ICU MANAGEMENT & PRACTICE

ICU Volume 8 - Issue 1 - Spring 2008 - Views and Interviews

An Interview with Prof. Antonio Artigas

Prof. Antonio Artigas, MD, PhD
ICU Management & Practice
Editorial Board Member
******@***cspt.es

Dept. of Intensive Care Medicine
Hospital de Sabadell - CIBER de
Enfermedades Respiratorias
Corporació Sanitaria I Universitària
Parc Taulí Sabadell, Spain

Professor Antonio Artigas has been managing the Critical Care Centre at Sabadell Hospital in Barcelona, Spain since 1988. He spoke at length with Sherry Scharff at the **13th International Symposium on Infections in the Critically Ill Patient** in Athens, Greece, a meeting he heads. In this discussion, he describes the successes he has experienced in his hospital, outlines the challenges the intensive care field has to face in the coming decades and offers an optimistic view on the state of critical care both in Spain and beyond.

Can You Describe Your ICU?

My critical care centre has three Units (Intensive, Intermediate and Prehospital care), which treat for patients from the onset to discharge. We have a staff of 15 physicians and 58 nurses; with three intensivists on duty at one time, as well as one nurse per every two patients in the main ICU, and in the intermediate ICU, where the patients require less frequent care; we have the equivalent of one nurse per every five patients. Our mortality rate is 8 percent (22% in the ICU and 1% in the Intermediate Unit) with an SMR 0.78 and an occult mortality of 2.3%. I

am confident that this will improve even more with the emphasis on early detection, implementation of new intelligent technology systems and continued education and training initiatives.

What Changes have You Initiated or Implemented Specifically to Improve Outcomes and Quality of Care in Your Unit?

Currently there is a renewed push within in the intensive care field for early detection and treatment, especially the treatment of severe sepsis. Two years ago we established a system to improve our performance and we have had tremendous success since it's implementation. We created an Outreach-style system in our hospital, which we call a Vital Risk Team (VRT). The goal of the VRT is to initiate treatment before patients reach the ICU.

Each shift, one physician is delegated to in-hospital care outside of the ICU, and we use a special phone system to efficiently deal with the onset of critical care from different departments. In our hospital, it has been well accepted that this timely treatment is saving lives and reaching patients within this "golden period" (often within the first 3 hours) is essential. Often times, patients receiving this early treatment recover before they even reach the intensive care unit, alleviating the use of addition resources in our unit. Of course, continuous communication and coordination between all related departments (especially the ER) is crucial to the success of this initiative, which provides more than 2300 services per year. We organise monthly meetings to discuss cases, evaluate progress and plan new strategies.

What Would You Say are the Most Important Qualities of a Successful ICU Manager?

Many managers see the administrative duties attached to our positions as interference or a hindrance to their main role and objectives. As managers, we need to utilise these opportunities-meetings, strategic plans and evaluations to increase communication, set goals and adjust our protocols when necessary. At our hospital we have monthly meetings with our "working groups" which span departments and have been successful in encouraging a more cross-departmental communication, which ultimately leads to better quality care for our patients. In the Critical Care Centre, our working group on infections and sepsis has two nurses and an equal number of physicians from the ICU, and a physician from

the ER, as well as the Microbiology and Infection Departments. There is also an intensive neurological group, which is very active and involves a number of neurologists- from intensivists to neurosurgeons. Other working groups are: politrauma, acute renal failure, acute respiratory failure, sedation and analgesia and cardiovascular. Their meetings seek to define and update protocols, define research and training and they complete annual evaluations and set future goals. There is also a meeting, which includes each chairman of all the working groups that strives to create a hospital-wide directive outlining initiatives and goals for all departments at work under our umbrella.

Personally, I see the strategic plan I must submit every four years as an unique opportunity to review progress over the past four years, and to outline strategies and goals for the next four-year period. Within this presentation, I must include patient demographics and human resources figures, including the number of nurses and doctors, as well as the number of beds and the budget requirements. Inevitably, these numbers are on the increase, both as a result of the changing demographics (i.e. more elderly patients) and increased rates of cancer and other long term diseases.

Constant re-evaluation, communication and training have been key to our success in eradicating MRSA in our hospital. We developed a teaching and monitoring program and one nurse and one physician are in charge of controlling this everyday. We have regular microbiological meetings and we re-evaluate protocols when necessary.

Of course, strategising and co-ordinating plans is only a part of my managerial role. Part and parcel of budgetary increases is the need to find resources and this usually involves partnering with companies (as we've done with our in-hospital animal laboratory) to increase ingoing resources and subsequently improve the quality of care we provide. Any manager, and especially one in an intensive care setting quickly realises that there is an element of psychological adeptness and skill in human relations necessary in any position that brings such a blend of skilled workers together into a high-stress environment. In this highly charged climate, patience and flexibility are absolutely key strengths. So, to sum up the skills necessary to be successful ICU manager, I would say those of an administrator, leader, fundraiser and at times, therapist.

What do Think About New Technologies and their Role in the ICU?

Without doubt, we must embrace any technology that helps us to treat patients reach patients faster, aids in a more timely diagnosis, helps to monitor patients more effectively and improve overall patient incomes. We are the first ICU in Spain to use mechanical pumps, which are programmed by a central software system and we also use a high-tech alert program to help monitor patients. Currently there is research underway on a telemedicine prototype that allows doctors to treat patients and interact with colleagues within the unit via the use of a specialised remote computer and portable automated device with a screen. In terms of informatics, we have just implemented a new hospital-wide system that should make access to information much easier. Of particular interest, in radiology, is the digitalising of x-rays so that physicians, and in the future, patients themselves can access their data quickly, and from anywhere in the world, so long as they have a computer. This would also solve the problem of where (and with whom-i.e. general practitioner, hospital) to store this information for future diagnoses.

Can You Describe Briefly the Changes You have Witnessed Over the Years in the ICU?

I first started in over 30 years ago in the ICU, and it evolved into a management role 20 years ago. When I began, all the research was centred around the physiology of the lung and now the field of study has broadened to include issues of management of care, biotechnology, and now more and more focus is on risk factors and early detection and treatment to deal with the new reality of our rapidly aging population.

What do You Forecast in the Future of Intensive Care?

Well in terms of a focus, I think it is inevitable that more research, time and resources need to be devoted to elderly care. We need to revisit differences in both the anatomy of this segment of the population, and the limitations of current therapies as well as explore the involvement of families with these cases.

In Spain, the field of intensive care is very promising. Of course there are more critical care patients requiring more ICU beds, so we need to consider other possibilities such as home care and innovative ways to expand resources to meet these increasing needs. Regardless of the challenges that lie ahead, I remain optimistic about the future because intensive care is well prepared to change to a more translational system. Already some hospitals are utilising lab-to-bedside communication, whereby intensivists are applying basic science and biology to clinical practice. This practice of "Translational Research" benefits everyone involved, from the lab technician to the patient because it breaks the boundaries between the science and the recipient of the care.

This cooperation and increased communication would also be beneficial on a wider scale, between ICU's throughout the EU. The issue of a lack of common standards from between countries could be solved through accreditation, as well as a network with set protocols, training programs and standards, and the internet could and should be more widely utilised to exchange information between healthcare professionals around the world.

Published on : Thu, 15 Aug 2013