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Global Emergency Medicine: A review of the literature from 2017

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Abstract

Objectives: The Global Emergency Medicine Literature Review (GEMLR) conducts an annual search of peer-reviewed and gray literature relevant to global emergency medicine (EM) to identify, review, and disseminate the most important new research in this field to a global audience of academics and clinical practitioners.

Methods: This year, 17,722 articles written in three languages were identified by our electronic search. These articles were distributed among 20 reviewers for initial screening based on their relevance to the field of global EM. Another two reviewers searched the gray literature, yielding an additional 11 articles. All articles that were deemed appropriate by at least one reviewer and approved by their editor underwent formal scoring of overall quality and importance. Two independent reviewers scored all articles.

Results: A total of 848 articles met our inclusion criteria and underwent full review. 63% were categorized as emergency care in resource-limited settings, 23% as disaster and humanitarian response, and 14% as emergency medicine development. 21 articles received scores of 18.5 or higher out of a maximum score 20 and were selected for formal summary and critique. Inter-rater reliability testing between reviewers revealed a Cohen's Kappa of 0.344.

Conclusions: In 2017, the total number of articles identified by our search continued to increase. Studies and reviews with a focus on infectious diseases, pediatrics, and trauma represented the majority of top-scoring articles.

Introduction

The Global Emergency Medicine Literature Review (GEMLR) strives to improve the global practice of emergency medicine (EM) by facilitating emergency care practitioners' identification of the most current and important research conducted on relevant topics around the world. Our review began in 2005 in an attempt to identify and consolidate the relevant global EM literature into a format that is readily available to academics and clinicians.[1-12] This year, our panel of reviewers and editors included physicians from Australia, Canada, Ethiopia, Ghana, Laos, Rwanda, and the United States.

Our group strives to identify the most relevant practice-changing articles, by scouring both the peer-reviewed and gray literature via a comprehensive search strategy. Gray literature has been defined as any material produced by an organization whose primary function is not peer-reviewed academic publication.[13] Our goal in performing a gray literature search is to identify new global EM research conducted by government agencies, local or international nongovernmental organizations, or other entities that may not have been published in peer-reviewed journals.

The primary goals of the review are to illustrate best practices, stimulate research, and promote further professionalization in the field of global EM through the identification of important new publications that focus on emergency care in the global context, especially emergency care provision in limited-resource settings, disaster and humanitarian response, and the development of emergency medicine as a clinical discipline throughout the world. At the same time, it is important to note that this review is not a formal systematic review or meta-analysis, as it does not aim to synthesize the published literature on a specific topic or research question. Instead, its goal is to identify the highest quality and most relevant global EM research from around the globe and summarize it in a single, easy to use reference.

Methods

Each year, our editorial board revises a procedure manual that outlines in detail the methodology for its search, screening, scoring, and reviewing processes.[14] Our project is not a research study, and thus no prior ethical or institutional review board approval was sought for this manuscript. All participants in this project are unpaid volunteers, and include 11 editors, 3 advisors, 1 representative from *Academic Emergency Medicine*, 22 reviewers, and 5 alternate reviewers. As reviewers and editors were not blinded to the articles' authors, both reviewers and editors were recused from scoring or reviewing any articles in which they may have been directly or indirectly involved.

Peer-reviewed literature search

The initial search was conducted in two blocks: the first covering publications from January 1 to August 31, 2017, and the second from September 1 to December 31, 2017. PubMed was used to search Medline for original research or review articles that contained at least one "global" search term and one "emergency medicine" search term (Table 1; Data Supplement 1). Journals which

publish a significant number of global EM articles based on our experience from our prior reviews were 'hand searched', and all articles from the 2017 calendar year were included in the review. This year, the following journals were included in the hand search: *Academic Emergency Medicine*, *African Journal of Emergency Medicine*, *Annals of Emergency Medicine*, *Bulletin of the World Health Organization*, *Emergency Medicine Journal*, *Prehospital and Disaster Medicine,* and *The Lancet*. Based on the linguistic capacity of our reviewers and editors, our search this year included articles published in English, French, and Spanish. All studies were limited to human subjects only; news articles, editorials, case reports, commentaries, and letters to the editor were excluded. Articles that had been electronically published ahead of print in 2016 were included in last year's review; similarly, articles that may be published in 2018 but were published electronically in 2017 were included in this year's review.

