



DR. PAYEL BOSE

Senior Consultant and Clinical Lead - Critical Care Medicine

Qualification

MBBS | MRCP (UK) | MD - Anaesthesiology | FNB - Critical Care Medicine
| EDIC | SCE - Acute Medicine (UK) | IDCCM | IFCCM

Overview

Dr. Payel Bose is a Senior Consultant in the Department of Critical Care Medicine at Manipal Hospitals, Siliguri with over 13 years of expertise in managing critically ill patients. Armed with a robust educational background: she holds MBBS, MRCP (UK), MD Anaesthesiology, FNB Critical Care Medicine, EDIC, IDCCM, IFCCM, SCE Acute Medicine (UK) — credentials that establish her as a leading expert in Critical Care Medicine, Internal Medicine, and Acute Medicine. Her core specialisations include trauma management, invasive mechanical ventilation, difficult airway management, point-of-care ultrasonography, focused echocardiography, hemodynamic monitoring, renal replacement therapy, ECMO (extracorporeal membrane oxygenation), and extracorporeal therapies in sepsis. She is also adept in critical care imaging, retrieval and transport of critically ill patients, patient safety, and quality of care. She has been certified as an AI Clinician under the Certificate Course on Artificial Intelligence in Medicine (CCAIM), Critical Care Cohort 2026 (also approved by Healthcare Sector Skill Council, Ministry of Skill Development and Entrepreneurship, GOI). She has successfully completed the CAHO-

ASQua Certificate Programme in Healthcare Risk Management (March 2024), the CAHO Certificate Programme on Artificial Intelligence, Machine Learning and Robotics (April 2026), and the Certificate Course on AI in Healthcare conducted by the National Board of Examinations in Medical Sciences (NBEMS). Dr. Bose is a committed researcher, actively engaging in clinical research, audits, and quality improvement projects to enhance patient outcomes. Her exceptional communication and counselling skills ensure a patient-centric approach, reinforcing trust and confidence among patients and their families. She is one of the best critical care specialists in Manipal Hospitals, Siliguri and Rangapani. As a distinguished member of the Royal College of Physicians (RCP), the Indian Society of Critical Care Medicine (ISCCM), the European Society of Intensive Care Medicine (ESICM), IMA (Indian Medical Association), and the Indian Society of Anaesthesiology (ISA), she remains at the forefront of medical advancements and global best practices in critical care. She is also Senior Faculty and Clinical Guide for post-doctoral trainees pursuing the DrNB Critical Care Medicine course under NBEMS, Lead Instructor and Training Centre Faculty for BLS and ACLS (under the American Heart Association), Certified Instructor for ATLS (under the American College of Surgeons), and Certified Instructor for FCCS (under the Society of Critical Care Medicine).

Fellowship & Membership

- Royal College of Physicians (RCP)
- ISCCM (Indian Society of Critical Care Medicine)
- ESICM (European Society of Intensive Care Medicine)
- ISA (Indian Society of Anaesthesiology)

Field of Expertise

- Difficult Airway Management
- Point of Care Ultrasonography and Focussed Echocardiography
- Haemodynamic Monitoring Techniques
- Modalities of Renal Replacement Therapy
- Extracorporeal Therapies
- Critical Care Imaging
- Retrieval and Transport of Critically Ill Patients
- Clinical Research and Audit Project
- Patient Safety and Quality of Care
- Communication Skills

Languages Spoken

- English
- Bengali
- Hindi

Awards & Achievements

- Winner of KOPS Award (Obstetric Anaesthesia) paper presentation at ISACON 2011, Mumbai
- Postgraduate Quiz Competition at WBISACON 2012, Kolkata
- Winner of Critiquiz 2016–2017 "Battle of the Brains" second and third episode (online quiz competition, ISCCM) awarded in the Grand India International Quiz Competition held at Criticare 2018, Varanasi
- Awarded in platform/podium presentation at Criticare 2018, Varanasi
- Participated and awarded in presentation at CAHOCON 2024, Kolkata
- Winner of Kavita Kamineni Awards for the best research paper at Criticare 2026, Chennai

Talks & Publications

- Das S, Mandal MC, Gharami BB, Bose P. Fibreoptic aided retrograde intubation in an oral cancer patient. Indian J Anaesth 2011; 55(2): 202-3.
- Das S, Mandal MC, Gharami BB, Bose P. Authors' Reply. Indian J Anaesth 2011; 55(5): 547-8.
- Das S, Chattopadhyay S, Bose P. The anaesthesia gas supply system. Indian J Anaesth 2013; 57(5): 69-79.
- Kar A, Bose P, Roy A. Renal Biomarkers: An Update. Critical Care Update 2018; 381-385. (book chapter)
- Banerjee T, Bose P, Bhattacharjee A. Preventing Micro-organism in Ventilator associated Pneumonia: is Surveillance Culture the answer? Critical Care Update 2021; 52-54. (book chapter)
- Bose P, Debnath S. Immunoglobulins in Sepsis: Where to Use? Critical Care Update 2022; 64-68. (book chapter)
- Banerjee T, Bose P. Kidney-lung Crosstalk In Determining the Prognosis of Acute Kidney Injury Phenotypes in Acute Respiratory Distress Syndrome Patients. Indian Journal of Critical Care Medicine 2023; 27(10): 701-3.
- Bose P. The Role of AI and Telemedicine In Improving Healthcare Access In Rural Areas. Critical Care Communications (A bi-monthly newsletter of ISCCM), Volume 18, Issue 4.
- Ahmed A, Iqbal A, Bose P. Probiotics and Postoperative Nutritional Support. Critical Care Update 2024; 683-688. (book chapter)
- Sinha S, Bose P, Mishra M. Basics of ABG. W4C 23 Mechanical Ventilation; 340-344. (book chapter)
- Lopa AJ, Bose P, Ahmed A. Arrhythmias in Pregnancy and Management. Critical Heart Condition During Pregnancy (Critical Care in Obstetrics); 133-147. (book chapter)
- Mishra M, Bose P. Approach to Critically Ill Patients. Critical

