delivery of telephone advice to ensure the consistent delivery of appropriate and safe care that is acceptable to patients.

PP16 | MODELLING OF PATIENT OUTCOMES AFTER EMERGENCY TREATMENT FOR OUT-OF-HOSPITAL CARDIAC ARREST BY PARAMEDICS AND COMMUNITY FIRST RESPONDERS

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Background Patient outcomes for out-of-hospital-cardiac-arrest (OHCA) should include shorter term response resulting from care delivered by first aiders (CFR) and emergency services as well as any longer term response achieved following handover into hospital care. We construct statistical models of: Return of Spontaneous Circulation while under emergency care (ROSC), and Discharge Alive from hospital (DA).

Methods Data on 15,103 OHCA patients aged 4+weeks from East Midlands Ambulance Service NHS Trust were gathered across a 3 year period April 2014 – March 2017. Both outcomes were represented by binary variables (yes=1, no=0). Duration variables: waiting time (WT; time from 999 to emergency service arrival at the patient's side), total treatment time (TOT; time from emergency service arrival to patient handover at hospital), time to ROSC (TtoR; time from emergency service arrival to first ROSC achieved). Statistical analyses were to be conducted on complete records (2825 patients) and involve fitting of a bivariate probit model to the joint outcome (ROSC, DA) and a probit model to the conditional outcome (DA|ROSC=1).

Results

- CFR attendance had no statistically significant influence on either patient outcome.
- Patient outcomes worsened as wait time (WT) increased, but was insignificant versus no effect.
- Total treatment time (TOT) was significant; with positive influence on ROSC occurrence the longer that time period (estimate >0, p=0.036), but worsening the chance of longer term survival DA (estimate <0, p<0.001).
- Time to ROSC (TtoR) was the key driver in the DA|ROSC=1 model (estimate <0, p<0.001), evidencing the better the chances of longer term survival DA the sooner ROSC is achieved.

Conclusions Our Results show that OHCA patient outcomes depend crucially on the quality of clinical care provided by the emergency services. Next steps include the need to gather granular data evidencing the pre-hospital care that is administered to patients by paramedics and community first responders.

PP17 | VERBALISATION OF PLANS DURING OUT-OF-HOSPITAL CARDIAC ARREST RESUSCITATION

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Background Planning and communication are pivotal in achieving team goals. Studies have shown that teams with effective planning and sharing of mental models display better performance in resuscitation. The Advanced Life Support (ALS) algorithm serves as an overall script regarding specific stages during resuscitation, but it does not explicitly specify how tasks should be delegated or synchronised. Team members therefore need to rely on ongoing, context-specific shared plans for effective team coordination.

Methods In our research, we explore paramedic resuscitation teams' verbal communication from a discourse-analytic perspective. We analysed out-of-hospital cardiac arrest (OHCA) resuscitation videos, recorded using body cameras in the field, for plan verbalisation patterns and possible association with successful or unsuccessful outcomes. For the current study, the first five minutes of 10 OHCA resuscitations were transcribed and annotated using a bespoke coding scheme. We focused on how paramedics use language to coordinate their goals and manage the transitions between stages of the OHCA treatment process, and whether this is associated with the deployment of the mechanical compression device, AutoPulse.

Results All 10 videos showed similar patterns of plan verbalisation in the first five minutes. The amount of verbalised plans took up nearly half the spoken utterances of all teams, suggesting that paramedics actively shared plans with their team members. Early in the resuscitation, paramedics tended to concentrate on immediate, single-task goals (e.g. moving patient to ideal position) rather than long-term, multi-task goals (e.g. accessing airway). We found little communication of the team leader's overall mental model or script. Instead, plans were shared moment by moment. Based on the 10 videos, the timing of AutoPulse deployment seemed unaffected by the way plans were shared.

Conclusion This study enriches our understanding of real-life planning and sharing of mental models during resuscitation. Through these, we can contribute to the betterment of professional interaction in this critical domain.

PP18 | IMPLEMENTATION OF ELECTRONIC PATIENT CLINICAL RECORDS IN AMBULANCES IN THE UK: A NATIONAL SURVEY

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Background The roll-out of electronic Patient Clinical Records (ePCR) across UK ambulance services has been an important aspect of modernisation. Electronic Records in Ambulances (ERA) is a two-year study which aims to describe the opportunities and challenges of implementing ePCR and associated technology in emergency ambulances.

Our study includes a baseline survey of progress implementing ePCR in all UK ambulance services providing a snapshot of current usage.

Methods We carried out semi-structured telephone interviews with information managers in each ambulance service in the