Gray literature search

For the gray literature search, we used a pre-identified list of academic, government, and non-governmental organizations known to conduct significant global health research or implementation work (Table 2). Two reviewers were assigned to search the websites of these organizations for needs assessments, program monitoring, evaluation reports, topic reviews, white papers, conference proceedings, and other articles that may be relevant to the field of global EM.

Article selection for inclusion

Articles identified by our search strategy were distributed among 20 reviewers (plus 2 additional reviewers for the gray literature search) for initial screening based on their relevance to the field of global EM. These articles were then selected for scoring. The full-text article was obtained and classified as either an original research or review article and subsequently categorized as emergency care in resource-limited settings ("emergency care"), emergency medicine development ("development"), or disaster and humanitarian response ("disaster response") articles. Emergency care articles focus on research to improve our understanding or management of emergency conditions in resource-limited settings specifically. Development articles include research on the development of EM as a specialty, EM training programs, or emergency medical care systems in countries without fully developed EM systems. This category also includes articles on EM training programs that focus on training individuals to work in resource-limited settings, regardless of the state of EM development in that country. Disaster response articles include research on the care of

civilian populations in conflict; disaster mitigation, assessment, and response; and health care of refugees and internally displaced persons.

Each article was independently scored by two reviewers using a predefined grading scale that assessed for clarity, design, ethics, importance, and impact. Each topical area was scored, totaling a final score range from 0 to 20 (Table 3). The scoring criteria are designed to help identify methodologically sound and scientifically impactful research in the field of global EM. This year, we used a revised set of scoring criteria for the design and ethics categories for original research articles. This was based on a thorough analysis of the limitations of the scoring criteria by the technical committee of the editorial board, which was then approved by majority vote of the board. The mean of the two scores was used as the final score for the article. Previously, any article with a score difference between reviewers of greater than two standard deviations from the median score difference was re-scored by an editor. The final score was then determined as the mean of the two reviewers' and the editor's scores. Beginning with the 2017 review, the editor rescored the article independently. Afterwards, the score closest to the editor's score was averaged with the editor's score to produce the final score, with the other reviewer score dropped (unless the editor score was perfectly in the middle, in which case all 3 scores were averaged). Articles with a final score of 18.5 of higher were selected for formal review and were then distributed to reviewers who produced summaries and critiques of each article.

Results

The total number of articles identified by our Medline search for 2017 was 14,288: 14,217 in English, 46 in Spanish, and 25 in French. The total number of articles produced by our hand search for 2017 was 3,434. From the combined 17,722 articles, 837 were selected for formal scoring.

Through our gray literature search process, we found 11 additional global EM research articles that met the inclusion criteria; these were combined with those identified by the Medline and hand search process to create a final database of 848 articles for formal scoring by two reviewers.

Of the 848 articles, 537 (63%) were categorized as emergency care, 196 (23%) as disaster response, and 115 (14%) as development. A total of 642 (76%) of the articles were original research, while the remaining 206 (24%) were review articles.

The median final score for all articles was 13.5, ranging from 2.5 to 20. Differences in median scores for original research (13) and review (14.5) articles were significant ($p = 0.0003$) as assessed by Wilcoxon rank sum test. The differences in median scores between emergency care (14), development (13), and disaster response (13) articles were also significant ($p < 0.0001$). Inter-rater reliability for reviewer scoring, measured using Cohen's Kappa, was 0.344, considered "fair" reliability in the literature.[14,15]

Articles that received a score greater than 18.5 were selected for formal review. The 2017 global EM articles selected for full review are listed in Table 4.[15-35] Twenty-one articles were selected for inclusion, of which 16 (76%) were categorized as emergency care, 4 (19%) were categorized as development, and one (5%) was categorized as disaster response article. Thirteen (62%) articles were review articles and 8 (5%) were original research studies. This year, no manuscript from the gray literature search scored highly enough to be included in the final list of top articles presented in this paper.

