Journal report – srpen 2024

OBSAH

PREHOSPITAL CARE

– clinical trials & RCT & multicenter study

1: Snooks HA, Jones JK, Bell FB, Benger JR, Black SL, Dixon S, Edwards A, Emery H, Evans BA, Fuller GW, Goodacre S, Hoskins R, Hughes J, John A, Johnston S, Jones MB, Moore CR, Parab R, Pilbery R, Sampson FC, Watkins A. **Take-home naloxone administered in emergency settings: feasibility of intervention implementation in a cluster randomized trial**. BMC Emerg Med. 2024 Aug 29;24(1):155. doi: 10.1186/s12873-024-01061-3. PMID: 39198758; PMCID: PMC11360782.

2: Magnusson C, Herlitz J, Axelsson C, Höglind R, Lökholm E, Hörnfeldt TH, Olander A, Björås J, Hagiwara MA, Wennberg P. **Added predictive value of prehospital measurement of point-of-care lactate in an adult general EMS population in Sweden: a multi-centre observational study.** Scand J Trauma Resusc Emerg Med. 2024 Aug 20;32(1):72. doi: 10.1186/s13049-024-01245-7. PMID: 39164765; PMCID: PMC11337621.

3: Martin-Rodriguez F, Sanz-Garcia A, Lopez-Izquierdo R, Delgado Benito JF, Martínez Fernández FT, Otero de la Torre S, Del Pozo Vegas C. **Prehospital Lactate Levels Obtained in the Ambulance and Prediction of 2-Day In-Hospital Mortality in Patients With Traumatic Brain Injury.** Neurology. 2024 Aug 27;103(4):e209692. doi: 10.1212/WNL.0000000000209692. Epub 2024 Aug 1. PMID: 39088773.

4: Rech JS, Cohen A, Bartolucci P, Santin A, Chantalat Auger C, Affo L, Le Jeune S, Arlet JB, Boëlle PY, Steichen O. **Shift in emergency department utilization by frequent attendees with sickle cell disease during the COVID-19 pandemic: A multicentre cohort study.** Br J Haematol. 2024 Aug;205(2):463-472. doi: 10.1111/bjh.19556. Epub 2024 Jul 3. PMID: 38960400.

5: Haji K, Vogrin S, D'Elia N, Noaman S, Bloom JE, Lefkovits J, Reid C, Brennan A, Dinh DT, Nicholls S, Nehme E, Nehme Z, Smith K, Stub D, Ball J, Zaman S, Oqueli E, Kaye D, Cox N, Chan W. **Effect of COVID-19 Pandemic Lockdown on Emergency Medical Service Utilisation, and Percutaneous Coronary Intervention Volume-An Australian Perspective.** Heart Lung Circ. 2024 Aug;33(8):1151-1162. doi: 10.1016/j.hlc.2024.02.018. Epub 2024 Jul 2. PMID: 38955597.

6: Pilleron B, Douillet D, Furon Y, Haubertin C, Parot-Schinkel E, Vielle B, Roy PM, Poiroux L. **Nurses' moral judgements during emergency department triage – A prospective mixed multicenter study.** Int Emerg Nurs. 2024 Aug;75:101479. doi: 10.1016/j.ienj.2024.101479. Epub 2024 Jun 26. PMID: 38936277.

PREHOSPITAL CARE

– systematic review & meta-analysis

1: Legere B, Mohamed A, Elsherif S, Saqqur R, Schoenfeld D, Slebonick AM, McCartin M, Price J, Zachrison KS, Edlow JA, Saqqur M, Shuaib A, Thomas SH. **Success With Incrementally Faster Times to Endovascular Therapy (SWIFT-EVT): A systematic review and meta-analysis.** J Stroke

Cerebrovasc Dis. 2024 Aug 23:107964. doi: 10.1016/j.jstrokecerebrovasdis.2024.107964. Epub ahead of print. PMID: 39182706.

