Government of West Bengal

Institute of Postgraduate Medical Education & Research

Centre of Excellence in Medical Education & Research

Otorhinolaryngology
(Institute of Otorhinolaryngology and Head & Neck Surgery)

FACULTY

1. Dr. Debasis Barman (MS, DNB)	Professor and Director
2. Dr. Arunabha Sengupta (DLO, MS)	Professor
3. Dr. Sudip Kumar Das (MS)	Professor
4. Dr. Sumanta Kumar Dutta (MS)	Professor
5. Dr. Bijan Basak (DLO, MS)	Professor
6. Dr. Debasish Ghosh (MS)	Associate Professor
7. Dr. Soma Mondal (MS)	Associate Professor
8. Dr. Subhradeb Biswas (MS)	Associate Professor
9. Dr. Satadal Mondal (MS)	Associate Professor
10. Dr. Arindam Das (MS)	Assistant Professor
11. Dr. Kaustuv Das Biswas(DLO,MS)	Assistant Professor
12. Dr. Anindita Sengupta (MS)	Assistant Professor
13. Dr. Animesh Ghosh (MS)	Assistant Professor
14. Dr. Siddhartha Kumar Das (MS)	Assistant Professor
15. Dr. Subhadeep Karanjai (MS)	Assistant Professor
16. Dr. Alok Ranjan Mondal (MS)	Assistant Professor
17. Dr. Poulomi Saha (MS)	Assistant Professor
18. Dr. Saikat Samaddar	Assistant Professor
19. Dr. Pranay Kumar Agarwal (MS)	RMO cum Clinical Tutor
20. Dr. Arya Brata Dubey (MS)	RMO cum Clinical Tutor
21. Dr. Nabanita Mondal	RMO cum Clinical Tutor
22. Dr. Sourav Dutta (MS)	Visiting Consultant
23. Dr. Harsh Dhar (MS, MCh)	Visiting Consultant
24. Dr. Aditya Kanoi (MS, MCh)	Visiting Consultant
25. Dr. Sripurana Mandal (MD Anaesthesia)	Visiting Consultant
26. Dr. Lovisha Jhunjhunwala (BDS, MDS)	Visiting Consultant
27. Dr. Sourav Roy (DLO)	Senior Resident
28. Dr. Ankit Choudhary (MS, DNB)	Senior Resident
29. Dr. Sayan Hazra (MS, DNB)	Senior Resident
30. Dr. Sandipta Mitra (MS, MRCS, DNB)	Senior Resident
31. Dr. Soutrik Kumar (MS, DNB)	Senior Resident
32. Dr. Titas Kar (MS, DNB)	Senior Resident
33. Dr. Mridul Janweja (MS, DNB)	Senior Resident
34. Dr. Shyama Bandyopadhyay (MS)	MO Specialist
35. Dr. Kabir Hossein (MD Anaesthesia)	MO Specialist

36. Dr. Sandipan Naskar (MS) MO Specialist

Postgraduate (MS ENT) Trainees

2018-21	2019-22	2020-23
1. Dr. Sauravmoy Banerjee	1. Dr. Spandita Ghosh	1. Dr. Srijana Saha
2. Dr. Prakriti Samaddar	2. Dr. Aritra Bhattacharji	2. Dr. Kamran Ahmed
3. Dr. Sagar Banerjee	3. Dr. Brittisundar Mallick	3. Dr. Deblina Chatterjee
4. Dr. Soumyajit Purkait	4. Dr. Reshma Banu	4. Dr. Souvik Maity
	5. Dr. Abhishek Mondal	5. Dr. Mainak Saha
	6. Dr. Jishnu Hore	6. Dr. Tushar Halder
	7. Dr. Titasa Pakira	7. Dr. Aneek Chakraborty
	8. Dr. Kausar Ahmed	8. Dr. Samiuz Zaman

About Institute of Otorhinolaryngology and Head & Neck Surgery: Centre of Excellence

The **Institute of Otorhinolaryngology and Head & Neck Surgery: Centre of Excellence** was established on 3rd March 2020 as iconic and state of the art department at prestigious and historic IPGME&R/SSKM HOSPITAL and was **inaugurated by Hon'ble Chief Minister of West Bengal, Ms. Mamata Banerjee**. Founding of this Institute has made a paradigm shift in treatment of Ear, Nose and Throat diseases in the State of West Bengal and Eastern India as a whole.

- ⇒ 180 bedded indoor services for Otorhinolaryngology Surgery.
- ⇒ Specialized Trauma care for head and neck injuries.
- ⇒ First time in eastern India.
- ⇒ 24 hours ENT Emergency.