The complete database of all 848 identified global EM articles for 2017, as well as full summaries and critical analyses of the top-scoring 21 global EM articles of 2017, can be found as Data Supplements S2 and S3 in the online version of this article.

Discussion

The number of articles identified by our search continued to increase, rising from 13,890 manuscripts in 2016 to 17,722 articles in 2017, as did the number of articles selected for formal scoring, increasing from 716 in 2016 to 848 in 2017. As in the previous years, the rise in the number of articles appears to genuinely represent an increase in the field as a whole, as it was not explained by the number of articles with a focus on Ebola (53 articles), Zika (10 articles), the conflict in Syria (14 articles) or international migration (6 articles), nor the number of new journals indexed in Medline

(only one new medical journal with a title that includes one of the keywords 'tropical', 'global' or 'international'). Furthermore, the search strategy remained unchanged from previous years.

Among the articles scoring highly enough to be selected for full review, the majority were again emergency care articles. Compared to last year, when only one review article was amongst the top-scoring articles, the distribution of original research and review articles was more balanced this year.

As in previous years, many top articles focused on infectious diseases. Alzahrani et al. conducted a systematic review on the use of ultrasound for the diagnosis of pneumonia.[16] They found ultrasound to have better test characteristics than radiographs. They included more studies than previous systematic reviews on this topic and included both adult and pediatric patient populations. Another study assessed risk factors for poor outcomes in patients with influenza and found that pregnant women, patients with HIV, children under 5 years old, and children with neurologic disorders who live in low- and middle income countries experience worse outcomes than those who live in high-income countries.[17] Nonetheless, the authors also reported that poor outcomes in patients with comorbidities were observed in both high- and low-resource settings. Field et al. published an updated guideline on cough due to tuberculosis.[18] They recommended that high-risk individuals and household contacts with cough should be screened for tuberculosis, but they were unable to make recommendations on a uniform testing strategy. In the sole top-article on Ebola virus disease included in this year's review, Henao-Restrepo et al. reported on the results of a randomized trial of the rVSV-vectored vaccine. It was efficacious in all vaccinated individuals in Guinea and Sierra Leone who had contact with an infected patient (or contact with a contact of an infected patient) during the 2013-2016 Ebola outbreak.[20] This article provides the first efficacy study of the rVSV Ebola vaccine in humans. A systematic review on chikungunya virus infection-related rheumatic and musculoskeletal disorders identified chloroquine, hydroxychloroquine, disease-modifying anti-rheumatic drugs, corticosteroids, and nonsteroidal anti-inflammatory drugs as therapeutic options, but also highlights the lack of high-quality data to guide treatment decisions.[23] Tickell et al. performed a systematic review of Shigella infection in children.[28] Dysenteric *Shigella* infections are often clinically obvious and are treated with antibiotics, but *Shigella* infections without symptoms of dysentery can be very difficult to detect. Considering the high mortality rates of *Shigella* infection, the authors suggested that antibiotic treatment of high-risk groups of children with diarrhea but without dysentery could help to reduce pediatric diarrheal mortality.