- Care Perspectives From Theory to Practice; 3-8. (book chapter)
- Bose P, Mukherjee S. Management of Sepsis: Recent Guidelines and Other Advances. Critical Care Perspectives From Theory to Practice; 733-740. (book chapter)
 - Ahmed A, Bose P. Neurogenic Shock in ICU. Journal of Nepalese Society of Critical Care Medicine 2024 Nov; 2(3): 14-19.
 - Lopa AJ, Bose P, Ahmed A. Prenatal care, risk assessment and counseling. The Kidney of the Critically Ill Pregnant Woman (Critical Care in Obstetrics); 9-22. (book chapter)
 - Bose P, Lopa AJ, Debnath S. Acute kidney injury in a pregnant woman. The Kidney of the Critically Ill Pregnant Woman (Critical Care in Obstetrics); 59-71. (book chapter)
 - Bose P. CPC (Clinico-pathological Case Discussion) - A Rare presentation of Acute Myeloid Leukaemia. Critical Care Communications (A bi-monthly newsletter of ISCCM), Volume 19, Issue 5.
 - Lopa AJ, Bose P. Toxic Effect of Hyperbaric Breathing Gas Mixture. Evidence-Based Hyperbaric Medicine: Concepts and Clinical Application; 21-34. (book chapter)
 - Lopa AJ, Bose P, Hossain KI. The Effect of High Pressures on Human Physiology. Evidence-Based Hyperbaric Medicine: Concepts and Clinical Application; 195-206. (book chapter)
 - Lopa AJ, Bose P. Complications of Hyperbaric Oxygen Therapy: Oxygen Toxicity. Evidence-Based Hyperbaric Medicine: Concepts and Clinical Application; 213-224. (book chapter)
 - Nassa P, Lopa AJ, Khanzode S, Bose P. Articles on Infectious disease. Critical Care Communications (A bi-monthly newsletter of ISCCM), Volume 20, Issue 5; 92-97.
 - Ghatak T, Bose P. Letter in response to the article: Utility of Extracellular Nicotinamide Phosphoribosyl Transferase as a Novel Biomarker in Predicting Early Severe Organ Dysfunction and Mortality in Acute Respiratory Distress Syndrome: A Prospective Observational Study. Indian Journal of Critical Care

Medicine, Volume 30, Issue 2 (February 2026); 173-174.

- Bose P, Jariwala M. Sepsis and Septic Shock in Pregnancy and Puerperium: Contemporary Bundles and Antibiotic Stewardship. Critical Care Update 2026; Chapter 10.3, 507-511. (book chapter)
- Bose P, Ahmed A. Carbon Monoxide Poisoning. ISCCM Textbook of Critical Care Medicine, Chapter 20.18, 2461-2468. (book chapter)
- Ahmed A, Bose P. Non Infective Endocarditis. ISCCM Textbook of Critical Care Medicine, Chapter 14.17; 1716-1721. (book chapter)
- Bose P. Gastrointestinal Bleeding. Critical Care Medicine Simplified for Exams: A Case based Review, Chapter 24; 349-368. (book chapter)
- Bose P. Mesenteric Ischaemia. Critical Care Medicine Simplified for Exams: A Case-based Review, Chapter 25; 369-380. (book chapter)
- Bose P. Approach to Diarrhoea in Intensive Care. Critical Care Medicine Simplified for Exams: A Case-based Review, Chapter 26; 381-413. (book chapter)
- Bose P. Nutrition in Critical Care. Critical Care Medicine Simplified for Exams: A Case based Review, Chapter 28; 426-450. (book chapter)
- Ramachandran P, Chowdhury A, Kumar S, Pathak B, Bose P, Bhattacharya S. Global Insights into ICU practice variations. ICU visitation policies in the Netherlands: Open versus Restricted Models - A Narrative Review. Critical Care Communications (A bi monthly newsletter of ISCCM), Volume 21, Issue 01; 64-67.
- Ramachandran P, Chowdhury A, Kumar S, Pathak B, Bose P, Bhattacharya S. Global
- Insights into ICU practice variations. Minimal Sedation Strategies in Denmark - A Narrative Review. Critical Care Communications (A bi-monthly newsletter of ISCCM), Volume

21, Issue 01; 67-69.

- Ramachandran P, Chowdhury A, Kumar S, Pathak B, Bose P, Bhattacharya S. Global Insights into ICU practice variations. The General Principles of Practice of Sedation in Intensive Care Units in the UK. Critical Care Communications (A bi-monthly newsletter of ISCCM), Volume 21, Issue 01; 67-69.