Emergency Medicine in New Zealand

This is a continuing column that examines the practice of emergency medicine in various countries around the world. This issue will look at EM in New Zealand. This article is written by Gabriel T. Lau, MD FACEM FACEP, an American board-certified emergency physician who is currently working in the Department of Emergency Medicine at Wellington Hospital in Wellington, New Zealand.

Background

New Zealand is located in the South Pacific Ocean, a three hour flight from Australia, the nearest continent, and an 11-hour flight from Los Angeles, where most direct flights from the United States originate. New Zealand is comprised of two main islands, referred to as the North and South Islands, as well as numerous smaller islands (the Chatham Islands being the largest). Most of the population resides on the North Island, which includes the major cities of Auckland and Wellington, the nation's capital. Christchurch and Dunedin are smaller cities located on the South Island. The geography consists of long coastal areas with numerous beaches, mountain ranges, some of which host winter skiing, and large areas of rolling terrain, most of which has been converted into farmland. The varied geography has resulted in numerous New Zealand locations being prominently showcased in several large films (Lord of the Rings, River Queen).

New Zealand is one of the more recently settled countries, with the first Polynesian settlers arriving sometime between the 13th and 15th centuries and numerous European settlers arriving in the 19th century. Today, the population is comprised of 4.1 million people, with around 70% being of European origin and around 15% of indigenous Maori descent. Although the two official languages are English and Maori, almost everything is communicated in English.

The government is a parliamentary democracy (with a prime minister), as well as a constitutional monarchy (recognizing Queen Elizabeth II as the Queen of New Zealand). There is very little unemployment in the country (3.4%), and there is an ongoing commitment by the government to encourage skilled immigration.

Healthcare

The New Zealand health system is publicly funded. Although there are private hospitals, they do not have

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emergency departments and exist primarily as an avenue for getting non-urgent specialty procedures (such as CABG, hip replacements and cholecystectomies) done in a more expedited manner. Most people do not have private insurance and go onto a waiting list at the public hospitals to get their specialist appointments arranged or their surgical procedures done.

Practicing emergency medicine in New Zealand has similarities to working in an American HMO: general practitioners (GPs) serve as the gatekeepers and manage most patients, there is a formulary of subsidized medications one must pay attention to and non-urgent procedures and investigations are often performed based on prioritization. Residents and citizens receive free emergency care, but most must pay a fee to see their GP and to get prescriptions filled at the pharmacy. As a result, part of the daily volume seen in the emergency department consists of people who cannot get an appointment with or afford to see their GP, although the number of "non-emergency" visits is smaller than one would expect. Since the public is not billed for ED treatment, patient registration is much simpler, and documentation only needs to be sufficient for medico-legal purposes, not for coding or revenue capture.

One feature unique to New Zealand is the lack of personal injury lawsuits. Patients who suffer injury, through accident or "medical mishap," are covered by the no-fault government sponsored insurance carrier, Accident Compensation Corporation. New Zealand has always been on the cutting edge of providing health coverage, and ACC was formed in 1974 to provide coverage to people who have had injuries. As a result, there is no "malpractice" in the conventional sense, and medical protection insurance is required only to help defend a Coroner or Health and Disability Commissioner Inquiry. The relatively calm medico-legal environment results in correspondingly low malpractice insurance rates: the 2006 premium for coverage was $1200 and is almost always paid for by the employer.

History of Emergency Medicine

The development of emergency medicine in New Zealand closely parallels the development of the specialty in Australia and shares many similarities to the evolution of the specialty in the United States and Canada. Although emergency medicine was first recognized as a distinct specialty in New Zealand in 1995, emergency departments have been present throughout the country for many decades. Reflecting the British influence on medicine in the Australasian community, emergency departments were once referred to as "Accident and Emergency Departments," staffed by "casualty officers." Even today, many people still refer to the emergency department simply as the "A and E," although the use of the term "casualty officer" has gone by the wayside.

Pre-hospital Care

Pre-hospital care is activated by dialing the universal emergency number, '111,' and staffed by ambulance personnel with either ALS or BLS skills. In many areas, ambulance paramedics with advanced skills may be dispatched based on the severity of the initial call. Unlike other countries, there is only an occasional need for a doctor to respond as part of the ambulance crew. Interfacility transfers, especially those done by air, generally involve a paramedic with either an intensive care registrar and/or a transfer nurse.

Medical Training and Specialization

Training in the field of medicine and subsequent specialization, is modeled after the British system. Medical school is six years in length, with no requirement for an undergraduate degree prior to admission – many students enroll immediately after completing high school studies, while some are selected for medical school based on an intermediate year at university, and others may already have completed a different degree. As a result, it is possible to complete medical school by age 23-24. The degree received in New Zealand is a Bachelor of Medicine and Bachelor of Surgery (MB ChB), roughly considered the equivalent of an American MD degree. Requirements for specialty certification (often referred to as a fellowship) in New Zealand are dictated by the respective specialty college or society. The government generally uses one's fellowship as the basis for granting "vocational registration," which can be considered the license for one to practice as a specialist in a particular field. In Australia and New Zealand, the Australasian College for Emergency Medicine (www.acem.org.au) specifies the training requirements in emergency medicine, accredits training sites and administers fellowship examinations.

