Preliminary Results Knowledge and understanding comes from colleagues, external sources, and patient interactions. Practice develops informally through trial and error. Clinical guidelines play a minimal role. Empathy and ‘soft’ interpersonal skills are deemed essential for patient care. Establishing rapport and emotional responses were often reported.

Conclusion This study highlights the experiences of responding to suicide and self-harm and suggests areas for better prehospital education and care.

PP55 HYPERVENTILATION IN OUT-OF-HOSPITAL CARDIAC ARREST – A SYSTEMATIC REVIEW & NARRATIVE SYNTHESIS

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Background Resuscitation guidelines recommend delivering ventilations at a rate of 10min⁻¹; however, hyperventilation is commonly reported during out-of-hospital cardiac arrest resuscitation efforts, and the impact of this on patient outcomes is unclear. This review explores the reported rates, causes, and patient outcomes of hyperventilation in the management of out-of-hospital cardiac arrest.

Methods A systematic literature review with narrative synthesis of three databases.

Findings Thirteen papers were identified as meeting the eligibility criteria. These showed ventilations are consistently delivered at a rate & tidal volume higher than is internationally recommended. Hyperventilation can occur due to clinician stress and lack of situational awareness, poor leadership, and a focus on other clinical interventions.

Conclusions Hyperventilation is common during cardiac arrest management. Current human data does not produce sufficient evidence to favour any ventilation strategy; however, a harmful upper limit will exist. This review found no human randomised control studies examining how ventilation rate, tidal volume, or pressure effect patient outcomes and this warrants further research.

PP56 PILOTING A MECHANICAL THROMBECTOMY RETRIEVAL HELICOPTER TRANSFER SERVICE IN A RURAL UK REGION

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Background Eighty five percent of strokes are due to an ischaemic event and approximately 10% of these can now be treated with mechanical thrombectomy retrieval (MTR). The benefit of MTR drops by 5.7% for every hour since onset. In Devon, MTR is currently only available at University Hospital Plymouth (UHP). The longest transfer time to UHP is undertaken by patients at North Devon District Hospital (NDDH); approximately 110 minutes by road. A quality improvement project was designed to reduce the transfer time for these patients and increase the number of patients eligible for MTR.

Methods A collaborative team of Devon Air Ambulance (DAATCL), NDDH and UHP designed a transfer protocol for MTR eligible patients to be airlifted to UHP, reducing the transport time of 110 minutes by land to approximately 20 minutes by air. DAATCL liaised with South Western Ambulance Service (SWASFT) HEMS dispatcher to provide a specific dispatch procedure for MTR transfers.

Results The pilot has now been running for 12 months and 16 patients have been transferred for MTR at UHP. The median transfer time was 25 minutes by air, giving a median time saving of 1 hour 25 minutes compared to a land transfer.

Conclusion Sixteen patients have benefited from this new service, and it is anticipated that numbers will increase as the MTR service expands. MTR is not yet a 24/7 service; however, it is hoped this will be achieved within the next few years. MTR is an expensive procedure, however due to reduced hospital stay and social care needs, cost savings can be considerable; and the benefit to patients and their families can be even greater. There is also wider benefit to patients in the region with land resources available to respond to other 999 calls when they would have been otherwise unavailable during the transfer.

PP57 INDICATORS FOR AVOIDABLE EMERGENCY MEDICAL SERVICE CALLS: MAPPING OF PARAMEDIC CLINICAL IMPRESSION CODES TO AMBULATORY CARE SENSITIVE CONDITIONS AND MENTAL HEALTH CONDITIONS IN THE UK AND CANADA

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Background Paramedic assessment data have not been used for research on avoidable calls. Paramedic impression codes are designated by paramedics upon responding to a 911/999 medical emergency after an assessment of the presenting condition. Ambulatory Care Sensitive Conditions (ACSCs) are non-acute health conditions not needing hospital admission when properly managed.

Methods The current study focused on paramedic impression codes from the East Midlands Region, UK and from Southern Ontario, Canada and mapped them to existing definitions of ambulatory care sensitive conditions (ACSCs) and mental health conditions. Mapping was iterative first identifying the common ACSCs shared between the two countries then identifying the respective clinical impression codes for each country that mapped to those shared ACSCs as well as to mental health conditions.

Results Experts from the UK-Canada Emergency Calls Data analysis and GEospatial mapping (EDGE) Consortium contributed to both phases and were able to independently match the codes and then compare results. Clinical impression codes for paramedics in the UK were more extensive than those in