

termination of resuscitation and those records which were unavailable) were identified through review of all patch records from January 1, 2014 to December 31, 2017 for Paramedic Services in our region. Written Ambulance Call Reports (ACRs) and audio recordings of paramedic patches were obtained and reviewed. **Results:** 214 patch records were identified and screened for inclusion. 91 ACRs and audio patch records were included in the analysis. 51 of 91 (56%) patch requests were granted by the BHP. Of the 40 paramedic requests that were not granted, the most commonly cited reason was close proximity to hospital (22/40; 55%) followed by low likelihood of the intervention making a clinical impact in the prehospital setting (11/40; 27.5%). Requests for certain interventions were more likely to be granted than other requests. All requests to perform needle thoracostomy for possible tension pneumothorax, administer atropine for symptomatic bradycardia and treat hemodynamically unstable hyperkalemia were granted (2/2, 3/3 and 7/7, respectively), while requests for synchronized cardioversion (7/19; 37%) and transcutaneous pacing (2/6; 33%) were approved less than half of the time. **Conclusion:** This retrospective review suggests that requests to perform certain critical and potentially time sensitive interventions are more likely to be granted which calls into question the requirement for a mandatory patch point for these procedures. Furthermore, the interplay between proximity to hospital and the decision to proceed with an intervention potentially informs future modifications to directives to facilitate timely, safe and efficient care.

**Keywords:** mobile communication, online medical control, prehospital

#### MP43

##### Evaluating factors related to quality of audio transmission during mandatory paramedic patches and technical barriers to efficient communication in the prehospital setting

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**Introduction:** Delegation of controlled medical acts by physicians to paramedics is an important component of the prehospital care framework. Where directives indicate that physician input is needed before proceeding with certain interventions, online medical control (a "patch") exists to facilitate communication between a paramedic and a Base Hospital Physician (BHP) to request an order to proceed with that intervention. The quality and clarity of audio transmission is paramount for effective and efficient communication. The aim of this study was to examine the impact of audio transmission quality on the results of paramedic patch calls. **Methods:** Prehospital paramedic calls that included a mandatory patch point (excluding requests exclusively for termination of resuscitation and those records which were unavailable) were identified through review of all patch records from January 1, 2014 to December 31, 2017 for Paramedic Services in our region. Written Ambulance Call Reports (ACRs) and audio recordings of paramedic patches were obtained and reviewed. Pre-specified patch audio quality metrics, markers of transmission quality and comprehension as well as the resulting orders from the BHP were extracted. Differences between groups was compared using chi-square analyses. **Results:** 214 records were identified and screened initially. 91 ACRs and audio records were included in the analysis. At least one explicit reference to poor or inadequate call audio quality was made in 55/91 (60.4%) of calls and on average, 1.4 times per call. Of the 91 audited call records, 48 of 91 (52.7%) patches experienced

an interruption of the call. Each time a call was interrupted, re-initiation of the call was required, introducing a mean [IQR] delay of 81 [33-68] seconds to re-establish verbal communication. Order requests made by paramedics in calls with no interruptions were approved in 30 of 43 patches (70%) while those requests made in calls with one or more interruptions were approved in only 21 of 48 cases (44%) ( $\Delta 26.0\%$ ; 95%CI 5.6-43.5%,  $p = 0.01$ ). **Conclusion:** This retrospective review suggests that audio quality and interruptions of patch calls may impact a physician's ability to approve orders for interventions in the prehospital setting. Focus on infrastructure and technology underlying this important mode of communication may be a fruitful avenue for future improvements in systems where this may be an issue.

**Keywords:** mobile communication, online medical control, prehospital

#### MP44

##### Implementing rural advanced care community paramedics in rural and remote British Columbia: a qualitative research approach

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**Introduction:** Community paramedicine is well-established with an increasing evidence base to support its role in improving healthcare delivery in Canada and across the world. In British Columbia (BC), the BC Emergency Health Services (BCEHS) community paramedicine program provides an avenue to expand the Advanced Care Paramedic (ACP) role in underserved rural and remote communities across the province. **Methods:** We undertook stakeholder consultations using purposive sampling to better understand the barriers and facilitators impacting the integration of rural advanced care community paramedics (RACCPs) in 6 BC communities and to evaluate stakeholder perspectives of the implementation and impacts of the RACCP. 18 in-depth interviews were completed with a diverse range of stakeholders. The interviews were analyzed using a qualitative descriptive approach and the Theoretical Domains Framework. **Results:** A number of key facilitators and barriers to implementation of the RACCP were identified. Facilitators included the RACCP bridging significant gaps in existing community-based healthcare services including palliative care, harm reduction, and home-based assessment. The RACCP also provides leadership within their communities by actively engaging in the delivery of informal and formal debriefing, mentorship, and education. Identified barriers to RACCP implementation included confusion over the scope of the RACCP role, lack of shared health data, and various regulatory challenges. Several priority areas for ongoing development were also identified including workforce planning, addressing regulatory requirements, developing a strategic and systematic activation and dispatch process, providing continuing mentorship and supports for RACCPs, and the importance for ongoing engagement with end-users to determine the impact of the RACCP role for community health services. **Conclusion:** This research provides a strong foundation for addressing healthcare delivery in rural and remote BC by identifying the unique challenges communities face in healthcare provision and is a leading initiative for the ongoing development of professional paramedic practice across the province.

**Keywords:** community paramedicine, health service delivery, rural