2: Wiles MD, Iliff HA, Brooks K, Da Silva EJ, Donnellon M, Gardner A, Harris M, Leech C, Mathieu S, Moor P, Prisco L, Rivett K, Tait F, El-Boghdadly K. **Airway management in patients with suspected or confirmed cervical spine injury: Guidelines from the Difficult Airway Society (DAS), Association of Anaesthetists (AoA), British Society of Orthopaedic Anaesthetists (BSOA), Intensive Care Society (ICS), Neuro Anaesthesia and Critical Care Society (NACCS), Faculty of Prehospital Care and Royal College of Emergency Medicine (RCEM).** Anaesthesia. 2024 Aug;79(8):856-868. doi: 10.1111/anae.16290. Epub 2024 May 3. PMID: 38699880.

3: Appelbaum RD, Puzio TJ, Bauman Z, Asfaw S, Spencer A, Dumas RP, Kaur K, Cunningham KW, Butler D, Sawhney JS, Gadomski S, Horwood CR, Stuever M, Sapp A, Gandhi R, Freeman J. **Handoffs and transitions of care: A systematic review, meta-analysis, and practice management guideline from the Eastern Association for the Surgery of Trauma.** J Trauma Acute Care Surg. 2024 Aug 1;97(2):305-314. doi: 10.1097/TA.0000000000004285. Epub 2024 Feb 26. PMID: 38407300.

Journal report – srpen 2024

PREHOSPITAL CARE

– clinical trials & RCT & multicenter study –

1. BMC Emerg Med. 2024 Aug 29;24(1):155. doi: 10.1186/s12873-024-01061-3.

Take-home naloxone administered in emergency settings: feasibility of intervention implementation in a cluster randomized trial.

Snooks HA(1), Jones JK(2), Bell FB(3), Benger JR(4), Black SL(5), Dixon S(6), Edwards A(7), Emery H(2), Evans BA(2), Fuller GW(6), Goodacre S(6), Hoskins R(4), Hughes J(6), John A(2), Johnston S(5), Jones MB(2), Moore CR(8), Parab R(2)(9), Pilbery R(3), Sampson FC(5), Watkins A(2).

BACKGROUND: Opioids kill more people than any other class of drug. Naloxone is an opioid antagonist which can be distributed in kits for peer administration. We assessed the feasibility of implementing a Take-home Naloxone (THN) intervention in emergency settings, as part of designing a definitive randomised controlled trial (RCT).

METHODS: We undertook a clustered RCT on sites pairing UK Emergency Departments (ED) and ambulance services. At intervention sites, we recruited emergency healthcare practitioners to supply THN to patients presenting with opioid overdose or related condition, with recruitment across 2019-2021. We assessed feasibility of intervention implementation against four predetermined progression criteria covering site sign up and staff training; identification of eligible patients; issue of THN kits and Serious Adverse Events.

RESULTS: At two intervention sites, randomly selected from 4, 299/687 (43.5%) clinical staff were trained (ED1 = 107, AS1 = 121, ED2 = 25, AS2 = 46). Sixty THN kits were supplied to eligible patients (21.7%) (n: ED1 = 36, AS1 = 4, ED2 = 16, AS2 = 4). Across sites, kits were not issued to eligible patients on a further 164 occasions, with reasons reported including: staff forgot (n = 136), staff too busy (n = 15), and suspected intentional overdose (n = 3), no kit available (n = 2), already given by drugs nurse (n = 4), other (n = 4). Staff recorded 626 other patients as ineligible but considered for inclusion, with reasons listed as: patient admitted to hospital (n = 194), patient absconded (n = 161) already recruited (n = 64), uncooperative or abusive (n = 55), staff not trained (n = 43), reduced consciousness level (n = 41), lack of capacity (n = 35), patient in custody (n = 21), other (n = 12). No adverse events were reported.

CONCLUSION: Staff and patient recruitment were low and varied widely by site. This feasibility study did not meet progression criteria; a fully powered RCT is not planned.

