolaryngology Journal Club – monthly meetings. A critical appraisal of selected articles and Dr. El-Hakim leads the meetings. This is a forum for structured teaching of research methodology and evidence based medicine, in addition to core subjects.
- Radiology Teaching Round – meeting every six weeks. Discussion of interesting cases presented by fellow.
- Otolaryngology Journal Club - monthly meetings. Discussion of 4-6 articles from otolaryngology literature. Led by the adult service Otolaryngology Program Director.
- Grand Rounds - weekly teaching meetings including M & M, Pathology, and Radiology Presentations are by trainees in otolaryngology.
- Surgery Grand Rounds.
- Pediatric Grand Round - weekly meetings. General pediatrics topics.

Timetable

The fellow shares with the resident an alternating schedule between operating room and clinic attendance. In order to maintain adequate exposure to the staff surgeons' practice, every week the trainees exchange placement to balance the clinic and operating experiences per week.

Funding

Funding sources exist, but with some variability and there is a competitive process which depends upon the year and candidacy. Specific inquiry is encouraged through the program director.

Application Process

The completed application should include:

1. Curriculum vitae
2. Three referees with their contact information
3. A copy of any recent and relevant publications
4. A personal letter outlining the candidates interest in the fellowship as well as future plans upon completion of the fellowship

The interview will take place in Edmonton, giving the applicant an opportunity to see Edmonton, the facilities and premises, and interact with the staff for one week. It is highly unusual to offer a different arrangement (e.g. conference calls). Customarily, within 2 months from the interview date, the successful candidate will be informed, once the committee has taken the decision, and the funding for that particular year has been secured.

For application or inquiries, please contact:

Dr. Hamdy El-Hakim, FRCS (Ed), FRCS (ORL)

Pediatric Otolaryngology Fellowship Program Director

Research Director for the Division of Otolaryngology

2C3.57, 8440 – 112 Street

EDMONTON AB T6G 2B7

Phone: 780-407-8629 Fax 780-407-2004

Email: hamdy.elhakim@albertahealthservices.ca

Past Fellows:

1. **2004-2005: Dr. Amged El-Hawrani**, Consultant Otolaryngologist - Head & Neck Surgeon. Burton on Trent, England, UK
2. **2005-2006: Dr. William Andrew Clement**, Consultant Pediatric Otolaryngologist - Head & Neck Surgeon, Yorkhill Hospital, Glasgow, Scotland, UK
3. **2006-2007: Dr. M. Thevasagayam**, Consultant Pediatric Otolaryngologist - Head & Neck Surgeon, Sheffield, England, UK
4. **2007-2008: Dr. George Kuruvilla**, Consultant Pediatric Otolaryngologist - Head & Neck Surgeon, Kerala, India
5. **2008-2009: Dr. Marie Lyons**, Consultant Pediatric Otolaryngologist Head & Neck Surgeon, The Lister Hospital , Stevenage, Herts, UK
6. **2009-2010: Dr. Hani Rifai (Current Fellow)**

Research & Publications:

1. Friedberg J and **El-Hakim H**. Hoarseness. In Pediatric Otolaryngology, 4th edition, Saunders, 2003, Vol. 2; Section V; Chapter 79: 1413-1420.
2. Mehta V, Gupta M, Bhargava R, **El-Hakim H**. Pott's puffy tumour in a 3 year old child. The Canadian Journal of Neurological Sciences, Vol 30, May 2003, Suppl 2: S72 (abstract).
3. Gupta M, McClymont LG, **El-Hakim H**. A case of sublingual haematoma threatening airway obstruction. Medical Science Monitor. 2003 Nov;9(11):CS95-7
4. Tsui BCH, Wagner A, Cave D, Elliott C, **El-Hakim H**, Malherbe S. The incidence of laryngospasm with a no touch extubation technique after tonsillectomy and adenoidectomy. Anesthesia & Analgesia 2004;98:327-329
5. Gupta M, Mehta V, Bhargava R, **El-Hakim H**. The youngest case of Pott's puffy tumour in post-antibiotic era. Int J Pediatr Otorhinolaryngol 2004, vol 68(3):373-378
6. Masterson T, Robinson J, Magnus K, **El-Hakim H**. A case of the otogenic variant of Lemierre's syndrome with atypical sequelae and a review of the pediatric literature. Int J Pediatr Otorhinolaryngol 2005;69(1):117-22
7. Chowdhury R, Crocco A, **El-Hakim H**. Isolated hyoid bone fracture; Case report and review of literature. Int J Pediatr Otorhinolaryngol 2005;69(3):411-4
8. Cuvelier G, El-Hawrani A, **El-Hakim H**, Robinson JL. A Case of Atypical Croup. Canadian Journal of Infectious Diseases and Medical Microbiology, 2005 December; 16(6):361-362
9. El-Hawrani A, Sohn M, Noga M, **El-Hakim H**. The face does predict the brain- Midline facial and forebrain defects uncovered during the investigation of nasal obstruction and rhinorrhea Case report and a review of

holoprosencephaly and its classifications. Int J Pediatr Otorhinolaryngol. 2006 May;70(5):935-40

