demonstrated an area under the curve of 0.982. Cut-off value of ≥5.2 mm yielded the best test characteristics and accurately predicted raised ICP with a sensitivity of 100%, specificity of 90.8%, positive predictive value of 91.2% and the negative predictive value of 100%.

Conclusions: Prediction of elevated intra cranial pressure by bedside ED optic nerve sheath diameter ultrasonography is comparable with CT brain and carries a significant correlation in terms of accuracy, sensitivity, specificity and positive predictive value. Optimal cut-off of ONSD in Indian population is for detecting raised ICP with better sensitivity and specificity is 5.2mm.

Study Objectives: Out-of-hospital ultrasound is not yet widely implemented. Most studies report on convenience samples and trauma patients. We assessed the feasibility of paramedic performed out-of-hospital lung ultrasound in medical patients with respiratory distress.

Methods: Paramedics at two ambulance stations in the city of Pittsburgh, PA, USA underwent a 2-hour training session in out-of-hospital lung ultrasound using the SonoSite iViz, a handheld ultrasound device. Emergency medical services (EMS) physicians were instructed in the interpretation of lung ultrasound images. Paramedics enrolled patients presenting with signs and symptoms of respiratory distress over a 3-month period. The ultrasound exam included anterior and lateral views from both sides of the chest. Images were transmitted wirelessly using a mobile hotspot device and uploaded into an online image archiving system. Images were interpreted remotely by EMS physicians, and two expert sonographers provided an overread. We assessed agreement between EMS physicians and experts, as well as between chart review-derived ED diagnosis and expert interpretation. We defined 4 a priori hypotheses that would need to be met for the intervention to be considered "feasible.”

Results: 34 out of 78 eligible patients had an ultrasound exam completed. Image transmission was successful in 25 cases. The primary reason for not enrolling an otherwise eligible patient was equipment failure (25%), followed by patient acuity and patient refusal (18.2% each). 58.8% of completed scans were deemed uninterpretable upon expert review. Agreement between EMS physicians and experts was low. The predetermined thresholds for feasibility were not met.

Conclusions: Paramedic-performed out-of-hospital lung ultrasound for patients with respiratory distress and remote interpretation by EMS physicians did not meet the predetermined thresholds to be considered “feasible” in a real-world environment.

Employing a Geospatial Analysis of Asthma-Related Emergency Department Visits to Target Community-Based Programs: An Example from an Academic-Community Organization Partnership

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Study Objectives: Community Action Programs Inter-City, Inc. (CAPIC) is a private, non-profit corporation founded in 1967 to eradicate the root causes of poverty and support families and individuals with complex social needs in the greater Boston area, specifically in the communities of Chelsea, Revere and Winthrop. The emergency department (ED) at the Massachusetts General Hospital (MGH) also serves these communities, and formed a collaborative academic-community partnership with CAPIC to provide analysis of ED visit data to help develop targeted, evidence-based interventions for a variety of health needs. CAPIC identified pediatric asthma as a key issue within the community - a condition that affects over 6 million people under 18 years of age, a disproportionate number of whom live...