

Training medical specialists, virtually

TREND E-teaching can help solve the numerous challenges associated with medical training in India, especially in the super specialty area, writes Dr Sunita Maheshwari

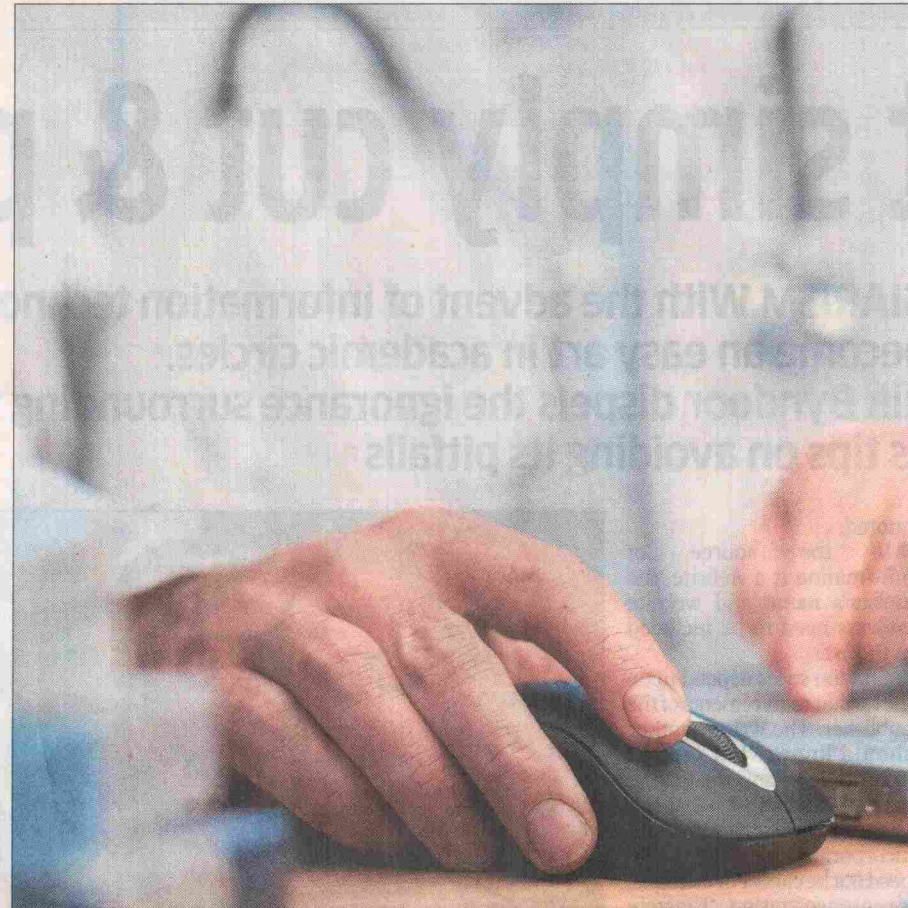
One downside of a busy medical practice is that doctors no longer have time to teach and pass on their experience to the next generation. This is leading to a dearth of trainers, especially in the super specialty arena. The problems in the field of super specialty training in India are several and include the following:

- Limited number of trainers, i.e. super specialists interested in teaching
- Even for those interested, the amount of energy and time needed for clinical work makes content creation/class delivery a challenge
- Variable quality - different institutions have different protocols/approaches to patient care leading to a lack of standard content taught across the country

The greatest gift of the west to the world has been its Universities and training institutions. I was a recipient of that incredible training at Yale University and returned to India a decade ago and trained several batches of paediatric cardiologists at the hospital I worked.

However, I was aware that the same level of knowledge transmission was not necessarily available throughout the country. How can one expand the frontiers of super specialty training in India? Now, with technology and bandwidth being a non issue in India, using technology to effectively take one teacher's class to multiple students across the country can be one way of obviating the issue of medical and health care training in India.

The use of e-learning in training for medical students and super specialists has been attempted via teaching websites, blogs, Wikipedia and the creation and distribution of DVDs/CDs. However these are non-interactive i.e. there is no direct interaction between the student and teacher and thus, although available, they have



REMOTE CLASSES Technology-driven medical training can reach millions of students at once.

not always had the desired impact. Some group discussion sites for specific medical specialties have garnered interest as they are interactive, although the interaction is chat-group based.

Video conferencing has been one method to offer live sessions. The pan-Africa tele-education network is one such successful example. The advantages of this are that the sessions are live and question and answer sessions are a part of it. The disadvantage is that the teacher and students need to be physically situated in the conference rooms where the point-to-point satellite connection has been done.

An ideal e-teaching platform needs to allow student-teacher interaction and be accessible from a laptop with a data card. Such a platform must:

- Be easy to use as many

doctors are technologically challenged

- Work on easily available and inexpensive bandwidth
 - Be web-based so that the teacher and student can log in from anywhere, anytime.
 - Have the ability to demonstrate a power point presentation as well as a drawing board
 - Be recordable so classes can be replayed
 - Be interactive so Q and A (question and answer) sessions complete the class
- Since May 2010, I have been running a not-for-profit trust called Heart Strings, a People4People initiative, partnered with Cisco Systems to pilot live interactive e-teaching in pediatric cardiology. The Cisco Remote Education Center platform is completely

internet-based with no special equipment or software required. It enables highly interactive, online classroom learning with live audio, video, white board and presentations. Instructors need only a computer with the internet, webcam and an optional digital notepad. Remote class rooms/students need a computer with the internet, webcam, microphone, speakers and an optional projector. Instructors can easily create content, and manage and schedule courses.

From May 2010 to December 2010, at the time of writing this report, 60 simultaneous e-classes in pediatric cardiology have been conducted, using this technology. The classes were conducted for postgraduates in Bangalore, Kolkata, Chennai, Delhi, Bhopal, Mumbai and Nigeria.