Introduction:
The Trauma Induced Coagulopathy Clinical Score (TICCS) was developed to be calculable on the site of injury with the objective to discriminate between trauma patients with or without the need for Damage Control Resuscitation (DCR) and thus transfusion (1). This early alert could then be translated to in-hospital parameters at patient arrival. Base excess (BE) and ultrasound (FAST) are known to be predictive parameters for emergent transfusion. We emphasize that adding this two parameters to the TICCS could improve its predictability.

Methods:
A retrospective study was conducted in the University Hospital of Liège. Based on the available data in the register (from January 1st 2015 to December 31st 2016), the TICCS was calculated for every patient. BE and FAST results were recorded and points were added to the TICCS according to the TICCS.BE definition (+ 3 points if BE < -5 and + 3 points in case of a positive FAST). Emergent transfusion was defined as the use of at least one blood product in the resuscitation room. The capacity of the TICCS, the TICCS.BE and the Trauma Associated Severe Hemorrhage (TASH) to predict emergent transfusion were assessed.

Results:
A total of 328 patients were included in the analysis. 46 (14 %) needed emergent transfusion. The probability for emergent transfusion grows with the TICCS.BE value (figure 1).
Positive Predictive Values (PPV) and Negative Predictive Values (NPV) of the three scores are displayed in table 1.

Conclusion:
Our results confirm that BE and FAST results are relevant parameters that can be added to the TICCS for better prediction of the need for emergent transfusion after trauma.

References:
(1) Tonglet ML et al. Prehospital identification of trauma patients with early acute coagulopathy and massive bleeding: results of a prospective non-interventional clinical trial evaluating the Trauma Induced Coagulopathy Clinical Score (TICCS) Crit Care 2014 Nov 26;18(6):648

Table 1 :

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<tr>
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<th>PPV</th>
<th>NPV</th>
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<tbody>
<tr>
<td>TICCS &gt;= 10</td>
<td>66.6 %</td>
<td>88.0%</td>
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<tr>
<td>TICCS.BE &gt;= 14</td>
<td>81.25%</td>
<td>89.1%</td>
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<tr>
<td>TASH &gt;= 16</td>
<td>90.0%</td>
<td>87.1%</td>
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PPV and NPV of the three scores.
Probability for emergent transfusion with TICCS.BE values.