By providing latest and quality treatment to large number of patients across all the strata of society it gives healing touch to the lives of thousands of patients, particularly poorest of the poor. The Institute, which is **FIRST OF ITS KIND IN INDIA,** is gearing up with 180 beds with World Class Facilities free of cost. All General ENT treatments with state of the art equipment, world class operation theater, highly skilled surgeons and caring staffs catering comprehensive treatment of Ear, Nose & Throat diseases under one roof. IORL-HNS has a state of the art Modular Operation Theatre with latest microscope, camera, drill, LASER system to provide best result for our patients. IORL-HNS has five OT table to run five operations at the same time. This ensures large number of cases per day as well as shorter waiting period for patient admission. For Cochlear Implantation surgery we have a separate OT room to provide extra safety and sterility during surgery. This Specialized OT Complex has all the latest medical equipment for better results and to reduce complications even in most adverse situations. World class microscopes (Zeiss, Pentero 9000), Medtronic, NIM-3.0 Facial Nerve monitoring system, Medtronic Skeeter microdrill, CO2 LASER and Storz spies (3-chip) camera system are the latest high end equipments, which help us to operate with highest precision.

SPECIALIZED SERVICES

OTOLOGY & NEUROTOLOGY

It is a super speciality division of Otorhinolaryngology (ENT) that specifically treat various types of ear and neural disorders. Starting from simple ear infections to complicated tumours of skull base.

Basic Otology - Long standing ear infection is one of the commonest ear diseases that lead to perforation of ear drum and hearing loss. Treatment may involve eardrops, antibiotics or surgery (tympanoplasty, mastoidectomy).

- Myringotomy + Grommet insertion
- Tympanoplasty
- Mastoidectomy
- Ossiculoplasty (OCR)

Stapes Surgery - Otosclerosis is a condition where the third bone of hearing does not move as well as it should. This causes conductive hearing loss. When hearing loss becomes more advanced, hearing aids or surgery may be effective treatment options. Stapedotomy is done to replace the smallest bone of the human body with micro prosthesis for these conditions. A successful surgery enables patient to hear again.

Cochlear Implantation - Cochlear Implant is probably one of the best inventions in the recent history of medical science for bilateral severe to profound hearing loss. A cochlear implant is an electronic device that stimulates residual nerve fibers in the inner ear. These electrical pulses are sent to the brain and interpreted as sound. While hearing aids and other assistive listening devices simply amplify sounds, a cochlear implant transforms speech and other sounds into electrical energy that is used to stimulate surviving auditory nerve fibers in the inner ear.

Statistics-

- According to WHO Hearing Impairment (HI) in India is around 6.3%.
- 4 in every 1000 children suffer from severe to profound hearing loss.
- Our expert team of Implant otologist has been involved in doing Cochlear Implantation since 2015 under various sponsored schemes like ADIP, State govt.
- Over 70 implantations done since then with high success rate.

Facial Nerve Decompression and grafting- Facial Nerve paralysis can occur as result of viral infection (Bell's Palsy), Head injury, ear and brain tumors. Prompt management in the form of conservative therapy with medicine or surgery (Facial Nerve decompression/ Nerve Grafting) is required to achieve good results.

Endoscopic Ear Surgery- Institute of Otolaryngology is pioneering minimally invasive endoscopic ear surgery to fix various middle ear problems, such as ear drum perforations, Otosclerosis, hearing loss and cholesteatoma. Minimally invasive scar less surgical techniques have already gained huge popularity in the field of otology & neurotology. Today it possible to treat ear diseases with the help of endoscope as day care basis. In expert hands this surgeries are painless, devoid of any major complications and reduce hospital stay for the patient.

Vertigo Clinic- Institute of Otorhinolaryngology & HNS runs a separate VERTIGO clinic, to provide comprehensive evaluation and management for patients with dizziness and balance disorders.
Facilities-

- All relevant investigations at our audiovestibular lab, such as PTA, TDT, SISI, ABLB, ENG.
- Vestibular Rehabilitation Therapy
- Specialized exercise for BPPV (epley's maneuver)
- 3 Tesla MRI

Lateral Skull Base Surgery- This encompasses surgery for acoustic neuromas, arachnoid cysts, neurofiromas via trans-labyrinthine approach. Subtotal Temporal Bone Resection is also performed for carcinomas.

RHINOLOGY

Functional Endoscopic Sinus Surgery- FESS is performed for various nasal pathologies such as polyposis, allergic fungal rhinosinusitis, inverted papilloma, etc.

Endoscopic CSF rhinorrhea repair- CSF rhinorrhea is leakage of CSF through nasal cavity. It has multiple etiologies. Repair is performed endoscopically without any external incision.

Endoscopic Trans-nasal Trans-sphenoidal Hypophysectomy- Endoscopic trans-sphenoidal pituitary excision is a minimally invasive procedure used to remove certain pituitary tumours that starts to grow inside pituitary gland giving rise to endocrine, visual and neurologic sequele. Our multi-disciplinary team consists of ENT surgeon, Neurosurgeon, Endocrinologist & ophthalmologist. It is much more safer compared to open neurosurgery techniques. Post-operative recovery is rapid. complications are transient and minimal with very low morbidity and mortality.

