



Government of West Bengal
Institute of Postgraduate Medical Education & Research
Centre of Excellence in Medical Education & Research

Institute of Cardiovascular Sciences
Cardiac Anesthesiology

The Department of Cardiac Anesthesiology started its journey in the year 2011 as per G.O. No. H/MA(MES)/495/ME/ MISC-15-2011, dated 11.02.2011. This Department was the 3rd in India (after AIIMS, New Delhi and Sree Chitra Tirunal Institute for Medical Sciences and Technology, Thiruvananthapuram). This Department was the first one in Eastern India to start as an independent department.

Post-doctoral course of DM (Cardiac Anesthesiology) has been introduced under West Bengal University of Health Sciences with intake of 02 Postdoctoral Trainees per year from August 2011. This Department was the first one in Eastern India to conduct DM course in Cardiac Anesthesiology. This course is offered only in few institutions in India at present.

The Department started with the following staff:

SN	Name	Post
1.	Dr. Anupam Goswami	Professor and Head
2.	Dr. Chaitali Sen	Associate Professor
3.	Dr. Kakali Ghosh	Assistant Professor
4.	Vacant	RMO cum Clinical Tutor

Present faculty

SN	Name	Post Held
1.	Dr. Chaitali Sen (Dasgupta), MD (AIIMS), DNB, DM (AIIMS), MNAMS	Professor & Head
2.	Dr. Kakali Ghosh MD, DM, FIACTA	Associate Professor
3.	Dr. Soumi Das, MD, DM, FIACTA	Associate Professor
4.	Dr. Sandeep Kumar Kar, MD	Assistant Professor
5.	Dr Tiasha Das, MBBS	RMO cum Clinical Tutor

DM in Cardiac Anesthesiology

DM course was started in this Institute from August 2011 for two (02) seats and was included in the 1st Schedule to the I.M.C. Act, 1956 (on 2011 as permitted seats and recognized seats in August 2014).

Candidates Passed DM

Till now **14 candidates** have passed **DM in Cardiac Anesthesiology** in NMC recognized seats from this Department

SN	Name	Year	Remarks	Other Achievement
1.	Dr. Kakali Ghosh	August 2014	1st Attempt	Dr. Kakali Ghosh passed FIACTA Exam
2.	Dr. Monalisa Datta			
3.	Dr. Jyoti Ranjan Parida	August 2015	1st Attempt	—
4.	Dr. Somnath Dey			
5.	Dr. Anusuya Banerjee	August 2016	1st Attempt	—
6.	Dr. Deepanwita Das			
7.	Dr. Tanmoy Ganguly	August 2017	1st Attempt	Dr. Soumi Das passed FIACTA Exam
8.	Dr. Soumi Das			
9.	Dr. Harneet Singh Khurana	August 2018	1st Attempt	Dr. Sushmit Kamat passed FIACTA Exam & FTET Exam and DNB in Cardiac Anaesthesia
10.	Dr. Sushmit Kamat			
11.	Dr Neeta Basak	August 2019	1st Attempt	Dr Neeta Basak passed FIACTA Exam & FTET Exam
12.	Dr. Gayatri Balawantray	August 2020	1st Attempt	
13.	Dr Illangovan P.	August 2021	1st Attempt	Also FNB (Critical Care)
14.	Dr Pallav Mishra			

All the past students have done well in their fields and are currently engaged as follows

