Improvement in an antimicrobial stewardship program after implementing a screening alert system


Hospital Universitario Nuestra Señora de Candelaria (S/C de Tenerife, Spain)
25th EAHP Congress (Gothenburg 2020)

Purpose
Implement a screening alert system (SAS) that shows only those antibiotic treatments that could be improved by meeting predefined conditions and evaluate it.

Material and Methods
Quasi-experimental study. Using the information available in Electronic Health Record (EHR) and in pharmacy and microbiology applications, we have developed a computer tool that analyse hundreds of situations through pre-established conditions. During one month, we registered before each AMSP team meeting the total number of patients and prescribed antibiotics in hospital to compare it to the number of treatment and patients that our system proposes to review. The main variable of our study was number of patients to check before and after the tool. Secondary variables included number of antibiotics to review. For the statistical analysis, the t-paired test was used to determine if there were differences in the mean of the patients reviewed before and after using SAS. The analyzes were performed using the SPSS/PC statistical program (version 24.0 for Windows, SPSS, Inc, Chicago, IL).

Results
![Graph showing distribution of patients and antibiotics](image)

Mean differences were found for the patients to theoretically check before using SAS (14 ± 7 patients) vs who were really checked after using the tool (5 ± 3 patients), m.d. 9 (95% CI, 5 to 12 patients), p=0.000124.

Conclusions
- This software allows to collect information contained in different systems and displays only the relevant one in an organized view to the user. Today, limited personal resources make the development of screening systems essential to optimize time and to prioritize the treatments to be reviewed.

Abstract Number: SPSQ-023

etevare@gmail.com
@etevalf