10. **El-Hakim H**, Malik AC, Aronyk K, Ledi E, Bhargava R. The Prevalence of Intracranial Complications in Pediatric Frontal Sinusitis; a Previously Underestimated Problem. Int J Pediatr Otorhinolaryngol, 2006 Aug; Edited December 7, 2009
70(8):1383-1387

11. Chauhan N, Guillemaud JP, **El- Hakim H**. Two patterns of impalement injury to the oral cavity: Report of four cases and review of literature. Int J Pediatr Otorhinolaryngol 2006 Aug;70(8):1479-83

12. El-Hawrani A, Noga M, Rejean Gareau, Joan Robinson, Patricia Massicotte, **El-Hakim H**. Acute potentially thrombogenic craniocervical infections: a consecutive series of Lemierre and Lemierre like syndrome cases. International Journal of Pediatric Otorhinolaryngology Extra 2006, 1, 289-296 doi:[10.1016/j.pedex.2006.09.001](https://doi.org/10.1016/j.pedex.2006.09.001)

13. Guillemaud J, **El-HakimH**, Chauhan N, Lee M, Noga M, Seikaly H. A pediatric case of neurofibromatosis type 2 presenting as a plexiform schwannoma of the intraparotid facial nerve. A review of the world literature on the presenting pathology. International Journal of Pediatric Otorhinolaryngology Extra [Volume 1, Issue 3](#), September 2006, Pages 220-225
doi:[10.1016/j.pedex.2006.06.001](https://doi.org/10.1016/j.pedex.2006.06.001)

14. Nitin Chauhan, Joan L. Robinson, Jennifer Guillemaud, **Hamdy El-Hakim**. Acute Herpes Simplex Laryngitis: Report of 2 pediatric cases and review of the literature. Int J Pediatr Otorhinolaryngology 2007; [71\(2\)](#):341-345
doi:[10.1016/j.ijporl.2006.10.012](https://doi.org/10.1016/j.ijporl.2006.10.012)

15. El-Hawrani A, Johnson E, Dhunnoo I, **El-Hakim H**. Bell's like

mononeuropathies of two lower cranial nerves and review of the literature.

International Journal of Pediatric Otorhinolaryngology Extra [Volume 2, Issue 2](#), June 2007, Pages 102-106 [doi:10.1016/j.pedex.2007.02.008](https://doi.org/10.1016/j.pedex.2007.02.008)

16. Guillemaud J, **El-Hakim H**, Richards S, Chauhan N. Airway pathology encountered during the management of symptomatic children with congenital cardiac or vascular disease. Arch Otolaryngol Head Neck Surg. 2007;133(7):672-6.

17. Clement WA, **El-Hakim H**, Phillipos EZ, Coté JJ. Unilateral vocal cord paralysis following PDA ligation in Extremely Low Birth-weight infants. A benign complication? Arch Otolaryngol Head Neck Surg. 2008 Jan;134(1):28-33. Edited December 7, 2009, 33.

18. Thevasagayam M and **El-Hakim H**. Diagnosing Choanal Atresia – A simple approach. Acta Paediatr. 2007;96(8):1238-9

19. **El-Hakim H**, Richards S, Thevasagayam M. Major salivary duct clipping for control problems in developmentally challenged children. Arch Otolaryngol Head Neck Surg. 2008 May;134(5):470-4.

20. Thevasagayam M, Gan K and **Eksteen E**. Control of salivary secretions in esophageal atresia with laryngeal cleft using Botulinum toxin Type A. Int J Pediatr Otorhinolaryngol. 2008 May 125.

21. Gan K, Fung E, Idikio H, **El-Hakim H**. A floor of mouth teratoid cyst with tract in a newborn--case report and English literature review unraveling erroneous quotes and citations. Int J Pediatr Otorhinolaryngol. 2008 Aug;72(8):1275-9.

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23. **El-Hakim H.** Injection of botulinum toxin into external laryngeal muscles in pediatric laryngeal paralysis. *Ann Otol Rhinol Laryngol.* 2008 Aug;117(8):614-20.
24. Kuruvilla G, Perry S, Wilson B, **El-Hakim H** The natural history of vincristine-induced laryngeal paralysis in children. *Arch Otolaryngol Head Neck Surg.* 2009 Jan;135(1):101-5.
25. Gan K, Tomlinson C, **El-Hakim H.** Post-operative bleeding is less after partial intracapsular tonsillectomy than bipolar total procedure. *Int J Pediatr Otorhinolaryngol.* 2009 May;73(5):667-70.
26. **Uwiera TC,** DeAlarcon A, Meinzen-Derr J, Cohen AP, Rasmussen B, Shott G, Greinwald J. *Ann Otol Rhinol Laryngol.* 2009 Nov;118(11):781-5
27. Caroline C. Xu & **Trina C. Uwiera.** Tortuous common carotid artery presenting as a pediatric submandibular neck mass. *Int J Pediatr Otorhinolaryngol.* [Extra Volume 5, Issue 2](#), March 2010, Pages 53-56