Editorial

Priti Das

Department of Pharmacology,
M.K.C.G. Medical College,
Berhampur, Odisha, 753008, India
Email: pritidaspatnaik@gmail.com

Biographical notes: Priti Das is presently working as an Associate Professor in the Department of Pharmacology, M.K.C.G. Medical College, Berhampur. She completed her MBBS degree in the year 1991 and MD in Pharmacology in the year 1998, both from Sambalpur University, India. She has published more than 50 technical articles in conference proceedings and international journals of repute. She has served as Programme Chair of many international conferences and workshops. She serves as board member of many international journals and magazines. She has guided couple of student research projects awarded by the Indian Council of Medical Research.

I am happy to announce that we are bringing out the first issue of *International Journal of Telemedicine and Clinical Practices* (*IJTMCP*). *IJTMCP* is a refereed journal in the field of telemedicine as well as clinical practices, providing an international forum for professionals, engineers, doctors and researchers. *IJTMCP* reports the new ICT technology adopted in telemedicine and also the clinical practices by the doctors and health workers.

The main objective of *IJTMCP* is to bring together medical practitioners and technologists and aims to report the development of associated technologies and applied clinical practices. It caters to the academic need of doctors, nurses, engineers and researchers. The journal also encourages and promotes application of telemedicine technology in clinical care, education and research in the health sector. This will foster networking and collaboration among interest groups in telemedicine technology and professionals from different streams of science, healthcare providers, policy makers and industry. The topics which are coved in this journal are as follows:

- telemedicine devices and peripherals
- tools and platforms
- computing and communications
- database technologies
- network architectures
- network/data privacy and security in healthcare
- multimedia
- interactive audiovisual and data communications
- standardisation

- legal and ethical issues
- quality assessment
- biomedical sensors, RFID and networks
- mobile service platforms for continuity of healthcare
- clinical practices, electronic medical record systems and medical decision support.

In the 21st century, telemedicine is an upcoming field in healthcare resulting out of the effective fusion of information and communication technologies (ICT) with medical science having enormous potential applications in meeting the challenges of healthcare delivery to rural and remote areas. Although there were methods existing for telemedicine, it is eventually a product of 20th century ICT. These technologies permit communications between patient and medical staff with both convenience and fidelity, as well as the transmission of medical, imaging and health informatics data from one site to another. It has also several other applications in education, training and management in health sector.

Simply speaking, it may be viewed as two health professionals discussing medical problems of a patient and seeking advice over a simple telephone or as complex as transmission of electronic medical records of clinical information, diagnostic tests such as ECG, radiological images, etc. and carrying out real-time interactive medical video conference with the help of IT-based hardware and software, video-conference using broadband telecommunication media provided by satellite and terrestrial network. Telemedicine has been adopted by various branches of medicine such as telepathology, tele-cardiology, teleradiology, telesurgery, and teleophthalmology. Various other applications of telemedicines are tele-healthcare, teleconsultation or telefollow-up, tele-education and tele-home healthcare.

The first paper entitled 'An ethical analysis of telemedicine: implications for future research' authored by Cynthia White-Williams and Dawn Oetjen highlighted two philosophical perspectives, teleology and deontology. Teleology, as supported by John Stuart Mill's utilitarian position, holds that the morality of a decision is based upon its consequences. In response, philosopher John Rawls offers a deontological framework, which supports remote monitoring if it benefits the most disadvantaged in society. The authors have also highlighted the philosophical frameworks of remote monitoring, which is analysed in relation to its ability to affect change in access, quality, and cost of healthcare. It is a good attempt by the author to look into the philosophical framework of telemedicine.

The second paper entitled 'Compression of medical images for remote diagnosis based on geometric transforms' by Sujitha Juliet et al. presented an approach for medical image compression using geometric spatial transforms especially suitable for telemedicine applications. The authors have claimed that their experimental results on a set of MRI and CT images provides competing performance compared with the conventional and state of art image compression methods in terms of peak signal to noise ratio and computational time.

The third paper entitled 'Legal and ethical considerations for home-based telemedicine' by Tyler McComas and Y. Tony Yang is an interesting article in which the authors have described about the legal and ethical implications of home-based telemedicine technology meant for the home and community-based locations.

The fourth paper entitled 'Region-based medical image compression in teleradiology' by M. Moorthi and R. Amutha highlights the use of digital medical images in the process of diagnosis and also presented the implementation result which shows, the superior reconstruction properties and also provides better compression ratio.

The fifth paper entitled 'Secure health assistance in a ward-based pervasive environment' by V.R. Sarma Dhulipala and M.S. Udhaya presented a novel architecture for secure pervasive healthcare system in which patient details and physical conditions are privatised.

In the sixth paper entitled 'Computerised systems framework for the halal pharmaceuticals' by Mohd Khanapi Abd Ghani et al. presented a critical analysis of computerised systems used throughout the pharmaceutical supply chain and identification of critical points and controls required in halal pharmaceuticals based on the guidelines of two countries, i.e., Malaysia and Indonesia.

The next paper 'Ontology-based semantic smoothing model for biomedical document clustering' by S. Logeswari and K. Premalatha, covered the ontology-based semantic smoothing model for concept extraction and they have also presented the result.

The last paper 'A comparative evaluation of diabetic retinal vascular structures using edge detection techniques', by Sunita Sarangi et al. have presented the detection of the abnormalities in retinal blood vessels by Sobel and Canny edge detector and the results are compared in terms of different image parameters and histogram error.

I am sure the readers will be immensely benefited from this issue. I wish all the best in their academic endeavour.