DOI: 10.1186/s12873-024-01061-3

PMCID: PMC11360782

PMID: 39198758 [Indexed for MEDLINE]

2. Scand J Trauma Resusc Emerg Med. 2024 Aug 20;32(1):72. doi: 10.1186/s13049-024-01245-7.

Added predictive value of prehospital measurement of point-of-care lactate in an adult general EMS population in Sweden: a multi-centre observational study.

Magnusson C(1)(2)(3), Herlitz J(4), Axelsson C(5)(4), Höglind R(5), Lökholm E(5), Hörnfeldt TH(6), Olander A(4)(7), Björås J(8), Hagiwara MA(4), Wennberg P(6)(9).

BACKGROUND: Emergency medical services (EMS) personnel must rapidly assess and transport patients with time-sensitive conditions to optimise patient outcomes. Serum lactate, a valuable in-hospital biomarker, has become more accessible in EMS settings through point-of-care (POC) testing. Although POC lactate levels are valuable in specific patient groups, its broader application in EMS remains unclear. This study assessed the additional predictive value of POC lactate levels in a general adult EMS population.

METHODS: This prospective observational study (March 2018 to September 2019) involved two EMS organisations in Västra Götaland, Sweden. Patients were triaged using the Rapid Triage and Treatment System (RETTS). POC lactate levels were measured using StatStrip Xpress devices. Non-consecutive patients who received EMS and were aged 18 years and above were available for inclusion if triaged into RETTS levels: red, orange, yellow, or green if respiratory rate of ≥ 22 breaths/min. Outcomes were adverse outcomes, including a time-sensitive diagnosis, sequential organ failure assessment (SOFA) score ≥ 2, and 30-day mortality. Statistical analyses included descriptive statistics, imputation, and regression models to assess the impact of the addition of POC lactate levels to a base model (comprising patient age, sex, presence of past medical conditions, vital signs, pain, EMS response time, assessed triage condition, and triage level) and a RETTS triage model.

RESULTS: Of 4,546 patients (median age 75 [57, 84] years; 49% male), 32.4% had time-sensitive conditions, 12.5% met the SOFA criteria, and 7.4% experienced 30-day mortality. The median POC lactate level was 1.7 (1.2, 2.5) mmol/L. Patients with time-sensitive conditions had higher lactate levels (1.9 mmol/L) than those with non-time-sensitive conditions (1.6 mmol/L). The probability of a time-sensitive condition increased with increasing lactate level. The addition of POC lactate marginally enhanced the predictive models, with a 1.5% and 4% increase for the base and RETTS triage models, respectively. POC lactate level as a sole predictor showed chance-only level predictive performance.

CONCLUSIONS: Prehospital POC lactate assessment provided limited additional predictive value in a general adult EMS population. However, it may be beneficial in specific patient subgroups, emphasizing the need for its judicious use in prehospital settings.

DOI: 10.1186/s13049-024-01245-7

PMCID: PMC11337621

PMID: 39164765 [Indexed for MEDLINE]

3. Neurology. 2024 Aug 27;103(4):e209692. doi: 10.1212/WNL.0000000000209692. Epub 2024 Aug 1.

Prehospital Lactate Levels Obtained in the Ambulance and Prediction of 2-Day In-Hospital Mortality in Patients With Traumatic Brain Injury.

Martin-Rodriguez F(1), Sanz-Garcia A(1), Lopez-Izquierdo R(1), Delgado Benito JF(1), Martínez Fernández FT(1), Otero de la Torre S(1), Del Pozo Vegas C(1).

BACKGROUND AND OBJECTIVES: To analyze the ability of prehospital lactate levels to predict 2-day in-hospital mortality in patients with traumatic brain injury (TBI), severe TBI (Glasgow Coma Scale (GCS) ≤ 8 points), and mild or moderate TBI (GCS ≥ 9 points). Second, 90-day mortality was also explored.

