Book Reviews


Rapidly advancing technological capabilities of science, coupled with the medical profession’s paternalistic culture, often clash with ethical values and respect for the individual’s rights of self-determination. Such conflicts result in the birth of the field of bioethics. This field provides an ethical framework for resolution of physician–patient conflicts and contradictions between social consensus and individual values. It has since expanded from its primary focus, the physician–patient relationship, to the larger and pervasive institutional contexts and social policies.

The field has seen the shift from the paternalistic model to a contractual relationship between patients and physicians, arguing for the patient’s right to know. The established philosophical tradition that knowledge is always good in itself, and to remain in ignorance deprives people of their choice and consequently of autonomy, supports the right to know. Others argue that exercising an individual’s right not to know is consistent with self-determination and actually constitutes an enhancement of their autonomy. This is particularly true if there is no serious harm to third persons and there is no reasonable cure or available therapy. Nevertheless, such rights cannot be presumed but must be made explicit by individual choice.

New technology allows us to prognosticate the course of the disease, and to actually predict future illness long before any signs and symptoms are apparent. The increasing accuracy of modern medicine paradoxically adds new dimensions of uncertainty for the individual. The increase in understanding of one’s medical fate is coupled with continued uncertainty and lack of knowledge and raises many ethical questions and concerns.

Medical experts are regularly called upon to prognosticate about the course and outcome of diseases, provide advice and counsel to patients and their families. Nevertheless, converting a medical prognosis into a subjective understanding and a reassessment of the quality of life can pose existential difficulties. It raises philosophical, ethical and legal concerns. Such paradigm shifts demand integration into historical, cultural and religious frameworks.

The book on predictive diagnostics and medicine brings together the papers and discussions of a conference in Basel in June 2010. The diverse disciplines represented included science, medicine, ethics, philosophy, religion and theology. It included medical, ethical, judicial and religious perspectives. It discusses many issues in the field. It highlights the fact that changes in science and medicine can occur within a short period, and these demand a constant review of the context (e.g. changing diagnostics, treatments, medical concepts, cost, availability, public perception and cultural attitudes). The dramatic improvements in HIV diagnosis, therapy, prognosis and outcome within a span of 10–15 years have altered the landscape within which clinical decisions are made. It argues that human genetics is based on statistical models and probability, and employs group and population data. Their extrapolation to individual patients has to be done with extreme caution. Heterogeneity within disease categories and multifactorial aetiology (e.g. involvement of multiple genes, epigenome, environmental influences, comorbidity, personality, sociodemographic factors, ethnicity, lifestyle, medication, etc.) make prediction complex and difficult. Despite the growing hype and market of genetic test-based ‘personalized medicine’ products, the actual predictive power of tests for the individual is poor.

The book also discusses issues related to the decision-making process of genetic testing, its emotional consequences, and the incorporation of statistical probability into the person’s subjective outlook and values in life. It highlights the complexity of the informed consent model, currently based on legal points of view, the variability of the received information and its role in the decision-making process. It examines criticism related to the interpretation of autonomy based on the impartation of isolated information with a disregard for the social context, familial roles and relationships, personality and lifestyles. It examines issues related to prenatal diagnostic tests in pregnancy and emphasizes the tension in synthesizing diverse roles as wife, mother, carer and individual and the short time-span related to decision-making. The book illustrates, with examples, how autonomous decision-making develops as a process geared towards the idea of authenticity of the individual (i.e. perception of self, values and ideas). It considers different individual, familial and intergenerational approaches, conflicts and coping with relation to hereditary diseases (e.g. Huntington chorea) and testing. It highlights the complex role of the doctor as a communicator of information and as a counsellor.

The book also discusses autonomy and the right to self-determination. It mentions the need to provide information in a graded manner, seeking the patient’s permission to proceed with details. It alludes to the implications of such prediction on family planning, insurance, employment, privacy and data protection. While it elaborates Swiss law, it also discusses legal issues, feasibility of resolving conflicts, inherent legal uncertainty of such legislation, and the balance for the conflicting interests of persons involved.

The book has chapters on medical ethics from Buddhist, Christian and Jewish perspectives. Ethical principles are discussed based on particular religious worldviews, historical contexts, cultural attitudes and theological traditions. Relevance to current contexts, heterogeneity within religious traditions, and contradictions within scriptures are also mentioned.

