

The role of the Emergency Department: beyond gatekeeping

In Hong Kong, the first casualty department was established in 1947 at Queen Mary Hospital, at which time its main roles were to take care of three patient groups: accident victims, police cases, and civil servants.¹ In the 1950s, local casualty departments might have been regarded as first-aid stations. As population grew, in the 1970s hospitals as well as their casualty departments became very overcrowded. In the government white paper for the Further Development of Medical and Health Services for Hong Kong in 1974, the role of the casualty departments as gatekeepers was stressed.² The first batch of consultants was appointed to head these departments in 1981. In 1983, the archaic name 'casualty department' was dropped in favour of the 'Accident & Emergency Department' (ED). In the Scott's Report on further development of hospital services in 1985,³ additional observational beds and investigation tools were recommended in the ED, and eventually materialised after the establishment of the Hospital Authority in 1991. Despite the change in name and additional resources, the traditional image of the ED as a gatekeeper has become entrenched.

In 1997, the Hong Kong College of Emergency Medicine (HKCEM) was admitted as a constituent College of the Hong Kong Academy of Medicine, which was more than a decade ago. It is therefore an opportune time to examine the roles of the ED in the modern world.

The International Federation of Emergency Medicine defined Emergency Medicine (EM) as "a field of practice based on the knowledge and skills required for the prevention, diagnosis and management of acute and urgent aspects of illness and injury affecting patients of all age groups, with a full spectrum of undifferentiated physical and behavioural disorders. It further encompasses an understanding of the development of pre-hospital and in-hospital emergency medical systems and the skills necessary for this development."⁴ So, the modern ED should be prepared to take on a wider role in the health care system.

As the specialty matures and the number of specialists in EM grows, there will be an impetus for such individuals to develop special areas of interest. The number of Fellows in HKCEM is currently more than 250 and growing. Not surprisingly, some emergency physicians have started to focus on subspecialty areas, such as clinical toxicology. Toxicology training in local EDs started around 2000,⁵ and in 2002, the College introduced the first 2-day Clinical Toxicology Course

of the New York City Poison Control Centre. In January 2005, the College moved a step further and organised an 80-hour certificate course in clinical toxicology with the toxicology team in United Christian Hospital. In 2008, the Hong Kong Poison Information Centre introduced a Diploma Course in Clinical Toxicology, which required a 6-month attachment. In some EDs, toxicology teams were formed to cater to patients with poisoning admitted to the recently established EM wards. Interests in clinical toxicology also translate into research in related areas. In this issue of the Journal, the two articles from local EDs on ketamine abuse and the treatment of snakebite exemplify this new trend in EM subspecialty development.^{6,7}

The second area of interest for emergency physicians is prehospital care, as the ED is at the interface between the community and the hospital system. The Ambulance Command of the Fire Service Department in Hong Kong has provided prehospital emergency care, for which emergency physicians have been involved in the medical control and training of ambulance personnel. However, it is in the area of air medical service that we have established a niche. In 1993, the Government Flying Service (GFS) succeeded the Hong Kong Royal Auxiliary Air Force in providing medical transport. Prehospital first aid and basic medical care during flight was provided by the aircrew. In 2000, 24 doctors from various EDs were recruited as volunteers of the Air Medical Division of the Auxiliary Section of the GFS.¹ Today, doctors and nurses from local EDs still constitute the majority in the air medical teams that provide medical care for injured hikers or patients from remote islands who require to be transferred to a major urban hospital. In the same vein, there is also considerable interest in the development of transport medicine and so-called 'retrieval' medicine. Providing medical cover for major events outside of hospitals is also an area where emergency physicians can put their skills to good use. The recent Olympic Equestrian Event and the East Asian Games are good examples where emergency physicians provided on-site emergency care. In response to the demand for event coverage, the College has organised courses for emergencies in sports events for doctors, nurses, and physiotherapists.

Disaster medicine is a different game. Although disasters are uncommon, the hospital system needs to prepare for them. The ED is often responsible for the formulation of a plan and provision of staff training. Training in radiation accidents was started in the early 1990s in response to the building of the Daya Bay

Nuclear Power Plant. The sarin attack in the Tokyo Subway in 1995 was a wake-up call for emergency physicians with a special interest in disaster medicine. In 1999, a 1-day seminar was organised on the "Medical Consequences of HAZMAT and Terrorism". It covered disaster planning for HAZMAT (hazardous materials) and terrorism, chemical weapons, and radioactivity and nuclear weapons. The interest in HAZMAT preparedness was heightened by the 9-11 incident in 2001. In 2003, the first AHLS (Advanced HazMat Life Support) course was jointly organised by the Hospital Authority and HKCEM. The College has recently formed a subcommittee to deal with prehospital care that oversees the development of prehospital and disaster medicine.

The third area where the ED can play a role is in public health. Each year more than 2 million Hong Kong citizens visit EDs, which makes it an ideal place to gauge the 'pulse' of society. There are at least four areas where EM and public health could collaborate: surveillance of diseases, injuries and health risks; monitoring of health care access; delivery of preventive clinical services; and developing policies to protect and improve the public health.⁸

Since the outbreak of severe acute respiratory syndrome in 2003, there has been a heightened awareness of the need for surveillance for emerging infections. Emergency departments are strategically placed in the health care system to detect the emergence of outbreaks of infection and provide appropriate triage.⁹ Sentinel surveillance for non-

infectious problems—for example, adulterated Chinese herbs or food items—is obviously important to protecting public health. The ED is also a strategic location to monitor events such as domestic violence when patients are often not admitted.¹⁰ Identification of such patients in the ED can also be a means to secondary prevention.

In the last decade since the establishment of the HKCEM, many colleagues have worked hard to improve service at the ED and broaden the roles of EM both inside and outside of the hospital. There are many obstacles to be overcome. One of the main ones being the heavy workload ED doctors must face. The other constraint is the underdevelopment of academic EM, though an academic teaching unit has been established in the Chinese University of Hong Kong since 1995. More and better research is needed, if EM is to contribute to the growth of medical knowledge in the various fields of special interest to the discipline.

In the modern world, the ED can no longer be a first aid station or merely a gatekeeper; it must embrace a wider role to meet the challenges posed by a more complex society.

TW Wong, FHKAM (Emergency Medicine)
 Email: wongtw1@ha.org.hk
 Accident and Emergency Department
 Pamela Youde Nethersole Eastern Hospital
 Chai Wan
 Hong Kong

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