This year, two articles focused on malaria. The NOHARM study reported on the use of hydroxyurea in children with sickle cell anemia who live in malaria endemic areas.[24] Hydroxyurea, while recommended for children with sickle cell anemia living in malaria-free areas, is currently not used in malaria-endemic areas due to in vitro and animal studies suggesting that hydroxyurea increases malaria severity and causes neutropenia. However, in this study, the authors found a decrease in sickle cell anemia-related outcomes without evidence of increased malaria incidence or increased malaria severity. Nonetheless, the study had several important limitations that limit generalizability. Sypniewska et al. performed a systematic review of clinical and laboratory variables and their association with mortality in African children with severe malaria and concluded that the five indicators with the highest association with malaria mortality were renal failure, hypoglycemia, coma, shock, and respiratory distress, while those with the least association were prostration, brief loss of consciousness, and severe anemia.[27]

Pediatric morbidity and mortality continue to be of particular concern in low-and-middle income countries, and several top-scoring articles this year report on pediatric patient populations outside of the "classic" infectious diseases category. A randomized trial of lactated Ringer's versus normal saline in children with acute severe dehydration due to diarrheal diseases presenting to a tertiary care center in India found no differences in improvement of clinical signs of dehydration or pH.[21] The study was stopped early due to futility, and thus enrolled only 68 patients. Therefore, it provides only preliminary evidence of fluid equivalence in this patient population. Wells et al. reported the results of a systematic review on the accuracy of the Broselow tape across the global population of pediatric patients.[29] They found that almost half of the weight estimates were more than 10% off the mark. Neonatal resuscitation programs have been featured on the GEMLR in the past, and this year a study from Tanzania reported on the 3-year experiences with the "Helping Babies Breathe" program that aims at reducing the high asphyxia-related neonatal mortality rate in low- and middle-income countries.[32] Over three years, an NGO trained over 13,000 medical providers throughout Tanzania using a top-down, train-the-trainer model. Using objective structured clinical examinations conducted during unannounced facility visits, the investigators found a gradual decrease in pass-rates from a baseline of 87% immediately following the initial training to 55% at 4-6 months. Another study reported on the results of a systematic review of

pediatric trauma outcome benchmarking tools.[26] The authors identified the Pediatric Trauma Score and the Kampala Trauma Score as particularly useful,

Lalla et al. reported on the use of another triage tool, but this time in geriatric patients, an increasingly important patient cohort in low- and middle-income countries.[22] They found that the Triage Risk Screening Tool was more accurate in detecting elderly patients in need of a social services intervention at the time of discharge from the ED when compared to routine assessment.

A number of articles this year focused on trauma and hemorrhage, still a leading cause of death worldwide. Dijink et al. performed a systematic review on trauma systems around the world.[33] Using the WHO Trauma Score Maturity Index, the authors found that of the 9 low- and middle-income countries included, only 3 had the highest level prehospital system, and none had the highest-level hospital trauma system or trauma registry. The early assessment of vital signs and Glasgow Coma Scale can help clinicians to appropriately triage trauma victims, but they are often unavailable in resource-limited settings due to insufficient personnel. An innovative study from Malawi reported on the use of laypersons for the acquisition of vital signs and Glasgow Coma Scale on trauma patients presenting to a referral hospital.[34] This intervention led to significantly more critical information being obtained in a timely manner.

Two studies reported specifically on the use of tranexamic acid. Gayet et al. found in their meta-analysis of 40,183 individual bleeding patients that the timely administration of tranexamic acid was associated with improved survival, with a 10% reduction in survival benefit for every fifteen minutes' delay. In the international WOMAN study, researchers similarly found that early administration of tranexamic acid reduced deaths from post-partum hemorrhage when compared to placebo, without any apparent increase in adverse outcomes.[30]

Many clinical problems faced in low-resource settings mirror those frequently seen in high-income countries. Alsheri et al. performed a systematic review of the use of IV versus non-IV benzodiazepines for the cessation of seizures, and found the latter route to be equivalent, and at times even faster.[15] A Cochrane review found that the addition of promethazine to haloperidol for

the treatment of acute psychosis may be superior to haloperidol alone.[25] As EMS systems are maturing around the world, the role dispatchers play in recognizing time-critical conditions and providing pre-arrival instructions becomes increasingly important, and Meischke et al. found that simulation training was effective in improving dispatchers' performance.[35]