Some chapters tend to ramble while others are focused; some are easy to read, while many others are heavy. Many discuss practical cases and issues. The book will captivate the scholar trying to understand the issues within this complex field. It will also be useful for physicians facing similar dilemmas. The
elaboration of principles and discussion of perspectives increases its shelf-life in this rapidly evolving field.

Predictive diagnostics and medicine allow us an anticipatory rather than a reactive stance to life. However, it is associated not only with our hopes for the future but also with our deepest fears. The famous quote by the American theoretical physicist, John Wheeler, is also applicable to predictive medicine: ‘As our island of knowledge grows, so does the shore of our ignorance.’ This emerging field will test the limits of our understanding of biology and of life.

K.S. JACOB  
Department of Psychiatry  
Christian Medical College  
Vellore  
Tamil Nadu  
ksjacob@cmcvellore.ac.in


A healthy diet is everyone’s concern, but few know what constitutes a healthy diet. Given the increasing incidence of lifestyle diseases in India, a number of nutritionally unacceptable behaviours have become common, such as eating on the run, binge eating, skipping meals, etc. To compensate for such behaviours, it has also become common to see people going on fad diets and weight reduction schemes that are not sustainable. The information overload on the internet does not help even the most sophisticated seeker, and the rash of unverified claims to a healthy pattern of eating makes it important to have a credible source to confirm or debunk different theories. Particularly in India, cultural wisdom accumulated over the ages has an important role in defining optimal lifestyles; sometimes, these are at odds with what modern epidemiology and interventional science find. The need of the hour is for an expert who competently straddles the divide between modern science and ancient wisdom. In this book, which is not daunting in size, but written with crisp clarity, Dr Bijlani has put together the sensible path for eating wisely and well.

This book attempts to demystify the art of healthy eating, and succeeds. Undoubtedly, it is not the last word, and one hopes that updated versions will come, even though the information here should stand the test of time. The chapters are laid out in a progression that addresses nutrients and lifestyles, but with a gentle humour evident in the way the chapters are named. The author has given a simple introduction to the basics of nutrients—from macronutrients, such as energy, protein, carbohydrates and fats, to micronutrients, such as vitamins, minerals and antioxidants. He then goes on to subjects of fierce debate, and clarifies some common doubts about the use of food supplements, the significance of genetically modified foods and the disadvantages of going on yo-yo weight reduction diets.

The author debunks many commonly held myths about dieting, fasting, exercise, alcohol consumption, and also about vegetarian Indian diets being poor in quality of protein. He finally gives a sensible summary of a balanced diet as one that is a mixture of cereals and pulses, with five helpings of vegetables and fruits, moderate intakes of milk and milk products, spices, fats, sugar and salt. He also offers practical suggestions on how to maintain optimal weight by eating in moderation, eating slowly, chewing well and exercising regularly, instead of going on crash or fad diets.

The author ends the book with a chapter on the ayurvedic principles of nutrition, introducing the terminology of the doshas (vata, pitta or kapha) and the gunas (sattvik, rajasik and tamasik). Ayurvedic concepts of nutrition are quite different from modern concepts of nutrition, and are based on an individual’s constitution. However, irrespective of a person’s prakriti (nature), he suggests that sattvik foods are preferable to rajasik and tamasik foods. Ayurveda teaches us that we should eat to live and not live to eat. And finally, he advises that a mealtime prayer reminds us to be thankful for our food. For someone not familiar with the ayurvedic way, this is a promising start.

This is not a stern admonishing book, but one that can be read comfortably in a few sittings; however, this has reference value too. It also brings together questions that the author has been asked over his decades of practice as a nutritionist: the answers are simple but enlightening.

A.V. KURPAD  
Department of Physiology

INDU MANI  
Department of Nutrition  
St John’s Medical College  
Bengaluru  
Karnataka


The importance of clinical trials in advancing medical science needs no debate. The country’s contribution to clinical trials has been miniscule even though we have a vast number of medical professionals and a large population. Recently, there has been a lot of negative propaganda and apprehensions have been expressed about clinical trials. People have been concerned about exploitation of susceptible and
vulnerable populations by pharmaceutical companies. There is definitely a need for a firm regulatory environment to prevent misconduct and unethical research. At the same time, the knowledge and skills of healthcare professionals in planning and conducting clinical research need strengthening.