Anterior Skull Base Surgery- Pituitary macroadenoma, olfactory groove meningioma, Sino nasal ossifying fibroma, craniopharyngioma, suprasellar arachnoid cyst can be accessed safely through this corridor. Endoscopic trans nasal anterior skull base surgery becoming popular for both benign and malignant skull base tumors. Reduced the need for extensive hybrid surgical approach to select cases only.

Sino-nasal tumors resection- Angiofibroma excision with pre-operative embolization

Surgery for malignancy

Obstructive Sleep Apnea (OSA) management

Infrastructure to manage cases of OSA-

- Sleep lab
- Sleep study machines
- Flexible endoscopes
- Carl Zeiss Microscope
- Karl Storz 3 chip HD Cameras
- HD video Monitors
- Laser Machines
- Coblation Machine

Protocol for OSA management-

1. Sleep study and calculation of AHI
2. Drug Induced Sleep Endoscopy (DISE)
3. CPAP trial
4. Surgical Management- Uvulopalatopharyngoplasty, Z plasty, Turbinoplasty, Septoplasty, Mandibular Advancement, Tongue Base Resection

Septoplasty and Turbinoplasty- performed for deviated nasal septum (DNS) and hypertrophied turbinates

Aesthetic Rhinoplasty- Each rhinoplasty operation unique and it is customized to the need and look of the patient.

Endoscopic Dacrocystorhinostomy (EndoDCR)- performed for epiphora

LARYNGOLOGY

Congenital diseases (Laryngomalacia, Laryngeal Web, Subglottic stenosis, Subglottic Hemangioma) treated by endoscopic excision by LASER and laryngofissure. Inflammatory diseases and traumatic diseases of Larynx are also treated by Standard protocol. Benign and malignant diseases of larynx treated by Microlaryngeal surgery, Hemilargyngectomy, Supraglottic Laryngectomy, Near-Total Laryngectomy, Total Laryngectomy. Laser Therapy, Radiotherapy and Chemotherapy are also offered.
Speech therapy to re-educate voice production is also done at our Institute.

HEAD AND NECK ONCOSURGERY

At the Institute of Otorhinolaryngology and Head Neck Surgery we have a dedicated Head Neck Surgery unit providing the best evidence based surgical care to patients with Head Neck Cancer–the only such dedicated unit within any ENT department in the state.

Oral cancer surgeries- Mid third facial defect reconstructed using Free Fibula Osteocutaneous Flap. Floor of mouth and tongue lesion resected and reconstructed using Pectoralis Major Flap and Reconstruction Plate. Sinonasal malignancy, Salivary gland surgery and Temporal Bone malignancy and Plastic reconstruction with stress on microvascular reconstruction.

MAXILLOFACIAL SURGERY

Our Institute caters to the maxillofacial trauma a case which is taken care by a dedicated team of Maxillofacial and ENT Surgeons.
Un-displaced or minimal injuries are treated by conservative management.
Intermaxillary fixation for Stable Occlusion if needed.
Grossly comminuted or displaced fractures are treated by surgery.

LASER SURGERY

Surgeries performed at IORL&HNS using CO2 Laser for Vocal Nodule, Vocal Polyp, T1 laryngeal carcinoma of Vocal cords, Keratosis larynx, and Posterior cordectomy for Abductor Vocal cord palsy, Laryngotracheal stenosis and laryngeal papillomatosis.

EMERGENCY SURGERY

Being the apex tertiary referral centre of Eastern India, all the major life-saving emergency procedures are being done round-the-clock

Notable procedures include emergency Rigid Bronchoscopy, Rigid Esophagoscopy, and emergency tracheostomy.
And all types of foreign body removal from ear, nose and throat, emergency trauma care surgery, etc.
Rigid Bronchoscopy - one of the most difficult Emergency cases that any doctor may face is a Choking patient or a patient who has inhaled an object into the lungs. - "EVERY SECOND COUNTS"

INDOOR PATIENT DATA

2020						
MONTH	**MALE ADMISSIONS**	**FEMALE ADMISSIONS**	**MALE DISCHARGE**	**FEMALE DISCHARGE**	**MALE DEATHS**	**FEMALE DEATHS**
DECEMBER	112	93	93	79	1	1
2021						
JANUARY	116	77	98	66	1	0
FEBRUARY	129	131	116	91	0	0
MARCH	163	146	50	121	2	0
APRIL	115	93	132	123	2	0
MAY	80	52	66	37	1	0
JUNE	153	87	97	66	2	0
JULY	156	163	136	116	2	2
AUGUST	172	122	163	111	0	2
SEPTEMBER	174	125	182	126	1	0
OCTOBER	111	98	153	84	2	0
NOVEMBER	206	140	199	135	2	0