Specialization generally is a much longer process compared to the United States. It takes a minimum of seven years postgraduate training in order to become a fellow in emergency medicine. Training is comprised of two years basic training (generally the first two years out of medical school), one year of provisional training (work in an emergency department and other approved settings), completion of primary examinations, an additional four years of advanced training (combination of work in emergency department and other approved settings), publication or presentation of a research project, and finally completion of a fellowship examination. The primary examinations are in the areas of anatomy, pharmacology,

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pathology and physiology – are very basic science focused and very challenging, reminiscent of the U.S. medical boards – part I. Additionally, both the primary and fellowship examinations involve a multiple-choice and essay written components, as well as an oral component.

Emergency Department Operations

The hierarchy of emergency medicine also reflects the British influence of having a house officer based workforce. The various titles given to house officers reflect their skills and experience since medical school graduation: PGY-I and –II doctors are considered "house surgeons" and are the most junior doctor in the workforce. Senior house officers (SHOs) are post PGY-III doctors, not necessarily in a training program, many who are rotating through the emergency department to gain more experience. Registrars are often specialty trainees, generally PGY-IV and beyond, who are skilled and experienced in managing most ED cases. Those who have completed their specialty certification and have become fellows are referred to as either "consultants" or "specialists" and are considered senior doctors.

Often, there is only one consultant supervising a combination of registrars, SHOs, and house surgeons staffing the emergency department. The role of consultant includes direct supervision of house officers, regular teaching responsibilities, other administrative duties and seeing patients. Some smaller hospitals may have only one or two ED consultants on staff, resulting in the consultant doing more administration and less patient care. There are very few, if any, emergency departments with a consultant on site after 10 p.m. Night coverage is generally provided by a registrar supervising other house officers, with a consultant available by phone (at home) for any questions or complicated cases.

As with emergency department volume in the United States, annual attendances in New Zealand are gradually increasing, a reflection of an older population and a decrease in available non-emergency department after hours care. Greater efficiencies in ED care, the result of having more specialists available, have reduced waiting room times and have also been responsible for increasing attendances. ED overcrowding also occurs in New Zealand and shares some similarities to problems in the United States. The biggest factor causing overcrowding is the inefficient use, and subsequent lack of, inpatient hospital beds. Another important variable in ED overcrowding in New Zealand is the cautious decision-making and slow admissions processes inherent in any hospital staffed by training doctors.

Most emergency departments have either recently gone through, or are going through, major facilities redevelopment. Technology is similar to most other first world countries: multi-detector CT scans are the norm, most ED specialists incorporate ultrasound into their daily practice, and the latest in critical care intervention devices are present in the resuscitation area of most EDs. Some problems are more aggressively managed as inpatients (for example, abscesses are generally taken to the operating theatre), while other problems are aggressively treated in the emergency department and often discharged (new onset atrial fibrillation). The lack of a formal "trauma service" in New Zealand means that most trauma resuscitations are managed by the emergency department specialists.

Emergency Medicine Working Conditions

The average working week for emergency medicine specialists, including the odd (1:4) weekend, comes out to just over 40 hours. Many EM specialists work 8A-5P, and cover evenings once or twice a week. Currently, there are no obligations for EM specialists to be present overnight, although this may change in several years. The average salary for senior doctors, regardless of specialty, is around NZ$140,000, although other bonuses may bump this up 20-40%. There is also an annual salary increment based on years of experience. With the fluctuating New Zealand dollar (currently NZ$1 = US$0.63) the pay is less than in the United States and other countries, but the position comes with excellent benefits. There is a collective agreement in place for all specialists, such that all clinicians receive six weeks annual leave, ten days conference/education leave, NZ$8500 CME funds and around ten paid holidays. Combined with a favorable medical legal environment, numerous opportunities for teaching and few weekends/no nights for senior clinicians in the foreseeable future, New Zealand has become very attractive to physicians working in the United States and other countries.

The Future of Emergency Medicine

There is currently a shortage of emergency medicine specialists in New Zealand, especially in rural areas, as more hospitals realize the benefits of having ED specialists on staff. This shortage is not expected to improve significantly in the next few years, as other areas of the world (US/UK) are also experiencing physician shortages and attracting New Zealand-trained clinicians. As a result, there are generally positions available in rural and suburban areas, and overseas doctors are regularly recruited to move to New Zealand to practice. Additionally, the government is actively encouraging physicians to immigrate to New Zealand by emphasizing the natural beauty of New Zealand, the numerous outdoor recreational opportunities and providing a streamlined process to permanent residency. The working atmosphere in New Zealand is less hectic and more relaxed than in other countries; coupled with the large amount of annual and holiday leave, New Zealand has become a very popular place for emergency physicians to move to and settle down.