This book is a timely publication giving an overview of the concepts of a clinical trial, its design and various aspects related to organization. With contributions from national and international faculty, the core aspects of clinical trials have been covered. Its emphasis on regulation, financial management and ethics in clinical research will guide the young researcher in organizing and planning a clinical trial. It also discusses statistics relevant to clinical trials. Overall, it is a concise compilation of issues related to clinical research.

The writing style is simple. The tables and illustrations are well presented. While the chapters have some examples to highlight the issues, it would have been desirable to have more real-life examples for better understanding of the complexities of clinical trials. The book will be useful to all those who are involved in the conduct of clinical trials; though some areas such as the study design will need reference to more detailed texts. The book is worth its price.

DINESH RAJ
RAKESH LODHA
Department of Paediatrics
All India Institute of Medical Sciences
New Delhi
rakesh_lodha@hotmail.com


Pulmonary vascular diseases are frequently a blind spot in the medical curriculum and, therefore, this book is a useful reference for both medical students and consultants.

The authors have covered the entire spectrum of pulmonary vascular diseases delving into pathology, aetiology, and present-day clinical management. The book elaborates on important clinically relevant scenarios ranging from non-invasive assessment of pulmonary hypertension to exercise testing and invasive haemodynamics. Individual disorders are succinctly covered by different authors and are as well updated as they can be in a rapidly progressing age. Paediatric cardiologists in the developing world will appreciate the authors’ review on pulmonary hypertension in congenital heart disease including Eisenmenger syndrome. Similarly, chapters on portopulmonary and hepatopulmonary hypertension put into perspective the current understanding of these diseases.

The chapter on ‘Acute pulmonary venous thromboembolic disease’ is surprising for its brevity and complete lack of any illustrations. The reader would have appreciated greater detail on this important clinical topic.

In short, the book makes for an easy read and would be of interest to the internist, chest physician and cardiologist. It covers a wide spectrum of pulmonary vascular diseases and should be a useful adjunct for the busy clinician. Residents may be a little disappointed to find detailed pharmacokinetics of individual drugs as well as tabular depiction of clinical trials to be missing, but the crisp summaries and extensive bibliography make up for these gaps.

NITISH NAIK
Department of Cardiology
Cardiothoracic and Neurosciences Centre
All India Institute of Medical Sciences
New Delhi
nitishnaik@hotmail.com


Platelet activation, aggregation and subsequent triggering of clot forms the basic pathophysiology of acute coronary syndrome (ACS). Since the mid-1980s, antiplatelet therapy has been an important weapon in the cardiologist’s armamentarium in the management of ACS. The initial agent used was aspirin until the advent of the thienopyridines. For the past 15 years, aspirin and clopidogrel, either alone but often together, have formed the mainstay of treatment of this condition. Over the past 5 years, a number of new antiplatelet agents of different classes have been used in clinical trials and some have started becoming available for clinical use; more are likely to follow. Thus, the thienopyridine prasugrel is now licensed in India and the non-thienopyridine ticagrelor is likely to follow suit. In contrast to ACS, stroke in atrial fibrillation (AF) is the result of embolism from a thrombus in the heart. Antiplatelet compounds are much less effective in prophylaxis against stroke and systemic embolism in AF than anticoagulants which form the mainstay in this condition. Vitamin K antagonists—warfarin and acenocoumarols—have been in use for the past 40 years and are highly effective, if used appropriately. The past few years have seen the emergence of newer anticoagulants which are likely to challenge the dominance of vitamin K antagonists. But that is another story.
This volume is part of the series on Advances in Cardiology. As a start, keeping in mind the relatively small role of antiplatelet agents in AF, I wondered at the title. Sure enough, of the 14 chapters and 165 pages, only one chapter and nine pages deal with AF. The book could have restricted itself to ACS. The objectives of the book are, strangely enough, best given in the conclusion. Its stated objective is to provide a book that is ‘detailed and exhaustive, yet easily consulted for the latest developments in platelet pathophysiology, pharmacology and therapeutics’ and claims that it is a ‘must have for basic researchers, investigators, trialists and clinicians interested in the study of platelets’.

