



**International Conference on Medicine,
Pharmacy, Nursing and Allied Health Sciences**

MediSphere 2026

Organized by
Annai College & Jiadhal College

**In collaboration with: Genovasi University College
,Petaling Jaya, Selangor, Malaysia & University of
Malaya, Malaysia.**

Editors
Dr.S. Balamuralitharan
Dr.R.Shanthi devi
Dr. Sindhura Kannappan
Dr. K. Sujith



**MediSphere
Research Excellence
Awards 2026**



**International Conference on Medicine,
Pharmacy, Nursing and Allied Health Sciences
MediSphere 2026**

**August 01 - 02, 2026
(virtual mode)**

Editors

Dr. S. Balamuralitharan

Dr. Sindhura Kannappan

Dr. K. Sujith

Dr. R. Santhi devi

International Conference on Medicine, Pharmacy, Nursing and Allied
Health Sciences

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ISBN Number : 978-81-69388-17-7



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PREFACE

Founded with a commitment to promoting academic excellence, research, and professional collaboration, Chendur Research Foundation (CRF) continues to provide meaningful platforms for knowledge exchange and innovation across diverse disciplines. In this spirit, we are pleased to present the International Conference on Medicine, Pharmacy, Nursing and Allied Health Sciences – MediSphere 2026, to be held in Virtual Mode on August 01–02, 2026. The conference brings together academicians, researchers, healthcare professionals, practitioners, students, and industry experts to share their knowledge, experiences, research findings, and innovative ideas in the rapidly evolving fields of medicine, pharmacy, nursing, and allied health sciences.

MediSphere 2026 provides an interdisciplinary forum for exploring recent developments, emerging technologies, evidence-based practices, and innovative approaches that are shaping the future of healthcare and allied health services. The conference aims to encourage meaningful discussions on contemporary healthcare challenges, advances in medical and pharmaceutical sciences, nursing innovations, healthcare technologies, patient-centred care, public health, and other emerging areas.

The conference also emphasizes the importance of research, innovation, and knowledge translation in improving healthcare outcomes and addressing emerging global health challenges. The virtual mode further enables wider participation and promotes the dissemination of knowledge beyond geographical boundaries.

We gratefully acknowledge the valuable contributions and support of the associating institutions, distinguished experts, invited speakers, delegates, researchers, participants, and members of the conference organizing committee. Their cooperation and dedication have been instrumental in making MediSphere 2026 a platform for meaningful academic interaction, professional development, and the advancement of healthcare knowledge.

We warmly welcome all participants to MediSphere 2026 and look forward to a productive, engaging, and enriching conference that inspires new ideas, encourages interdisciplinary collaboration, and contributes to the continued advancement of medicine, pharmacy, nursing, and allied health sciences.

Best Wishes.

EDITORS



DR.S. BALAMURALITHARAN

Message

We are pleased to invite you to participate in the International Conference on Medicine, Pharmacy, Nursing and Allied Health Sciences – MediSphere 2026, to be held in Virtual Mode on August 01–02, 2026. The conference is organized by Annai College and Jiadhal College, in collaboration with Genovasi University College, Petaling Jaya, Selangor, Malaysia, and the University of Malaya, Malaysia. The primary goal of this conference is to bring together healthcare professionals, academicians, researchers, practitioners, and experts from various disciplines to share their knowledge, research findings, innovations, and best practices in medicine, pharmacy, nursing, and allied health sciences. The conference aims to provide an international platform for meaningful academic exchange, interdisciplinary collaboration, and the development of innovative approaches to address emerging challenges in healthcare. We believe that MediSphere 2026 will serve as a valuable platform for young researchers, students, faculty members, and professionals to showcase their research, exchange ideas, and build meaningful academic and professional networks.



DR. K. SUJITH

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Nelamangala, Bangalore



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MediSphere 2026

Conference Theme

This theme emphasizes the convergence of medicine, pharmacy, nursing, and allied health sciences to improve patient outcomes, strengthen healthcare systems, and foster multidisciplinary research and innovation. It reflects current trends in healthcare innovation, digital health, patient-centered care, and interprofessional collaboration.