The only disaster response article scoring highly enough to be included in this year's review described a systematic review of the social science literature to assess the utilization and evolution of rapid qualitative research methods in global public health emergencies.[31] The recent Ebola epidemic highlighted how community engagement and social mobilization are key strategies in effectively tackling complex health emergencies. It also demonstrated how ineffective communication and limited collaboration between local populations and international agencies can hinder the response. Johnson et al. highlight how rapid research during complex health emergencies contributes to the identification of context-specific factors that need local solutions, by exploring factors around health service use and highlighting organizational implementation challenges.

Conclusions

In 2017, we saw a steep increase in the number of articles published in the field. As in previous

years, there was a focus on infectious diseases, pediatrics, trauma and triage. Several high-quality systematic review articles were included this year, and we hope that the articles presented will help inform evidence-based practices for practitioners around the world.

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Supporting Information

The following supporting information is available in the online version of this paper:

Data Supplement S1. Medline search string

Data Supplement S2. Complete database of all 848 identified global EM articles for 2017.

Data Supplement S3. Full summaries and critical analyses of the top-scoring 21 global EM articles of 2016.

Table 1: Search Terms

Emergency Medicine	Global
Emergency medicine	World health
Refugees	Developing countries
Emergency treatment	International
Relief work	Global
Rescue work	Tropical medicine
Acute disease	Third world
Humanitarian	Middle-income countries
Critical Illness	Low-income countries
War	Resource-limited settings
Pre-hospital	
Conflict	
Triage	
Disasters	
Multiple trauma	
Injuries	
Internally displaced persons	
Emergencies	
Emergency medical services	
Resuscitation	
Critical care	
Sepsis	
Shock	

Table 2: Gray Literature Sources

Academic centers/think tanks 1. Global Health Council 2. Center for Global Development 3. The United Nations University 4. RAND Corporation 5. The Woodrow Wilson Center 6. The Bill and Melinda Gates Foundation 7. Center for Global Health Research/University of Toronto 8. Emergency Trauma Care Project 9. Centre for Research on the Epidemiology of Disasters (CRED) NGOs, UN, and government agency websites 1. MEASURE Evaluation 2. MSF 3. Epicentre 4. International Rescue Committee 5. International Medical Corps 6. Oxfam International 7. Oxfam Great Britain 8. GIZ/GTZ 9. International Committee of the Red Cross 10. Centers for Disease Control and Prevention 11. World Health Organization 12. Humanitarian Practice Network 13. UN High Commission for Refugees 14. UN Development Program 15. Inter-Agency Standing Committee 16. UNICEF 17. JHPIEGO
GIZ/GTZ = Deutsche Gesellschaft für Internationale Zusammenarbeit; JHPIEGO = formerly Johns Hopkins Program for International Education in Gynecology and Obstetrics; MSF = Médecins Sans Frontières; NGO = non-governmental organization; UN = United Nations; UNICEF = United Nations Children's Fund.

	Original Research Article		Points	Review Article	Points
Clarity				Clearly stated purpose for review	2
				Sufficient background provided	1
				Understandable to non-professional	1
				Clear language, appropriate use of tables and figures	1
Design	Select one	Descriptive studies (including case studies and case series, natural observation studies and descriptive surveys)	1 -or-	Formal meta-analysis or systemic review (including studies with a control group)	2
		Correlation studies (case control studies, prospective observational studies, retrospective studies)	2 -or-	Study selection is clear and reproducible.	1
		Non-randomized or non-blinded experimental studies	3 -or-	Articles selected by at least two blinded authors.	1
		Randomized, blinded experimental studies	4	Data aggregated and/or analyzed appropriately	1
	Correct statistical tests are used to analyze the data.		1		
	No obvious bias in the selection of the subjects or authors attempt to limit bias.		1		
Ethics	The study was approved by a local or international IRB, a government ministry, or a community group and / or the study clearly adheres to the Declaration of Helsinki.		2		
	Either written or verbal consent was obtained in the subject's own language or consent was waived by IRB.		1		
	The authors declare that they have no significant conflicts of interest.		1		
Importance	Results are generalizable to a variety of settings.		2	Results are generalizable to a variety of settings.	2
	Topic is important.		2	Topic is important.	2
	Topic is clearly relevant to GEM.		1	Topic is clearly relevant to GEM.	1
Impact	Recommendations can be implemented in developing countries.		2	Recommendations are applicable across a wide range of different settings.	2

