

review methodology was used due to the range of interventions and the heterogeneity in study design and outcome. Inclusion criteria included: studies on interventions designed to reduce transfers from LTCFs, studies that reported key outcomes such as number of ED transfers, and studies with a control or comparison group. Articles were screened by two independent reviewers (Cohen's  $k = 0.68$ ), and study quality was assessed using the National Heart, Lung, Blood Institute quality assessment tools. **Results:** Findings were organized into five intervention types (telemedicine, outreach teams, interdisciplinary teams, integrated approaches, and other), and both a tabular and narrative synthesis was completed. Eleven studies had a good quality assessment rating, 13 studies had a fair rating, and two studies had a poor rating. Twenty out of the 26 studies reported statistically significant reductions in ED transfer rate, ranging from 10-70%. Interdisciplinary healthcare teams staffed within LTCFs were the most effective interventions. **Conclusion:** There are several promising interventions that have successfully reduced the number of preventable transfers from LTCFs to EDs, in a variety of health system settings. Further analysis of the relative resource requirements of each intervention, and practices that can enable successful implementation are needed to inform healthcare policy and administrative decision making. Widespread implementation of these interventions has the potential to considerably reduce ED crowding.

**Keywords:** crowding, long-term care facility, preventable transfer

#### P090

##### Validation of a palliative or end of life care case-finding measure in emergency medical services

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**Introduction:** The novel Paramedics Providing Palliative Care at Home program has been developed to address the mismatch between traditional paramedic practice and patient's goals of care. Case-finding is key to estimate potential impact for systems looking to establish such programs, continuous quality improvement once operational, and for prospective identification of patients who might benefit from referral to palliative care. Typical paramedic charting templates do not provide direct identification of these cases. Our objective was to test the validity of a previously derived Palliative Support Composite Measure (PSCM) and two modifications. **Methods:** A priori Gold Standard criteria for determining whether a response was appropriate for a paramedic palliative care approach were identified by expert consensus. Excluding chief complaints and clinical conditions that were universally identified as not appropriate for paramedic palliative support, these criteria were applied by two trained chart abstractors to 500 consecutive charts to classify calls as appropriate for paramedic palliative support, or not. The PSCM and modifications (added criteria call location type and registration in a palliative care program, text mining terms) were applied to the same cohort, and sensitivity, specificity, positive and negative predicative (PPV/NPV) values calculated. **Results:** Of the 500 cases, 21 (4.2%) were classified as appropriate for paramedic palliative support by the Gold Standard ( $\kappa = 0.734$ ). 9 cases with initial disagreement were reviewed with 8 ultimately being deemed to fit the palliative support criteria. The PSCM performed poorly (using the "potential palliative" cut point): sensitivity 71.4% (95%CI: 47.8-88.7), specificity 71.4% (95%CI: 67.1-75.4) and PPV of 9.9% (95%CI: 7.5-12.9) and NPV of 98.3% (95%CI: 96.7-99). The modified PSCM: sensitivity 61.9% (95% CI:

38.4-81.9), specificity 99% (95%CI: 97.6-99.7), PPV 72.2% (95% CI: 50.5-86.9) and NPV 98.3% (95%CI: 97.2-99). A Modified PSCM plus pall\* text term performed similarly: sensitivity 100% (83.9-100), specificity 97.3% (95% CI: 95.4-98.5), PPV 61.8% (95%CI: 48.6-73.4) and NPV 100%. **Conclusion:** A modified PSCM provides moderate sensitivity, specificity and PPV, improved by the text term Pall\* if feasible. This query will be helpful to systems considering a paramedic palliative care program or when one is already operational.

**Keywords:** emergency medical services, palliative, paramedic

#### P091

##### Essential elements to implementing the paramedics providing palliative care at home program: an application of the Consolidated Framework for Implementation Research (CFIR)

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**Introduction:** Providing comfort care support at home without transport to hospital has not traditionally been part of paramedic practice. The innovative Paramedics Providing Palliative Care at Home Program includes a new clinical practice guideline, medications, a database to share goals of care, and palliative care training. This study aimed to determine essential elements for scale and spread of this model of care through the application of an implementation science model, the Consolidated Framework for Implementation Research (CFIR). **Methods:** Deliberative dialogue sessions were held with paramedic, palliative care, primary care, and administrative experts in a province that had the Program (Nova Scotia, March 2018) and one that had not (British Columbia, July 2018). Sessions were audio recorded and transcribed. The CFIR was used as the foundation for a framework analysis, which was conducted by four team members independently. Themes were derived by consensus with the broader research team. **Results:** Inter-sectoral communication between paramedics and other health care providers was key, and challenging due to privacy concerns. Relationships with health care providers are critical to promoting the new model of care to patients, managing expectations, and providing follow up/ongoing care. Training was an essential characteristic of the intervention that can be adapted to suit local needs, although cost is a factor. There were challenges due to the culture and implementation climate as a shift in the mindset of paramedics away from traditional roles is required to implement the model. Paramedic champions can play an important role in shifting the mindset of paramedics towards a new way of practice. **Conclusion:** The CFIR construct of cosmopolitanism, emphasizing the importance of breaking down silos and engaging diverse stakeholders, emerged as one of the most important. This will be helpful for successful scale and spread of the program.

**Keywords:** end of life, palliative, paramedic

#### P092

##### Caregiver perspectives on children's functional outcomes following fracture: a qualitative study

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**Introduction:** Fractures are a common childhood presentation to the emergency department (ED). While ED providers are aware of treating pain, we are less aware of the functional impact of these fractures.