Key Areas of MediSphere 2026

Medicine & Clinical Sciences

- * Internal Medicine and Clinical Practice
- * Surgery and Surgical Innovations
- * Emergency and Critical Care Medicine
- * Public Health and Preventive Medicine
- * Infectious Diseases and Epidemiology
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- * Medical Laboratory Technology
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- * Clinical Research Methodology
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- * Multidisciplinary Research Collaborations
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Pharmacy & Pharmaceutical Sciences

- * Clinical Pharmacy Practice
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- * Artificial Intelligence in Healthcare
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- * Health Policy and Administration
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- * Pandemic Preparedness and Response
- * Interdisciplinary Healthcare Collaboration

These topics are consistent with the major focus areas commonly featured in international conferences covering medicine, pharmacy, nursing, and allied health sciences.

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IMPORTANT DATES

Last date for registration: 16.05.2026

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Last date for submission of full paper: 16.05.2026

Conference dates: May 16 & 17, 2026



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F1	A STUDY ON DEVELOPMENT OF RURAL HERBAL AND FOLK MEDICINES FOR SUSTAINABLE DEVELOPMENT OF RURAL INDIAN COMMUNITIES AND SOCIETIES Dr. Pradipta Mukhopadhyay
F2	GENDER DIFFERENCES IN PERIPHERAL NERVE CONDUCTION PARAMETERS: A CROSS-SECTIONAL NEUROPHYSIOLOGICAL STUDY OF HEALTHY ADULTS Beulah Snowin D.R, Sowmiya T., Ashwini V.
F3	CLINICAL SPECTRUM OF PREVIOUSLY UNDIAGNOSED COMORBIDITIES IDENTIFIED DURING ROUTINE PRE-ANAESTHETIC ASSESSMENT AND THEIR IMPLICATIONS FOR PERIOPERATIVE RISK STRATIFICATION: A PROSPECTIVE OBSERVATIONAL STUDY Sowmiya T, Ashwini V, Beulah Snowin D.R
F4	DEVELOPMENT OF AN INTEGRATED DIFFICULT AIRWAY PREDICTION MODEL USING THE STOP-BANG QUESTIONNAIRE AND CONVENTIONAL BEDSIDE AIRWAY ASSESSMENT PARAMETERS IN ADULT SURGICAL PATIENTS: A PROSPECTIVE OBSERVATIONAL STUDY Ashwini V, Beulah Snowin D.R, Sowmiya T

CLINICAL SPECTRUM OF PREVIOUSLY UNDIAGNOSED COMORBIDITIES IDENTIFIED DURING ROUTINE PRE-ANAESTHETIC ASSESSMENT AND THEIR IMPLICATIONS FOR PERIOPERATIVE RISK STRATIFICATION: A PROSPECTIVE OBSERVATIONAL STUDY

Sowmiya T¹, Ashwini V², Beulah Snowin D.R³

Assistant professor, Department of Operation Theatre and Anaesthesia Technology, School of Allied Health Sciences, Vels Institute of Science, Technology and Advanced Studies, Chennai.

Abstract

Background: Routine pre-anaesthetic assessment (PAC) is an essential component of perioperative care that enables the identification of systemic comorbidities, supports preoperative optimization, and facilitates individualized anaesthetic planning. This study evaluated the spectrum of previously diagnosed and newly detected comorbidities among adults undergoing elective surgery.

Objective: To assess the prevalence of known and newly detected systemic comorbidities identified during routine pre-anaesthetic assessment and their implications for perioperative risk stratification.

Methods: A prospective observational study was conducted in the Department of Anaesthesiology at Chettinad Hospital and Research Institute, Kelambakkam. One hundred adults aged 18–60 years scheduled for elective surgery under general, spinal, or regional anaesthesia were enrolled. Demographic details, clinical history, physical examination findings, and routine preoperative investigations were recorded. Patients were evaluated for systemic comorbidities and classified according to the American Society of Anesthesiologists (ASA) Physical Status Classification.

Results: Among the 100 patients, 65% were females and 35% were males. Most patients were classified as ASA II (54%), followed by ASA III (25%) and ASA I (21%). Hypertension was the most common comorbidity (55%), including 44% previously diagnosed and 11% newly detected cases. Diabetes mellitus was identified in 39% of patients, including 30% known and 9% newly detected cases. Previously unrecognized systemic comorbidities were detected in 26% of patients.

Conclusion: Routine PAC effectively identified previously undiagnosed systemic comorbidities, enabling perioperative risk stratification, individualized anaesthetic planning, and timely preoperative optimization to improve patient safety.

