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## ICU Volume 8 - Issue 3 - Autumn 2008 - Country Focus: Israel

### Then and Now: Connections Between Anaesthesiology and Critical Care

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**Most practitioners would agree that there lie inevitable connections between the fields of anaesthesiology and intensive care, as the tasks that define them are almost identical (Table 1). This collusion came to light more vividly while the author was drafting his book about the Israeli founding fathers of anaesthesia (Visionaries and Dreamers- The Story of Founding Fathers of Israeli Anaesthesiology, Ben Gurion University printing house, in press). Out of the 12 personalities who represented "heroes" in the book, two have also been pioneers in the field of critical care in this country and the majority of them significantly contributed to the opening of the critical care units in their own hospitals.**

So, what in fact, is the true picture of anaesthesiology and critical care currently in Israel? Does it resemble one body with two heads, or two separate bodies, each having its own structure, leadership and organisation?

#### History

The history of Israeli anaesthesiology started in the early 1950s, with emigration of the first physicians, mainly from Europe (as in the USA), dedicated to this new domain of medicine. In 1952 there were less than 20 anaesthesiologists in Israel, and only seven or eight members of the newly created Israel Society of Anaesthesiologists. At that time there was no evidence of a special interest in the pre-operative preparation or postoperative management, since only "healthy" patients had surgery and nobody would dare to operate in a case with the presence of a serious co-morbidity.

But gradually the need for a special framework for treating the critically ill patients became evident and the first three Intensive Care Units (ICU) opened in the late 60s, one after another, in Jerusalem, Tel Aviv and Haifa. Only the last one (the unit at Haifa Rambam Hospital) began as an independent department. The other two were part of the anaesthesia departments.

When the Ministry of Health established the criteria for recognition of ICUs in Israel finally in 1974, the opening of these specialised units in every single general hospital was just a question of time. Today, each one of the 20 general hospitals in Israel has its own well-designed and equipped General ICU, which admits surgical and medical adult patients. In addition, each hospital has opened specific critical care units (paediatric, cardiologic, neurosurgery, cardiac surgery) and some of them have decided to also have special areas for intermediate care (the so-called step down units).

For years, critical care was considered a medical field without strong theoretical support. The first series of scientific papers dealing with respiratory support were published in the early 70s. On the contrary, anaesthesia offered a large basic sciences background, especially in physiology and pharmacology, but also in chemistry, physics and of course anatomy. Internal medicine and general surgery, two main fields with special interest in critical care did not have the possibility to allocate manpower to the new opened units and only a few specialists outside anaesthesia found the time to dedicate to their patients admitted to an ICU. Also Respiriology as a distinct specialty showed up rather late in Israel, and initially there was no definite connection between the two domains. Finally, Critical Care offered no incentive to those practitioners who were looking for an additional financial reimbursement coming from private practice.

#### Current Organisation

In the early 90s the Scientific Council of the Israel Medical Association recognised critical care as a separate specialty, with the mention that in order to become a specialist in Critical Care one needed first to pass the Exam Board in one of the following medical fields: anaesthesia, general surgery, orthopaedic surgery and internal medicine. A special board for paediatric critical care was also created.

The new legislation changed dramatically the relationship between anaesthesia and critical care in this country. Soon, there was a significant

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increase in the percentage of physician specialists in critical care coming from other professions than anaesthesia. In parallel, more ICUs organised their own activity outside anaesthesia departments, so as per today (Table 2) only a little more than one third of the ICUs in the general public hospitals in this country are part of anaesthesia departments. As a result, the demographic characteristics of the Israel Society of Intensive Care Medicine (ISICM) changed in the last years, more specialists from other medical fields than anaesthesia joined the specialty.

But even in this new context, anaesthesiology in Israel still seems to see itself closely related to critical care. In all four Israeli medical schools critical care is taught in the framework of anaesthesia curriculum. Anaesthesia residents are the only ones who are obliged to pass a six-month compulsory rotation in critical care. Neurosurgery demands only a three-month compulsory rotation for residents. In general surgery, internal medicine or gynaecology, a critical care three-month rotation is only an option. The Anaesthesiology Board is the only one that demands that the oral examination syllabus include critical care items and case discussions. Finally, more than 50% of the current critical care residents in Israel still have anaesthesiology as their primary specialty.

The Israeli critical care field currently suffers from two main deficits. The first problem is the lack of beds. A recent survey (Simchen et al. 2004) showed some 50% of the critical ill patients in the Israeli general hospitals could not be admitted to a critical care area because of a shortage of beds.

The second issue is the manpower crisis, a part of the general problem of a serious shortage of physicians in this country. The permanent growth of the population, together with a significant decrease in the number of physicians emigrating from other countries is only two of the explanations for this situation.

### **Conclusion**

In concluding our discussion of the current situation of Critical Care in Israel, one can emphasise the fact that in spite of difficulties, there remains a group of dedicated professionals who come from various medical domains and unite to deal with the management of critically ill patients. The strong connection of Critical Care with Anaesthesiology is weaker today than at anytime in the past and this new reality seems to negatively influence the situation of medical manpower in this field.

The latest developments related to patient management, unique not only to Israel but also worldwide, oblige healthcare administrations to find solutions to the dramatically increasing need for acute care beds in hospitals. The current universal trend is to transform general hospitals in acute care areas, in which case anaesthesiologists with a special training in critical care might represent the solution for adequate manpower in this new context.

Published on : Thu, 15 Aug 2013