research team. Activities involved group work to explore and propose solutions for effective CYP recruitment and data collection, produce a study logo and review the plain English summary.

**Results** YPAG members produced insightful arts-based posters containing important ideas and concepts that were incorporated into the study design. A study logo was created, diaries and electronic communication methods to collect data were added and a variety of age-based leaflets were added to the recruitment strategy. Members reported several benefits from the sessions, including enhanced creative and problem-solving skills and members enjoyed the teamwork and collaborative approach.

**Conclusion** YPAG involvement resulted in meaningful improvements to research design and members gained new knowledge, transferrable skills and improved confidence. This experience should help inform YPAG involvement in future research.

**REFERENCES**


**Conflict of interest** GAW received funding to conduct this project through a post-doctoral bridging fellowship. HT, TB, EM and RT received financial compensation, in line with NIHR/INVOLVE guidelines, for their involvement in the YPAG group.

**Funding** This project formed part of a post-doctoral bridging fellowship supported by the National Institute for Health Research (NIHR) Applied Research Collaboration East Midlands (ARC EM) and Health Education England. The views expressed in this publication are those of the author(s) and not necessarily those of the NIHR or the Department of Health and Social Care.

**Dispatch and triage**

### INTRODUCTION OF VIDEO TRIAGE OF CHILDREN WITH RESPIRATORY SYMPTOMS AT A MEDICAL HELPLINE

1. C Green*, 2A Hasselager, 3, 4G Lindeth, 5MS Frederiksen, 6, 7Folk, 8A Enballe, 8, 9H Gamst-Jensen, 10, 12D Cortes. 1Department of Pediatrics and Adolescence Medicine, Copenhagen University Hospital – Amager and Hvidovre, Copenhagen, Denmark; 2Department of Clinical Medicine, Faculty of Health and Medical Sciences, University of Copenhagen, Copenhagen, Denmark; 3Department of Pediatrics and Adolescence Medicine, Copenhagen University Hospital – Herlev and Gentofte, Copenhagen, Denmark; 4Department of Anesthesia and Intensive Care, Copenhagen University Hospital – Bispebjerg and Frederiksberg, Copenhagen, Denmark; 5Copenhagen University Hospital – Copenhagen Emergency Medical Services, Copenhagen, Denmark; 6Department of Cardiology, Copenhagen University Hospital – Herlev and Gentofte, Copenhagen, Denmark; 7Department of Pediatrics and Adolescence Medicine, Copenhagen University Hospital – Amager and Hvidovre, Copenhagen, Denmark; 8National Institute of Public Health, University of Southern Denmark, Copenhagen, Denmark; 9Department of Clinical Research, Copenhagen University Hospital – Amager and Hvidovre, Copenhagen, Denmark; 10Department of Emergency Medicine, Copenhagen University Hospital – Amager and Hvidovre, Copenhagen, Denmark

**Background** Calls regarding children make up the relatively largest proportion of contacts to medical call-centers, with calls often concerning respiratory symptoms. Triage of children without visual cues and through second-hand information is difficult, with risks of over- and undertriage. We aimed to test feasibility, acceptance and patient outcome after introduction of video triage of young children at the out-of-hours medical call-center in Copenhagen, Denmark.

**Method** Prospective quality improvement study, with patients aged 6 months to 5 years with respiratory symptoms enrolled to video or standard telephone triage (1:1). Calculated sample size was 774. The proportion of successful video calls, representing feasibility, and parental acceptance of video participation was registered, along with patient outcome within 48 hours, including adverse events (intensive care unit admittance, lasting injuries, death).

**Results** We included 617 patients (54% video triage) before the study prematurely was shut-down due to the COVID-19 pandemic. Feasibility was 95.2% and acceptance rate likewise 95.2%. No adverse events were registered in either group. Patients were triaged to stay at home in 63% of video triage calls vs. 58% of telephone triage calls (p=0.19). Within 8 and 24 hours there was a trend towards fewer video triaged than telephone triaged patients assessed at hospitals: 39% versus 46% (p=0.07) and 41% versus 49% (p=0.07), respectively.