METHODS: This was a prospective, multicenter, emergency medical services (EMSs) delivery, ambulance-based, derivation-validation cohort study developed in 5 tertiary hospitals (Spain), from November 1, 2019, to July 31, 2022. Patients were recruited from among all phone requests for emergency assistance among adults who were later evacuated to referral hospitals with acute TBI. The exclusion criteria were minors, pregnancy, trauma patients without TBI, delayed presentations, patients were discharged in situ, participants with cardiac arrest, and unavailability to obtain a blood sample. The primary outcome was all-cause 2-day in-hospital mortality and 90-day mortality in patients with moderate or mild TBI compared with patients with severe TBI. Clinical and analytical parameters (lactate and glucose) were collected. The discriminative power (area under the receiver operating characteristic curve [AUC]) and calibration curve were calculated for 2 geographically separated cohorts.

RESULTS: A total of 509 patients were ultimately included. The median age was 58 years (interquartile range: 43-75), and 167 patients were female (32.8%). The primary outcome occurred in 9 (2.2%) of 415 patients with moderate or mild TBI and in 42 (44.7%) of 94 patients with severe TBI. The predictive capacity of the lactate concentration was globally validated in our cohort, for which the AUC was 0.874 (95% CI 0.805-0.942) for the validation cohort. The ability of the GCS score to predict lactate concentration was greater in patients with a GCS score ≥9 points, with an AUC of 0.925 (95% CI 0.808-1.000) and a negative predictive value of 99.09 (95% CI 98.55-99.64) in the validation cohort.

CONCLUSION: Our results show the benefit of using lactate in all patients with TBI, particularly in those with a GCS ≥9 points. Routine incorporation of lactate in the screening of patients with TBI could presumably reduce mortality and deterioration rates because of quicker and better identification of patients at risk.

DOI: 10.1212/WNL.0000000000209692

PMID: 39088773 [Indexed for MEDLINE]

4. Br J Haematol. 2024 Aug;205(2):463-472. doi: 10.1111/bjh.19556. Epub 2024 Jul 3.

Shift in emergency department utilization by frequent attendees with sickle cell disease during the COVID-19 pandemic: A multicentre cohort study.

Rech JS(1)(2)(3)(4), Cohen A(5), Bartolucci P(6)(7), Santin A(2)(3), Chantalat Auger C(8), Affo L(9)(10), Le Jeune S(11)(12), Arlet JB(13), Boëlle PY(1), Steichen O(1)(2)(3).

While the coronavirus disease-2019 (COVID-19) might have increased acute episodes in people living with sickle cell disease (SCD), it may also have changed their reliance on emergency department (ED) services. We assessed the impact of the COVID-19 pandemic and lockdowns on ED visits in adult SCD people followed in five French reference centres, with a special focus on 'high users' (≥10 visits in 2019). We analysed the rate of ED visits from 1 January 2015 to 31 December 2021, using a self-controlled case series. Among 1530 people (17 829 ED visits), we observed a significant reduction in ED visits during and after lockdowns, but the effect vanished over time. Compared to pre-pandemic, incidence rate ratios for ED visits were 0.59 [95% CI 0.52-0.67] for the first lockdown, 0.66 [95% CI 0.58-0.75] for the second and 0.85 [95% CI 0.73-0.99] for the third. High users (4% of people but 33.7% of visits) mainly drove the reductions after the first lockdown. COVID-19 lockdowns were associated with reduced ED visits. While most people returned to their baseline utilization by April 2021, high users had a lasting decrease in ED visits. Understanding the factors driving the drop in ED utilization among high users might inform clinical practice and health policy.

DOI: 10.1111/bjh.19556

PMID: 38960400 [Indexed for MEDLINE]

5. Heart Lung Circ. 2024 Aug;33(8):1151-1162. doi: 10.1016/j.hlc.2024.02.018. Epub 2024 Jul 2.

Effect of COVID-19 Pandemic Lockdown on Emergency Medical Service Utilisation, and Percutaneous Coronary Intervention Volume-An Australian Perspective.

