

with a catchment area of 500,000 people, one Advanced and 4 Basic Life Support teams. We used a qualitative approach and interviewed providers. Inclusion criteria were: healthcare professionals working with SAMU or the regional trauma hospital Metropolitan for at least 6 months. Interviews focused on primary causes and measures to reduce delays in care of RTI patients.

Results We interviewed 11 providers: 2 physicians and 2 nurses from Metropolitan and 7 SAMU employees (1 nurse, 3 physicians, 3 drivers). Primary causes of delays fell into the following categories: 1) lack of public education, 2) traffic, 3) insufficient personnel/ambulances, 4) bureaucracy, and 5) poor location of stations. Traffic was the most common response, with a total of 7 responses, including nearly all SAMU providers. Suggested measures to reduce delays were: 1) improving public education, 2) increasing personnel, 3) increasing ambulances, 4) proper extrication/need for rapid treatment, and 5) need for a centralised station to avoid traffic. The most common response was the need for public education, primarily teaching drivers about ambulance right-of-way.

Conclusions Most providers, particularly SAMU providers, believe traffic is the primary cause of delay in presentation of RTI patients to a tertiary care centre. Rapid economic growth and increased road traffic are primary factors leading to the overall increased rates of RTIs in LMICs. The same traffic causing RTIs may also be a significant cause of delay in the treatment these patients. Offered solutions to reduce delays focused mostly on public education and the need for increased resources. A public education campaign for driver education in response to RTIs could be an initial step towards reducing delays in the care of RTI patients.

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THE AGREEMENT OF TRIAGE RESULT BY REGISTERED NURSE AT DISPATCH CENTRE, ON SCENE AND EMERGENCY ROOM

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Background The 8th regional health area of Thailand, have 7 province and 88 hospitals. Three phase triage, first at dispatch centre second on scene and third in emergency room (ER) were done by difference registered nurses (RN). One patient will be 3 times triage by 3 difference RN.

Methods This Quasi-experimental study focus on agreement of triage result by RN from 88 hospitals, compared between before and after triage training. RN was practically trained, triage competency development for modified Emergency Severity Index (ESI), on June 2014. The data was collected on May and July 2014. Analysed by kappa statistics and 95% CI: of kappa. The percent agreement before and after training triage was compared by Chi-square test.

Results 3,325 patients were triaged, almost triage level were yellow and red. There were 24 Clinical-based categories of Emergency service. Top three of the Categories were Motor Vehicle Accident (22.20%) Sick (17.75%) Unconscious (8.30%). Before training, the agreement between dispatch and scene was almost perfect with kappa 0.82 (95% CI: = 0.78–0.87) the agreement between scene and ER was moderate with kappa 0.47 (95% CI: = 0.42–0.52). After training, the agreement between dispatch and scene was almost perfect with kappa 0.85 (95% CI: = 0.80–

0.89) the agreement between scene and ER was moderate with kappa 0.57 (95% CI: = 0.52–0.61). The percent agreement of dispatch and scene triage between before and after training were not different. But the percent agreement of scene and ER triage were significantly improved (P-value = 0.001), with 0.05 level of significance.

Conclusions The agreement of scene and ER triage was moderate, since patients were received first aid and treatment in transit that did change for level of triage when they came to ER. But after training, this agreement was better than before. This study confirm that we can improve triage agreement for RN by triage training and we should improve the other first aid and treatment competency for RN.

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INJURED PATIENTS' INTERACTIONS WITH HEALTH PROVIDERS: IMPLICATIONS FOR ENHANCING TRAUMA CARE

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Background The path to recovery following major trauma can involve a long trajectory of complex health care needs and multiple interactions with health professions. We explored the perspectives of seriously injured patients regarding issues that arise during their interactions with health providers.

Methods This qualitative study, nested within a population-based longitudinal cohort study, involved semi-structured telephone interviews conducted three years following injury with 64 adult major trauma patients purposively sampled from the Victorian State Trauma Registry. We report one aspect here. Thematic analysis was undertaken of interview transcripts.

Results The importance of effective communication was a theme that had implications in the in-hospital, rehabilitation and community care settings. Effective communication occurred when service providers conveyed detailed information in a sensitive and clear manner, frequently and actively involved patients in discussion, and were responsive to patients' questions. Such interactions encouraged information exchange and shared decision-making. Ineffective communication arose predominately during in-hospital care and at discharge from inpatient facilities. Themes related to hospital care included limited contact with health professionals, inability to process information, indirect communication, and struggling to deal with multiple health professionals. At hospital and rehabilitation discharge, themes included insufficient patient engagement, inadequate information flow and feeling disregarded. Ineffective communication resulted in discontinuity of care and preventable health problems.

Conclusions The communication and information needs of seriously injured patients were inconsistently met over the course of their recovery. The findings reveal the need for trauma care systems to support relevant training of service providers, engage patients in planning decisions, and provide information in appropriate forms.

593 QUALITY OF LIFE FOLLOWING A ROAD TRAFFIC INJURY: A SYSTEMATIC LITERATURE REVIEW

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Background Every year, 1.3 million people are killed and up to 50 million are injured in road traffic accidents worldwide. The burden of road traffic injury has shifted from the premature death to a reduced quality of life (QoL) for those injured, therefore it is important to understand the effect of road traffic injury (RTI) on QoL. We aimed to assess and conclude the current knowledge about the relationship between RTI and QoL.