Besides an Introduction and Conclusion, of the 12 chapters in the book, six deal with individual antiplatelet drugs—aspirin, clopidogrel, prasugrel, ticagrelor, dipyridamol, and one of a newer group, the protease-activated receptor 1 (PAR 1) inhibitors, which is still in the preclinical phase. Each chapter is by a different author but has a similar layout of a review of the pharmacokinetics, pharmacodynamics and clinical pharmacology of the molecule followed by a review of the clinical trial evidence for its use. There is usually a concluding section on the clinical use of the molecule being covered. Clopidogrel, together with aspirin, remains the most widely used antiplatelet agent and has extensive literature available on its advantages as well as disadvantages. Yet the compound is dealt with in one short chapter. The author of this chapter has more or less written off the use of clopidogrel in ACS with a statement that it should be replaced by newer agents. Personally, I am not so sure. Clopidogrel has an advantage of familiarity, lower cost and clinical trial evidence on strategies to help overcome clopidogrel resistance. It may be some time before we can write its epitaph.

The book appropriately reminds us of the increased bleeding risk with dual antiplatelet therapy, which is further increased with triple therapy as may be required when a patient on anticoagulants, for say AF, develops ACS and requires a coronary intervention and additional antiplatelet medication. Cardiologists should remember to assess the bleeding risk of such patients and use dual antiplatelet if at all for the shortest possible time or even consider the use of a bare metal stent.

The newer antiplatelet agents, which have recently become available for clinical use (prasugrel) or are likely to become available shortly (ticagrelor), are well covered with extensive reviews of the clinical trial evidence that will be of interest to the academic cardiologist. There is also a chapter on an interesting and established molecule (dipyridamol) which is used in Europe but is not particularly popular in India. Preclinical studies on dipyridamole have shown it to have a beneficial effect on the vascular endothelium beside an antiplatelet effect. However, this potential benefit has not translated into much benefit in clinical trials and clinical use.

The book also has chapters on the general use of antiplatelet drugs besides particular use in ACS, stroke prevention and AF. The last chapter deals more with the use of anticoagulants than antiplatelet agents; this is understandable since anticoagulants form the bedrock of prevention of thromboembolism in AF. What I found lacking was a chapter discussing clearly when and where each of the available antiplatelet medications should be used. How should the clinical cardiologist decide which of them to use in an individual patient? Such a chapter would have brought it all together.

PREM PAIS
Department of Medicine
St John’s Medical College
Sarjapur Road
Bengaluru
Karnataka


Cutaneous drug eruptions are the most common type of adverse reactions to drug therapy, with an overall incidence of 1%–3% in hospitalized patients. In everyday clinical practice, almost all physicians come across suspected adverse cutaneous drug reactions (ACDR) in different forms. Often, the presentation is innocuous but about 2% of drug eruptions are life-threatening. Therefore, identifying the drug and stopping it at the earliest is the key to the management and prevention of a more severe drug rash. Not only dermatologists, but all practising physicians should be familiar with these conditions to diagnose them early and be prepared to manage them appropriately. It is also important that ACDR are identified and documented in the patient record to avoid a recurrence.

This book provides comprehensive reading material for practising dermatologists and postgraduate residents who crave to know various theoretical and practical aspects of drug eruption. There are 16 well laid out chapters which have in-depth discussions on various aspects of ACDR. Each chapter begins with an abstract and essentials in a nutshell, which capture the essence of the chapter and set the tone for the rest of the chapter. An entire chapter is devoted to the role of genetic biomarkers in cutaneous drug eruptions, the identification of which would help predict and reduce the incidence of adverse reactions and may help in individualizing drug therapy.

The chapter on histopathological patterns of drug reactions shows myriad histopathological patterns a drug can produce. It also indicates that no reaction pattern is specific for a drug. This also re-emphasizes that ACDR is an area where the art of accurate history taking and evaluation of morphological pattern of eruption and its evolution is crucial, and investigations may or may not supplement the diagnosis.

The chapter on drug-induced exanthems with various morphological and localization patterns is a treat for the reader. Fixed-drug eruption (FDE) gets special attention with an entire chapter devoted to it. The chapter highlights unusual forms which may mimic other skin diseases such as erythema multiforme, Steven–Johnson syndrome/toxic epidermal necrolysis (SJS/TEN), cellulitis, paronychia, lichen planus and parapsoriasis-en-plaque. A novel hypothesis that FDE lesions can be induced by a virus-driven process is exciting. Severe cutaneous drug reactions such as drug-induced hypersensitivity syndrome, a generalized exanthematous pustulosis and SJS/TEN are dealt separately with details of epidemiology, aetiology, pathogenesis, clinical features, histopathology, differential diagnosis and management.

