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Prehospital lung ultrasound (LUS) performed by paramedics is a practical, evidence-based tool for evaluating acute dyspnea and identifying acute heart failure (AHF) in the field. Building on a published pilot study (Russell et al., *Academic Emergency Medicine*, 2024), we implemented training and education to integrate LUS into routine prehospital care for patients presenting with respiratory distress. Using a standardized lung imaging protocol and a focused training program supervised by ultrasound-trained physicians, paramedics in the New Orleans Emergency Medical Services performed over 500 LUS examinations across a two-year period (September 2023–September 2025). We found that paramedics reliably identified pulmonary congestion through the detection of B-lines, facilitating earlier recognition of AHF vs. lung related pathology. This earlier identification enabled initiation of heart failure–directed therapy prior to hospital arrival and provided emergency department physicians with actionable diagnostic information upon patient handoff. This quality improvement measure demonstrates that the integration of prehospital LUS into EMS practice improves diagnostic accuracy, accelerates time-sensitive treatment, and has the potential to enhance both out-of-hospital patient care and downstream hospital outcomes.