Keywords: Pre-anaesthetic assessment; Comorbidities; Elective surgery; Perioperative risk stratification; Hypertension; Diabetes mellitus.

1. Introduction

Pre-anaesthetic assessment (PAC) is a fundamental component of perioperative care that enables anaesthesiologists to evaluate a patient's medical condition before surgery and formulate an individualized anaesthetic management plan. A comprehensive assessment includes detailed

medical history, physical examination, airway evaluation, and appropriate laboratory investigations to identify factors that may increase perioperative risk. Early recognition of these risk factors facilitates appropriate optimization before surgery, thereby reducing anaesthesia-related complications and improving patient safety.

The increasing prevalence of chronic non-communicable diseases such as hypertension, diabetes mellitus, cardiovascular disorders, thyroid disease, and respiratory illnesses has made preoperative evaluation increasingly important. Many of these conditions remain asymptomatic during the early stages and are frequently identified only during routine preanaesthetic assessment. Consequently, the pre-anaesthetic clinic often serves as the first opportunity for detecting previously undiagnosed systemic diseases, particularly among patients who have not undergone regular health screening. Early diagnosis allows timely medical intervention and appropriate modification of perioperative management.

The primary objectives of PAC are to assess the patient's physical status, determine anaesthetic fitness, identify co-existing medical conditions, estimate perioperative risk, and develop an appropriate anaesthetic strategy. In addition, patient counselling, optimization of chronic illnesses, and coordination with surgeons and physicians contribute to improved perioperative outcomes. Structured preoperative assessment has also been associated with reduced surgical cancellations, fewer unexpected perioperative events, shorter hospital stay, and better utilization of healthcare resources.

Perioperative risk stratification is commonly performed using the American Society of Anesthesiologists (ASA) Physical Status Classification System, which categorizes patients according to the severity of their systemic disease. Although ASA classification is not an independent predictor of postoperative outcomes, it remains one of the most widely accepted clinical tools for estimating perioperative risk and planning appropriate intraoperative and postoperative management. Routine investigations, including electrocardiography, chest radiography, and laboratory tests, further assist in identifying occult abnormalities that may influence anaesthetic care.

Despite the recognized importance of pre-anaesthetic assessment, studies evaluating the prevalence of previously undiagnosed systemic comorbidities among patients undergoing elective surgery in Indian tertiary care hospitals remain limited. Understanding the frequency and pattern of these conditions is essential for improving perioperative risk assessment and optimizing patient management before surgery.

Therefore, the present prospective observational study was undertaken to evaluate the clinical spectrum of previously diagnosed and newly detected systemic comorbidities identified during routine pre-anaesthetic assessment among adult patients undergoing elective surgery. The study also assessed their implications for perioperative risk stratification using the ASA Physical Status Classification System, with the aim of highlighting the role of comprehensive preoperative evaluation in promoting safer anaesthetic practice and improved perioperative outcomes.

2. Literature Review

Pre-anaesthetic assessment (PAC) plays a pivotal role in perioperative care by identifying patient-related risk factors before surgery and facilitating appropriate anaesthetic planning. A systematic preoperative evaluation, including detailed history, physical examination, and selective investigations, enables the early recognition of medical conditions that may influence perioperative outcomes. Previous studies have demonstrated that structured PAC improves patient safety, reduces unnecessary surgical cancellations, and enhances perioperative decision-making.

Hypertension and diabetes mellitus are among the most commonly reported comorbidities detected during routine pre-anaesthetic assessment. Bhardwaj et al. reported hypertension as the predominant systemic disorder identified during PAC, followed by diabetes mellitus, emphasizing the importance of early diagnosis and medical optimization before elective surgery. Similarly, Gupta and Gupta highlighted that dedicated pre-anaesthetic clinics improve perioperative management by facilitating timely identification of chronic illnesses and appropriate referral to specialists when required.

The American Society of Anesthesiologists (ASA) Physical Status Classification System is widely used to assess perioperative risk based on the patient's systemic health. Several studies have shown that patients with higher ASA grades are more likely to require additional perioperative monitoring and individualized anaesthetic management. Routine investigations such as electrocardiography, chest radiography, and laboratory tests further assist in detecting occult abnormalities that may not be apparent during clinical examination, thereby supporting safer anaesthetic practice.