TOTAL OPD FOOTFALL

MONTH	**MALE**	**FEMALE**
December 2020	3270	3067
January 2020	3145	3097
February 2021	3272	3090
March 2021	4153	4407
April 2021	2978	2607
May 2021	1173	1035
June 2021	2085	1803
July 2021	3958	3615
August 2021	4909	4274
September 2021	5256	4950
October 2021	4559	4212
November 2021	5296	4883
TOTAL	**44054**	**41040**

TOTAL OT CASE COUNT

OTOLOGY	
Mastoidectomy & Tympanoplasty	364
Facial Nerve Decompression	18
Stapes surgery	38
Pre-auricular sinus	45

Cochlear Implant	22
Ear (Others)	26
RHINOLOGY	
Functional Endoscopic Sinus Surgery (FESS)	180
Endoscopic Dacryocystorhinostomy	26
CSF leak repair	18
Endoscopic Sphenopalatine Artery Ligation	6
Septo-rhinoplasty	95
Rhinosporidiosis mass excision	48
Juvenile Nasopharyngeal Angiofibroma and other nasopharyngeal mass excision	50
Endoscopic Transnasal Transphenoidal Hypophysectomy	18
Nose (Others)	30
HEAD AND NECK SURGERY	
Bronchoscopy	48
Esophagoscopy	87
Thyroid and thyroglossal duct surgery	310
Direct Laryngoscopy Biopsy/Microlaryngeal Surgery	550
Adenotonsillectomy	67
Total Laryngectomy	20
Submandibular gland excision	18
Parotidectomy	40
Oral cavity mass biopsy	102
Mandibulectomy	50
Wide local excision + Neck Dissection + Loco-regional Flap Reconstruction	162
Wide local excision + Neck Dissection + Free Flap Reconstruction	2
Neck (Others)	156
TOTAL	**2596**

TEACHING ACTIVITIES

The department is involved in Under & Post graduate teaching, which includes-

- Lectures
- Webinars
- Temporal bone & cadaver dissection
- Seminars,
- Journal clubs,
- CME programmes,
- Group discussions
- Clinical meetings

Regular Temporal Bone Dissection Workshops held regularly at IPGME&R and SSKM Hospital at NPPCD Programme.

State and National conferences as well as different workshop in the country are attended by teachers, students and Medical Officers. 72 well organized CME were conducted in the department during the present year. Theoretical & clinical classes of MBBS students are also taken regularly as per Health University schedule.

ARTICLES PUBLISHED, WORKSHOPS & CONFERENCES ATTENDED

1. **Dr. Debasis Barman**
    - COVID associated Mucormycosis: A study on the spectrum of clinical, biochemical and radiological findings in a series of ten patients. Journal of the associations of physicians of India, vol 69, October 2021, 17-23.

- COVID 19 associated rhino orbital cerebral Mucormycosis: An observational study from eastern India, with special emphasis on neurological spectrum: Diabetes & Metabolic syndrome: Clinical Research &Reviews. http:/doi.org/10.1016/j.dsx.2021.102267.
- Member of Mucormycosis surgical team for surgical intervention in a multidisciplinary approach for the treatment of post COVID ROCM cases.
- About 110 cases of ROCM has been treated successfully so far during the period from May to December 2021

2. **Dr. Arunabha Sengupta**
   - Attended ISOCON 2021 (virtual)
   - Attended as faculty at "PG-OriENT" (an orientation programme for post graduates in Otorhinolaryngology) organized by AOI, at WBUHS, Kolkata
   - Participated at 10th ENT(e) conclave on 21st November 2021
   - Post-COVID-19 rhino-orbito-cerebral mucormycosis: a new addition to challenges in pandemic control; Mitra S, Janweja M, Sengupta A ;Eur Arch Otorhinolaryngol. 2021;1-6. doi:10.1007/s00405-021-07010-1
   - An HRCT based scoring system to predict ease of electrode insertion in Cochlear Implantation. Das A, Janweja M, Dubey A, Mitra S, Sengupta A; J Laryngol Otol. 2021;1-20.

