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Critical Care Medicine: Bangladesh Perspective

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Bangladesh became an independent and sovereign country in 1971 following a nine-month blood shedding liberation war. Bangladesh has a population of about 152.25 million, making it one of the most populous countries in the world (1). Intensive care is an emerging but less emphasized concept in Bangladesh. The first intensive care unit(ICU) in Bangladesh was established in the National Institute of Cardiovascular Diseases (NICVD) in 1980. Since then many ICUs have been established. In Bangladesh there is no governing body like Bangladesh Medical and Dental Council (BMDC) that can set the standard of such units. There are no reliable statistics regarding the number of both governmental and private ICUs, bed capacities, no. of patients getting admitted per month, services offered, equipment, qualification of health professionals, cost/benefits and mortality rates of these ICUs.

There were only 28 ICU beds in Dhaka city, the capital of Bangladesh in 1980. In the last three decades the number of ICU beds has gradually increased. There are about one hundred hospitals with ICU facilities in Bangladesh and 80% of them are located in Dhaka (2). The total number of hospitals in Bangladesh is 5,206, among them 610 are governmental and 4,596 are in private sector. Number of beds in hospitals are 1,27,360 , among them 48,934 are in governmental hospitals and 78,426 are in private hospitals (3). Twenty seven governmental hospitals have ICU facilities, which is only 22% of total number of ICUs (4). Total number of ICU beds in a hospital should be between 5% and 12% depending on the care given by the hospital (5). ICU bed number in governmental hospitals is 223 and the ratio of general bed to ICU bed is 219:1, which should be 10:1 for standard healthcare service (4). In a tertiary level hospital like Dhaka Medical College and hospital, where bed capacity is 2,400 but about 4,000 patients are taken care of at any one time, every day around a dozen patients come to ICU but only two or three can get admitted at best. In each month almost 500-600 patients applied for intensive care support but only 80-90 could be admitted.

Among all the ICUs, 78% are in private sector (4). The majority of our population cannot afford the cost of private hospitals as they charge TK 15,000-1,00,000 (192-1282 US dollar) per day (6). This is a major obstacle to providing critical care facilities for mass population. Middle income families may even have to sell land or other property to pay the bills of ICU at a private sector. Transportation of critically ill patient is another burning issue as very few ambulance services have the facility to transport critically ill patients and also, most of the ICUs are located in Dhaka, which causes great difficulty in transporting patient from peripheries of the country to capital.

Bangladesh provides mixed services in 68% of its ICUs, managing medical, surgical, gynecological & obstetrics patients (7). Among the ICUs, 64% are run by anesthesiologists, 12% of them by critical care specialists and the rest of the ICUs are conducted by cardiologists or neurologists as unit head. Almost 15% of them are closed ICUs and 85% are run as open units. Nearly 24-hour routine lab facilities and portable chest X-rays are provided by 95% of ICUs. Only 7% of ICUs have arterial blood gas (ABG) analysis machine. The Nurse: bed ratio of 1:1 is followed in 42% cases. There is no formal training in critical care nursing and only 36% of nurses have undergone basic life support (BLS) or cardiopulmonary resuscitation (CPR) training course. On duty doctor: patient ratio is variable and highest 1:4 is seen in 27% of ICUs (7). There is even an instance of the ICU closing down just one year after starting in march, 2016 in Sher-e-Bangla Medical College and Hospital due to lack of physician.

The post-graduate course in Critical Care Medicine has started in 2007 by Dhaka University. Now every year 18 students are selected by an examination in three different institutions for MD course. The Critical Care Medicine curriculum has been designed according to residency program laid down by Bangladesh Sheikh Mujib Medical University, which is a five-year course (8). The

total 5-year residency course is divided into two phases including A and B. Phase A has been designated as Basic Medical Training presented within two years. Phase B is designated as specialty training and is presented during three years. Now we have 17 physicians who have post-graduate degree of MD CCM out of these courses.

Bangladesh Society of Critical Care Medicine (BSCCM) is a common platform of all Bangladeshi doctors and other allied healthcare professionals involved in the super specialty of taking care of critically ill patients, which was established on December 5, 2009. The motto of this organization is promotion and improvement of learning, introduction of new concept, and research & development of professional skill. The society hosted its first international conference in 2013. In the same year it published the first issue of its scientific journal on Critical Care "Bangladesh Critical Care Journal", which has been published regularly bi annually since then (9).

BSCCM has organized the 3rd International Conference of CRITICON Bangladesh in Dhaka on 8-18th March 2018. It was attended by national and international faculty. Workshops on useful topics like Mechanical ventilation, ABG and Electrolytes, electrocardiogram (ECG) and Imaging, and Bronchoscopy were held. First National Conference on Critical Care Nursing was also simultaneously held by Critical Care Nursing Society of Bangladesh (CCNSB), which was established in 2015.

Though intensive care medicine started to create its own place in our healthcare sector in the last few years. There is still a long way to go until a common standard is set for all ICUs with proper monitoring and ICU facilities become more available with an affordable cost, which can be paid by mass population. Also policy makers should express their concern about competency and skills of the caregiver in ICU. Bangladesh government should step forward to take necessary steps for the betterment of this sector.

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