



SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION AND RESEARCH

(A Deemed to be University Declared under Section 3 of UGC Act, 1956)

Comprising Sri Devaraj Urs Medical College

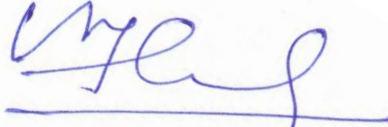
[Constituent Unit of Sri Devaraj Urs Educational Trust for Backward Classes (Regd.)]

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(With effect from 2012-13 batches)

Fellowship Curriculum for Head and Neck Surgical Oncology



Dean Faculty Of Medicine
Sri Devaraj Urs Academy of Higher
Education & Research, Tamaka, Kolar.

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REGULATIONS
FELLOWSHIP IN
HEAD & NECK SURGICAL ONCOLOGY
PROGRAMME

SRI DEVARAJ URS UNIVERSITY, TAMAKA, KOLAR,

563101

REGULATIONS GOVERNING FELLOWSHIP IN

HEAD AND NECK

SURGICAL ONCOLOGY PROGRAMME

Preamble:

Need for structured training programmes in Head and Neck Surgical Oncology in India

There is a high incidence of Head and Neck cancers in our country. Infact, 30 to 40% of all cancers in India are Head and Neck cancers.-There is an acute need for surgeons who are adequately trained in head and neck surgery, and have knowledge and skills to evaluate, diagnosis, and manage head and neck cancers. In addition, there is also need for training in evaluation of current protocols of treatment and methodology to conduct research in head and neck oncology.

The opportunity to pursue such above mentioned courses are very few in India: Fellowship courses in head and neck cancer surgery are available at certain centres only, like Tata Memorial Hospital, Mumbai, and Kidwai Memorial Institute of Oncology, Bangalore.

Keeping in mind the deficiency in trained manpower, we need more centres to train in head and neck cancer surgery.

Sri Devaraj Urs Medical College, the constituent college of Sri Devaraj Urs University, Kolar, has the necessary infrastructure and other requirements for training the much needed manpower in head and neck cancer surgery.

Duration of the course: 24 months

Eligibility for admission to head and neck surgery fellowship programme:

Candidates who have passed any of the mentioned degrees:

1. M.S (Otorhinolaryngology)
2. M.S (General Surgery)
3. D.N.B (Otorhinolaryngology)
4. D.N.B (General Surgery)

Admission Procedure:

Applications for enrolment will be issued every year in the first week of December .The fellowship programme starts on the first Monday of February every year.

Selection of the candidate will be based on the curriculum vitae and interview in the subject. Interview of the candidates will be done by a committee appointed by Sri Devaraj Urs University, consisting of

1. Head of the Institution
2. Head of the Department
3. Subject Specialist from another institution
4. Representative of Sri Devaraj Urs University nominated by the Vice Chancellor
5. Chairman and Convener nominated by the Vice Chancellor of Sri Devaraj Urs University

Intake: 1+1

One candidate will be an in- house candidate who has been working in this institution as junior teaching faculty with the designation of Senior Resident/ Lecturer/ Asst. Professor.

One candidate will be an external candidate who has fulfilled the eligibility criteria, and has been selected by the interview committee. A candidate deputed by an institution will be preferred so that he/she continues to work as a head and neck surgeon in his institution after completion of training. If no external candidate qualifies, 2 in house candidates will be taken.

Coordinator of the programme:

A member of the teaching faculty with the designation of Professor in Otorhinolaryngology, with a good knowledge of head and neck oncology and who- is actively practicing head and neck cancer surgeries and also has adequate teaching and research experience in the field of head and neck onco surgery. The fellows will however be under E.N.T Department and will report to HOD, ENT Department, and HOD Oncology (Dr. Gopinath).

Accommodation and Stipend:

Bachelor accommodation will be provided to selected candidates. The in house candidate will continue with his designation and salary. The selected fellow, if deputed by an institution should be paid by his institution. A fellow who is not deputed by an institution will be paid a monthly stipend equivalent to a Senior Residents' salary.

Curriculum:

Objectives:

At the end of the course, a candidate who successfully completes the fellowship in head and neck cancer surgery should be able to

1. Diagnosis the head and neck malignancies prevalent in India and elsewhere.
2. Practice the surgical skills for the treatment of the head and neck malignancies.
3. Evaluate the treatment protocols for head and neck malignancies, and implement them based on principles of evidence based medicine.
4. Identify and manage the common complications encountered in head and neck surgery.
5. Conduct research in head and neck cancers.
6. Should appreciate the role of preventative measures for head and neck malignancies, and advice the patients and the community accordingly.