Much attention has been paid to recent advances in oncolgical drugs such as epidermal growth factor receptor inhibitor, multikinase inhibitor and BRAF inhibitor. A unique chapter is ‘Drug reactions mimicking skin disorders’, the concepts of which are often poorly understood. The production of the book is aesthetically simple but elegant and readability is kept in mind while choosing the font and designing the page. Good quality
paper has been used in this hardbound book. The language is lucid and the referencing is proper.

However, the book has its share of flaws. Though the text is well written, it is not supported by a sufficient number of photographs. A visual image is likely to persist for a longer time and would aid in the diagnosis. In fact, there are very few diagrams and just occasional photographs. No details are given about cutaneous drug reactions to immunosuppressive drugs (which are routinely used in dermatology), and also to conventional antineoplastic drugs. The chapter on aetiology and pathogenesis of adverse drug reactions, though well written does not cite sufficient examples for each pathogenetic mechanism. In the chapter on diagnostic approach to drug allergy, apart from the patch test, the utility of other tests mentioned is questionable and is not de-emphasized enough. The chapter on SJS/TEN does not give the levels of evidence for each therapeutic modality mentioned. No major studies have been quoted from India and other Asian countries.

Overall, it is a must-read for practising dermatologists as well as postgraduates in dermatology as it provides a ‘one-step shop’, giving a comprehensive update of drug reactions. The book truly lives up to its purpose of providing physicians and researchers with a useful tool for better diagnosis and management of cutaneous drug eruptions in daily practice.

BINOD K. KHAITAN

Department of Dermatology, Venereology and Leprology
All India Institute of Medical Sciences
New Delhi


This aptly titled book gives a glimpse of the new ideas and research in the field of cognitive sciences, especially in India. It reflects the importance of cognitive sciences, recognized as the fourth pillar of knowledge besides nano-, bio- and information technology in recent years. Cognitive Science Research Initiative (CSI) was started by the Department of Science and Technology, Government of India, as a part of the 11th Five-Year Plan programme of the science and technology sector. The task force in CSI proposed this book with an aim to compile the current status of research in this field with a focus on development and growth of mind sciences as multifaceted scientific discipline in the past few decades. Twenty-four distinguished scientists from India and abroad from disciplines such as psychology, neurosciences, computer science, linguistics, molecular biology, etc. have contributed to this edited volume.

The book is divided into four sections and includes 24 chapters. Most chapters describe the concept in detail, the research in the field and a look at possible future developments. The illustrations in some chapters are very good. The reference list at the end of each chapter is exhaustive and includes latest references. It is heartening to see the work of Indian authors being quoted in the references.

The first section, called ‘Introduction to the mind sciences’, has four chapters. This section has basic themes essential to this field, and lays the foundation for understanding subsequent sections. The cognitive functions include many different processes by which organisms make sense of the world such as perception, attention, learning, memory, language, emotions, problem-solving and action-planning. The structural and functional aspects of the brain are outlined with emphasis on the concept of plasticity, unique to the human brain. The human brain is different from the hardwired architecture of a computer with preprogrammed outputs as the plastic micro-circuitry of the brain responds to the inputs from the environment with appropriate behavioural response. The information storage in the context of information processing model is elucidated. The principles underlying basic techniques for mapping human cognition such as positron emission tomography (PET), functional magnetic resonance imaging (fMRI) and magnetoencephalography (MEG) have been reviewed and electroencephalography (EEG)/event-related potentials (ERP) used to investigate the temporal dynamics of neural and cognitive processes are discussed in detail.

