

596 THE ASSOCIATION BETWEEN DURATION TO OPERATION AND MORTALITY RATE IN PENETRATING TRAUMA PATIENTS

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Background The duration from emergency department (ED) to operative room (OR) is an important factor to predict the outcome in severe trauma patients. Trauma Fast Track (TFT) policy was established in Khon Kaen Hospital for 5 years. According to this policy, shorter duration from ED to OR (ED time) might be more safe life of the patients.

Methods Cross-sectional analytic study, the patients with penetrating torso and haemodynamic instability who admitted to Khon Kaen Hospital from October 2011 to September 2014 were included. The Fisher exact test were used for data analysis.

Results A total of 82 patients were included. Of these, penetrating injury to abdomen and chest were 78% and 22%, respectively. The mortality rate was 25.6%. The mean ED time were 43 minutes and Injury Severity Score (ISS) were 18.8. The ED time more than 30 minute [odds ratio (OR), 4.1; 95% confidence interval (CI): 1.2–13.6; $P = 0.021$], and ISS more than 15 [OR, 9.5; 95%, CI: 1.1–78.7; $P = 0.021$] were associated with increase mortality rate.

Conclusions The mortality rate of penetrating injury at torso with haemodynamic instability is significantly associated with duration from ED to OR and ISS. According to this result, unnecessary procedure or intervention at ER should be avoided.

597 A DESIGN FOR THE EVALUATION OF THE EMERGENCY MEDICAL RETRIEVAL AND TRANSFER SERVICE (EMRTS) CYMRU

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Background Since April 2015 EMRTS provides pre hospital, consultant-led, critical care for people in Wales with life or limb threatening injuries or illness. Consultants and critical care practitioners on air ambulances and 4 × 4 emergency response vehicles now deliver emergency department equivalent; time critical; life-saving treatment on scene and during transfer to hospital. This service covers 95% of the population by air and 46% by road within 30 minutes and aims to improve patient survival and outcomes.

Methods Multi-sourced linked datasets are being used in evaluation, including mortality, hospital admission, ED, on scene clinical electronic reporting forms that include incident details, vital signs, and treatments/procedures. Patients will be interviewed six months and one-year post incident for longer-term functional and quality of life outcomes. Data will be anonymized and made available for research and evaluation through the Secure Anonymised Information Linkage (SAIL) facility. WAST (Welsh Ambulance Service Trust) will also provide data to incident to scene and care times. Cases from both pre-EMRTS historical data and EMRTS-offline (restricted flying night/bad weather) will be used as comparators in the evaluation.

Results Data are being assembled for evaluation. The pattern of missions has changed following EMRTS; injury related attendances decreased from 56% to 51% and cardiac/respiratory

deployments increased from 9% to 20%. Median response to arrival at scene times are unchanged (15 mins) but arrival at scene to hospital increased from 45 to 64 minutes. Further results on outcomes will be presented.

Conclusions Evaluation is just beginning and will include comparison of survival, resource use and health related quality of life with local and international data.

598 PSYCHOLOGICAL TRAUMA AFTER ROAD TRAFFIC ACCIDENTS: COIMBRA NETWORKING STRATEGIES FOR EARLY DETECTION

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Background Worldwide, about 1.25 million people die each year as a result of road traffic accidents (World Health Organisation's Global Status Report on Road Safety 2015) and as many as 50 million people are injured. In Portugal, last year we have registered about 480 deaths, 2,098 severely injured. Trauma, after road traffic accidents are a major problem of public health, associated with a substantial impact on psychological, social, economic and labour dimensions, both for the victims and for their families.

Description of the problem Road traffic accidents are frequently associated with an increased risk for psychological problems, particularly acute reaction to stress, phobic anxiety, depression, or even a posttraumatic stress disorder. The consequences involve increased medical costs and longer hospitalizations, decreased productivity, help-seeking behaviour. Most of these patients with somatization complains, conversive symptoms, depression, chronic pain, presents a posttraumatic stress disorder (PTSD) not diagnosed.

Results In order to implement appropriate strategies for prevention and treatment and so reducing the risk and impact inherent in the development of psychological disorders, it is essential that the diagnosis is made as soon as possible. The survivors of road traffic accident at risk will be referred to the Centre for Prevention and Treatment of Psychological Trauma before being discharged from the General Hospital: Emergency Room, Surgery, Orthotraumatology or Neurosurgery Wards.

They will be subjected to a brief screening for symptoms of PTSD, dissociative symptoms, anxiety, nightmares and phobias, briefly after the accident and 4 weeks later. This is a challenge that requires a networking efforts for effective prevention.

Conclusions Early identification of people with posttraumatic stress symptoms after a road traffic accident is critical to allow for intervention and prevent greater impairment and restriction.

599 CLINICIANS' PERCEPTIONS REGARDING THEIR ROLES AND FUNCTIONING WITHIN A NEW ZEALAND REGIONAL TRAUMA SYSTEM

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Background The effectiveness of trauma systems in reducing injury mortality is well established. This study aimed to explore

clinicians' perceptions of the quality of clinical trauma care delivered in New Zealand's only regional trauma system.