Outline of the course content:

The 2 year programme will be called HEAD AND NECK ONCOLOGY FELLOWSHIP PROGRAMME. All the candidates who have completed the training will need to satisfy exit evaluation criteria, in an examination conducted by Sri Devaraj Urs University, and will be awarded the Fellowship certificate by Sri Devaraj Urs University.

Schedule of training:

(2 years)

Head and neck surgery (attached to ENT dept)	14 months
General Surgery or Surgical oncology (trainees with ENT background will be posted to General Surgery and vice versa, and this posting will be during the initial part of the fellowship programme , preferably the second month and third months)	2 month
Reconstructive Surgery (attached to Plastic Surgery)	2 months
Radiation Oncology	2 months
Medical Oncology	1 month
External Postings (towards the end of 3rd trimester)	
Kidwai Memorial Institute of Oncology I Bangalore Institute of Oncology	1 month
Amritha Institute of Medical Sciences, Kochi/ Tata Memorial Hospital, Mumbai	1 month
Institute of Speech and Hearing, Bangalore	15 days
NEMHANS, Bangalore	15 days

CORE CURRICULUM SUMMARY:

The core curriculum will be designed to address the cognitive, affective, as well as the psychomotor domains and will include basic tumor biology, pathology, anatomy, molecular biology and genetics, radiation oncology, medical oncology and different aspects of head and neck oncology.

The training includes compulsory attendance in monthly interdisciplinary tumor board meeting, hands on clinical, and surgical training in head and neck surgery, and attendance in national oncology conferences once a year with one paper presentation.

DETAILS OF THE CORE CURRICULUM

The cognitive domain training programme will include general principles of Oncology in the first semester and Regional Oncology in 2nd and 3rd semesters.

The teaching — learning methods will include seminars, journal clubs, group discussions, tutorials and clinical presentations.

1st Semester

1. Epidemiology of head and neck cancers
2. Molecular cell biology of cancer
3. Mechanism of Carcinogenesis
4. Genetics and principles of Biologic and gene therapy
5. Principles of radiation therapy
6. Principles of chemotherapy
7. Infections and choice of antibiotics
8. Prosthetic rehabilitation
9. Management of cancer pain
10. Nutritional support
11. Ethical principles
12. Lasers

2nd Semester

- Cancer of Lip and oral cavity
2. Management of Mandible in oral cancers
3. Cancer of Oropharynx
4. Cancer of Paranasal sinus
5. Parapharyngeal space tumors
6. Salivary gland tumors
7. Temporal bone tumors
8. Craniofacial surgery in the management of head and neck cancers

3rd Semester and 4th Semester

1. Cancers of Larynx
2. Cancers of Hypopharynx
3. Management of Neck
4. Thyroid and parathyroid
5. Basic plastic surgery principles
6. Reconstructive surgery in head and neck cancers
 - a) soft tissue of the face, oral cavity, mandible
 - b) Oropharynx, hypopharynx, skull base
7. Speech and swallowing therapy including Tracheo-esophageal prosthesis
8. Recent Advances

List of Procedural skills to be acquired:

A. General Patient care experience:

- (a)Ward rounds
- (b) Taking biopsies
- (c) Dressing / Debridement
- (d)Starting central venous lines
- (e)Insertion of nasogastric tubes
- (f) Performing tracheostomy and tracheostomy care
- (g)Inserting Intercostal drains
- (h)Monitoring ICU patients, fluid- electrolyte management
- (i)Management of patients on radiotherapy and chemotherapy
@Palliative care
- (k)Sampling infected tissue /secretions, staining, and interpretation of culture reports
- (l)Endoscopy and evaluation of upper aero digestive tract

B. Major Head and Neck Surgical Procedures:

Training includes assisting, performing with peer assistance, and performing the procedures independently.

