

cases. These findings do not address the potential impact of using the CCR to evaluate all sport-related injuries in collegiate or pro athletes evaluated by sport medicine therapists and physicians, as these patients are rarely assessed by paramedics or transported to a hospital. It does support the safety and benefit of using the CCR in sport-injured patients for which paramedics are called.

Keywords: cervical spine, pre-hospital, sports

LO72

Assessing non-technical skills in prehospital ad hoc team resuscitation

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Introduction: Successful resuscitation in the ED cannot occur without a viable patient, and in many cases patient viability is dependent upon optimal prehospital resuscitation performed by ad hoc teams formed in real time. Currently, little is known about the cognitive and interpersonal skills, or non-technical skills, that are essential for effective team collaboration under these conditions. We have completed a scoping review to provide a state of the literature and develop a taxonomy of the non-technical skills pertinent to ad hoc teams in prehospital settings. **Methods:** Our scoping review searched four databases (EMBASE, Medline, Cinahl, and Psycinfo) for articles related to resuscitation in acute care settings. No date criteria were applied, but only full text articles written in English were included. Articles underwent two-reviewer title & abstract screening, full text screening, and analysis. A quality review asked three questions: Are keywords defined? Is the article well-situated within the existing literature? Does the article contribute back to the existing body of knowledge? Although statistical analyses are not appropriate for this scoping review, analysis included a descriptive-analytical framework for organizing data. **Results:** Of 6932 screened articles, 38 were included in analysis, five articles examined prehospital teams, and one addressed the ad hoc nature of these teams. Only one of these articles met our three quality criteria. Nevertheless, our analysis suggests a rudimentary taxonomy whereby the primary objective of a team leader is to overcome this barrier by facilitating the development of optimal team situational awareness, fostered through timely and accurate briefings with closed-loop communication. **Conclusion:** This scoping review has identified that non-technical skills pertaining to resuscitation in acute care settings are becoming a widely examined phenomenon; however, few studies contribute in any meaningful way to our understanding of how non-technical skills training can be tailored to those performing as members of ad hoc prehospital resuscitation teams. As the need for interprofessional training is becoming more pressing, we anticipate this review will provide essential guidance for future inquiry as well as design for both educational models and organizational systems-based interventions.

Keywords: non-technical skills, prehospital, resuscitation

LO73

The state of the evidence for emergency medical services care of adult patients with sepsis: an analysis of appraised research from the Prehospital Evidence-Based Practice (PEP) program

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Introduction: The Prehospital Evidence-Based Practice (PEP) program is an online, freely accessible, continuously updated Emergency

Medical Services (EMS) evidence repository. This summary describes the research evidence for the identification and management of adult patients suffering from sepsis syndrome or septic shock. **Methods:** PubMed was searched in a systematic manner. One author reviewed titles and abstracts for relevance and two authors appraised each study selected for inclusion. Primary outcomes were extracted. Studies were scored by trained appraisers on a three-point Level of Evidence (LOE) scale (based on study design and quality) and a three-point Direction of Evidence (DOE) scale (supportive, neutral, or opposing findings based on the studies' primary outcome for each intervention). LOE and DOE of each intervention were plotted on an evidence matrix (DOE x LOE). **Results:** Eighty-eight studies were included for 15 interventions listed in PEP. The interventions with the most evidence were related to identification tools (ID) (n = 26, 30%) and early goal directed therapy (EGDT) (n = 21, 24%). ID tools included Systematic Inflammatory Response Syndrome (SIRS), quick Sequential Organ Failure Assessment (qSOFA) and other unique measures. The most common primary outcomes were related to diagnosis (n = 30, 34%), mortality (n = 40, 45%) and treatment goals (e.g. time to antibiotic) (n = 14, 16%). The evidence rank for the supported interventions were: supportive-high quality (n = 1, 7%) for crystalloid infusion, supportive-moderate quality (n = 7, 47%) for identification tools, prenotification, point of care lactate, titrated oxygen, temperature monitoring, and supportive-low quality (n = 1, 7%) for vasopressors. The benefit of prehospital antibiotics and EGDT remain inconclusive with a neutral DOE. There is moderate level evidence opposing use of high flow oxygen. **Conclusion:** EMS sepsis interventions are informed primarily by moderate quality supportive evidence. Several standard treatments are well supported by moderate to high quality evidence, as are identification tools. However, some standard in-hospital therapies are not supported by evidence in the prehospital setting, such as antibiotics, and EGDT. Based on primary outcomes, no identification tool appears superior. This evidence analysis can guide selection of appropriate prehospital therapies.

Keywords: emergency medical services, prehospital medicine, sepsis

LO74

Exploring emergency physicians' ability to predict patient admission and decrease consultation to admission time

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Introduction: Delay of hospital admission until completion of assessment by consultants is a major contributor to emergency department (ED) crowding. We measured emergency physicians' (EP) ability to predict patient admission, and estimated potential time saved if EPs could request a bed at the time of consultation. **Methods:** This is a prospective cohort study in a tertiary care center over 4 months using a convenience sample of ED patients requiring consultation. We consecutively recruited patients from purposefully selected shifts to balance day of the week and time of day. We excluded patients younger than 18 years or those likely to be admitted (traumas, strokes, STEMI codes, and CTAS1). We asked EPs to predict patient disposition (admission or alternate disposition) just before consultation. We defined admission as: admission to any service, admission within 48 hours of ED discharge, patients held overnight without bed request, or if bed request was delayed by 12 or more hours, and alternate disposition as any other disposition. We present EP prediction test