3. Dr. Sudip Das
   - COVID 19 associated Rhino-orbito-cerebral mucormycosis: An observational study from Eastern India, with special emphasis on neurological diabetes & Metabolic syndrome: Clinical research & review.
   - https://doi.org/10.1016/j.dsx.2021.102267
   - Fungal epidemic by mucor, an unprecedented threat in medical history: our experiences from ENT perspective- JIMA 2021; 119(07)
   - Vallecular cyst- Rare case of Neonatal respiratory distress. World Journal of ENT& Head- neck surgery.2021; 2(1):15-18
   - Migratory foreign body presenting with thyroid abscess. Bengal Journal of Otolaryngology and Head-Neck surgery.2021; 29(3):200-03
   - Impaled Nasopharyngeal Foreign Body.Bengal Journal of Otolaryngology and Head Neck Surgery Vol. 28 No. 3 December, 2020
   - https://doi.org/10.47210/bjohns.2020.v28i3.289
   - 6th International rhinoplasty live surgical workshop on 26& 27 February.2021. Organised by AOI, Pune
   - 15th Workshop on Phonosurgery being held on the 13th & 14th of November 2021
   - Webinar on Foreign body in paediatric airway. on 13.06.21; 20.06.21; 27.06.21; 18.07.21
   - Worked as departmental nodal officer of Murcormycosis management team

4. Dr. Arindam Das
   - Recipient of Gold Medal in Oral paper presentation in CIGICON 2021 (virtual) for presenting the paper titled- Cochlear Implantation Radiological Assessment Score (CIRAS) - A Novel Scoring System to Predict Difficult Round Window Insertion
   - Recipient of Best Paper Prize 2020 by Journal of Laryngology and Otology for the publication- "Prolonged intra-operative thermal exposure in endoscopic ear surgery: is it really safe?. Das A, Mitra S, Agarwal P, Sengupta A ; J Laryngol Otol. 2020;134(8):727-731.
   - Endoscopic epitympanic exploration in mucosal chronic otitis media: is canal wall up mastoidectomy really needed?. Das A, Mitra S, Hazra S, Sengupta A. J Laryngol Otol. 2021;135(1):39-44.
   - An HRCT based scoring system to predict ease of electrode insertion in Cochlear Implantation. Das A, Janweja M, Dubey A, Mitra S, Sengupta A; J Laryngol Otol. 2021;1-20.
   - Principal Investigator (PI) for ICMR approved project- A prospective, observational Study of intranasal pH monitoring in post COVID-19 patients in view of rising incidence of Rhino-orbito-cerebral Mucormycosis cases
   - Participated at 10th ENT(e) conclave on 21st November 2021
   - Attended ISOCON 2021 (virtual)

5. Dr. Sandipta Mitra
   - Post-COVID-19 rhino-orbito-cerebral mucormycosis: a new addition to challenges in pandemic control; Mitra S, Janweja M, Sengupta A ;Eur Arch Otorhinolaryngol. 2021;1-6.
   - An HRCT based scoring system to predict ease of electrode insertion in Cochlear Implantation. Das A, Janweja M, Dubey A, Mitra S, Sengupta A; J Laryngol Otol. 2021;1-20.

- Endoscopic epitympanic exploration in mucosal chronic otitis media: is canal wall up mastoidectomy really needed?. Das A, Mitra S, Hazra S, Sengupta A. J Laryngol Otol. 2021;135(1):39-44.
- Recipient of Best Paper Prize 2020 by Journal of Laryngology and Otology for the publication- "Prolonged intra-operative thermal exposure in endoscopic ear surgery: is it really safe?. Das A, Mitra S, Agarwal P, Sengupta A ; J Laryngol Otol. 2020;134(8):727-731.
- Reviewer for prestigious journals "Ear Nose & Throat" and "ORL"
- Passed DNB Final in January 2021
- Attended ISOCON 2021 (virtual)
- Participated at 10th ENT(e) conclave on 21st November 2021

6. Dr. Soutrik Kumar

- Passed DNB Final in January 2021

7. Dr. Titas Kar

- In Saving the Canal Wall, can MERI and Otoendoscopes Help Take a Call?" In Bengal Journal of Otorhinolaryngology & Head Neck Surgery (BJOHNS)
- Passed DNB Final in January 2021
- Passed Fellow of the European Board of Otorhinolaryngology Head Neck Surgery (FEBORL-HNS) in November 2021

8. Dr. Mridul Janweja

- Post-COVID-19 rhino-orbito-cerebral mucormycosis: a new addition to challenges in pandemic control; Mitra S, Janweja M, Sengupta A ;Eur Arch Otorhinolaryngol. 2021;1-6. doi:10.1007/s00405-021-07010-1
- An HRCT based scoring system to predict ease of electrode insertion in Cochlear Implantation. Das A, Janweja M, Dubey A, Mitra S, Sengupta A; J Laryngol Otol. 2021;1-20. doi:10.1017/S0022215121002632
- Reviewer for prestigious journals "Epidemiology & Infection" and "SAGE Open Medicine"
- Passed DNB Final in May 2021
- Attended CIGICON 2021 (virtual)
- Attended LION-ESS 2021(virtual) organized by Global Rhinology Network
- Attended LION 2021 (virtual)
- Attended ISOCON 2021 (virtual)
- Participated at 10th ENT(e) conclave on 21st November 2021

9. Dr. Arya Brata Dubey

- Attended ISOCON 2021 (virtual)
- An HRCT based scoring system to predict ease of electrode insertion in Cochlear Implantation. Das A, Janweja M, Dubey A, Mitra S, Sengupta A; J Laryngol Otol. 2021;1-20.