SN	Name	Name
1.	Dr. Kakali Ghosh, MD, DM, FIACTA	Associate Professor, IPGME&R, Kolkata
2.	Dr. Monalisa Datta, MD, DM	Assistant Professor in Jagannath Gupta Institute of Medical Sciences, Budge Budge, Kolkata & Visiting Consultant Cardiac Anesthesiologist in AMRI, Mukundapur, Kolkata
3.	Dr. Jyoti Ranjan Parida, MD, DM	Consultant Cardiac Anesthesiologist, Sum Ultimate Medicare, Bhubaneswar
4.	Dr. Somnath Dey, MD, DM	Consultant –in charge Cardiac Critical Care & Cardiac Anesthesia, Medica Institute of Cardiac Sciences, Medica Superspecialty Hospital, Kolkata
5.	Dr. Anusuya Banerjee, MD, DM	Consultant Cardiac Anesthesiologist, Woodlands Multispecialty Hospital, Kolkata
6.	Dr. Deepanwita Das, MD, DM	Consultant Anesthesiologist, Specialist Grade II (SG), Chittaranjan National Cancer Institute, Kolkata
7.	Dr. Tanmoy Ganguly, MD, DM	Associate Consultant, Rabindranath Institute of Cardiac Sciences, Kolkata
8.	Dr. Soumi Das, MD, DM, FIACTA	Associate Professor, IPGME&R, Kolkata
9.	Dr. Harneet Singh Khurana, MD, DM	Consultant Cardiac Anesthesiologist, Department of Cardiac Anesthesia, SPS Hospital, Ludhiana
10.	Dr. Sushmit Kamat, DA, DNB (Anesthesia), DM, FIACTA, FIACTA (TEE), DNB (Cardiac Anesthesia)	Assistant Professor, Department of Cardiac Anesthesiology, Goa Medical College, Goa
11.	Dr Neeta Basak, MD, DM	Associate Consultant in Mission Hospital Durgapur
12.	Dr Gayatri Balabantaray, DA, DNB, DM	Junior Consultant, Cardiac Anesthesia, Sunshine Hospital, Hyderabad
13.	Dr Illangovan P, DA,DNB,DM	Senior Resident in IPGME&R, Kolkata

Present Postdoctoral Trainees

SN	Name	Year
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1.	Dr. Debjani Saha, MD	3rd Year
2.	Dr. Gaurav Gogoi, DA, DNB	3rd Year
3.	Dr. Payel Trigunait, DA	2nd Year
4.	Dr. Abhinandan Mondal, MD	2nd Year
5.	Dr. Bijoya Kumar Sethi	2nd Year
6.	Dr. Girraj Sharma	2nd Year
7.	Dr. Pavan Kumar Dammalapati	2nd Year

ACADEMIC ACTIVITIES OF THE POSTDOCTORAL STUDENTS

1. Regular classes, examinations for assessment and hands-on training for DM (Cardiac Anaesthesiology) and MD (Anesthesiology) students.
2. ONLINE CME programmes organized by INDIAN SOCIETY OF ANAESTHESIOLOGISTS, and INDIAN SOCIETY OF CARDIOTHORACIC ANAESTHESIOLOGY, both at National and State level.
3. Attend various conferences at State, Zonal, National, and International level online.
4. They are posted in Cardiology Department of IPGMER to have Hands on Training in Transthoracic Echocardiography for two months (One month in First year and one month in Third Year).
5. They are encouraged for publication of Research Articles, Case Reports, Review Articles in Different Journal of National and International repute.

All Offline activities in Conferences are on hold because of the pandemic scenario.

Postgraduate Trainees in Anesthesiology are posted to this Department for OBSERVERSHIP in Cardiac Anesthesiology from :-

1. IPGME&R, Kolkata
2. Sambhunath Pandit Hospital, Kolkata
3. Burdwan Medical College, Burdwan
4. Bankura Medical College, Bankura
5. Medical College, ESIC Hospital, Sealdah, Kolkata
6. KPC Medical College, Jadavpur, Kolkata
7. Command Hospital, Kolkata

FACULTY NEWS

Dr. Chaitali Sen (Dasgupta), MBBS, MD(AIIMS), DNB, DM(AIIMS) , MNAMS, (Professor and Head)

