Analysis of the impact on the rates of nosocomial infection (NI) after the implantation of a Fast Track (FT) protocol in elective colon surgery

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Background: The incidence of NI in colon surgery in our hospital in 2012 was 27.3% so it was decided to introduce a FT protocol in order to reduce that incidence and to establish new guidelines of antibiotic prevention and new recommendations for the use of venous central catheters.

Purpose:

• Information of NI and data about the fulfillment of antibiotic prevention.
• Use of venous central catheters.
• Parenteral nutrition (PN) prescription.
• Pharmaceutical expense before and after the implantation of a FT protocol.

Material and methods:

• Retrospective review of the clinical histories of patients who undergo elective colon surgery between Oct-13 and Jul-14.
• The pharmaceutical expense is compared in the above mentioned period opposite to the expense in the same period of the previous year.
• Out of 58 procedures of colon surgery carried out, 28 were patients included in the FT protocol.

Results:

The overall rate of NI in colon surgery during the analyzed period is 22.4%. The rate of infection in the FT group is 10.7%.

The inadequate antibiotic prevention has diminished from 26% to 14.3%

The number of patients with venous central catheters has diminished from 57% to 25%.

The number of patients with PN has diminished from 29% to 14.3%.

The number of days of patients treated with PN has diminished from 6 to 4.5 days.

The overall pharmaceutical expense for these patients has diminished a 12.4%.

Conclusions:
The use of a FT protocol has allowed to the Colon Surgery Unit to diminish the rate of NI and other and no less important factors such as the inadequate use of antibiotics, the use of venous central catheters and the number of patients with PN as well as the number of days with such nutrition.
And an important decrease in the overall pharmaceutical expense of a 12.4%.

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