Uchunguzi (Journal Watch/Montre de Journal)

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Uchunguzi means investigation in Swahili and provides a summary of some of the most recent international literature as presented in other leading journals, but with an emphasis on what is relevant to our continent.

WhatsApp @work

Without the need for expensive videoconferencing equipment or computer networks, doctors in the developing world have found practical use for WhatsApp Messenger in clinical and administrative settings because the service is ubiquitous, free and easy to use. This study reviewed the literature on WhatsApp in clinical practice, to determine how it was used, and users' satisfaction. It revealed that the service was widely used in intradepartmental communication across a range of aspects, including second opinion, changes in treatment plans, sharing of X-rays and photographs, scheduling of academic meetings, and sharing of educational materials such as papers. There was a report of the use of WhatsApp for one to one telemedicine referrals to improve time to reperfusion in patients with ST segment elevation myocardial infarcts. Some of the advantages noted included an improvement over voice only communication, less disruption than a pager, reduced need to be in hospital, a computer was not required, was faster than email, permitted immediate response, reduced clinical incidents, reduced consultation time, increased level and improved supervision, flattened hierarchy, involved more senior staff in decisions, encouraged junior doctors to seek help, and improved team perception of effectiveness. The disadvantages included frequent interruption, disparity in the sense of urgency, it worsened professional relationships, lead to unprofessional behaviour, required staying online 24 h a day, was not part of the medical records, possible issues of privacy and confidentiality and risked reducing the autonomy of registrars. The ubiquity of WhatsApp, its simplicity, low cost and improved encryption make it an attractive proposition for developing telemedicine services for emergency care in resource-constrained settings.

Reference: Mars M, Scott RE. WhatsApp in clinical practice: a literature review. Stud Health Technol Inform 2016;231:82–90.

Prehospital care in LMICs

Prehospital care is one of the many issues that require addressing by lower-middle income countries (LMICs). Even though communicable diseases remain the focus of the health sector in many countries, trauma and accidents have been increasing in these countries. Morbidity and mortality of road traffic accidents can be reduced by establishing well-organized prehospital care/Emergency Medical Services (EMS) and trauma care facilities. Furthermore, non-traumatic emergency patients, such as communicable and noncommunicable disease patients, also require prehospital care, including transport to hospital. In this study, the authors reviewed the development and status of EMS systems in 48 countries categorised as LMICs by the World Bank. They found that in general, most LMICs lacked an organized EMS system for example, Indonesia, India, Morocco, Vietnam, Armenia, Nigeria, Ghana, and Sri Lanka, with most ambulances used only for transport and not as an emergency care vehicle. The prehospital care cost was usually a citizen's responsibility and in countries like Ghana, due to the high cost, people relied on an unorganized system of private cars or other transport to take patients to hospital. Human resources and the education system for prehospital care providers varied with only a driver in the ambulance in certain countries. The characteristics and effectiveness of the ambulances also varied. Financial resources and a poverty level of income were identified as the two biggest problems facing the establishment of a well-organized EMS system in LMICs. Based on the importance of prehospital care, it is necessary to establish an organized EMS system appropriate for the needs of LMICs and within the available resources.

Reference: Suryanto, Plummer V, Boyle M. EMS systems in lower-middle income countries: a literature review. Prehosp Disaster Med 2017;32(1):64–70.

A POCUS guide for Africa

Significant evidence identifies point-of-care ultrasound (PoCUS) as an important diagnostic and therapeutic tool in resource-limited settings due to limited access to basic and advanced laboratory facilities, along with limited diagnostic imaging equipment.
availability, including radiographs and computerized tomography (CT). Quality PoCUS educational programs in Africa's emergency care settings hold immense potential to affect preventable morbidity and mortality, to improve diagnostic capability, and improve health equity. This paper provides a novel PoCUS curriculum for Africa, developed by expert consensus, establishing core competencies grounded in functionality and contextualized to local epidemiology and resources. The authors further describe five phases of PoCUS curriculum delivery (introduction, experience-gaining, competency assessment, revalidation and education/teacher phases) and identify five strategic program development considerations that would enhance the intended collaborative best practices, core competencies, and oversight for PoCUS training and use in emergency care in the African region. These are:

1. Prioritizing PoCUS training in emergency medicine training programs linked to hospital-based systems
2. Prioritizing longitudinal and sustainable models for PoCUS training
3. Recognizing an imperative to share regional and global resources to promote health equity for all populations with and within the African region
4. Maximizing patient access to PoCUS technology
5. Developing regional consensus for PoCUS training standards and credentialing

The article is a clarion call for coordinated action to foster collaboration around resource and knowledge sharing, to effectively disseminate and sustain PoCUS training initiatives and improve patient outcomes across the African continent.

