

FELLOWSHIP PROGRAM IN CLEFT & CRANIOFACIAL SURGERY

1. Preamble:

Clefts and Craniofacial Anomalies are some of the most commonly encountered congenital anomalies. With valuable support from various non-profit organizations, centres of excellence in the management of Cleft and Craniofacial Anomalies are developing at rapid pace all over the world. Multidisciplinary approach in the management of Cleft and Craniofacial Anomalies is vital. Various surgical, medical, dental and speech and language specialties are involved in this holistic management. The complete rehabilitation of an individual with these deformities begins from the time of its detection, which could be in its intra uterine life, to the time well into his adulthood.

Rapid advances, innovations and changes in ideas have to be disseminated and surgical skills need to be taught to surgeons interested in specializing in this branch of Plastic Surgery. This fellowship program aims at empowering surgeons with this essential armamentarium towards providing a complete and scientific surgical treatment to individuals suffering from these anomalies.

2. Objectives:

To orient the fellow towards acquisition of technical skills required in craniofacial surgery and its preoperative planning.

To inculcate the idea of multidisciplinary approach in the rehabilitation of individuals with Cleft and Craniofacial Anomalies

To expose the fellow to the basic knowledge in the other specialities involved in the management of Cleft and Craniofacial Anomalies like, Orthodontics, Otolaryngology, Speech and Language Pathology, Paediatrics, and Paediatric and General Dentistry.

To involve the fellow in research activities involving surgical and supportive management of the Cleft and Craniofacial Anomalies.

To support the fellow to undertake research in genetics, etiopathogenesis and epidemiology of the Cleft and Craniofacial Anomalies.

To involve the fellow in Community based rehabilitation activities for individuals with Cleft and Craniofacial Anomalies.

To evolve the fellow into a specialist Cleft and Craniofacial Surgeon well versed with the basic skills and well oriented with the advanced skills in the holistic management of Cleft and Craniofacial Anomalies.

3. Duration:

The length of curriculum will extend to one academic year.

4. Total Intake:

Maximum of one candidate per academic year.

5. Eligibility:

Basic:

- M.Ch. in Plastic Surgery (recognized by MCI) or DNB in Plastic Surgery or equivalent two years of experience in Plastic Surgery in a teaching institute

OR

- M.D.S. in Oral and Maxillofacial Surgery (recognized by DCI) with exposure to Cleft Lip-Palate Surgeries

OR

- M.S. in General Surgery / ENT (recognized by MCI) with exposure to Cleft Lip-Palate Surgeries

Preferable:

Some exposure to Cleft Lip- Palate management.

Should have an interest and must intend to take up a career in this field.

6. Selection of Candidates: Selection of candidates will be as per the rules and regulations of KLE University.

Completion of Curriculum:

To complete the curriculum the fellow shall

Update his knowledge as per the prescribed curriculum.

Maintain a Log Book on a day to day basis of his Clinical, Academic and Research work.

Present at least one paper at a National Level Conference.

Perform, assist, observe and be involved in the planning of the specified number of surgeries.

7. Course Content / Curriculum:

Facial Cleft:

Introduction:

History

Epidemiology

Anatomy and Pathology: Normal Anatomy and Embryology of Craniofacial Complex Embryogenesis Cleft Lip and Palate and Craniofacial Anomalies Genetics: Syndromic and Non-syndromic Postnatal Craniofacial Growth and Development Anatomy in Cleft Lip and Palate and Craniofacial Anomalies Facial Growth in Cleft Lip and Palate

Classification:

Cleft Lip and Palate

Rare Clefts

Other Craniofacial Anomalies

- Unilateral Cleft Lip Deformity:

Anatomy

Management

Presurgical Orthopaedics

Evolution of Surgery
Lip Adhesion
Techniques of Lip Repair
Primary Nasal Correction
Secondary Lip Deformities
Secondary Surgeries
Corrective Rhinoplasty

Bilateral Cleft Lip Deformity:
Anatomy
Management

Presurgical Orthopaedics Evolution of Surgery
Lip Adhesion
Techniques of Lip Repair Management of Premaxilla Primary Nasal Correction
Secondary Lip Deformities Secondary Surgeries
Corrective Rhinoplasty

- Cleft Palate Deformity:
Anatomy Feeding Speech Management Timing of Surgery Techniques of Repair
Prosthetic Obturation Alveolar Bone Grafting Management of Palatal Fistulae
- Velopharyngeal Incompetence: Assessment Management
Pharyngeal Flaps Pharyngoplasties Other methods
Orthodontics in Cleft Lip and Palate: Maxilla Mandible Dentition Cephalometry
Rare Craniofacial Clefts: Incidence Embryogenesis Classification Management

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Principles of Craniofacial Surgery:
Organization of a Team
Orbital Hypertelorism
Assessment and Planning
Surgical Correction

Craniosynostosis:
Etiopathogenesis
Evaluation
• Management: Early Surgery Late Surgery
Craniofacial Microsomia:
Embryology
Etiopathogenesis
Clinical Spectrum
Evaluation
• Management
Craniofacial Syndromes:
Treacher Collins Syndrome (Mandibulofacial Dysostosis) Dysmorphology
Evaluation Management

Pierre Robin Sequence Dysmorphology Evaluation Management
Romberg's Disease (Hemifacial Atrophy) Etiopathogenesis Clinical Aspects
Management

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- Klippel Fiel Syndrome

Etiopathogenesis

Clinical Aspects

Management

Orthognathic Surgery:

Historical Perspective

Dental Occlusion

Treatment planning

Cephalometry

Radioimaging

Model Surgery

Orthodontic Consideration

Surgical Correction

Osteotomies:

Maxillary

Mandibular

Distraction Osteogenesis

Schedule:

A total of 48 working hours a week which will be distributed as follows

Out Patient Department : 3 hrs twice a week

Operative Sessions : 7 hrs thrice a week

Inpatient work :

Regular rounds : 1 hr five days a week

Grand Round : 3 hrs once a week

Academic Activities : Seminar : 1.5 hrs twice a month Case Discussion : 1.5 hrs
twice a month Journal Club : 1.5 hrs twice a month Clinics with Orthodontics/ Speech
Pathology : 1.5 hrs twice a month

Research Activity : 4 hrs in a week

Community Activity : 12 hrs in a month

Case Planning, Modelling, Moulage, Model Surgery, Cephalometric
Analysis : 3 hrs in a week

Surgical Work:

Surgery	O	A	PA	P	PI
Lip Repair	15	30	20	10	-
Palate Repair	15	30	10	5	-
Alveolar Bone Grafting	2	5	2	-	-
Lip Revisions	5	15	5	2	-
Fistula Closure	3	10	2	-	-
Rhinoplasty	5	5	1	-	-
VPI Surgery	3	3	1	-	-
Orthognathic Surgery	3	3	-	-	2

O : Observed A : Assisted PA : Performed Assisted
P : Performed PI : Planned

Log Book:

Log Book to be maintained for evaluation of the following:

- Interpersonal and communication skills
- Medical Knowledge
- Patient Care
- Clinical Acumen
- Surgical Skills
- Practice based learning and improvement
- Professionalism
- Attendance and availability
- Enthusiasm and responsiveness

8. Attendance:

80% attendance

9. Scheme of Examination:

Theory Examination:

Will comprise of two papers of 100 marks each. The first paper will be on Cleft Lip and Palate and the second paper will cover Craniofacial Surgery and allied subjects like Orthodontics, Otolaryngology, Speech and Language Pathology, Paediatrics, Genetics, General and Paediatric Dentistry.

Subject	Duration in hours	Long Questions	Short Questions	Total number of Marks
Paper I : Cleft Lip and Palate	3	20X2 = 40	10X6 = 60	100
Paper II: Craniofacial Surgery & Allied Subjects	3	20X2 = 40	10X6 = 60	100

Practical Examination:

Will comprise of Case Presentations and Viva Voce

	Duration in hours	Distribution	Total number of Marks
Case Presentation	3	Long Case (one) : 90 Short Cases (two) : 30X2	150
Viva Voce	1	Two tables : 25X2	50

10. Declaration of results :

a) Passing criteria:

50% marks in both theory and practical examination separately.

b) Declaration of Class:

50% and above Pass, 65% and above - First Class, 75% and above - Distinction.

c) A candidate who fails will have to appear for reexamination in the following academic year without repeating the course/ courses of instruction.

1 **Reference Books (Latest Editions):**

2 **Potential of the Course:**

Sl. No.	Name of the text book	Author	Publisher
1	Cleft Craft: Volumes 1,2&3	D. Ralph Millard Jr	Lippin Cott Willim & Wilkins
2	Plastic Surgery, Volume IV. Paediatric Plastic Surgery	Mathes S.J	W. B. Saunders Company & Co.
3	Plastic Surgery, Volume II. The Head and Neck, Part 1	Stephen J. Mathes	W. B. Saunders Company & Co.
4	Multidisciplinary approach for management of Cleft Lip-Palate	Kenneth E Salyer, Janusz Bardach	Lippin Cott Willim & Wilkins
5	Atlas of Craniofacial and Cleft Surgery	Kenneth E Salyer, Janusz Bardach	Lippin Cott Willim & Wilkins
6	Grabb and Smith's Plastic Surgery		Lippin Cott Willim & Wilkins
7	Oral and Maxillofacial Surgery: Cleft, Craniofacial and Cosmetic: Volume VI	Raymond Fonseca	W. B. Saunders Company & Co.
8	Radiographic Cephalometry – From Basic to Videoimaging	Alexander Jacobson	Quintessence Publishing
9	The Surgical Technique for the Unilateral Cleft Lip-Nasal Deformity	M. Samuel Noordhoff	Thieme Medical Publisher
10	Cleft Lip and Palate-Diagnosis and Managemet	Berkowitz	Quintessence Publishing
11	Management of Cleft Lip and Palate	Watson C.H	WHURR Publisher
12	Cleft Palate and Speech	Muriel & Morley	Australasian Medical Publishing & Company
13	Cleft Palate- The Nature and Remediation of Communication Problems	Jackie Stengelhofen	Singular Publishing Group

With advent of Multidisciplinary approach and rapid developments and refinements the management of Cleft and Craniofacial Anomalies various centres of excellence are

coming up all over the world. In the last couple of years this trend has become more evident in India. Many non-profit organizations are coming forward to aid the management of these deformities and also finance researches in this field. This development has opened up several avenues for professionals who are specifically trained in the field of Cleft and Craniofacial Surgery.

The Cleft Surgeon being the key person in the management of these deformities has to shoulder the responsibility of developing and running these centres of excellence. Training Surgeons in this specialty in a centre like ours which is already catering to vast number patients in this field will go a long way in helping this happen.