(a) Larynx

Conservative procedures

Open

Endoscopic

Near total Laryngectomy Total Laryngectomy

Total laryngopharyngectomy TEP- Primary/secondary

(b) Paranasal Sinuses

Partial maxillectomy

Total maxillectomy

Orbital Exenteration

Craniofacial resection

(c) Oral cavity/Oropharynx

Resection of Lip lesions

Access mandibulotomies

Marginal resections

Segmental resections

Glossectomies/Floor of mouth resections

Cheek resections

(d) Neck

Sentinal node biopsies

Selective dissections

Comprehensive dissections

(e) Resection of Parapharyngeal tumors

(t) Thyroid

Hemithyroidectomy

Total Thyroidectomy

Central Compartment clearance

(g) Salivary glands

Submandibular salivary gland excision

Superficial Parotidectomy

Total Parotidectomy

(h)Reconstructions

- Skin grafting
- Regional flaps
- Forehead Flaps
- Pectoralis Major Myocutaneous flaps
- Deltopectoral flaps
- Microvascular free flaps

(i)Other Procedures

- Jeunostomy/Gastrostomy
- LASER surgeries
- Laryngopharyngooesophagectomy with Gastric Pull up
- Stomoplasty

Compulsory Academic activities

1. Topic presentation in department 4 each semester
2. Journal club reviews 4 each semester
3. Presentation of papers in National head and neck meetings
One each year
4. Tumor board meetings once a month.
5. Full time posting in Head and Neck Surgery for diagnostic and therapeutic work including major head and neck oncosurgeries, and reconstructive surgeries.
6. Research work regarding maintenance of clinical data, and starting new protocols in treatment according to standards of care.
7. Cadaver Dissections in Anatomy dissection hall.
8. Short postings (15 days each) in Maxillofacial surgery, Neurosurgery, Anaesthesiology and Ophthalmology, while posted under Head & Neck Surgery in R.L.J.H.
9. Short postings (15 days each) in Institute of Hearing and Speech, and NIMHANS.
10. At least two publications in National/ International journals during the course of fellowship.
11. Attending and presenting scientific papers in National/State Conferences and workshops and reputed and recognized CMEs.
12. Assessment (Theory and Clinicals) after each semester.

All trainees will be required to maintain a log book of cases worked up, assisted, performed, planned RT, administered Chemotherapy and palliative care cases attended to. Also the activity records in terms of the compulsory academic activities have to be maintained.

Evaluations:

There will be formative evaluation at end of each semester. 2 internal examiners will carry out these assessments.

Semester evaluations

This will comprise of

- a) Log book evaluation
- b) Theoretical examination(100 marks)
 - Short essay questions (70 marks)
 - MCQs (30 marks)
- c) Objective structured clinical examinations
(25 stations) (50 marks)
- d) Clinical case discussion 50 marks
2 cases (25 marks each)

Summative evaluation:

This will be conducted at the end of the fellowship (2 years),It will be conducted by Sri Devaraj Urs University and will have two faculty members (Internal examiners) and two external examiners from institutions having academic head and neck surgery units.

The exam will comprise of

- (a) Theory examinations having two papers of 3 hour duration (100marks each)

Paper I

- General Principles in Oncology
- Radiotherapy
- Chernotherapy

Paper II

- Head and Neck Surgery
- Reconstructive Surgery

(b) Clinical examination	150 marks
1 Long case (45 minutes duration)	50 marks each
2 Short cases (10 minutes each)	25 marks each
Viva voce (includes OSCE)	25 marks
Cadaver Dissection	25 marks

Infrastructure:

Requisites of the training centers

In general, the institution which...offers head and neck surgical oncology fellowship should have a comprehensive cancer center with linear accelerators and CT-planning, medical oncology, tumor registry, pain and palliation service and facilities for rehabilitation. The head and neck service should handle no less than 200 new patients every year. The surgical service should undertake full spectrum of head and neck ablative surgery including that of skull base and Mediastinum and reconstructive surgery including micro vascular free tissue transfer.

Faculty:

The head and neck surgical oncologists in the program should have undergone specialized fellowship training in a recognized program or should have exclusively practiced head and neck surgical oncology for 7 years after obtaining MS (General Surgery or ENT) degree Or 5 years after MCh surgical oncology. Faculty expertise in both ablative as well as advanced reconstructive surgery should be available in the same institution if possible. If not available the trainee should be able to go to a center where he/she can fulfill the criteria mentioned in the prescribed curriculum with regards to both theory and practical aspects example: Bangalore Institute Of Oncology and Tata Memorial Hospital, Mumbai.

Faculty in complementary services (Medical and Radiation oncology and rehabilitation) should be present in the same institution.

