

332: SUCCESSFUL IMPLEMENTATION OF GUIDELINES TO OBTAIN AN EARLY SWITCH FROM INTRAVENOUS TO ORAL ANTIBIOTIC THERAPY IN A DUTCH TEACHING HOSPITAL

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Objective:

The purpose of this study is to reduce the number of days with unnecessary intravenous antibiotic therapy for hospitalized patients, through implementation of guidelines for an early switch from intravenous to oral antibiotic therapy.

Methods:

It has been established that a similar therapeutic outcome is obtained in patients who made an early switch from intravenous to oral antibiotic therapy, and those who did not make this switch. Benefits of an early switch are patient comfort and mobility, reduced length of hospital stay and cost savings. To reach these benefits we defined intravenous to oral switch criteria and set up a multidisciplinary team (medical microbiologist, hospital pharmacists, internal medicine residents, nurses and quality assurance manager) that guided interventions.

Interventions consisted of:

1. Oral presentations of switch criteria guidelines to physicians and nurses;
2. Handing out pocket-size switch guideline cards to prescribing physicians; and
3. Actively suggesting switch therapy to physicians on a daily basis when patients were identified who fulfilled switch criteria, yet were not switched.

The primary outcome parameter was the number of days with unnecessary intravenous antibiotic therapy. The number of days with unnecessary antibiotic therapy was measured on internal medicine wards before ("control group") and after interventions ("intervention group") were made.

Results:

In the control group, only 26% (9/35) of patients eligible to be switched were actually switched within the predefined timeframe, leading for the group as a whole to a total amount of 84 unnecessary intravenous days (median 2). After the start of the intervention 87% (66/76) of patients switched within time, leading to a total amount of only 12 unnecessary intravenous days (median 0) (Figure). Material savings (antibiotics and medical supplies) obtained in the intervention group were Euro 3250 in two months. The study is now being extended to surgical wards in our hospital. Preliminary results on these wards are similar to those reached on the internal medicine wards. After successful implementation is reached on all wards, the annual cost savings for the hospital (777 beds) could reach Euro 87.000.

Conclusions:

Our implementation method of switch guidelines at internal medicine wards was successful. A dramatic reduction of days with unnecessary antibiotic therapy was reached (median reduced from 2 to 0 unnecessary intravenous days). Thus, a simple intervention method can lead to a significant reduction of days with unnecessary intravenous antibiotic therapy, improved patient comfort and substantial cost savings.

