



Aseptic meningitis:
But what do we do
with the fourth tube?

EM PEDIATRICS
Page 18



Malignant
melanoma
case review

VISUAL DIAGNOSIS
Page 30



Emergency
department
crowding

GUEST FEATURE
Page 32



Spontaneous
rupture of a renal
angiomyolipoma

CLINICAL CASE
Page 34

February/March 2010

VOLUME 37, issue 1

EM Resident

The Official Publication of the Emergency Medicine Residents' Association



Hands on cardiopulmonary resuscitation training.

“...trauma continues to grow as a major cause of morbidity and mortality in poverty-stricken countries like Ghana.”

International medicine

Targeting trauma in Ghana

Bhakti Hansoti, MD, University of Chicago Hospital, Chicago, IL

Two-thirds of the world's population lives in the developing world and suffers from a lack of access to primary health care. In 2001, injuries accounted for about 5,100,000 deaths (about 20 percent of which were preventable by simple surgical intervention).¹ Africa has the highest road-traffic-injury mortality rate in the world at 28 per 100,000 people and has 50 deaths per 10,000 vehicles compared to 1.7 deaths per 10,000 vehicles in high-income countries.² Injury accounts for more deaths than those caused by tuberculosis (2.5%), diarrhea (4.3%), malaria (2.9%), HIV (6%), or cancer (5.2%).³ The worldwide leading cause of death among young people between five and 40 years of age is injury.² Projections show that between the years 2000 and 2020, road traffic deaths will increase by 83 percent in low and middle-income countries.

In contrast, there will be a further 30 percent decline in road traffic deaths in high-income countries, continuing a pattern that has been established in recent decades.⁴

Yet the world's focus, although important, remains on the prevention and care of communicable diseases such as malaria, HIV/AIDS, and nutrition.

However, as nations continue to develop their transportation infrastructures, trauma continues to grow as a major cause of morbidity and mortality in poverty-stricken countries like Ghana. Effective trauma care requires sustenance and sufficiency of three components: emergency medical services (EMS), emergency departments to stabilize acute trauma victims, and orthopedic/trauma healthcare resources. Motec Life – UK (Motec) is a multi-disciplinary charity organization based in the United Kingdom that develops self-sustaining trauma care in countries like Ghana.⁵

On October 23, 2008, Motec and the Ministry of Health organized a paramedic workshop, which was represented by the Ghana National Ambulance Service, the Directorate of Occupational Health,

continued on page 12



Targeting trauma in Ghana

continued from front cover



Bhakti Hansoti, MD
University of Chicago Hospital
Chicago, IL

“...transport times can vary from 30 minutes to six hours... A significant proportion of injury deaths thus occur in the pre-hospital setting.”

and the Eastern Regional Directorate. Ghana National Fire Service (ER) and the Professional Drivers Union of Ghana also provided additional cooperation. The event, held in Kofordiuu, was attended by 120 participants and was the first national paramedic-training program of its kind.

The training workshop supported a morning of didactic teaching comprised of ambulance aid skills, paramedic aid skills, and a broad overview of applicable ALS/ATLS. The afternoon comprised of split practical skills sessions and included four stations: cardiopulmonary resuscitation, spine immobilization, emergency intubation, and handling of accident victims.



Managing the critical airway, practical teaching from anaesthetologist from Northwick Park Hospital, UK.

Given the size of Ghana and the relatively few centers able to provide trauma care, transport times can vary from 30 minutes to six hours. There is also significant regional and seasonal variation in



End of day assessment in basic cardiopulmonary resuscitation.

transport times as rains and flooding can obstruct major roadways and impede traffic. A significant proportion of injury deaths thus occur in the pre-hospital

setting, which emphasizes the role of the paramedic team in providing temporizing medical care while en route to a definitive treatment facility.

Effective trauma care development is slow as the government funds 80 percent of the public health services through general taxation and donor funds.⁶ The first approach to address this issue is to improve pre-hospital care via paramedic training with workshops similar to the Motec conference.

Of course, efforts to improve pre-hospital medical care should be combined with significant investments in improving hospital-based emergency care.

One barrier to the development of trauma centers in emergency departments is the

cash-and-carry system that is currently in place for supplies and medicines. Many existing hospital models focus on making a diagnosis and not on appropriate triage or rapid stabilization. Once patients are dropped off by EMS, there has to be a commitment on the part of the receiving hospital to provide rapid, effective emergency medical and surgical care. For this reason, only the simultaneous development of EMS and emergency medical care will result in a significant dent in mortality and an improvement in injury-related outcomes.

There is a large burden of morbidity and mortality from injury in developing countries, and this load is mostly ignored as developing nations focus on making an epidemiologic transition—advancing approaches to the prevention and treatment of infectious diseases. The number of trauma victims will only increase as the industrial and transportation infrastructure grows.



Dr. Hansoti with Ghanaian paramedic colleagues.

fortunately, programs like Motec can fill a considerable need and help many people. ■

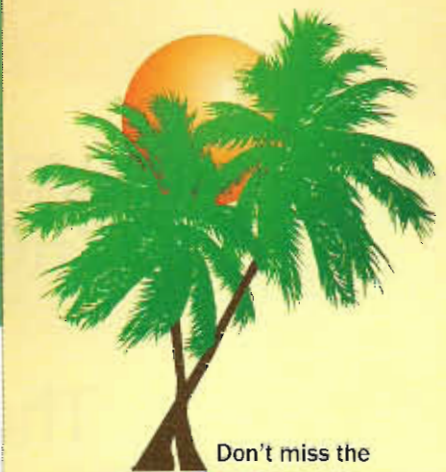
References

1. Murray CJ, Lopez AD. Mortality by cause for the eight regions of the world: Global Burden of Disease Study. *Lancet*. 1997 May 3;349(9061):1269-76.



Practical teaching on C-spine immobilization and backboard utilization for the trauma victim.

2. Lagarde E. Road traffic injury is an escalating burden in Africa and deserves proportionate research efforts. *PLoS medicine*. 2007 Jun;4(6):e170.
3. Beveridge M, Howard A. The burden of Orthopaedic disease in developing countries. *The journal of bone and joint surgery (American)*. 2004. 86:1819-1822
4. World Health Organization. 2004 World report on road traffic injury prevention. Online at [http://www.who.int/world-health-day/2004/infomaterials/world_report/en/] as of 11/20/09
5. Motec-Life UK. Online at [www.moteclife.co.uk] as of 11/20/09
6. Challoner K. Emergency Medicine in Ghana. Online at [http://www.medscape.com/viewarticle/556969_2] as of 11/20/09



Don't miss the
2010 CORD
Annual Academic
Assembly
March 3-6, 2010

Caribe Royale Orlando Hotel
www.cordem.org

**Congratulations to the winners
of the 2010 EMRA
Faculty Development Scholarships**

Carrie Cregar, MD
UMDNJ University Hospital
William Goldenberg, MD
SUNY Brooklyn
John Houghland, MD
Denver Health

**CORD Resident
Track Schedule**
March 5, 2010

- 2:00 p.m. **Transitioning to Junior Faculty**
Gillian Schmitz, MD
- 3:00 p.m. **Showing off Your Credentials**
Michael Epter, DO
- 4:00 p.m. **Charting in an Academic Facility**
Sanjey Gupta, MD
- 5:00 p.m. **"Don't Miss" Cases**
Pholaphat Charles
Inboriboon, MD

For more information and a full
schedule of events
please visit www.cordem.org