Haji K(1), Vogrin S(2), D'Elia N(3), Noaman S(4), Bloom JE(5), Lefkovits J(6), Reid C(6), Brennan A(6), Dinh DT(6), Nicholls S(7), Nehme E(8), Nehme Z(8), Smith K(6), Stub D(9), Ball J(10), Zaman S(11), Oqueli E(12), Kaye D(5), Cox N(13), Chan W(14).

BACKGROUND: Acute coronary syndrome (ACS) admissions and percutaneous coronary intervention (PCI) volume declined during periods of COVID-19 lockdown internationally in 2020. The effect of lockdown on emergency medical service (EMS) utilisation, and PCI volume during the initial phase of the pandemic in Australia has not been well described.

METHOD: We analysed data from the Victorian Cardiac Outcomes Registry (VCOR), a state-wide PCI registry, linked with the Ambulance Victoria EMS registry. PCI volume, 30-day major adverse cardiovascular and cerebrovascular events (MACCE; composite of mortality, myocardial infarction, stent thrombosis, unplanned revascularisation, and stroke), and EMS utilisation were compared over four time periods: lockdown (26 Mar 2020-12 May 2020); pre-

lockdown (26 Feb 2020-25 Mar 2020); post-lockdown (13 May 2020-10 Jul 2020); and the year prior (26 Mar 2019-12 May 2019). Interrupted time series analysis was performed to assess PCI trends within and between consecutive periods.

RESULTS: The EMS utilisation for ACS during lockdown was higher compared with other periods: lockdown 39.4% vs pre-lockdown 29.7%; vs post-lockdown 33.6%; vs year prior 27.1%; all p<0.01. Median daily PCI cases were similar: 31 (IQR 10, 38) during lockdown; 39 (15, 49) pre-lockdown; 39.5 (11, 44) post-lockdown; and, 42 (10, 49) the year prior; all p>0.05. Median door-to-procedure time for ACS indication during lockdown was shorter at 3 hours (1.2, 20.6) vs pre-lockdown 3.9 (1.7, 21); vs post-lockdown 3.5 (1.5, 21.26); and, the year prior 3.5 (1.5, 23.7); all p<0.05. Lockdown period was associated with lower odds for 30-day MACCE compared to pre-lockdown (odds ratio [OR] 0.55 [0.33-0.93]; p=0.026); post-lockdown (OR 0.66; [0.40-1.06]; p=0.087); and the year prior (OR 0.55 [0.33-0.93]; p=0.026).

CONCLUSIONS: Contrary to international trends, EMS utilisation for ACS increased during lockdown but PCI volumes remained similar throughout the initial stages of the pandemic in Victoria, with no observed adverse effect on 30-day MACCE during lockdown. These data suggest that the public health response in Victoria was not associated with poorer quality cardiovascular care in patients receiving PCI.

DOI: 10.1016/j.hlc.2024.02.018

PMID: 38955597 [Indexed for MEDLINE]

6. Int Emerg Nurs. 2024 Aug;75:101479. doi: 10.1016/j.ienj.2024.101479. Epub 2024 Jun 26.

Nurses' moral judgements during emergency department triage - A prospective mixed multicenter study.

Pilleron B(1), Douillet D(2), Furon Y(3), Haubertin C(4), Parot-Schinkel E(5), Vielle B(3), Roy PM(6), Poiroux L(7).

INTRODUCTION: In EDs, triage ensures that patients whose condition requires immediate care are prioritized while reducing overcrowding. Previous studies have described the manifestation of caregivers' moral judgements of patients in EDs. The equal treatment of patients in clinical practice presents a major issue. Studying the impact of prejudice on clinical practice in the ED setting provides an opportunity to rethink clinical tools, organizations and future training needs. Our study sought to describe the moral judgements expressed by triage nurses during admission interviews in emergency departments and to assess their impact on patient management.

