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Editorial

INTENSIVE CARE UNIT: BANGLADESH PERSPECTIVE

The care of critically ill patients in Intensive Care Unit (ICU) is primary component of modern medicine. ICU is a highly specialized unit in a hospital where life support is given to and invasive monitoring is done for the critically ill patients. This level of life support and monitoring is not possible to provide in ward or any other place in a hospital. The practice of intensive care medicine, which originated in the 1940's with anesthesiologists providing life support to patients with polio, has undergone revolutionary changes with the development of equipments, procedures and medications. In the past decade, another revolution has taken place with the introduction of evidence -based medicine into ICU practice.

In Bangladesh, concept of ICU is a relatively new one in both public and private sector. The first ICU in public sector was established in 1985 in Dhaka Medical College Hospital with the initiative of Professor Shahjahan Nurus Samad Chowdhury. After that no ICU was established in any of the government medical college hospital for 20 years. In Feb'2005 second ICU was established in Chittagong Medical College Hospital. Government has taken plan to establish ICU in every medical college hospital throughout the country. The cost of establishing and maintaining an ICU is very high, and is very difficult to run an ICU in both public and private sector. In poor countries, like us planning should be made appropriately so that it is cost effective and with good outcome. In all developed countries where separate ICUs exist e.g. medical ICU, neurosurgical ICU, neonatal ICU and so on. In our country all the existing ICUs are multidisciplinary. It is very difficult to manage different group of patients in same ICU. Among the patients admitted in ICU neurological and neurosurgical patients comprise a major group (46 of first 100 patients admitted in ICU of Chittagong Medical College Hospital) . Neurocritical care is an evolving subspecialty that just begin to reach maturity which focuses on the care of critically ill patients with traumatic brain injury, intracranial hemorrhage and complications of subarachnoid hemorrhage, including vasospasm, elevated intracranial pressure and the cardiopulmonary complications of brain injury[2]. Care in the specialized care unit (neuro ICU) is of higher quality than general units because it focuses on the special needs of a specific group of patients population and is provided by a multidisciplinary team whose training emphasizes the unique aspects of the disease processes in that population. With this knowledge we can think of establishing separate neuro ICU at least in Dhaka and Chittagong Medical College Hospital where ICU facilities already exist.

Overnight Intensive Recovery (OIR) is a new concept, which defines, identified recovery beds that are able to offer up to level 3 critical care for any post surgical patients for a period of 24 h[3]. The key to the defining the concept lies within the term OIR: duration of stay should be short, management is intensive and level 3 care in a recovery unit. The first OIR facility was opened in the general recovery ward at St. Thomas Hospital (UK) in 1988 and made this practice safe and successful alternative to the ICU for the short-term postoperative critical care. This concept may be applied to all hospitals in both public and private sector in our country where ICUs do not exist but there is a recovery area. Just identifying 2-3 beds, providing artificial ventilators, monitoring devices and appropriate manpower, life support can be provided for short-term basis. If long-term support is required patients may be transferred in own or nearest ICU. This type of critical care support was provided in Chittagong Medical College Hospital from 1996 before establishment of ICU and still exists for overnight support for post surgical patients.

Death rates, complications, length of ICU stay and cost of care measure the performance of an ICU. In our country where resources are limited, available resources should be utilized in a planned way. To get maximum output from limited facilities, stringent criteria for which patients get admitted to the ICU is to be set up. Only the patients likely to recover from critical illness

should be admitted in ICU. The poor outcome in our ICUs is mainly due to failure to follow the admission criteria. Another reason for poor outcome is absence of intensive care team, which should include intensivists, nurses, respiratory therapists, physiotherapists and others. Surveys of outcome of ICUs concluded that established protocols for management of specific critical illnesses contribute to the improve results. So we should have to develop detailed complete protocols by application of evidence-based practice and customize the protocols to fit resources available e.g. weaning protocol, infection control and antimicrobial therapy policy, sedation and glycemic control.

Advances in the medical science have led to increased expectations for favorable outcomes of episodes of chronic illness, even when the patient has severe co-existing chronic disease. A clinical course that runs counter to the family's hopes and expectations is extraordinally stressful and important contributor to ICU-related post-traumatic stress disorder (PTSD) among families[4]. A better understanding of how intensive care clinicians can support families as they make transition from a goal of cure to one of comfort and acceptance of death is clearly needed. Curtis and colleagues have described some of the components of a system of communication that is being increasingly recognized as an effective means of promoting harmony between critical care providers and families[5]. This five-part system, known by the mnemonic VALUE, includes the following elements: valuing and appreciating what the family members communicate, acknowledging their emotions by using reflective summary statements, listening to family members, understanding who the patient is as a person by asking open-ended questions and listening carefully to the responses, and eliciting questions from the family more effectively than by simply asking, "Any questions?" A key skill is listening more and talking less[6]. Structured, proactive multidisciplinary communication processes that are supported by ethics, consultation and palliative care teams are the foundations for improving end-of-life care for patients and interactions with their families[7].

The cost of providing intensive care is very high and care must be directed towards the patients who are most likely to benefit from it. In poor countries like us maintenance of an ICU is difficult both in public and private sector. But without an ICU a hospital is not standard, training is not complete and many lives can't be saved.

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