

Background

Acute Abdominal Pain (AAP) is one of the main symptoms at the ED. In-hospital mortality rate of AAP (5.1%) is much higher in comparison with chest pain (0.9%). There is an established therapy path for patients with chest pain, including biomarker determination and the monitoring at a chest pain unit. AAP is a multifaceted symptom with a wide variety of differential diagnoses. There is no official guideline for a diagnostic pathway for this interdisciplinary symptom. There is the need to analyse potential key performance indicators for AAP in the ED and improve the quality of diagnosis and initial treatment with the aim to decrease mortality. These data can be used to set up a clinical pathway “abdominal pain unit”.

Methods

We conduct a retrospective analysis of our routine data of 2015 at Campus Virchow-Klinikum and Charité Mitte to examine the patient flow in our Emergency Department for patients with AAP. We analyse the process times for critical diagnostic steps for patients with atraumatic AAP at our ED. Actually, we present data from a pre-analysis random balanced sample of 48 patients. All patients had the triage category orange and yellow, according to Manchester Triage System. Statistical analysis is performed using SPSS.

Results

From 48 analysed patients, 41.7% were admitted to the hospital, 54.2% remained as outpatients and 4.1% left without been seen. The main diagnoses were gastritis and gastroenteritis (22.9%), acute pancreatitis (8%) and cholecystolithiasis, choledocholithiasis and nephrolithiasis. Fifty percent of our patients consulted the ED, 37% have been brought in by ambulance. 46.5% of our patients underwent diagnostic imaging, 70.0% of admitted and 36.8% of outpatients. The mean length of stay (LOS) in the ED was 353min. The median time to abdominal sonography was 319min, to abdominal CT 463min and to abdominal X-ray 236min.

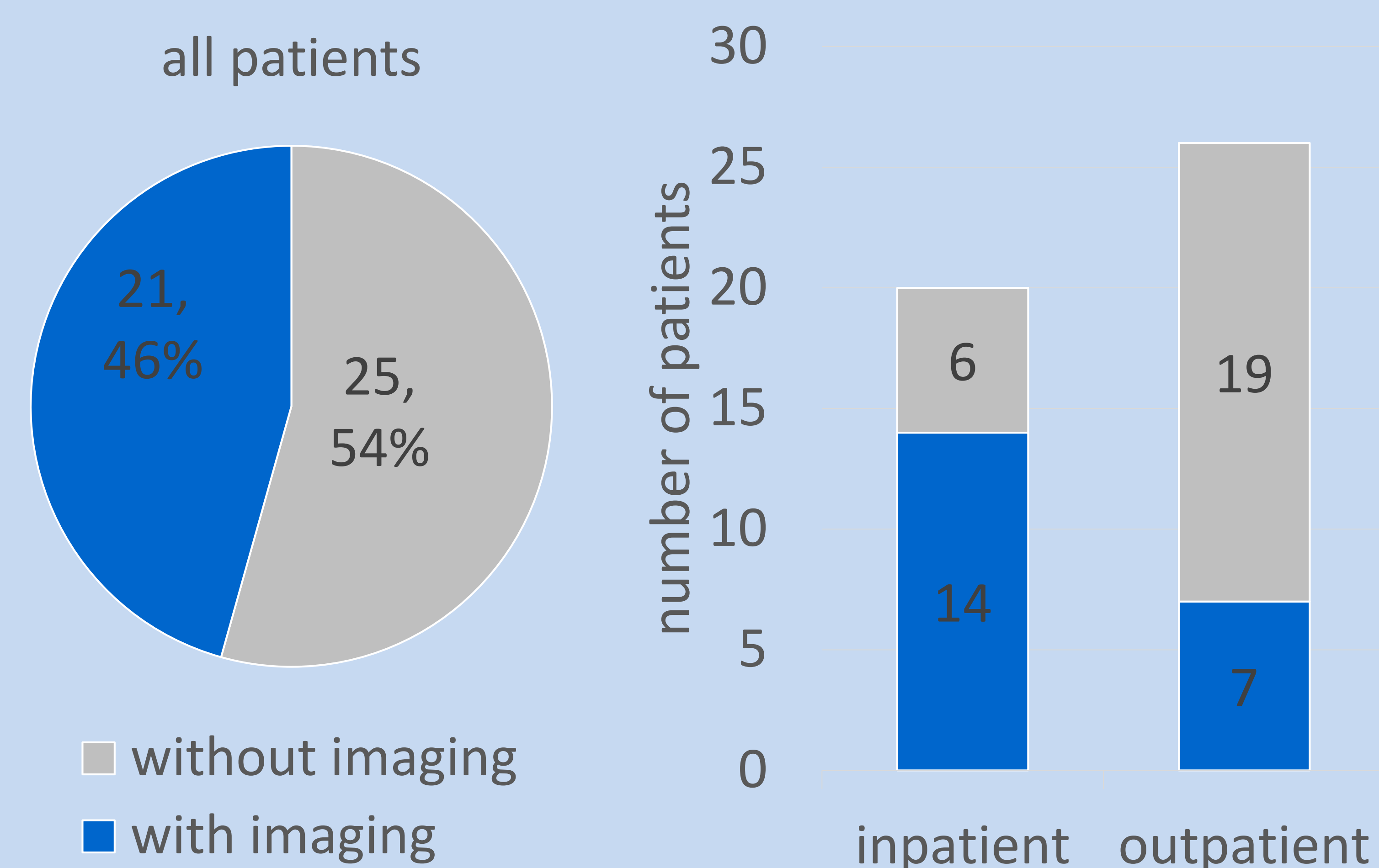


Figure 1: Inpatients and outpatients with and without imaging.