Methods A systematic review of the literature on QoL after an RTI, in both adults and paediatric populations, from 3 databases (Pubmed, PsychInfo and SafetyLit) over the last fourteen years was undertaken. The methodological quality of the studies was assessed according to the Newcastle-Ottawa Quality Assessment Scale.

Results Nineteen articles were included and assessed for quality. In general, the QoL scores of those injured were similar to population norms at the first assessment, followed by a drop from the first assessment to the second assessment. The majority of the participants reported an increase of QoL from the second assessment to the third assessment but they never reached the population norms at the last follow-up (range 6 weeks to 2 years). Age, gender, socioeconomic status, injury severity, injury type, and PTSD were associated with poorer QoL.

Conclusions The available literature regarding the QoL of persons injured in road traffic accidents is heterogeneous in regards to aims and tools used for assessment. Our review confirmed that independent of how QoL was measured, the overall QoL is significantly reduced after an RTI compared to the general population norms. Persons who are older, of female gender, lower socioeconomic status, diagnosed with PTSD, with more severe injuries or injuries to the lower limbs are more vulnerable to loss of QoL following an RTI compared to other patient groups injured in road traffic accidents.

594 DEVELOPMENT AND PILOT-TESTING OF RAPID ASSESSMENT TOOL FOR PRE-HOSPITAL CARE IN KAMPALA, UGANDA

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Background Injury burden is disproportionately high in low- and middle-income countries (LMICs) but the healthcare systems are least prepared to meet the challenge. Significant gaps exist in emergency care, with most preventable deaths occurring in the pre-hospital phase due to lack of emergency medical services (EMS). There are no tools to define gaps and prioritise interventions in pre-hospital care. Realising this gap, our study was conducted to: i) develop a rapid assessment tool to define the structures, resources and processes comprising EMS; ii) pilot test the tool in Kampala, Uganda; and iii) identify gaps and provide recommendations for the improvement of EMS in Uganda.

Methods The study comprised of three phases: in Phase I rapid assessment tool was developed using the health systems

framework with six building blocks; in Phase II a 360° evaluation was performed by conducting relevant document review, objective assessment of ambulance services representing various levels of pre-hospital care and qualitative assessment through key informant interviews (KIIs) and focus group discussions (FGDs). Phase III, data analysis is underway.

Results The data was collected using the structured tool. Three study personnel reviewed 15 documents for the study. Three data collectors simultaneously performed 20 purposefully sampled KIIs and objective assessment. In addition, 4 FGDs will be completed by November 2015. The pilot study of the rapid assessment tool demonstrated the reliability, accuracy and completeness of the tool; further analysis after FGDs will allow us to describe the current state of EMS in Kampala. Based on the findings, context-specific interventions will be recommended.

Conclusions There is an immediate need to understand the contextual barriers of providing systematic emergency care in LMICs. The study has successfully developed an EMS assessment tool, which will also help establish strategies for improvement of pre-hospital care in similar settings.

595 HELMET USE AND SEVERITY OF INJURY IN MOTORCYCLIST PATIENTS IN KHON KAEN HOSPITAL, THAILAND

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Background Motorcycle is the most common vehicle use in Thailand because of topography, traffic jam problem and income of the owner. The percentage of motorcyclists lower than 20 years and over 60 years are increase every year. Among traffic accidents, increasing numbers of motorcycle accidents have been observed and it is the common cause of death in Thai population. This study aimed to identify severity of injury and helmet use in motorcycle patients in Khon Kaen hospital among teenage, adult and elderly groups.

Methods This was the retrospective cohort study. The data was extracted from the Electronic Injury Surveillance System that identified the patients who visited emergency department Khon Kaen hospital to treat injuries resulting from motorcycle accident in 1st January 2013–31st December 2104. Helmet use and severity of injuries sustained among those age lower than 20 years, 20–59 years, 60 years and older were compared.

Results 3,265 patients were lower than 20 years, 8,510 patients were 20–59 years and 737 patients were 60 years and older. All were treated at emergency department. The helmet used in lower than 20 years group and 60 years and older group were lower than 20–59 years group (RR 0.73; 95% CI: 0.68–0.79) and (RR 0.76; 95% CI: 0.66–0.88). Glasgow coma scale ≤ 7 in lower than 20 years group and 60 years and older group were higher than 20–59 years group (RR 1.64; 95% CI: 1.33–2.08) and (RR 4.16; 95% CI: 3.44–5.00). Admission rate in 60 years and older group was higher when compared to 20–59 years group (RR 1.38; 95% CI: 1.29–1.47 p-value <0.00001) and also in hospital mortality in oldest group was about 1.7 fold when compared to 20–59 years group (RR 1.7; 95% CI: 1.15–2.51 p value = 0.00074).

Conclusions The helmet used in younger and older patients were low and because of the older with motorcycle accident were prone to more severe injuries than younger adults. In future, the injury and prevention program should focus on this aged group.