

Emergency Medicine in Mongolia

by Allon Amitai, MD and Ganbold Lundeg, MD

Editor's Note – This is a new column that examines the practice of emergency medicine in various countries around the world. This issue will look at EM in Mongolia. This is an article written by Allon Amitai, MD and Ganbold Lundeg, MD. Allon Amitai is a graduating EM resident from SUNY Downstate/Kings County and about to begin his fellowship in International Emergency Medicine at Brown University. Dr. Amitai spent six weeks during his fourth year of residency working in China and Mongolia. Dr. Ganbold Lundeg is the chairman of Mongolia's Board of Critical Care Medicine.

Background

Mongolia is a central Asian nation of roughly 2.8 million people landlocked between China and Russia. A land of steppe, forest, desert and mountains, Mongolia has always been ill-suited for agriculture. Traditional Mongolian civilization was nomadic and pastoral, based on the herding of horses, sheep, yaks and camels. While Mongolia today is a semi-industrialized nation, half of all Mongolians still live as nomad herders, their way of life little changed over many centuries. Outside of the capital city of Ulaan Baatar, in the 21 *aimag* provinces, running water, paved roads and electrical power are rare.

The per capita GDP in Mongolia is \$2,200 (2005 estimate), with 36.1 percent of the population living below the poverty line (2004 est.) The total infant mortality rate in Mongolia is 53.79 deaths/1,000 live births (in US 6.43 deaths/1,000 live births) and the total life expectancy of 64.52 years (in US 77.6 years). Health insurance is provided by the government, but government care is often considered of low quality. Subsequently, there is a sizeable private health market and high quality private hospitals.

Pre-hospital Care

Mongolia follows the Franco-German model of physician supplied pre-hospital care. Paramedics and EMTs do not exist in Mongolia. Most of the physicians are general practitioners, but surgical, critical care, neurology and pediatric specialists are sent on calls when appropriate. The government heavily subsidizes ambulance care: the price to a patient of an ambulance visit is approximately \$2 US dollars.

On average, it takes an hour from the time a call for emergency assistance is placed to the arrival of an ambulance in Ulaan Baatar. This is partly a problem of Ulaan Baatar traffic, but also stems from difficulty locating calls. Yurt tent suburbs with a confusing and unreliable layout surround Ulaan Baatar. When ambulances do manage to arrive, pre-hospital care is provided according to the abilities of the provider, and a decision made whether or not to evacuate the patient to a hospital. Pre-hospital care outside of Ulaan Baatar consists of Russian-made police jeep transport to triage points and local clinics.

Emergency Medicine

Emergency medicine as a specialty does not exist in Mongolia. There are however, 12 hospitals in Ulaan Baatar with public emergency rooms, and there are 74 physicians that provide 24-hour ambulance delivered care throughout Ulaan Baatar. Hospitals in Ulaan Baatar are typically specialized: there is a trauma hospital, an oncology hospital, a cardiac hospital and other hospitals dedicated to obstetrics, pediatrics, tuberculosis and indigent care. Patients presenting to public emergency rooms are cared for by physicians who have completed standardized 18-month residencies in

anesthesiology and critical care, internal medicine, pediatrics neurology, or OB-GYN, or a 36-month surgical residency.

The physician specialty encountered in the emergency room is dependent on the type of hospital to which one presents. There are four general hospitals in UB, otherwise, if patients present to a hospital with pathology not appropriate for its specialty, diagnosis and treatment are delayed and may necessitate transfer. As might be expected, this has impeded the development of EM as a specialty. Of the twelve hospitals, seven offer internal medicine services, five have surgeons on staff, three have pediatricians, and one offers an OB service. Seven of the twelve EDs provide advanced airway management through their departments of Anesthesiology/Critical Care.

Available ancillary services vary by hospital. There are three functioning CT machines in UB, seven x-ray facilities and 12 ultrasound devices, but poor maintenance has limited their applicability. To repair the CT, for example, a technician must be brought from Beijing, a 24-hour train ride away. Laboratory testing is also limited. One surgical hospital on the outskirts of UB regularly performs complex abdominal and thoracic procedures without either X-ray or laboratory tests.

Emergency Medical Education

The main medical school in Mongolia is the Health Sciences University of Mongolia, a six year program with a total of 1,700 students. Along with applied clinical training in the Trauma Hospital, critical care departments and their core clerkships, medical students receive 30 hours of dedicated emergency medical theory and mannequin training, provided by the Department of Anesthesiology and Critical Care. The content of this training is similar to that of BLS, although the BLS, PALS, ACLS and ATLS courses are not yet available or known in Mongolia.

There are no residency programs yet in existence dedicated to emergency medicine, but care of the undifferentiated patient presenting to the emergency room in extremis is generally delegated to anesthesiology and critical care physicians when available, and medical students interested in working in emergency care typically choose to do their residencies in anesthesiology and critical care. Residencies in Mongolia are still short – usually only 18 months – and there are no formal courses of post-residency continuing medical education. There exists a professional society of anesthesiology and critical care physicians, but not yet of emergency physicians.

The Future of Emergency Medicine in Mongolia

Emergency medicine in Mongolia is at a critical phase in its development. Despite the rapid strides taken by Mongolia in liberalizing its economy and adopting the latest in information technology, health care has lagged behind increasing public expectations. Private hospitals are starting to meet the demands of the affluent few, but there is an increasing public consensus that pre-hospital and emergency care must be improved. Under development now, at the Ministry of Health, are plans to open a paramedic training school and a comprehensive emergency care center. International partnerships are now being cultivated for the development of academic emergency medicine in Mongolia, with the ultimate goal of the establishment of emergency medicine as an independent specialty. +