	The intervention studied is cost-effective.	1	The intervention studied is cost-effective.	1
	NGOs, UN agencies, and other actors would likely change their practice if they were aware of this study.	1	NGOs, UN agencies, and other actors would likely change their practice if they were aware of this study.	1
	Study results likely to stimulate further research.	1	Study results likely to stimulate further research.	1

Table 4: Global Emergency Medicine Literature Review 2017 Articles

Category	First Author	Title	Journal	Original Research (OR) / Review (RE)	Summary
Emergency Care in Resource-Limited Settings (ECRLS)	Alshehri A	Intravenous versus nonintravenous benzodiazepines for the cessation of seizures: a systematic review and meta-analysis of randomized controlled trials	Acad Emerg Med	RE	Termination of seizure activity by non-IV administration of benzodiazepines in patients without intravenous access may be equivalent, or even faster, in certain patient populations.
	Alzahrani S	Systematic review and meta-analysis for the use of ultrasound versus radiology in diagnosing of pneumonia	Crit Ultrasound J	RE	Point-of-care lung ultrasound is a readily available, low cost, radiation-free imaging modality that can serve as an accurate tool for the diagnosis of pneumonia.
	Coleman B	Risk factors for serious outcomes associated with influenza illness in high- versus low- and middle-income countries: Systematic literature review and meta-analysis	Influenza Other Respir Viruses	RE	Risk factors for hospital admission and severe outcomes associated with influenza are similar between high-income and low-and-middle-income countries (LMIC), with the exception that pregnant women, people with HIV, children under 5, and children with neurologic disorders experience worse outcomes in LMIC.
	Field S	Cough due to TB and other chronic infections: CHEST guideline and expert panel report	Chest	RE	An updated guideline on cough due to tuberculosis recommends diagnostic testing for high risk individuals and contacts with cough, though does not recommend one best method.
	Gayet-Ageron A	Effect of treatment delay on the effectiveness and safety of antifibrinolytics in acute severe	Lancet	RE	The study employed a meta-analysis of 40,138 individual bleeding patients to show the effects of time of administration of antifibrinolytics in acute severe

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		haemorrhage: a meta-analysis of individual patient-level data from 40138 bleeding patients			bleeding and chances of survival. The study concluded there was a relationship between the administration and time of administration of tranexamic acid and survival.
	Henao-Restrepo A	Efficacy and effectiveness of an rVSV-vectored vaccine in preventing Ebola virus disease: final results from the Guinea ring vaccination, open-label, cluster-randomised trial (Ebola Ça Suffit!)	Lancet	OR	This trial of the rVSV vaccine showed 100% efficacy in preventing Ebola virus transmission in Guinea and Sierra Leone during the 2013-2016 Ebola outbreak.
	Kartha G	Randomized double-blind trial of Ringer lactate versus normal saline in pediatric acute severe diarrheal dehydration	J Pediatr Gastroenterol Nutr	OR	In pediatric patients with acute severe dehydration due to diarrheal illness, this small study found no difference in using Ringer lactate vs normal saline in terms of disappearance of clinical signs of dehydration or improvement in pH.
	Lalla R	Assessing the validity of the Triage Risk Screening Tool in a third world setting	J Int Med Res	OR	The Triage Risk Screening Tool (TRST) was compared to routine assessment to determine which was more accurate in detecting elderly patients in need of a social services intervention. The TRST had a higher sensitivity and should be considered as a screening tool for this purpose.
	Martí-Carvajal A	Interventions for treating patients with chikungunya virus infection-related rheumatic and musculoskeletal disorders: A systematic review	PLoS One	RE	This is a systematic review of intervention options for chikungunya infection-related acute and chronic rheumatic and musculoskeletal disorders.

