

## Editorial

### Financial, educational and cultural 'Revolutions' for emergency medicine in Hong Kong

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Ever since the establishment of the first Casualty department at Queen Mary Hospital in 1947,<sup>1</sup> local and foreign attendees at Accident & Emergency (A&E) departments in Hong Kong had enjoyed free medical service for more than 50 years.<sup>2</sup> However, with ever accelerating proliferation of advanced medical technology and expensive medications, coupled with the recent economic downturn and budget deficit, such free 'safety-net' healthcare was considered unsustainable and undesirable. The date of 29th November 2002 marked the end of this era of benevolence and generosity. From now on, unless exempted, all attendees at A&E departments need to pay a fee of \$100 or \$570 per visit, depending on whether they are residents or non-residents of Hong Kong. The new policy is aimed to change patient behaviour so that emergency service will be utilized appropriately. The charge was considered within generally accepted and affordable levels.<sup>2,3</sup> The initial drop in A&E attendance was around 10%. There seemed to be a minimal increase in the absolute number of real 'emergencies'.<sup>2</sup> What will be the long-term impact has yet to be seen.

Traditionally, emergency physicians treat 'whoever comes in the front door'.<sup>4</sup> Undifferentiated illnesses or injuries provide 'live models' for attending doctors to gain clinical experiences. Chance occurrence dictates case-mix and experiential learning through apprenticeship with 'senior' colleagues. This way of learning is no longer sufficient. In parallel with recent revolutionary and innovative changes in computing and information technologies and statutory requirement of lifelong medical learning, revolutionary methods of education has emerged, as exemplified by organized training activities using

manikins, animals, medical simulators and computer-assisted interaction. A milestone was the introduction of the Laerdal HeartSim Interactive Training System in Advanced Cardiac Life Support courses in Hong Kong in 1991. 'Simulations' using animals or animal parts were exemplified by the subsequent Paediatric Advanced Life Support, Advanced Trauma Life Support and Basic Surgical Skills courses. Development in this field is rapid, as represented by more sophisticated simulators in anaesthesia, cardiology, endoscopy and ultrasonography. Simulation<sup>4-6</sup> has been shown to improve patient care, interpersonal skills, communications, teamwork and crisis management. Medical simulation will soon present an endless spectrum of case-mix. Consequently, learning will no longer be left to chance and can be achieved in a safe and relaxed environment. New techniques can be tried out or mistakes corrected as many times as desired, free from risks to patients. In fact, it will be part and parcel of emergency department risk management.

In addition to continuing the four domains of learning – knowledge, skill, attitude and teamwork,<sup>5,7</sup> present-day emergency physicians have four roles – clinician, trainer, researcher and community service provider.<sup>7</sup> Given the ever-demanding roles of emergency physicians, they should acquire the skills of resuscitologists, intensivists,<sup>8,9</sup> diagnosticians and technologists. Although current emergency medicine training in Hong Kong is exceptionally extensive in initial resuscitation, little emphasis has been put on critical care. It has been shown that elderly patients had a significantly better outcome when invasive monitoring devices and oxygen-transport-directed resuscitation occurred very early after admission to

the emergency department.<sup>8</sup> Training in intensive or critical care should be included in our agenda in the near future. For less critical patients, diagnostic acumen is important to separate those who need admission and those who can be safely discharged. It is worth mentioning that one area of immense potential in this aspect is ultrasonography,<sup>10</sup> which has revolutionized patient care, especially in the fields of obstetrics, gynaecology and cardiology. Focused emergency ultrasonography by emergency physicians is slowly gaining universal acceptance in Hong Kong. Unlike their 'grandfathers', emergency physicians are no longer confined to the four walls of the A&E department. In addition to undergraduate and postgraduate medical and nursing educational activities, emergency physicians have been actively involved in paramedic training<sup>7</sup> for the Ambulance Command and voluntary first aid organizations. Emergency physicians in Hong Kong have actively participated in a wide scope of related community services. First aid, first-responder defibrillation, public access defibrillation, child abuse, elder abuse and spousal abuse<sup>11</sup> are just a few examples. All of the above efforts, together with active research, have enhanced our image as scholars and as professionals.

In line with these milestone changes, especially with the escalating patient expectations after the

introduction of A&E charges, it is time to rethink our new roles and cultures for Emergency Medicine in Hong Kong. Gone are the days of the old 'Casualty admission officers'. In their places are 'custom-made' specialist 'gatekeepers' who are aware of their limitations; who, after adequate stabilization, admit only those who really need inpatient care and discharge all those who can be safely treated as outpatients. As outpatient management is much more cost-effective, the gate-keeping function is becoming more and more significant in this cost-containment era. A comparison of the old and new culture is shown in Table 1.

Although Emergency Medicine is young and is still exploring its scopes of service,<sup>12</sup> it has lagged far behind in advances in medical technology in comparison with other specialties, with the possible exception in the application of information technology. The last words of Dr. Sun Yat Sen – father of modern China – may be modified and applied in our situation: -

*"Our goal is to attain the same status as other specialties. The ways to achieve our goal are to communicate well with our people and to collaborate with our international counterparts. The revolution is not yet over, we still need to put in more efforts if we are to succeed".*

**Table 1.** Comparison of old and new culture in A&E departments.

Old Casualty culture	New A&E culture
Haven for the unmotivated	Organized training for new specialists
Junior doctors as core staff	Emergency Medicine specialists as core staff
Passive & defensive	Active
Doctor as 'authority'	Doctor as 'patient advocate'
'Safety first' – for doctors	'Safety first' – for patients
If in doubt, admit – 'admission officer'	If in doubt, consult – 'gatekeeper'
The more we do, the more mistakes we make	The less we do, the more mistakes we make
If patient is admitted, we have no more responsibility	We have the responsibility to provide optimal patient care, including diagnosis, stabilization, treatment and disposal

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