

Prospective study of an advanced triage for moderate dyspnoea at the admission in the emergency department.

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Introduction

In the industrialised world, emergency departments (ED) are facing severe overcrowding issues leading to increased morbidity and mortality. While there is controversy on the ability of simple nursing triage procedure to solve completely this problem, we previously demonstrated that more specific advanced nurse triage algorithms could reduce the total time spent in the emergency department of patients presenting with chest pain (1) or minor trauma injuries (2). In that perspective, we designed the present study to test another advanced nursing triage algorithm for patients presenting to the emergency department with moderate dyspnoea.

Material and method

The study was prospective, interventional, controlled and randomized. Eligible patients were patients presenting with dyspnoea and triaged as level 2 according to the ELISA triage scale (3). Thirty-six patients were included and randomly distributed into 2 groups. Patients in the control group (n = 18) followed the traditional flow track after triage, while patients of the study group (n = 18) followed the advanced nurse triage algorithm for care, as developed by a college of experts on the basis of federal Prehospital Intervention Team algorithms notably.

Time indicators were collected in both groups.

Results

The following table details the comparison between study group and control in terms of timing data.

Indicators(Minutes)	Study group	Control group	p-value
Aerosol	25,93 ± 15,47	47,01 ± 24	p = 0.04
Thorax X-ray	66,34 ± 12.73	88,23 ± 39.99	p = 0.03
1 st medical contact	129,39 ± 24,17	59,21 ± 16,49	p < 0.01
Out of ED	300,60 ± 94,81	368,66 ± 127,17	p = 0.04

Conclusion

As previously demonstrated with advanced triage systems for chest pain or minor trauma injuries, advanced triage of patients with moderate dyspnoea deliberately delayed the first medical contact but significantly accelerated the administration of aerosol therapy, the realisation of thorax X-rays and allowed a 1-hour time gain in the total time spent in the ED.

References

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