

ARE DIAGNOSTIC-THERAPEUTIC PATHWAYS REALLY EFFECTIVE?

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INTRODUCTION



Diagnostic-therapeutic pathways (DTP) are evidence-based interventions aimed to organize the care pathway for specific groups of patients and to improve quality and efficiency of care, reducing variability in treatment.



Gastroenteritis (GE) is one of the main causes of access to the emergency room (ER) worldwide. In most cases they don't require urgent care causing waste of resources and prolonged waits for all patients.



The aim of the study is to demonstrate the efficacy of the protocol concerning GE in terms of diagnosis and management through nursing and medical staff training.

METHODS



Nurses and paediatricians attended a 4 hours training course for correct diagnosis and management of gastroenteritis in January 2019.



Data were collected from patients with gastroenteritis who arrived at the paediatric emergency room of a third-level hospital in October 2018 (GO) and February 2019 (GF).



A descriptive data analysis was firstly performed; possible association between gastroenteritis and selected variables were then investigated in terms of presentation and outcome before and after the implementation of DTP by Fisher's exact test ($p < 0.05$) and Wilcoxon test. Lastly, possible savings were calculated.

RESULTS

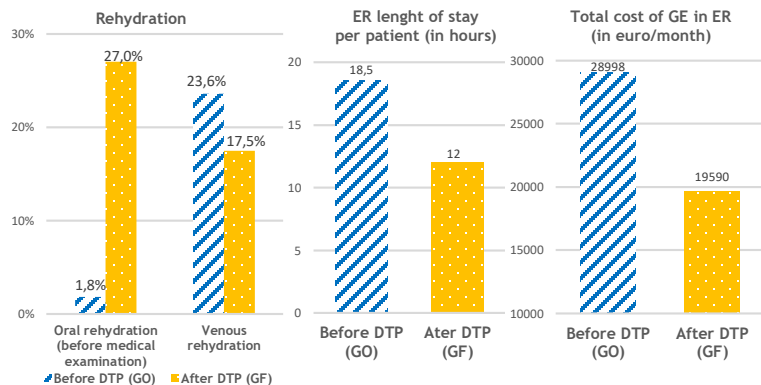
The two populations studied were comparable for:

- total number of patients: GO: 55/826, 6.7% vs GF: 63/973, 6.5% [$p = 0.88$]
- severity of presentation, usually mild: GO: 64% vs GF: 59% [$p = 0.7$]
- need for an intensive short-stay observation (ISO): GO: 21.8% vs GF: 23.8% [$p = 0.88$]



Implementation of diagnostic-therapeutic pathway for gastroenteritis determines:

- earlier oral rehydration (before medical examination: GO: 1.8% vs GF: 27%) [$p < 0.01$]
- lower use of intravenous rehydration (GO: 23.6% vs GF: 17.5%) [$p = 0.49$]
- shorter stay in Emergency Room (GO: 18 hrs vs GF: 12 hrs, -30%) [$p = 0.07$]



CONCLUSION

This study shows that a better treatment of gastroenteritis (through the implementation of a simple diagnostic-therapeutic pathway) can reduce about 3500 hours of ER use annually, which is equivalent to an estimated saving up to 100,000 euros (direct health care cost only).

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