Methods An anonymous online survey of clinicians providing trauma care in five hospitals in the Midland region of New Zealand was conducted in 2014. The region has a population of around 799,000 people and a predominantly rural environment. The survey sought information on clinicians' perceptions regarding: their level of comfort in managing trauma; awareness of regional and local trauma care guidelines; quality of trauma care at their hospital and the region; presence/absence of inequities in care; and the potential benefits of Computerised Decision Support Systems (CDSS).

Results 23% (74/319) of clinicians invited took part, the majority of whom were medical specialists, had >5 years of experience treating trauma patients, and attended to trauma patients less than twice weekly. Linear regression analyses indicated that having >5 years of experience treating trauma patients ($p = 0.04$) and holding a senior position ($p = 0.04$) were significant predictors in clinicians' comfort level in managing major trauma patients. Two-thirds of clinicians felt there were gaps in trauma care delivery in both their hospital and the Midland region with senior clinicians more likely to give a lower rating to the quality of the regional system. 35% of clinicians 'often/very often' experience difficulty in engaging with relevant specialities for trauma patients. Over 75% of respondents answered 'rarely'/'never' when asked how often their healthcare organisation treats people unfairly based on a range of factors (e.g. ethnicity, socioeconomic status). While their direct experience with CDSS was minimal, over half the clinicians considered CDSS to be a useful tool to guide the diagnosis and management of trauma patients.

Conclusion The study has highlighted some perceived gaps in trauma care in the region, and a lack of confidence among junior clinical staff in managing trauma patients. An opportunity exists to investigate the integration of CDSS into clinical trauma care to help guide the delivery of evidence-based care.

Safety Culture

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IMPROVING SAFETY CULTURE IN A MULTIPROFESSIONAL NETWORK – FROM POLICY TO PRACTICE

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Background The Finnish safety culture in working life and in traffic has improved as well as the safety of children. A good safety culture needs to be extended to all environments and prevention belongs for everyone. The multi-sectoral coordination group in Finland has drawn up a National Target and Action Programme for the Prevention of Home and Leisure Accident Injuries 2014–2020.

Description of the problem Young and middle-aged men are over-represented in the statistics on home and leisure accident injuries. The growing number of elderly people and independent living pose challenges the safety culture. The high levels of alcohol consumption and binge drinking increase the accident risk.

Results Municipalities, National Institute for Health and Welfare, Finnish National Rescue Association, social and health care service providers and housing companies have increased safety assessments as a part of the structures, planning, management systems, decision-making and activities of organisations like schools, day-care centres and hospitals. Ministry of Social Affairs and Health (MSAH), Finnish Institute of Occupational Health and Centre for Occupational Safety have included the home and leisure accident prevention as a permanent part of safety work at workplaces. MSAH, Ministry of the Interior, Ministry of Transport and Communications and non-governmental organisations continue the efforts to intensify cooperation across the accident prevention sector. Finnish Defense Forces, Finnish Road Safety Council, sports clubs and leisure time organisations are engaged in the work to prevent accidents in various environments and activities into account in the preventive efforts.

Conclusion Number of injury deaths in Finland show decreasing trends. The prevention activity has to be permanent and long lasting and targeted well for all age group and different environments. Non-governmental organisations are important in implementing actions in the practice.

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FINNISH TRANSPORT AGENCY'S OCCUPATIONAL SAFETY CULTURE – MAPPING THE DEVELOPMENT PHASE IN 2016

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Background The mapping of the Finnish Transport Agency's (FTA) occupational safety culture, or more briefly 'OS culture', will be conducted as a thesis project starting in January 2016. The project is carried out in cooperation with FTA, Laurea University of Applied Sciences and Finnish Institute of Occupational Health. The research's aim is to develop FTA's OS culture by defining its development phase.

Methods The mapping will be focused on FTA's employees whose job description includes working at the worksites. The mapping will be executed through qualitative research method with interviewing the target group by using the standardised, open-ended interviews as well as surveys for cross-checking. The discussed factors in the research include the control of occupational safety (norms, instructions and procedures) and the safety management (managing human factors, creating a culture by leadership). The interview compilations will be brought to the target group for evaluation in a workshop to gain constructive and comprehensive data.

Results The mapping's results will define the target group's OS culture's development phase and its level; positive, negative and neutral factors and how to develop the OS culture. These issues will be discussed from two points of views; the development phase in FTA's and in its employees' operations. Based on the results the thesis will give concrete suggestions on how to proceed to develop the OS culture. The mapping will be compared with earlier similar researches' methods and results to gain value and versatile insight for the mapping and to create the possibility for other fields of expertise to utilise the data.

Conclusions The thesis project will be finished and the mapping's results released in August 2016. Through the cooperation amongst the parties the results are to gain information on OS culture for advance and support the development of new procedures not just in FTA but also for other fields of industries.