Reference: Salmon M, Landes M, Hunchak C, Paluku J, et al. Getting it right the first time: defining regionally relevant training curricula and provider core competencies for point-of-care ultrasound education on the African continent. Ann Emerg Med 2017;69 (2):218–226.

A need to triage paediatric triage for low-resource settings

The global burden of paediatric mortality in low resource settings remains high; 6.3 million children under five years old die worldwide each year. Despite this high burden of paediatric mortality from preventable conditions and the existence of multiple tools to prioritize critically ill children in low-resource settings, no analysis exists of the reliability and validity of these tools in identifying critically ill children in these scenarios. This systematic review investigated the scientific evidence underlying the use of acute care triage scales and Integrated Management of Childhood Illnesses (IMCI) for paediatric patients in LMICs. Overall, the quantity and quality of evidence supporting the effectiveness of any single triage tool for paediatric patients in low resource settings was poor. This highlights a need to develop and define robust validation methodology that can be prospectively utilized to evaluate triage tools in low resource settings. Despite significant limitations in the study design and locale of IMCI studies identified, the authors felt that the ubiquitous use of IMCI as well as the availability of training and implementation though the WHO supported its continued use in outpatient clinic settings where it is currently implemented.

Reference: Hansoti B, Jenson A, Keefe D, De Ramirez SS, et al. Reliability and validity of paediatric triage tools evaluated in low resource settings: a systematic review. BMC Pediatr 2017;17(1):37.

Violence and injuries in Nairobi, Kenya

Violence and Injuries are a significant global public health concern characterized by marked regional variation in incidence. Approximately five million people die from injuries each year, accounting 9% of all deaths worldwide, which is nearly 1.7 times the number of deaths resulting from HIV/AIDS, Tuberculosis and Malaria combined. While the global burden of injuries is on the decline, the burden of injuries especially in Sub-Saharan Africa remains high, possibly due to inadequate preventive measures, increased motorization and industrialization and weak health response. In Kenya, injuries are increasingly becoming a cause of hospital admissions and mortality where they account for 10% of all the deaths. A recent retrospective review of death certificates from the Department of Civil Registration done for deaths caused by injuries that occurred in Nairobi, Kenya during a six-month period, from January to June 2014 confirmed these statistics. Deaths resulting from injuries accounted for 10.6% of all recorded deaths with majority of the deaths occurring in persons aged 25–44 years (48.1%). The leading cause of injury was assault by blunt force at 30.5%, followed by road traffic injuries at 25.9% and fire arm injuries at 15%. Pre-hospital deaths accounted for 51.4% of all the deaths. Undoubtedly, 10.6% is alarmingly high and while the Ministry of Health has prioritized reduction of Violence and Injuries as one of its policy objectives, a lot still needs to be done by both the Ministry and other sectors.

Reference: Gathecha GK, Githinji WM, Maina AK. Demographic profile and pattern of fatal injuries in Nairobi, Kenya, January-June 2014. BMC Public Health 2017;17(1):34.

Prehospital care in Malawi

Road traffic collisions are a common cause of injuries and injury-related deaths in sub-Saharan Africa (SSA). Basic prehospital care can be the difference between life and death for injured drivers, passengers, bicyclists, and pedestrians. The faster an injured person receives first aid and then is transported safely to a hospital, the greater the likelihood of survival. In low-income countries, trained first aid providers rarely are available and many trauma victims with survivable injuries die because they do not receive timely first aid and transfer to a hospital. This article examined the current practices for first response, emergency communication, and other aspects of prehospital trauma care for road traffic injuries in Malawi using focus groups and explored the acceptability of various options for strengthening prehospital care. The authors found an almost non-existent access to professional prehospital care in Malawi, aside from a few city fire departments and private ambulance services. Rapid transportation to a hospital was usually the primary goal of roadside care because of limited first aid knowledge and a lack of access to basic safety equipment. The key informants from the focus groups recommended: expanding community-based first aid training; emphasizing umunthu (shared humanity) to inspire bystander involvement in roadside care; empowering local leaders to coordinate on-site responses; improving emergency communication systems; equipping traffic police with road safety gear; and expanding access to ambulance services. The literature on prehospital care suggests that these recommendations are generalizable to other African settings. As a first step toward improving prehospital care for road traffic trauma casualties in Malawi, and other places where no formal emergency response system exists, it would be beneficial to create a formal network of community leaders, police, commercial drivers, and others lay volunteers who are trained in basic first aid and equipped to respond to crash sites to provide roadside care to trauma patients and prepare them for safe transport to hospitals. After these initial improvements are in place, the countries can work toward establishing and strengthening a formal emergency response system.

Reference: Chokocho L, Mulwafu W, Singini I, Njalale Y, et al. First responders and prehospital care for road traffic injuries in Malawi. Prehosp Disaster Med. 2017;32(1):14–19.