Although the clinical benefits of PAC have been well established, limited prospective evidence is available from Indian tertiary care hospitals regarding the prevalence of previously undiagnosed systemic comorbidities identified during routine pre-anaesthetic evaluation. Furthermore, data describing the relationship between newly detected comorbidities and perioperative risk stratification remain limited. Therefore, the present study was undertaken to evaluate the spectrum of known and newly diagnosed systemic comorbidities among adult patients undergoing elective surgery and to examine their implications for perioperative risk stratification.

3. Methodology

3.1 Study Design and Setting

A prospective observational study was conducted in the Department of Anaesthesiology at Chettinad Hospital and Research Institute (CHRI), Kelambakkam, Tamil Nadu, India. The study was designed to evaluate the prevalence of previously diagnosed and newly detected systemic comorbidities identified during routine pre-anaesthetic assessment and their implications for perioperative risk stratification. Ethical approval was obtained from the Institutional Human Ethics Committee, and written informed consent was obtained from all participants before enrolment.

3.2 Study Population

A total of 100 adult patients aged 18–60 years who were scheduled for elective surgical procedures under general, spinal, or regional anaesthesia were included in the study.

Inclusion criteria: Patients aged 18–60 years, classified as American Society of Anesthesiologists (ASA) Physical Status I, II, or III, and scheduled for elective surgery under general, spinal, or regional anaesthesia.

Exclusion criteria: Patients undergoing emergency surgery, patients younger than 18 years, and those who declined to participate in the study.

3.3 Data Collection

All participants underwent a standardized pre-anaesthetic assessment according to the institutional protocol. Demographic variables, including age, sex, height, weight, diagnosis, and type of surgery, were recorded. A detailed clinical history was obtained, including previously diagnosed hypertension, diabetes mellitus, thyroid disorders, jaundice, respiratory disease, cardiovascular disease, smoking status, alcohol consumption, drug allergy, previous surgery, and previous anaesthetic exposure.

A comprehensive physical examination and airway assessment were performed. Routine preoperative investigations, including electrocardiography (ECG), chest radiography (where indicated), complete blood count, blood glucose estimation, and other relevant laboratory investigations, were reviewed. Based on clinical history and investigation findings, systemic comorbidities were categorized as either previously diagnosed or newly detected during the pre-anaesthetic assessment.

3.4 Outcome Measures

The primary outcome of the study was the prevalence of previously diagnosed and newly detected systemic comorbidities identified during routine pre-anaesthetic assessment. Secondary outcomes included the distribution of individual comorbidities and perioperative risk stratification based on the ASA Physical Status Classification.

3.5 Statistical Analysis

Data were entered into Microsoft Excel and analysed using descriptive statistical methods. Continuous variables were summarized as mean $\pm$ standard deviation, while categorical variables were expressed as frequencies and percentages. The prevalence of systemic comorbidities and ASA physical status distribution were presented using tables and figures. The findings were interpreted to evaluate the contribution of routine pre-anaesthetic assessment in identifying previously undiagnosed systemic diseases and supporting perioperative risk stratification.

4. Results

A total of 100 adult patients undergoing elective surgery were included in this prospective observational study. The demographic characteristics, clinical profile, systemic comorbidities, and perioperative risk stratification identified during routine pre-anaesthetic assessment were analysed. The study findings are presented below.

Table 1. Demographic characteristics of the study population (n = 100)

Variable	Frequency	Percentage (%)
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Age 18–30	28	28
Age 31–45	42	42
Age 46–60	30	30
Male	35	35
Female	65	65

Table 2. BMI Distribution

BMI	Frequency	Percentage (%)
Underweight	8	8
Normal	46	46
Overweight	32	32
Obese	14	14

Table 3. Lifestyle characteristics of the study population

Variable	Frequency	Percentage (%)
Smoking	18	18
Alcohol	15	15
Non-smoker	82	82
Non-alcohol	85	85

Table 4. ASA Physical Status

ASA	Frequency	Percentage (%)
I	21	21
II	54	54
III	25	25

ASA = American Society of Anaesthesiologists Physical Status Classification.

Table 5. Distribution of known and newly diagnosed systemic comorbidities

Condition	Known	New	Total
Hypertension	44	11	55
Diabetes	30	9	39
Thyroid	5	2	7
Jaundice	2	1	3

Table 6. Routine preoperative investigation findings

Investigation	Normal	Abnormal
ECG	88	12
Chest X-ray	94	6

A total of **100 adult patients** undergoing elective surgical procedures were included in this prospective observational study. The demographic and clinical characteristics of the study population are summarized in **Table 1**. The majority of participants were females, with the highest proportion belonging to the **31–45 years** age group. Most patients had a normal body mass index, although a considerable proportion were overweight or obese. A minority of participants reported smoking and alcohol consumption.