**Conclusion** Video triage of young children with respiratory symptoms from a medical call-center was feasible, acceptable and safe. Video triage can potentially optimize triage and hospital referrals, and might be beneficial in many pediatric call-center contacts.

**Conflict of interest** None to declare.

**Funding** Tryg Foundation, Research Foundation of the Capital Region, Research Foundation of Amager-Hvidovre Hospital.

**Miscellaneous**

### A QUALITATIVE EXPLORATION OF RESTRAINT DECISIONS MADE BY PARAMEDICS AND ADVANCED PARAMEDICS IN THE CONTEXT OF ACUTE BEHAVIOURAL DISTURBANCE (ABD) IN THE PRE-HOSPITAL SETTING

1. Lindridge*, 1L Blackwood, 2T Edwards. 1University of Bath, UK; 2London Ambulance Service NHS Trust, UK

10.1136/bmjopen-2022-EMS.7

**Background** Acute behavioural disturbance, also known as excited delirium, is a medical emergency. Paramedics are required to balance competing concerns, including the risks of restraint to the patient, the need for diagnostic accuracy and the need for compliance with relevant legislation. Decisions take place in the context of challenging situations and paramedics are required to work closely with other professionals, such as the police.

**Method** 17 semi structured interviews and focus group were undertaken with Paramedics and Advanced Paramedic Practitioners. This data is being analysed using reflexive thematic analysis (Braun and Clarke, 2006), informed by critical realism.

**Results** We have identified five tentative themes: Professional identity and patient advocacy, adequacy of clinical
management strategies, managing complexity and ambiguity, inter-professional relationships and fear of professional consequences. These candidate themes will continue to be developed and refined during the remaining analysis.

Conclusion Restraint decisions take place in the context of high levels of complexity and ambiguity, limited clinical management options and rely on effective communication and collaboration with partner agencies, such as the police. Paramedics are motivated by patient-centred issues including advocacy and improving outcomes, and at times experience tensions with practitioner-centric issues such as fear of adverse professional consequences.

REFERENCE

Conflict of interest None to declare.
Funding None.

Pain and trauma

[239] USING REAL-WORLD DATA TO PREDICT PAIN RECORDING AND PAIN SEVERITY IN THE PRE-HOSPITAL EMERGENCY SETTING – AN OBSERVATIONAL ANALYSIS OF 212,401 EPISODES OF CARE

R Quinn, 1S Masterson*, 1D Willis, 1D Hennelly, 2C Deasy, 1C O'Donnell. 1National Ambulance Service, Limerick, Ireland; 2University College Cork, Ireland; 3University Hospital Cork, Ireland

10.1136/bmjopen-2022-EMS.8

Background Previous studies in the prehospital setting have reported wide variation in the incidence and severity of pain, and that documentation of pain scores is poor. The aim of our study was to investigate and describe the incidence and severity of patient-reported pain that is recorded by pre-hospital emergency care patients in Ireland.

Method We used data from our electronic patient care record (ePCR) repository to perform this retrospective cohort study of all emergency care episodes recorded by National Ambulance Service practitioners during 2020. Descriptive analysis of all emergency call episodes included a pain score (75,445 = no pain; 18,378 = mild pain; 21,451 = moderate pain; 22,921 = severe pain). The likelihood of pain being recorded was most strongly associated with the Glasgow Coma Score, working diagnosis, call location, and patient age. The variables showing strongest association with pain severity were transport outcome, working diagnosis, and patient age. Sensitivity analysis confirmed that all regression models performed better than chance, but that all models were relatively weak at predicting the outcomes.

Conclusion Using a large real-world dataset, we have demonstrated patient and care episode characteristics that are associated with recording and severity of self-reported pain. We have identified actionable improvements that will strengthen the prediction accuracy of routinely collected data and ultimately improve pain management for our patients.

Conflict of interest None to declare.
Funding No specific funding received or sought for this study.