METHODS: An exploratory sequential mixed-method study was performed. The study was conducted between January 1, 2018, and February 18, 2018, in the EDs of three French hospitals. Five hundred and three patients and 79 triage nurses participated in the study. Audio recordings, observations and written handover reports made by nurses during admission triage interviews were analyzed with a view to discerning whether moral judgements were

expressed in them. We studied the impact of moral judgements on patient management in the emergency department.

RESULTS: Abstract Moral judgements were made in 70% of the triage situations studied (n=351/503). They could be classified in seven categories. Patients were more likely to be subjected to moral judgements if they were over 75 years old, visibly disabled or if they had visible signs of alcohol intoxication. Being subjected to moral judgement was associated with differential treatment, including assignment of a triage score that differed from the theoretical triage score.

CONCLUSION: More than two thirds of patients admitted to EDs were triaged using moral criteria. Patients who were morally judged at the admission interview were more likely to be treated differently.

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PMID: 38936277 [Indexed for MEDLINE]

Journal report – srpen 2024

PREHOSPITAL CARE

– systematic review & meta-analysis –

1. J Stroke Cerebrovasc Dis. 2024 Aug 23:107964. doi: 10.1016/j.jstrokecerebrovasdis.2024.107964. Online ahead of print.

Success With Incrementally Faster Times to Endovascular Therapy (SWIFT-EVT): A systematic review and meta-analysis.

Legere B(1), Mohamed A(2), Elsherif S(3), Saqqur R(4), Schoenfeld D(5), Slebonick AM(6), McCartin M(7), Price J(8), Zachrison KS(9), Edlow JA(10), Saqqur M(11), Shuaib A(12), Thomas SH(13).

BACKGROUND: A major systematic review and meta-analysis assessing trial data through 2014 (the Highly Effective Reperfusion Evaluated in Multiple Endovascular Stroke Trials, HERMES) demonstrated that particularly over the initial six hours of acute ischemic stroke (AIS), rapid performance of endovascular therapy (EVT) markedly improves outcomes. The current analysis, Success with Incrementally Faster Times to EVT (SWIFT-EVT), aimed to provide an updated metric summarizing latest estimates for modified Rankin Scale (mRS) improvements accrued by streamlining time to EVT.

METHODS: A systematic review and meta-analysis was conducted using electronic databases. Eligible studies reported a time-benefit slope with times from AIS onset (or time last known normal) to EVT commencement; the predictor was onset-to-groin (OTG) time. Primary and secondary outcomes were 90-day functional independence (mRS 0-2) and 90-day excellent function (mRS 0-1), respectively.

RESULTS: Five studies were included. Results showed increased change of good outcome with each hour of pre-EVT time savings for mRS 0-2 for 0-270' (OR 1.25, 95% CI 1.16-1.35, I2 40%) and 271-360' time frame (1.22, 95% CI 1.12-1.33, I2 58%). For the studies assessing mRS 0-1, estimates were found appropriate for both the 0-270' time frame (OR 1.34, 95% CI 1.19-1.51, I2 27%) and the 271-360' time frame (OR 1.20, 95% CI 1.03-1.38, I2 60%).

CONCLUSIONS: Each hour saved from AIS onset to EVT start is associated with a 22-25% increased odds of achieving functional independence, a useful metric to inform patient-specific and systems planning decisions.

DOI: 10.1016/j.jstrokecerebrovasdis.2024.107964

PMID: 39182706

Journal report – srpen 2024

2. Anaesthesia. 2024 Aug;79(8):856-868. doi: 10.1111/anae.16290. Epub 2024 May 3.

Airway management in patients with suspected or confirmed cervical spine injury: Guidelines from the Difficult Airway Society (DAS), Association of Anaesthetists (AoA), British Society of Orthopaedic Anaesthetists (BSOA), Intensive Care Society (ICS), Neuro Anaesthesia and Critical Care Society (NACCS), Faculty of Prehospital Care and Royal College of Emergency Medicine (RCEM).

