

---

## ICU Volume 6 - Issue 4 - Winter 2006/2007 - Country Focus:India

### Critical Care in India

---

#### Authors

**Shailesh Bihari, MD**

**Nikhilesh Jain**

*Dr. N.Ramakrishnan, AB (Int Med), AB (Crit Care), MMM, FACP, FCCP*

*Director of Critical Care Services*

*Senior Consultant in Critical Care & Sleep Medicine, Apollo Hospitals*

*Chennai, India*

*Honorary Professor*

*Sri Ramachandra Medical College & Research Institute, Nithra Institute of Sleep Sciences*

[icudoctor@gmail.com](mailto:icudoctor@gmail.com)

The specialty of critical care medicine traces its history to the polio epidemic of the 1950s, when mortality was reduced by using simple ventilators to support patients' respiratory function. Since then, critical care has evolved from being just a designated area of the hospital to being a specialty that is not site-specific, offering expertise to several areas both in and out of the hospital. Conceptually, critical care also has to encompass broader concepts from prevention to palliative services.

#### Evolution of Critical Care in India

The growth of quality healthcare over the past 50 years in India is evident in the fact that the average life span, which was only 21 in the pre-independence era, has now improved to 63 years — largely due to public health measures and the provision of quality acute care in hospitals. It is appropriate to note that India's primary focus, as a developing nation, has been to address common problems, including malnutrition and infections. Critical care, still considered "expensive care," often took a back seat to these more basic needs. However, the recent economic growth of the country has created a large pool of middle class Indians, who can afford the benefits of modern and specialized care, when needed. In India, critical care medicine, as practiced in the West, is still confined to large metropolitan areas.

Critical care in India started in the late 1960s, with the beginning of dedicated coronary care units in Mumbai and a few other large Indian cities. The first coronary care unit in India was started in 1968 at the King Edward Memorial Hospital, Bombay. This was followed by similar units, in some of the large, private hospitals of Bombay and other large cities of India. In the 1970s, Dr. Farokh E. Udwadia, a pulmonologist, developed the first respiratory care units in the country in two hospitals in Mumbai — a community hospital and a private one. Among other achievements, these units opened the eyes of society to the need for critical care services.

As one might expect, the early intensive care units (ICUs) were primitive in technology, but had personnel with strong commitment to making a difference in patient care. The mid-1980s saw a significant improvement in the infrastructure and standard of care provided in intensive care units, thanks to the evolution of corporate hospitals with investors from within India and overseas. The first real advances in the field of critical care were brought about by consultants returning to India after completing training abroad, in the United Kingdom, the United States and Australia. The centers to which these consultants returned, including Mumbai, Pune and Chennai, remain centers of academic creativity and administrative capability. These few, enthusiastic trained consultants came together in 1992 to discuss critical care on a common platform, and they formed the Indian Society of Critical Care Medicine (ISCCM). The society has now established itself very firmly as a representative body of critical care consultants in India, with over 2,500 members and 16 city branches.

#### Diversity of Healthcare Services

It is not surprising that, in a country like India, which is vast and comprising more than a billion people, varied forms of healthcare are prevalent in different geographical areas.

### **Community Hospitals**

Community hospitals are mostly run by the government and essentially result in minimal or no cost to the patients. Since critical care involves substantial technology and costs, there have been significant limitations to its growth as a specialty in such community hospitals.

### **Teaching Hospitals**

There are currently about 200 medical colleges, or “teaching hospitals,” in India, but only a small proportion (approximately 10-15%) of these have an adequately staffed ICU with appropriate infrastructure.

### **Tertiary Private Hospitals**

Societies, trusts or companies usually manage tertiary private hospitals. Patients are levied a charge for these services. According to the current estimation, 85% of patients are self-paying, and others have third-party payers. ICUs in private, tertiary care hospitals are usually well equipped and provide critical care services on par with the rest of the world.

### **Small Hospitals and Nursing Homes**

Finally, an interesting segment of healthcare facilities in India consists of small hospitals or nursing homes. Modestly equipped and managed mostly by medical professionals themselves, these facilities represent the healthcare solution for the vast majority of the middle and lower classes, and they contribute about 40% of available beds for the country. Patients also usually pay for the services in these facilities. This segment acknowledges the need for and viability of critical care, and, currently, critical care facilities are on the upswing.

### **Critical Care Training & Education**

Formal critical care training did not exist in India until recently. However, interested individuals pursued training abroad, some of whom returned to India. The formation of Indian Society of Critical Care Medicine has been a landmark in the history of critical care education in India. The one-year certificate course in critical care offered by the ISCCM since 1999 was India's first organized training activity in critical care medicine for doctors. The course, though not endorsed by the Medical Council of India, has evolved rapidly over the past few years and has gained recognition from institutions in India and overseas.

It is noteworthy that, right from the beginning, the focus of the ISCCM was to ensure recognition of critical care as a subspecialty for those with postgraduate qualification, and not just an added qualification for those with a basic medical degree. Regular conferences, updates, continuing medical education programs and workshops have emerged, and postdoctoral training programs have been developed. In essence, critical care training for doctors appears to be assuming shape, but formal training for nurses and other support staff has not yet evolved meaningfully.

In addition to these training opportunities, scientific publications have begun to appear, and in spite of diverse problems and standards, meaningful specialty-related activities have begun. The Indian Journal of Critical Care Medicine (IJCCM) is currently the only scientific journal exclusively dedicated to critical care in India, although publications relating to intensive care do appear in other reputed Indian medical journals. The professional society has also taken the initiative to develop guidelines that are of value in the local setting and also promoting research to better understand the commonalities and differences between Indian and Western data. Finally, good quality, original work has now started emerging in India and is being accepted for publication by prestigious international journals.

### **Challenges**

The current critical care scenario, though in some ways is encouraging, also has features that are cause for concern. For example, there are no laws or regulations framed either by the government or the local and national medical authorities that determine the standards or efficacy of a critical care unit or the qualifications and experience necessary for a physician to practice critical care. In addition, critical care is not well developed in rural India, where a significant proportion of our country's population lives. The economically weaker section of the Indian population depends on government hospitals, where major efforts are needed to upgrade the infrastructure to provide better quality care. Disturbingly, several smaller and inadequately equipped centers focus on advertising their ICUs, when in fact they are unable to offer comprehensive critical care to patients.

Trained nurses remain the cornerstone of multidisciplinary critical care. However, the lack of formal certification and the global attraction for monetary gains leads to a shortage of experienced nurses. The concept of multidisciplinary care with a team comprised of nutrition specialists, physiotherapists, clinical pharmacists and social workers is still limited to large, tertiary care centers in private and teaching hospitals.

While the concept of the intensive care unit has gained widespread acceptance amongst medical professionals, hospital administrators and the general public, recognition of the need and role for qualified critical care specialists has lagged behind. The open-model ICU still remains the dominant model in India, although a few closed ICUs and transitional ICUs exist in the larger tertiary care hospitals in metropolitan cities.

## Conclusion

Critical care in India is at the crossroads of development. A beginning has been made, but there is still a long way to go. The field has its opportunities, threats and challenges in India. Some of these circumstances are similar to those faced by the Western world several years ago, but others are truly unique.<sup>4</sup>



Published on : Thu, 15 Aug 2013