Dispatch and triage

[242] LARGE VESSEL OCCLUSION STROKE IN AN EMERGENCY CALL: A DESCRIPTIVE ANALYSIS OF EMERGENCY CALLS FOR THROMBECTOMY CANDIDATES

1,2,3P Vuorinen*, 1,2,3J Kiihl, 1,2E Alanko, 1,2H Huhtala, 1,2J Ollikainen, 2,3P Setälä, 2,3S Hoppu. 1Faculty of Medicine and Health Technology, Tampere University, Tampere, Finland; 2Emergency Medical Services, Centre for Prehospital Emergency Care, Department of Emergency, Anaesthesia and Pain Medicine, Tampere University Hospital, Tampere, Finland; 3Faculty of Social Sciences, Tampere University, Tampere, Finland; 4Department of Neurosciences and Rehabilitation, Tampere University Hospital, Tampere, Finland

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Background Large vessel occlusion strokes cause most of the post-stroke disability and mortality. In this study, we aim to find out common words and phrases used in the emergency calls for paramedic-suspected thrombectomy candidates. Also, we wanted to find out how a question about conjugate eye deviation, an indicator of vast cortical ischaemia, arises in the Finnish stroke dispatch protocol.

Method This was a retrospective study with descriptive analysis of emergency calls for patients with paramedic-suspected large vessel occlusion stroke. We listened to the emergency calls for 157 patients transported to a Finnish comprehensive stroke centre.

Results Speech disturbance was the most common symptom brought up in 125 (80%) calls, followed by tripping (n=63, 40%) and facial asymmetry (n=41, 26%). Suspicion of stroke was mentioned by 44 (28%) callers. Inability to speak any words was mentioned in 65 calls (52% of calls with speech disturbance). Otherwise, difficulty to speak was described, for example, as a lisp, mumble or slurred speech. Conjugate eye deviation was definitively heard in 12 emergency calls. Ten of these patients were diagnosed with large vessel occlusion.

Conclusion In the emergency calls for patients with paramedic-suspected large vessel occlusion, typical stroke symptoms were described. The severity of the stroke stood out by the patients’ inability to speak any words or remain standing. It is possible to further develop stroke dispatch protocols to recognise thrombectomy candidates already during an emergency call.

Conflict of interest None.
Funding None.

Cardiac arrest

[244] ABSTRACT WITHDRAWN

Miscellaneous

[245] SITUATIONAL AWARENESS AMONG PREHOSPITAL PROVIDERS DURING AN ONLINE HIGH-FIDELITY SIMULATION – A NOVEL STUDY

1,2,3J Hunter*, 1,2,3M Porter, 1B Williams. 1Department of Paramedicine, Monash University, Australia; 2Oklahoma State University – Oklahoma City, Paramedicine Program; 3Norman Regional Hospital – EMSStat, Oklahoma State University, Emergency Medicine Residency Program; 4EMS Success, Inc

10.1136/bmjopen-2022-EMS.10

Background Previous studies in the prehospital setting have reported wide variation in the incidence and severity of pain, and that documentation of pain scores is poor. The aim of our study was to investigate and describe the incidence and severity of patient-reported pain that is recorded by pre-hospital emergency care patients in Ireland.

Method We used data from our electronic patient care record (ePCR) repository to perform this retrospective cohort study of all emergency care episodes recorded by National Ambulance Service practitioners during 2020. Descriptive analysis of all emergency call episodes included a pain score (75,445 = no pain; 18,378 = mild pain; 21,451 = moderate pain; 22,921 = severe pain). The likelihood of pain being recorded was most strongly associated with the Glasgow Coma Score, working diagnosis, call location, and patient age. The variables showing strongest association with pain severity were transport outcome, working diagnosis, and patient age. Sensitivity analysis confirmed that all regression models performed better than chance, but that all models were relatively weak at predicting the outcomes.

Conclusion Using a large real-world dataset, we have demonstrated patient and care episode characteristics that are associated with recording and severity of self-reported pain. We have identified actionable improvements that will strengthen the prediction accuracy of routinely collected data and ultimately improve pain management for our patients.

Conflict of interest None to declare.
Funding No specific funding received or sought for this study.