- Guide or Co- guide of 6 (six) DM (Cardiac Anesthesiology) students
- Examiner for DM Cardiac Anesthesiology under West Bengal University of Health Sciences in 2021
- Thesis Evaluator of DM students
- Guest Faculty in ISACONWB 2021 conducted by Indian Society of Anesthesiologists (West Bengal), Topic :- HOCM in Pregnancy (Virtual platform)
- Guest Faculty in H. G. Barat Memorial Oration in ISACONWB in 2021 conducted by Indian Society of Anesthesiologists (West Bengal) (Offline)
- Guest Faculty in Uterine Transplant Orientation Programme by Department of G&O in IPGMER in 2021
- g) Guest Faculty in PG Boot conducted by Indian Society of Anesthesiologists (West Bengal) in 2021, Topic:- Mitral Stenosis
- Takes regular classes for DM and MD students
- Active participation in all Heart Transplantation in SSKM Hospital done so far. (Total 06 cases done).
- Ex-Scientific Secretary in Indian Society of Anesthesiologists (West Bengal)
- Ex-Scientific Secretary in Association of Cardiac and Thoracic Anesthesiologists of West Bengal
- Ex Vice President in Association of Cardiac and Thoracic Anesthesiologists of West Bengal
- Ex- President in Association of Cardiac and Thoracic Anesthesiologists of West Bengal
- Ex Executive Council Member in Indian Society of Cardiac and Thoracic Anesthesiologists

Dr. Kakali Ghosh, MD,DM, FIACTA (Associate Professor)

- Guide or Co-Guide of 03 (Three) Postdoctoral trainees in DM Cardiac Anesthesiology
- Examiner for DM Cardiac Anesthesiology under West Bengal University

- of Health Sciences in 2021
- Takes regular classes for DM and MD students
- Active participation in all Heart Transplantation in SSKM Hospital done so far. (Total 06 cases done).
- Participation in COVID ICU in Sambhunath Pandit Hospital.
- Participated as a core team member of ECMO team in setting up and running of ECMO Hub, at SNPH since April 2021.

Dr. Soumi Das MD, DM, FIACTA (Associate Professor)

- Guide or Co-Guide of 03 (Three) Postdoctoral trainees in DM Cardiac Anesthesiology
- Takes regular classes for DM and MD students
- Active participation in all Heart Transplantation in SSKM Hospital done so far. (Total 06 cases done).
- Participation in COVID ICU in Sambhunath Pandit Hospital.
- Acting as the present Scientific Secretary in West Bengal Association of Cardiothoracic and Vascular Anesthesiologists.
- Participated as Invited Guest Faculty in IACTACON 2021 24th Annual Conference (Virtual) held on 27th, 28th Feb 2021 delivering a lecture on the topic of "PA catheter: A fading tool amidst an advanced armamentarium".
- Participated as Invited Guest Faculty in Hemodynamic Monitoring Workshop in ISACON West Bengal 2021 held on 10th Oct 2021 delivering a lecture together with hands-on training on the topic of: "Role of Echocardiography in Hemodynamic Monitoring".
- Participated as a core team member of ECMO team in setting up and running of ECMO Hub, at SNPH since April 2021.

Dr. Sandeep Kumar Kar, MD, (Assistant Professor)

- Guide or Co-Guide of 02 (Two) Postdoctoral trainees in DM Cardiac Anesthesiology
- Takes regular classes for DM and MD students
- Active participation in all Heart Transplantation in SSKM Hospital done so far. (Total 06 cases done).
- Active Participation in Music Therapy in different places.

Dr. Tiasha Das, MBBS (RMO cum Clinical Tutor)

- Active participation in all Heart Transplantation in SSKM Hospital done so far. (Total 06 cases done).
- Active participation in Heart Failure Clinic

Ongoing Research in the Department

SN	NAME	THESIS TOPIC
1	DR GAURAV KUMAR GOGOI Guide:- Prof Chaitali Sen Co-Guide:- Dr Soumi Das	Can mitral to aortic flow velocity time integral ratio be used to grade mitral regurgitation severity in patients with concomitant calcific mitral stenosis
2	DR DEBJANI SAHA Guide:- Prof Chaitali Sen Co-Guide:- Dr Kakali Ghosh	Effectiveness and safety profile of Enhanced Recovery After Surgery pathways for patients undergoing off-pump Coronary Artery Bypass Grafting – a prospective parallel group open label randomized controlled trial