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	Opoka R	Novel use Of Hydroxyurea in an African Region with Malaria (NOHARM): a trial for children with sickle cell anemia	Blood	OR	Hydroxyurea appears to improve clinical and laboratory outcomes in children with sickle cell anemia living in a malaria-endemic area, without increasing the incidence or severity of malaria.
	Ostinelli E	Haloperidol for psychosis-induced aggression or agitation (rapid tranquillisation)	Cochrane Database Syst Rev	RE	An updated systematic review suggests the addition of promethazine to haloperidol for the treatment of acute psychosis is superior to haloperidol alone.
	St-Louis E	Systematic review and need assessment of pediatric trauma outcome benchmarking tools for low-resource settings	Pediatr Surg Int	RE	Most injury scores used in pediatric trauma patients are designed for use in high-income contexts. Using point-of-care data from LMICs to develop similar tools will improve pediatric trauma outcomes in these settings.
	Sypniewska P	Clinical and laboratory predictors of death in African children with features of severe malaria: a systematic review and meta-analysis	BMC Med	RE	The article is a systematic review of clinical and laboratory variables and their association with mortality in African children with severe malaria.
	Tickell K	Identification and management of Shigella infection in children with diarrhoea: a systematic review and meta-analysis	Lancet	RE	A review of the importance, diagnostic approach, and impact of treatment on dysenteric and non-dysenteric Shigella infections in children with diarrhea in low-resource settings.
	Wells M	The accuracy of the Broselow tape as a weight estimation tool and a drug-dosing guide – A systematic review and meta-analysis	Resuscitation	RE	Does the Broselow tape accurately estimate weight and drug dosing across the global population of pediatric patients? According to this systematic review and meta-analysis, only 50% of the time.
	WOMAN Trial	Effect of early tranexamic acid	Lancet	OR	Early administration of tranexamic acid reduces deaths

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	Collaborators	administration on mortality, hysterectomy, and other morbidities in women with post-partum haemorrhage (WOMAN): an international, randomised, double-blind, placebo-controlled trial			from post-partum hemorrhage compared to placebo.
Disaster and Humanitarian Response (DHR)	Johnson G	Rapid qualitative research methods during complex health emergencies: A systematic review of the literature	Soc Sci Med	RE	The article describes a systematic review of the social science literature to assess the utilization and evolution of rapid qualitative research methods in global public health emergencies.
Emergency Medicine Development (EMD)	Arlington L	Implementation of "Helping Babies Breathe": A 3-year experience in Tanzania	Pediatrics	OR	A countrywide neonatal resuscitation education program reached an impressive number of providers, but struggled to maintain knowledge retention and establish improved mortality.
	Dijkink S	Trauma systems around the world: A systematic overview	J Trauma Acute Care Surg	RE	Trauma system implementation results in better patient outcomes; however, there are marked differences in the development of national trauma systems globally.
	Haac B	Task shifting: The use of laypersons for acquisition of vital signs data for clinical decision making in the emergency room following traumatic injury	World J Surg	OR	Training lay people to obtain vital signs of trauma patients may be a sustainable way to decrease clinician workload and increase availability of vital signs needed for initial trauma evaluation.
	Meischke H	Simulation training to improve 9-1-1 dispatcher identification of cardiac	Resuscitation	OR	Simulation training for emergency medical dispatchers can improve recognition of out-of-hospital cardiac arrest and time to initiation of telephone-assisted bystander

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		arrest: A randomized controlled trial			CPR.