Introduction: Point of care ultrasound (PoCUS) has become an established tool in the initial management of patients with undifferentiated hypotension in the emergency department (ED). Current established protocols (e.g. RUSH and ACES) were developed by expert user opinion, rather than objective, prospective data. Recently the SHoC Protocol was published, recommending 3 core scans; cardiac, lung, and IVC; plus other scans when indicated clinically. We report the abnormal ultrasound findings from our international multicenter randomized controlled trial, to assess if the recommended 3 core SHoC protocol scans were chosen appropriately for this population. Methods: Recruitment occurred at seven centres in North America (4) and South Africa (3). Screening at triage identified patients (SBP <100 or shock index >1) who were randomized to PoCUS or control (standard care with no PoCUS) groups. All scans were performed by PoCUS-trained physicians within one hour of arrival in the ED. Demographics, clinical details and study findings were collected prospectively. A threshold incidence for positive findings of 10% was established as significant for the purposes of assessing the appropriateness of the core recommendations. Results: 138 patients had a PoCUS screen completed. All patients had cardiac, lung, IVC, aorta, abdominal, and pelvic scans. Reported abnormal findings included hyperdynamic LV function (59; 43%); small collapsing IVC (46; 33%); pericardial effusion (24; 17%); pleural fluid (19; 14%); hypodynamic LV function (15; 11%); large poorly collapsing IVC (13; 9%); peritoneal fluid (13; 9%); and aortic aneurysm (5; 4%). Conclusion: The 3 core SHoC Protocol recommendations included appropriate scans to detect all pathologies recorded at a rate of greater than 10 percent. The 3 most frequent findings were cardiac and IVC abnormalities, followed by lung. It is noted that peritoneal fluid was seen at a rate of 9%. Aortic aneurysms were rare. This data from the first RCT to compare PoCUS to standard care for undifferentiated hypotensive ED patients, supports the use of the prioritized SHoC protocol, though a larger study is required to confirm these findings. Keywords: point of care ultrasound (PoCUS), hypotension, emergency medicine

LO46
The impact of rapid antigen detection testing on antibiotic prescription for acute pharyngitis: a systematic review and meta analysis
O. Anjum, BSc, P. Joo, MDCM BEng, University of Ottawa, Ottawa, ON

Introduction: Acute pharyngitis is a common reason for primary care or emergency department visits, often resulting in antibiotic prescription. Rapid antigen detection tests (RADT) are routinely used to diagnose Group A Streptococcus (GAS) pharyngitis. However, due to its low sensitivity, patient pressures and conflicting guidelines, the RADT often complicates management decisions. Our aim was to assess the impact of RADT in patients presenting with acute GAS pharyngitis on the antibiotic prescription rate and appropriateness of antibiotic management. Methods: We systematically searched Medline, Embase, and Cochrane databases from 1980 to June 2016. Studies were selected according to a predefined PRISMA protocol and data extracted by two independent reviewers. Prospective and retrospective studies that evaluated the impact of RADT on antibiotic prescription for pharyngitis were included. Study quality was assessed using Cochrane Risk of Bias Tool and the Newcastle-Ottawa Scale. Our main outcome was the dichotomous measure of antibiotic prescription, with or without RADT availability. Studies were combined if there was low clinical and statistical heterogeneity (I² <30%). Bivariate Mantel-Haenszel random effects model was used to perform meta analyses using SPSS 22 and Revman 5. Results: We identified 4003 studies: 139 were selected for full text review; 10 met our inclusion criteria (N = 10859 participants,