3	DR PAVAN KUMAR DAMMALAPATI Guide:- Prof Chaitali Sen Co-Guide:- Dr Sandeep Kumar Kar	Designing a new scoring system based on Echocardiographic parameters (ECHO score) and comparing with the EuroSCORE II for risk stratification for off-pump CABG (OPCAB) - a prospective parallel group observational study
4	DR ABHINANDAN MONDAL Guide:- Dr Kakali Ghosh Co-Guide:- Dr Sandeep Kumar Kar	Effects of Levosimendan or Milrinone on Left Atrial pressure in patients undergoing Off-Pump Coronary Artery Bypass Grafting : A Randomized Controlled Trial
5	DR PAYAL TRIGUNAIT Guide:- Prof Chaitali Sen Co-Guide:- Dr Soumi Das	Myocardial Performance Index of right ventricle and its comparison with left ventricular Ejection Fraction as prognostic factor in patients undergoing off-pump CABG – a prospective observational study
6	DR BIJAYA KUMAR SETHY Guide:- Dr Soumi Das Co-Guide:- Prof Chaitali Sen	Doppler estimation of left ventricular filling pressure in patients with aortic stenosis undergoing aortic valve replacement
7	DR GIRRAJ SHARMA Guide:- Prof Chaitali Sen Co-Guide:- Dr Sandeep Kumar Kar	Predictors of arrhythmias after releasing of aortic cross clamp in valve replacement surgeries : a prospective observational study

Recent publications of faculty and residents

SN	Title	Journal
1	Femoro-femoral cardiopulmonary bypass for the resection of an anterior mediastinal mass	Indian Journal of Anaesthesia
2	Dislodged device during closure of patent ductus arteriosus	Journal of Anaesthesiology & Clinical Pharmacology
3	Effect of prophylactic amiodarone in patients with rheumatic valve disease undergoing valve replacement surgery	Annals of Cardiac Anaesthesia
4	Reduction in spinal-induced hypotension with ondansetron in parturients undergoing caesarean section: A double-blind randomised, placebo-controlled study	International Journal of Obstetric Anesthesia
5	Bi-atrial myxoma in a toddler: a case report	Indian J Thorac Cardiovasc Surg
6	Effect of low volume ventilation during cardiopulmonary bypass on oxygenation and postoperative pulmonary outcome	Indian J Thorac Cardiovasc Surg
7	Our experience of intraoperative autologous blood donation in patients undergoing elective valve surgery	Indian J Thorac Cardiovasc Surg
8	Effect of Vitamin C on adrenal suppression by etomidate induction in patients undergoing cardiac surgery: A randomized controlled trial	Annals of Cardiac Anaesthesia
9	Comparison of the additive effects of intravenous methyl prednisolone with that of intravenous pentoxifylline on low tidal volume normal frequency ventilation as a lung protection strategy during cardiopulmonary bypass that improves immediate postoperative outcome	Journal of Cardiology & Current Research
10	Is elevated blood glucose a marker of occult tissue hypoperfusion in off-pump coronary artery bypass grafting?	Annals of Cardiac Anaesthesia
11	Multiple primary cardiac hydatid cysts in the interventricular septum—A rare case report	Indian heart journal case reports
12	Renal dysfunction after off-pump coronary artery bypass grafting surgery: Are the current guidelines too relaxed and deliberately extrapolated?	Journal of Integrative Nephrology and Andrology
13	Myocardial protection: The eternal search for an ideal Cardioplegia solution and adjuvants added for superior myocardial protection during cardio pulmonary bypass	Editorial, J Vas Dis Treat
14	Anesthesia management of renal transplantation: an update:-	Anaesth Pain & Intensive Care
15	Penetrating Arrow Wound of the Chest - A Case Report	J Case Rep Stud