Faculty available at present for running fellowship programme in Head and Neck surgery:

- I. Dr. K.S. GOPINATH
Professor in Surgery and Head of the Dept of Oncology
2. Dr. S.M. AZEEM MOHIYUDDIN,
Professor in E.N.T, Head and Neck Surgery
3. Dr. MAZHAR SHARIFF
Professor in
Radiotherapy
4. Dr. RAVI DIWAKAR
Professor in Medical Oncology
5. Dr. GURUCHARAN SINGH
Professor in Surgery and Plastic Surgery
6. Dr. DEEPIKA KENKERE
Professor in Maxillofacial Surgery
7. Dr. MALLIKA
Maxillofacial Surgeon

We also have fully equipped and adequately staffed and efficient departments of Otorhinolaryngology, General Surgery, Medicine, Pediatrics, Radio diagnosis, Pathology, Anaesthesiology and Ophthalmology etc to help us run the Head and Neck Surgery fellowship programmes.

Other desirable ancillary departments

Speech and swallowing
therapy Maxillofacial
prosthodontist
Pathologist with interest in head and
neck Pain and palliation service

Out patient clinic

The out patient clinic should have the following facilities-

Flexible/Rigid laryngoscope with image capture
facility

Facilities for Fine Needle Aspiration

Cytology Speech and swallowing therapy

The clinic should be organized for both new patients and for regular follow up. In addition it is desirable to have a combined clinic with radiotherapy, medical oncology head and neck surgeon and reconstructive plastic surgeon and pain and palliation service to evaluate new patients with head and neck cancer.

Multidisciplinary tumor board

A multidisciplinary tumor board with participation of head and neck surgeon, reconstructive plastic surgeon, radiotherapy, medical oncology, pain and palliation and rehabilitation is mandatory for effective management of head and neck cancer patients. Attempts should be made to present all new patients in this tumor board by the head and neck surgical oncology fellows. The fellow in consultation with other faculty members should formulate the treatment plan.

Inpatient Services

The head and neck operating room(s) should be equipped with surgical microscope, laryngoscope, rigid laryngoscope, esophagoscope, bronchoscope and intubating flexible bronchoscope. There should be also a drill and bone plating system. Pathology service with frozen section should be available. The intensive care unit should have facilities for ventilated patients. There should be sufficient number of inpatient beds to accommodate both short term and long-term patients.

Recommended Books:

1. Cancer by Vincent Devita
2. Comprehensive Management of Head and Neck Tumors by Thawley, Panje, Batsakis and Lindberg
3. Atlas of Head and Neck Surgery by Jatin .P.Shaw
4. Atlas of Head and Neck Surgery by Carl Silver
5. Grabbs Encyclopedia of flaps
6. Text Book of Surgery by Bailey and Love
7. Pathological Basis of Disease by Robbins
8. Neoplasms of Larynx by Alfio Ferlity
9. Surgery of the Larynx by Bailey Biller
10. Otolaryngology, Head & Neck Surgery by Scott Brown
11. Otolaryngology, Head & Neck Surgery by Cummins
12. Diseases of Upper Airway by Steil and Maran

Recommended Journals:

1. Laryngoscope
2. Otolaryngologic Clinics of North America
3. Archives of Otolaryngology, Head & Neck Surgery
4. Annals of Otolaryngology, Head & Neck Surgery
5. Seminars in Clinical Oncology
6. Cancer
7. Head & Neck
8. American Journal of Surgery
9. Journal of Laryngology and Otology

Syllabus for Fellowship in Head and Neck Surgical Oncology

Paper 1 :

1. Head and Neck Anatomy and Physiology
2. Pathology and Microbiology
3. General principles of Oncology
4. Cell cycle, genetics and epigenetics in Oncology
5. Principles of Chemotherapy and Radiotherapy
6. Lasers
7. Photodynamic therapy
8. Wound healing and Nutrition
9. Palliative care in Oncology
10. Biostatistics

Paper 2 :

1. Head and Neck Oncosurgery — all subsites of head and neck
2. Treatment protocols in various Head and Neck Tumors
3. Reconstructive and Plastic Surgery
4. Rehabilitation of cancer patients
5. Recent advances in treatment

Syllabus for Fellowship in Oral Oncosurgery

Paper 1

1. Head and Neck Anatomy and Physiology (excluding larynx, pharynx, thyroid)
2. Pathology and Microbiology
3. General principles of Oncology
4. Cell cycle, genetics and epigenetics in Oncology
5. Principles of Chemotherapy and Radiotherapy
6. Lasers
7. Photodynamic therapy
8. Wound healing and Nutrition
9. Palliative care in Oncology
10. Biostatistics

Paper 2

1. Head and Neck Oncosurgery — (excluding larynx, pharynx, thyroid)
2. Treatment protocols in various Head and Neck Tumors
3. Reconstructive and Plastic Surgery
4. Rehabilitation of cancer patients
5. Recent advances in treatment