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**UTILITY OF ALVARADO'S SCORE IN DIAGNOSTIC APPROACH OF THE ACUTE APPENDICITIS
IN EMERGENCY DEPARTMENT?**

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Introduction

Overconsumption of medical imaging and lack of abnormalities in histological pieces of appendectomy, led to the development of several clinical scores, in order to define the clinical probability with more accuracy. Among these, the Alvarado's score, associating clinical and biological data, was recently proposed. However, there has been several controversies as concerns the definition of cut-off values, as well as the validity of the score in ruling this diagnosis in or out.

Indeed, the cut off recommended to exclude the diagnosis has been set < 5 (score from 1 to 4 vs from 5 to 10) while the inclusion cut-off was set > 7 (1 to 6 vs 7 to 10).

We wondered about the utility of this score in clinical practice to include or exclude the pathology.

Material and methods

This was a retrospective study, including all adults patients (> 16 years-old), admitted in operating room for clinically suspected acute appendicitis, from September, 2012 till March, 2013 ($n = 52$ in the university hospital of Liège). The patients were distributed in various groups according to their Alvarado's score. The histological exam of the operation's piece was our gold standard to assert the diagnosis of acute appendicitis. Cut-off value to rule the diagnosis of acute appendicitis in was set at 7, while rule out cut-off was 5

Results

Fifty-two patients with a preoperative diagnosis of acute appendicitis were included. Eight presented a score < 5 , 44 ≥ 5 , 28 < 7 and 24 ≥ 7 . The diagnosis was histologically confirmed at 50 patients (96%).

In this sample, the sensibility and the specificity of a cut-off score < 5 to rule out the pathology were respectively 12 % and 0 %. Ruling the diagnosis in, when the score was ≥ 7 , was associated with a sensibility and a specificity of 48 and 100 % respectively.

Discussion and conclusions

In this cohort, a score upper or equal to 7 proved to be interesting to diagnose acute appendicitis. A score lower to 5 was not reliable in the exclusion of acute appendicitis.