

upon cardiac arrest (2.3-fold increase), normalized with ROSC, and impaired again at death when compared with baseline. Consistent with clotting impairment, A10, Alpha, and MCF were all reduced with cardiac arrest, normalized with ROSC, and impaired again at death. **Conclusion:** Higher initial indices of coagulopathy in patients with cardiac arrest appear to correlate with death and thromboembolism. In this pilot, CFT is acutely modified by cardiac arrest. Since CFT is affected by overall Th activity, early Th dysregulation may be a critical driver of coagulopathy. Th may therefore be a lead target that is modifiable in the emergency post-arrest setting to decrease morbidity and mortality from PCAS in cardiac arrest survivors.

**Keywords:** cardiac arrest, coagulopathy, thrombin

### P002

#### Minimum archiving requirements for emergency medicine point-of-care ultrasound: a modified Delphi-derived national consensus

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**Introduction:** Point-of-care ultrasound (POCUS) has become standard practice in emergency departments ranging from remote rural hospitals to well-resourced academic centres. To facilitate quality assurance, the Canadian Association of Emergency Physicians (CAEP) recommends image archiving. Due in part to poor infrastructure and lack of a national standard, however, archiving remains uncommon. Our objective was to establish a minimum standard archiving protocol for the core emergency department POCUS indications. **Methods:** Itemization of potential archiving standards was created through an extensive literature review. An online, three-round, modified Delphi survey was conducted with the thirteen POCUS experts on the national CAEP Emergency Ultrasound Committee tasked with representing diverse practice locations and experiences. Participants were surveyed to determine the images or clips, measurements, mode, and number of views that should comprise the minimum standard for archiving. Consensus was pre-defined as 80%. **Results:** All thirteen experts participated fully in the three rounds. In establishing minimum image archiving standards for emergency department POCUS, complete consensus was achieved for first trimester pregnancy, hydronephrosis, cardiac activity versus standstill, lower extremity deep venous thrombosis, and ultrasound-guided central line placement. Consensus was achieved for the majority of statements regarding abdominal aortic aneurysm, extended focused assessment with sonography in trauma, pericardial effusion, left and right ventricular function, thoracic B-line assessment, cholelithiasis and cholecystitis scans. In total, consensus was reached for 58 of 69 statements (84.1%). This included agreement on 41 of 43 statements (95.3%) describing mandatory images for archiving in the above indications. **Conclusion:** Our modified Delphi-derived consensus represents the first national standard archiving requirements for emergency department POCUS. Depending on the clinical context, additional images may be required beyond this minimum standard to support a diagnosis. **Keywords:** archiving, delphi, point-of-care ultrasound

### P003

#### Productivity patterns in early-career physicians: a multi-center analysis of administrative emergency department operations data

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**Introduction:** Physician metrics extracted from an electronic medical records (EMR) system can be utilized for practice improvement. One key metric analyzed at many emergency departments (EDs) is 'patients per hour' (pts/hr), a proxy for physician productivity. It is often believed that early-career physicians experience rapid growth in efficiency as they acclimatize to a hospital system and develop clinical confidence. This is the first study to evaluate the following question: Do early-career ED physicians increase their productivity when beginning practice? **Methods:** We performed a retrospective review of EMR data of early-career ED physicians working at one or more urban, academic centers. Early-career physicians must have started practice within three months of residency completion, and were identified by privileging records and provincial medical college registration. Physicians were excluded if they did not have at least 36 months of continuous data. Monthly productivity data (pts/hr) was extracted for each physician for their first 36-months of practice. A 'performance curve' or graph with a trendline of productivity as a moving average was created for each physician. Each performance curve was visually evaluated by two independent reviewers to qualitatively identify the general trend as upward, downward, or stable, with disagreements resolved by conference. Each physician's first and third year average productivity was compared quantitatively as well, with a significant upward or downward trend defined as a difference of at least 0.2 pts/hr. **Results:** A total of 41 physicians met the inclusion and exclusion criteria. Overall monthly pts/hr averages ranged from 1.08 to 7.65. Upon visual inspection, six (14.6%) physicians had upward trends, five (12.2%) had downward trends, and 30 (73.2%) had no discernable pattern. The quantitative analysis comparing first year to third year productivity matched the qualitative inspection exactly, with the same six physicians showing increased productivity, five with decreased, and 30 without significant change. Notably, the majority (30/41) of physicians demonstrated radical productivity variations over short periods with no discernable long-term trends. **Conclusion:** The majority of early career physicians do not demonstrate sustained early-career productivity changes. Of those that do, an approximately equal number will become faster and slower.

**Keywords:** efficiency, metrics, productivity

### P004

#### The impact of transfusion guideline on emergency physician transfusion orders

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**Introduction:** Blood transfusions continue to be a critical intervention in patients presenting to emergency departments (ED). Improved understanding of the adverse events associated with transfusions has led to new research to inform and delineate transfusion guidelines. The Nova Scotia Guideline for Blood Component Utilization in Adults and Pediatrics was implemented in June 2017 to reflect current best practice in transfusion medicine. The guideline includes a lowering of the hemoglobin threshold from 80 g/L to 70 g/L for transfusion initiation, to be used in conjunction with the patient's hemodynamic assessment before and after transfusions. Our study aims to augment understanding of transfusion guideline adherence and ED physician transfusing practices at the Halifax Infirmity Emergency Department in Nova Scotia. **Methods:** A retrospective chart review was conducted on one third of all ED visits involving red-cell transfusions for one year prior to and one year following the guideline implementation.