10. Dr. Sayan Hazra

- Endoscopic epitympanic exploration in mucosal chronic otitis media: is canal wall up mastoidectomy really needed?. Das A, Mitra S, Hazra S, Sengupta A. J Laryngol Otol. 2021;135(1):39-44

STUDENT INFORMATION

Students passed out this year

- Dr. Sauravmoy Banerjee
- Dr. Prakriti Samaddar
- Dr. Sagar Banerjee
- Dr. Soumyajit Purkait

On Going Thesis Work

1. Dr. Spandita Ghosh - Socio demographic factors due to delayed presentation of head and neck cancers in a tertiary care centre.
2. Dr. Abhishek Mondal – A Study on outcome of type-1 tympanoplasty in patients with associated deviation in nasal septum, presenting in a tertiary care hospital.

3. Dr. Titasa Pakira – Endoscopic assisted Adenoidectomy with curette v/s transoral endonasal combined controlled adenoidectomy using microdebrider – a comparative study.
4. Dr. Reshma Banu – Study of combined treatment of Intratympanic and systemic corticosteroids in patients with idiopathic sudden sensorineural hearing loss.
5. Dr. Aritra Bhattacharji- Study of relationships of preoperative findings and ossicular discontinuity in mucosal type of chronic otitis media
6. Dr. Jishnu Hore- A clinical study on revision tympanomastoid surgery to identify the causes of failure and its management with respect to CT scan
7. Dr. Kausar Ahmed- A comparative study of laser versus cold-steel surgery in benign lesions of oral cavity and larynx
8. Dr. Brittisundar Mallick- A clinical study of etiopathogenesis of epistaxis and its management
9. Dr. Aneek Chakraborty- Prevalence of hearing loss and its type among patients of Rheumatoid Arthritis and comparison with normal population - An Analytical study
10. Dr. Tushar Halder- The outcome analysis of surgical management of juvenile nasopharyngeal angiofibroma- Endoscopic vs Open approach; A comparative study
11. Dr. Kamraan Ahmed- A study to evaluate the effect of mastoid drilling on sensorineural hearing component of contralateral healthy ear
12. Dr. Deblina Chatterjee- Comparative study of endoscopic versus microscopic ossiculoplasty using various grafts in chronic otitis media
13. Dr. Srijana Saha- A comparative study of voice outcomes in thyroid surgeries using conventional method of identification versus intraoperative neuromonitoring of the recurrent laryngeal nerve
14. Dr. Mainak Saha- Surgical management of chronic otitis media with central perforation: a comparative study between interlay and underlay tympanoplasty
15. Dr. Samiuz Zaman- Prevalence of hearing loss and its type among patients of ankylosing spondylitis – An Analytical study
16. Dr. Souvik Maity- A comparative study of benign vocal cord lesions pre and postoperatively using videostroboscopy, voice analysis and voice handicap index

Thesis Work Submitted

1. Dr. Sauravmoy Banerjee - A study on correlation between pre-operative radiological findings and intra-operative findings in cases of squamosal COM
2. Dr. Prakriti Samaddar – A clinical study to evaluate the concordance between TIRADS USG criteria and Bethesda cytology with post-operative histopathology in a patient with thyroid nodule.
3. Dr. Soumyajit Purkait- A Clinical study of caudal deviation of septum and its treatment
4. Dr. Sagar Banerjee- A clinical study to evaluate the psychosomatic symptoms in head and neck cancer patients in the peritreatment period

DIVISION OF COMMUNICATION SCIENCE AND DISORDERS (AUDIOLOGY AND SPEECH LANGUAGE PATHOLOGY UNIT)

Clinician or clinical team members:

1. **Md Sahidul Arefin**: BASLP (Kol, WBUHS); MASLP (Kol, WBUHS); Fellowship in ASD (GOI, New Delhi); Trained in OPT (Talktools, USA); Trained in PECS; Trained in pre and post Laryngectomy rehabilitation; Audiologist and Speech Language Pathologist
2. **Dipanwita Roy:** BASLP (Kol, WBUHS); MASLP (Kol, WBUHS); Trained in pre and post Laryngectomy rehabilitation; ACORD Fellowship (Australia); Audiologist and Speech Language Pathologist
3. **Jahidul Khan:** BASLP (Kol, WBUHS); MASLP (Kol, WBUHS); Audiologist and Speech Language Pathologist
4. **Goutam Polley:** BASLP (CU); MASLP (Kol, WBUHS); Audiologist and Speech Language Pathologist
5. **Sujata Mulia:** BASLP (Kol, WBUHS); MASLP (Kol, WBUHS)