16	Cardiovascular consideration of bilateral carotid body tumour: a rare case report	International Archives of Medicine Section: Cardiovascular Biology
17	Fat Embolism Syndrome and Role of Immunomodulation: A Case	Clinical & Experimental Cardiology
18	Influence of Speed of Fentanyl Citrate Injection before Induction of Anesthesia on Fentanyl-Induced Cough: a Prospective, Randomized, Double Blinded Study	La Prensa Medica Argentina
19	Unusual Variant of Guillain-Barré Syndrome Following Hepato-biliary Surgery — A Rare Case Report	Journal of Case Reports and Studies
20	Effect of paracetamol intravenous infusion on duration and quality of spinal blockade in patients undergoing major gynecological surgeries: a prospective, randomized, double-blinded, placebo-controlled study	La Prensa Medica Argentina
21	Cardiovascular and Airway Considerations in Mediastinal Mass During Thoracic Surgery	Clinical & Experimental Cardiology
22	Challenges of percutaneous balloon mitral valvuloplasty in pediatric patients with rheumatic mitral stenosis: a case report	Translational Biomedicine
23	Can undiagnosed Parkinson's disease become uncovered in perioperative phase? a case report of stormy postoperative event	La Prensa Medica Argentina
24	Renal cell carcinoma extending through inferior vena cava into right atrium removed with cardiopulmonary bypass support	Clinical Case Reports and Reviews
25	Dislodgement of coronary stent-balloon catheter before deployment during percutaneous coronary angioplasty	J Clin Exp Cardiology
26	Post Balloon Stent Right Coronary Artery Aneurysm: Cardiologist's Nightmare	Journal of Cardiovascular Diseases & Diagnosis
27	A Discussion about Modalities of Smoking Cessation in Perioperative Phase for Addicts: A Review Article	Journal of Addiction Medicine and Therapeutic Science
28	Surgical management of congenital cystic adenomatoid malformation in a 2-month-old patient: a case report	Archives of Medicine
29	Efficacy of Continuous Local Anesthetic Infiltration at Sternal Incision Site in Patients Undergoing Open Heart Surgery	SunText Review of Cardiovascular Sciences
30	Early outcomes following off-pump coronary artery bypass surgery under general anesthesia with and without high thoracic epidural analgesia: a comparative study	Journal of Clinical Cardiology and Cardiovascular Interventions
31	Comparison of Effects of Prophylactic Amiodarone versus Lignocaine and Magnesium Sulphate versus Placebo in Prevention of Arrhythmias in Patients Undergoing Valve Replacement Surgery	Clinical and Interventional Cardiology
34.	Comparative study of heart rate responses to laryngoscopic endotracheal intubation using intubating laryngeal mask airway under general anesthesia in patients with pure mitral stenosis for closed mitral commissurotomy.	Journal of the Indian Medical Association
35.	Controlled transient respiratory arrest along with rapid right ventricular pacing for improving balloon stability during balloon valvuloplasty in pediatric patients with congenital aortic stenosis: A retrospective case series analysis.	Annals of Cardiac Anaesthesia.
36.	Online Fellowship Exit Examination during the COVID-19 Pandemic. Global Bioethics Enquiry	Global Bioethics Enquiry
37.	Caesarean section in Eisenmenger's syndrome: anesthetic management with titrated epidural and nebulized alprostadil.	South African J Anaesth Analg
38.	Carotid sinus hypersensitivity: entity warrants a caution in the critical care unit.	Journal of the Scientific Society
39.	Multiorgan dysfunction due to traumatic fat embolism syndrome: critical care and peri-operative issues	Saudi Journal of Sports Medicine
40.	Letter to the editor: An unusual cause of upper airway obstruction in a child during general anesthesia.	Indian journal of Anaesthesia.