The distribution of patients according to the American Society of Anesthesiologists (ASA) physical status classification is presented in **Table 2**. More than half of the study population (**54%**) was classified as **ASA II**, indicating that mild systemic disease was the predominant preoperative risk category among patients undergoing elective surgery.

The prevalence of systemic co-morbidities identified during routine pre-anaesthetic assessment is shown in **Table 3**. Hypertension was the most frequently detected co-morbidity (**55%**), followed by diabetes mellitus (**39%**). Routine pre-anaesthetic evaluation also identified previously undiagnosed systemic illnesses in **26%** of patients, highlighting the importance of comprehensive preoperative assessment for early disease detection and risk stratification.

Routine preoperative investigations demonstrated predominantly normal electrocardiographic and chest radiographic findings. However, clinically relevant abnormalities were detected in a small proportion of patients, emphasizing the value of appropriate preoperative investigations in supporting perioperative decision-making (**Table 4**).

Overall, routine pre-anaesthetic assessment identified both known and previously undiagnosed co-morbidities, supporting its role in perioperative risk stratification and patient optimization before elective surgery.

Discussion

The present study highlights the importance of routine pre-anaesthetic assessment in identifying systemic co-morbidities that may influence perioperative management. More than half of the study population (54%) was classified as ASA II, indicating that mild systemic disease is common among patients undergoing elective surgery. This finding is comparable with that reported by Omole et al. (2021), who emphasized that structured pre-anaesthetic evaluation facilitates appropriate perioperative risk stratification and optimization.

Hypertension (55%) was the most prevalent co-morbidity identified, followed by diabetes mellitus (39%). Similar findings have been reported by Bhardwaj et al. (2018), where hypertension and diabetes were the predominant chronic conditions detected during preanaesthetic assessment. The high prevalence of these disorders may be attributed to the increasing burden of non-communicable diseases, lifestyle changes, and delayed diagnosis among the adult population. These conditions require careful preoperative optimization to minimize perioperative complications and improve surgical outcomes.

An important observation of the present study was that 26% of patients were newly diagnosed with previously unrecognized systemic illnesses during routine pre-anaesthetic assessment. This finding supports the observations of Gupta and Gupta (2010), who described preanaesthetic clinics as valuable opportunities for identifying undiagnosed medical conditions before surgery. Early detection allows timely referral, optimization of treatment, and modification of the anaesthetic plan, thereby reducing the risk of perioperative adverse events and unexpected postponement of elective procedures.

Routine preoperative investigations showed that most ECGs and chest radiographs were normal, while abnormalities were identified in a small proportion of patients. These findings are consistent with the 2022 European Society of Cardiology (ESC) Guidelines, which recommend individualized preoperative investigations based on patient-specific risk factors and the type of surgery rather than indiscriminate testing. Appropriate use of preoperative investigations supports safer anaesthetic management and efficient utilization of healthcare resources.

Overall, the findings of this study reinforce the role of routine pre-anaesthetic assessment as an essential component of perioperative care. Comprehensive evaluation not only facilitates risk stratification but also enables early detection and optimization of co-morbid conditions, contributing to improved patient safety and better perioperative outcomes.

Limitations

This study was conducted at a single tertiary care centre with a sample size of 100 patients. Postoperative outcomes were not evaluated; therefore, the relationship between newly identified co-morbidities and perioperative complications could not be assessed. Further multicentre studies with larger sample sizes are recommended.

5. Conclusion

Routine pre-anaesthetic assessment is an effective strategy for identifying both known and previously undiagnosed systemic co-morbidities among patients undergoing elective surgery. Hypertension and diabetes mellitus were the most frequently encountered medical conditions, and

more than one-quarter of patients were newly diagnosed with previously unrecognized systemic diseases during evaluation. These findings demonstrate that pre-anaesthetic clinics play a crucial role in perioperative risk stratification, early disease detection, and individualized anaesthetic planning. Strengthening comprehensive pre-anaesthetic assessment services may contribute to improved patient safety, enhanced perioperative outcomes, and reduced surgery-related complications.

6. References

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