6. **Sushmita Biswas:** BASLP (Kol, WBUHS); MASLP (Kol, WBUHS)

(BASLP= Bachelor in audiology and speech language pathology; MASLP= Masters in audiology and speech language pathology)

The division of communication sciences and disorders (audiology and speech language pathology) started functioning in new way from 20th march, 2020 with an objective to:

- Conduct state-of-the-art basic, translational, and clinical research in the areas of speech, language, hearing, swallowing and balance.
- Offer accessible, culturally competent, evidence-based clinical care for all people with disorders in communication, balance and swallowing.
- Engage in different activities that directly benefit professional colleagues, students, and individuals and their families in the community.
- Promote a welcoming and open environment where all can learn and engage.
- Enhance the core values of the Division of Communication Sciences and Disorders are caring, collaboration, compassion, connectedness, and family.

An estimated 1 in 6 individuals suffer from communication impairment in their lifetime. Audiologist and speech Language Pathologist is an integral part in the multidisciplinary team in assessment, treatment and rehabilitation of person with communication disorders. They identify, prevent, evaluate and treat individuals with communication disorders. Hence we have started different specialty clinic at Institute of Otorhinolaryngology and Head and Neck Surgery (Centre of Excellence).

Different clinical activities under communication sciences and disorders:

Infant Hearing Clinic:
It is important to identify hearing loss as early as possible because babies start learning how to use sound as soon as they are born. Listening in the first months of life prepares babies to speak. These early steps are building blocks for communication. Institute of Otolaryngology and Head & Neck Surgery is realizing the importance of screening in the first days of a baby's life. As a result, Infant hearing clinic have started and participate in hearing screening programs, such as Universal Newborn Hearing Screening (UNHS).

Diagnostic Audiology Clinic:
Hearing loss is typically a slow insidious process. Many people with hearing loss are unsure of the severity of the problem. Our clinic is designed to perform comprehensive hearing evaluations using state of the art equipment and techniques.

Balance and vestibular Rehabilitation Clinic:
Assessment of the vestibular system includes administration and interpretation of behavioural and electrophysiological tests of equilibrium. Evaluations may incorporate clinical and electrophysiological tests of vestibular and extravestibular (vision and somatosensory) systems.

Occupational Audiology Clinic:
Employees from occupational hearing conservation programs often do not get the expected and needed type of evaluation, diagnosis or treatment in India. We for the first time in India provide services to both industrial employees and individuals who want to protect and seek services regarding noise induced hearing loss.

Interventional Audiology Clinic:
It focuses on preventing and treating hearing loss before it becomes a barrier to other treatments or leads to other health co-morbidities. Interventional Audiology focuses on detecting and treating medical conditions that may lead to or exacerbate other conditions, with the ultimate goal of promoting a healthier lifestyle.

Cochlear Implant Rehabilitation Clinic:
While the cochlear implant provides access to sound, understanding takes more than just hearing. Intensive individualized habilitation (intervention for patients who has never heard before) and rehabilitation (intervention for patients who are learning to hear again) allows for optimal gains for all recipients. Our rehabilitation team consist of highly trained speech language pathologists. A unique rehabilitative and patient-centered focus allows for collaboration among the recipient, family, speech language pathologist, doctor, audiologist, and other professionals

to establish a path to success. Our multi-disciplinary team shares a commitment to providing a complete network of services to help each of our patients use their cochlear implant(s) to achieve their greatest potential.

Paediatric Speech and Language Disorders Clinic:
Speech Language Pathologists have expertise in the assessment, differential diagnosis and treatment of preschool and school aged children presenting with a varied, and often complex, range of speech, language, social–pragmatic and language-literacy issues.
Speech Language Pathologist assess and treat preschool or school aged children presenting with:

- Delayed early language development or "late talkers"
- Unclear speech, articulation delay or dyspraxia
- Comprehension difficulties
- Language delay or disorder
- Pragmatic (conversational) and play/social issues
- Attention and listening difficulties
- Stuttering
- Developmental delay or disorder
- Autism Spectrum Disorder
- Language based learning and literacy issues.
- Cleft Lip and Palate

Adult Neuro-Communication Disorders Clinic:
Acquired neurogenic communication disorders are caused by damage to the central or peripheral nervous system. People with these disorders at one time had normal communication abilities. The difficulties may come suddenly after an acute event or appear gradually as part of a progressive disorder. Some of the causes include stroke, dementia, Parkinson's disease, Lou Gehrig's disease, tumour, and traumatic brain injury. Speech and communication abilities are sensitive indicators of neurological problems and one of first places where neurologic problems are noticeable.
We provide services for adult outpatients and inpatients that are experiencing communication difficulties associated with:

- Aphasia
- Apraxia
- Dysarthria

We also provide services for adult outpatients with cognitive-communication disorders resulting from:

- Concussion/Mild Traumatic Brain Injury
- Dementia/Mild Cognitive Impairment
- Right Hemisphere Disorder
- Traumatic Brain Injury

Our services include:

- Comprehensive evaluations of communication and cognition
- Individualized, evidence-based treatment programs
- Patient and family counselling and education
- Consultations and in-service programs
- Group and individual therapy

Dysphagia Clinic:
Speech Pathologist helps to assess and manage dysphagia in order to prevent aspiration pneumonia and improve quality of life for people with swallowing difficulties.
The assessment includes:

- Understanding what medical conditions the individual presents with and how they may affect swallowing
- Assessing the strength and movement of the muscles involved in swallowing
- Observing posture, feeding behaviour and swallowing movements during eating and drinking
- If required, perform further assessments to evaluate swallowing, such as
  - Videofluoroscopy (VFS) – an assessment where the swallowing process is viewed on X-ray while the individual eats or drinks food or liquid coated with barium.
  - Flexible endoscopic examination of swallow (FEES) – a flexible scope with a tiny camera is inserted through the nose to observe the swallowing process

Voice Clinic:
Our multidisciplinary team includes otolaryngologists, speech-language pathologists and other medical professionals with specializations in care related to disorders of voice, resonance, breathing, swallowing and head and neck cancer.

Voice Clinic provides comprehensive and state-of-the-art services for patients of all ages using computerised speech lab (CSL), stroboscope and nasometer.

Augmentative and Alternative Communication Clinic:
Augmentative and Alternative Communication (AAC) refers to communication methods that supplement or replace speech or writing. The Augmentative and Alternative Communication Clinic at Institute of Otolaryngology and Head & Neck Surgery provides comprehensive, state-of-the-art evaluation and treatment for children and adults whose speech or expressive language is either severely or profoundly impaired.

Clinical Services Summary of division of Communication Sciences and Disorders (Audiology and Speech Language Pathology Unit): December 2020 to November 2021

Number of Audiological Assessment Done:

PTA	IA	OAE & Sc. BERA	Diag BERA	ENG	Special Test	HA Counselling	CI Mapping	NRT	TRT	VRT	Total
6140	4943	7219	1640	444	176	6014	289	21	125	166	27177

(PTA= Pure tone Audiometry; IA= Impedance Audiometry including Reflexometry; OAE= Otoacoustic Emission; HA= Hearing Aid; CI= Cochlear Implant TRT= Tinnitus Retraining Therapy; VRT= Vestibular Rehabilitation Therapy; NRT= Neural Response Telemetry)

Number of Speech, Language and Swallowing Assessment Done:

CCD	Vo.D	ANCD	Flu. D	Swa.D (B)	Swa.D (Cl.)	MBS	Art.D	AVT Asst	FEES	Strobos -copy	Total
3468	2122	858	531	12	975	06	464	692	342	610	10080

(CCD= Childhood Communication Disorders; VD= Voice Disorders; ANCD= Adult Neuro Communication Disorders; Vo.D= Voice Disorders; Flu.D= Fluency Disorders; Swa. D (B) =Swallowing Disorders (Bedside); Swa. D (Cl.) =Swallowing Disorders (Clinical); MBS= Modified Barium Swallow; Art.D= Articulation Disorders; FEES= Flexible Endoscopic Evaluation of Swallowing; AVT= Auditory Verbal Therapy)

Number of Speech, Language and Swallowing Intervention Done

CCD	Vo.D	ANCD	Flu.D	Swallowing Disorders (Bedside)	Swallowing Disorders (Clinical)	Modified Barium Swallow	Articulation Disorders	AVT	Total
4729	2477	1078	683	35	1108	02	432	953	11497

Total Services under communication sciences and disorders (From 01-12-2020 to 30-11-2021): 27177+10080+11497 = 48754

LIST OF ADVANCED SURGICAL INSTRUMENTS IN ENT MAIN OT

- CO_2 laser with fibreoptic carrier and micromanipulator
- Navigation system
- Intra-operative Nerve Monitoring System
- Skeeter drill
- PENTEX advanced microscope
- Microdebrider
- Coblation device
- Harmonic scalpel
- Microdrill set with micromotor and burr set

LIST OF INSTRUMENTS IN OPD COMPLEX & DIAGNOSTICS

- Audiovestibular laboratory equipped with Audiometer, Tympanometer, ENG, BERA, OAE machine
- Fibreoptic laryngoscopy/ nasopharyngoscopy with monitor in minor OT complex attached to ENT OPD
- Flexible fibre-optic bronchoscopy
- Diagnostic and operative ENT microscope
- Videostroboscopy
- Flexible Endoscopic Evaluation of Swallowing (FEES) System