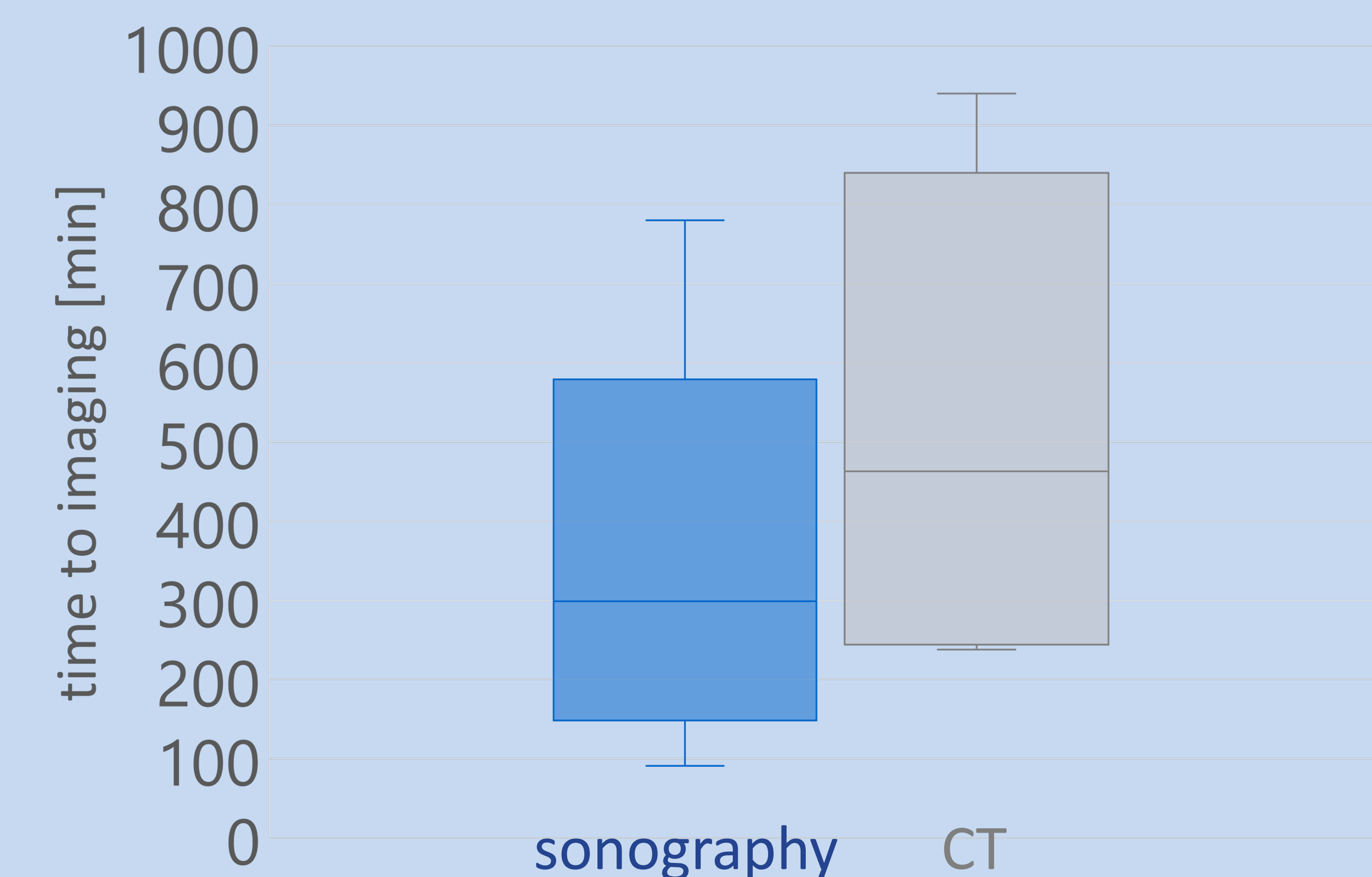


Figure 2 : Time to imaging (sonography or CT) at the ED.

Conclusion

Our data show that patients with AAP have a considerable high rate of abdominal imaging and a relatively long time until it is performed. Once confirmed in a larger data-set, we propose that early abdominal sonography (within 60min of arrival) should be prospectively tested to improve outcome.