SERVICE INFORMATION

A. Clinical work in the department

- A. Pre-Anesthesia Clinic on every Friday
- B. Pre-Anesthetic re-evaluation of all the patients on day before surgery
- C. Pre-Anesthetic Evaluation of the Referred cases.
- D. Transthoracic Echocardiographic Evaluation of Patients on day before surgery.
- E. Anesthesia given to patient for
 - Cardiac surgeries (Adult and Pediatric and Neonate),
 - Thoracic surgeries (Adult and Pediatric),
 - Vascular Surgeries,
 - Esophageal surgeries
 - Mediastinal Mass Resection
 - Heart Transplant (Donor and Recipient)
- F. Anesthesia given to pediatric and adult patients in Cath Lab for
 - Diagnostic and
 - Therapeutic Procedures
- G. Round the clock Emergency service for CTVS OT
- H. Round the clock CTVS Recovery Patients' care
- I. ECMO support as and when necessary, in the Cardiac Postoperative Recovery unit.
- J. Regular participation in COVID ICU and COVID ECMO in Sambhunath Pandit Hospital by Faculties and PDTs

B. Anesthesia given to patient for following surgeries (Month wise statistics)

Month	On pump CABG	OPCAB	Myxoma	Valve Surgery			Congenital Heart Surgery					Thoracic	Others	Emergency	Total
				Aortic	Mitral	DVR	ASD	VSD	TOF	TAPVC	Others				
2020															
Dec	1	18	0	2	12	4	9	2	1	0	2	10	5	10	77
2021															
January	3	16	0	2	7	5	6	5	3	0	3	13	4	7	76
February	1	14	0	4	12	1	7	0	2	1	3	11	0	11	69
March	0	15	2	4	6	3	9	2	4	1	3	10	15	15	89
April	0	7	1	1	2	1	0	1	0	0	3	8	3	8	35
May	0	7	1	1	5	1	0	1	1	1	1	4	8	8	39
June	0	9	1	3	4	1	9	1	2		2	4	17	9	62
July	0	11	1	8	8	3	3	1	1	0	3	14	13	6	71
August	2	13	3	4	3	4	9	3	2	0	6	12	7	7	75
Sep	1	11	1	2	8	3	6	3	1	0	18 TTE-10	9	8	8	79
Oct	0	5	1	2	2	5	4	4	1	0	11	9	1	4	49
Nov	0	20	0	4	8	2	7	0	3	1	5	14	19	5	88
Total cases done from December 2020 to November 2021															809

Heart Transplant in September-1

C. Anesthesia given to pediatric and adult patients in Cath Lab for various Diagnostic and Therapeutic Procedures

Month	Diagnostic procedure	Device closure	PPM	TEE	Others	Total
2020						
December	5	5	1	1	x	12
2021						
January	3	7	2	2	1	15
February	6	6	0	3	0	15
March	4	6	0	0	1	11
April	2	2	0	0	2	6
May	0	1	0	0	0	1
June	0	3	0	0	1	4
July	2	0	1	1	2	6
August	5	3	0	1	0	9
September	5	2	0	4	0	11
October	5	8	1	1	1	16
November	1	11	0	3	6	21
Total	38	54	5	15	14	127
Total number of cases done in CATH LAB from December 2020 to November 2021						127

Total Cases Done in CTVS OT and Cardiology Cath Lab (809+127)=936

ACHIEVEMENTS OF THE DEPARTMENT

1. Successfully conducting DM Cardiac Anesthesia since 2011 till date
2. Increment of DM (Cardiac Anesthesia) seats from 02 to 05 in 2020
3. Successful Heart Transplantation in 06 patients so far
4. Commencement of BSc Physician Assistant Course under WBUHS from 2021.
5. Constant support of COVID ICU and ECMO from Faculties and Postdoctoral Trainees in Sambhunath Pandit Hospital since the commencement of the two till date.

Looking Forward:-

1. Separate Pediatric and Neonatal OT in this Department
 2. Lung Transplantation
 3. Establishment of an ECMO unit in CTVS Recovery.
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