Wiles MD(1)(2), Iliff HA(3), Brooks K(4), Da Silva EJ(5), Donnellon M(6), Gardner A(7)(8), Harris M(9), Leech C(10)(11), Mathieu S(12), Moor P(13)(14), Prisco L(15)(16), Rivett K(17), Tait F(18), El-Boghdadly K(19)(20).

BACKGROUND: There are concerns that airway management in patients with suspected or confirmed cervical spine injury may exacerbate an existing neurological deficit, cause a new spinal cord injury or be hazardous due to precautions to avoid neurological injury. However, there are no evidence-based guidelines for practicing clinicians to support safe and effective airway management in this setting.

METHODS: An expert multidisciplinary, multi-society working party conducted a systematic review of contemporary literature (January 2012-June 2022), followed by a three-round Delphi process to produce guidelines to improve airway management for patients with suspected or confirmed cervical spine injury.

RESULTS: We included 67 articles in the systematic review, and successfully agreed 23 recommendations. Evidence supporting recommendations was generally modest, and only one moderate and two strong recommendations were made. Overall, recommendations highlight key principles and techniques for pre-oxygenation and facemask ventilation; supraglottic airway device use; tracheal intubation; adjuncts during tracheal intubation; cricoid force and external laryngeal manipulation; emergency front-of-neck airway access; awake tracheal intubation; and cervical spine immobilisation. We also signpost to recommendations on pre-hospital care, military settings and principles in human factors.

CONCLUSIONS: It is hoped that the pragmatic approach to airway management made within these guidelines will improve the safety and efficacy of airway management in adult patients with suspected or confirmed cervical spine injury.

DOI: 10.1111/anae.16290

PMID: 38699880 [Indexed for MEDLINE]

3. J Trauma Acute Care Surg. 2024 Aug 1;97(2):305-314. doi: 10.1097/TA.0000000000004285. Epub 2024 Feb 26.

Handoffs and transitions of care: A systematic review, meta-analysis, and practice management guideline from the Eastern Association for the Surgery of Trauma.

Appelbaum RD(1), Puzio TJ, Bauman Z, Asfaw S, Spencer A, Dumas RP, Kaur K, Cunningham KW, Butler D, Sawhney JS, Gadomski S, Horwood CR, Stuever M, Sapp A, Gandhi R, Freeman J.

BACKGROUND: The Joint Commission reports that at least half of communication breakdowns occur during handovers or transitions of care. There is no consensus on how best to approach the transfer of care within acute care surgery (ACS). We conduct a systematic review and meta-analysis of the current data on handoffs and transitions of care in ACS patients and evaluate the impact of standardization and formalized communication processes.

METHODS: Clinically relevant questions regarding handoffs and transitions of care with clearly defined patient Population(s), Intervention(s), Comparison(s), and appropriately selected Outcomes were determined. These centered around specific transitions of care within the setting of ACS, specifically perioperative interactions, emergency medical services and trauma team interactions, and intra/interfloor and intensive care unit (ICU) interactions. A systematic literature review and meta-analysis were conducted using the Grading of Recommendations Assessment, Development, and Evaluation methodology.

RESULTS: A total of 10 studies were identified for analysis. These included 5,113 patients in the standardized handoff group and 5,293 in the current process group. Standardized handoffs reduced handover errors for perioperative interactions and preventable adverse events for intra/interfloor and ICU interactions. There were insufficient data to evaluate outcomes of clinical complications and medical errors.

CONCLUSION: We conditionally recommend a standardized handoff in the field of ACS, including perioperative interactions, emergency medical services and trauma team interactions, and intra/interfloor and ICU interactions.

LEVEL OF EVIDENCE: Systematic Review/Meta-analysis; Level III.

DOI: 10.1097/TA.0000000000004285

PMID: 38407300 [Indexed for MEDLINE]