

## Reply to Dr. de Kernagal's Letter to the Editor "FAST and undertriage"

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Dear Editor,

We would like to thank Dr. de Kernagal for his inquiry regarding the use of Focused Assessment with Sonography in Trauma (FAST) by pre-hospital Mobile Medical Teams (MMT) as a way to reduce undertriage. As Dr. de Kernagal describes in his letter, the use of FAST in the emergency department as a means to screen patients for obscured injuries has been well documented [1]. A review conducted by Körner et al [2] revealed that FAST has an acceptable sensitivity for the detection of free abdominal fluid (range 0.64–0.98) but has a poor sensitivity for solid organ damage (range 0.44–0.95). Furthermore, it appears that the operator experience in handling sonography equipment is vital in assuring a proper diagnosis. Indeed, another study has shown that a negative FAST cannot accurately rule out intra-abdominal injuries, and in case of suspected intra-abdominal injury, computerised tomography should still be considered [3].

More recently, the use of FAST as a diagnostic tool in the pre-hospital setting has been studied to assess its effectiveness. A study published in 2010 has shown that even in the pre-hospital environment, FAST performed by MMT crew can deliver a sensitivity of 0.85 with a specificity for injuries of 1.00. However, FAST was only deemed necessary to perform in one out of every six cases [4].

Even though FAST has been shown to have an added advantage in the pre-hospital setting, its use as a tool to

triage patients in our trauma system seems redundant. As described in our article, within our trauma region, the MMT is primarily dispatched in accordance to consensus criteria, mostly based on the mechanism of injury [5]. Secondary dispatch criteria are also maintained by emergency medical service (EMS) personnel, but the basis of MMT dispatches is a primary-launch principle. The geographic make-up and the available infrastructure result in a maximum ambulance travel time of 20–30 min from the scene of the accident to an appropriate level I trauma centre. In this setting, unless the MMT is already in flight, the use of a "stay and play" policy becomes less and less attractive in some patient categories (i.e. exsanguination due to penetrating trauma). In this regard, our region has already implemented a "scoop and run" guideline for victims of penetrating trauma. In addition to this, implementation of FAST as a triage tool for reducing triage errors in MMT dispatches would require every EMS ambulance to be equipped with sonography equipment and its crew trained in its usage. To this end, it is our opinion that even though FAST can be used to initially assess a patient with success, its use as a triage tool in our trauma region seems limited. Reduction of primary (not dispatching the MMT) and secondary undertriage (canceling an already dispatched MMT) in our opinion should be achieved by studying the effectiveness of existing dispatch criteria and possibly modifying these if necessary, in combination with the implementation of validated cancellation criteria.

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