The second section, appropriately called ‘Linking cognitive, neural and cultural processes’, has 12 chapters and includes varied research themes. It starts with a review of the basic mechanism of transduction, the process of converting physical into biological signals, for each of five primary sensory systems. The evidence from adult mammalian, largely animal, studies about plastic reorganization of somato-sensory system following spinal and peripheral injuries has been discussed. Various models and paradigms have been used to study selective attention, ability to selectively focus on the relevant information amidst the distracting stimuli. Another chapter dwells on the cellular and molecular mechanism of synaptic plasticity and memory. Different animal model systems have been used in research on memory. The cellular and synaptic mechanisms underlying the cognitive and emotional aspects of stress have been linked to hippocampus and amygdala in animal models. Neuroeconomics is a multidisciplinary research field that employs neuroscience techniques to explain economic theories of human behaviour. It reviews how simple, value-based and collateral decision-making takes place at the neuronal level using different neuroimaging and electrophysiological studies in different animal models including single cell recordings. Role of the frontal lobe, especially different regions of the prefrontal cortex in human cognition, is discussed drawing on results from lesion, neurophysiological and imaging studies. The chapter on language processing in bilinguals and biliterates highlights cortical representation, neuroanatomical and functional correlates of language processing. Neural findings associated with religious belief and meditations have been discussed in another chapter. Birds are able to perform with ease higher cognitive functions such as tool use, foodcaching, vocal mimicry. The structure of avian brains has been compared with that of a mammalian brain to study how differently organized brains evolved to perform various cognitive functions. Studies on lateralization, universality and culture specificity of facial expressions of emotions, have been examined. The studies of
cognitive functioning in the eco-cultural context demonstrate, based on the psychological differentiation theory, that cognitive processes are universal, but cognitive competencies develop in different ways according to the demands of one’s ecology and culture.

The third section on ‘Mental and neural disorders’ has six chapters. The understanding of language acquisition and its role in learning and learning disabilities from the perspective of multilingual context of India has been explored as Indian children acquire reading skills in two or more different scripts. Insights from neuroimaging studies demonstrate anatomical differences in reading in different orthographies (letter sound mapping) and subsequent differences in the manifestation of dyslexia. The chapters on dementias and autism deal with many challenging aspects of these disorders. Cellular and molecular bases of neurocognitive deficits in HIV/AIDS have been elucidated. The chapter on ‘Psychoneuroimmunology’ discusses the relationship between physical and mental stress and immune system resulting in dysregulation of innate and acquired immunity.

The fourth section on ‘Philosophical issues’ contains two chapters on how Indian philosophical systems can contribute to this field. Among all the Indian psychologies, Nyāya psychology, based on nyāya philosophy, a major school of realistic philosophy in India, offers the best way to engage with many different emerging disciplines such as psychology and neuropsychology and divides human experience into three kinds: cognitive, affective and connative. A chapter discusses the materialistic view of the universe, consciousness and theory of evolution, synthesis of science and spirituality.

The enormity of the field of cognitive neurosciences becomes clear after reading this book. The topics range from biological processes at the level of neurons to social, cultural to philosophical aspects of behaviour. An added advantage of this book is that it familiarizes the reader with different centres in India such as the National Brain Research Centre, Manesar, Haryana; Centre for Behavioural and Cognitive Sciences at the University of Allahabad, Uttar Pradesh; and Centre of Biomedical Magnetic Resonance, Lucknow, Uttar Pradesh. Though, names of authors with institutional affiliation are given at the beginning of each chapter, the customary list of contributors with affiliations, addresses and emails is missing. It is a timely publication and succeeds in its purpose of acquainting the reader with new research in India in the field of mind sciences across disciplines. One may wish for simpler language, but that is not really possible because of the subject matter of the book which remains largely unfamiliar to the majority of us. This is mainly because in the humanities or technical courses at undergraduate and postgraduate levels, there is little exposure to the subject of cognitive sciences in India. The target readership of this book can be anyone who is interested in pursuing research in or knowing about this field. Some new entrants to a medical college, when asked what their dream/ambition is, say that they have joined medicine to be brain scientists or do research in the area of brain. This book gives a glimpse of what can be done to fulfil that dream.

MAMTA SOOD
Department of Psychiatry
All India Institute of Medical Sciences
Ansari Nagar
New Delhi

The National Medical Journal of India is looking for correspondents for the ‘News from here and there’ section. We are particularly interested in getting newswriters from the north and northeast regions of India as well as from other countries. By news, we refer to anything that might have happened in your region which will impact on the practice of medicine or will be of interest to physicians in India. The emphasis of the news items in this column, which are usually from 200 to 450 words, is on factual reporting. Comments and personal opinions should be kept to a minimum, if at all. Interested correspondents should contact SANJAY A. PAI at sanjayapai@gmail.com or nmji@nmji.in.