

PHARMACIST INTERVENTIONS: THE SUCCESS OF AN ANTIMICROBIAL STEWARDSHIP TEAM



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Background

Pharmacist involvement in Antibiotic Stewards Team (AST) helps to ensure compliance with the standards set by Health Nacional Portuguese Service. Collection and evaluation of antimicrobial utilization data is important for assessing the impact of Stewardship intervention in hospitals.

Purpose

Assess the impact of pharmacist intervention in AST on the number of inappropriate prescriptions, the duration of antibiotic therapy and the antimicrobial resistance.

Methods

This is a prospective study in a single center where antibiotics prescriptions between June/2015 and February/2017 were screening by pharmacist who checked all prescriptions without approval therapeutic protocols or analytical results and send to AST. Comparison of the outcomes by different groups were performed by non-parametric tests (5% level of significance).

Bibliography:
Portaria 20/2014
Portaria 249/2018



Results

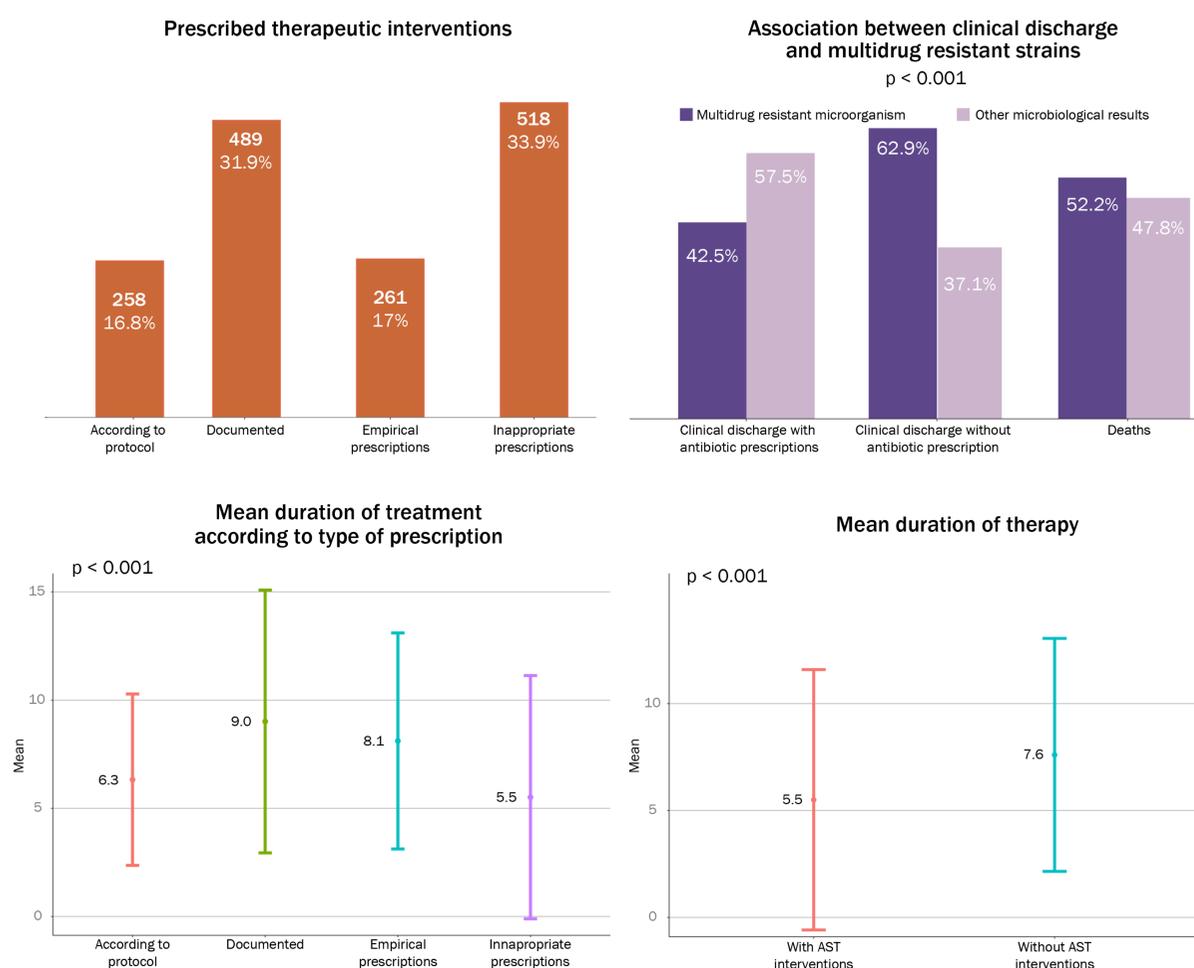
A total of 1242 in-hospital patients (54.5% males) were identified with mean (SD) age of 67.9 (16.6) years resulting in 1529 prescriptions (67.2% carbapenems and 32.8% quinolones).

The physician's acceptance to pharmacy interventions was 52.5% (157/299 prescriptions).

Multidrug resistant microorganisms were found in 56.6% of prescriptions with microbial isolates (n=652).

Prescriptions of patient who discharged early with antibiotic for ambulatory care (n=332) had lower mean duration of treatment (5.8 days) and a lower proportion of multidrug resistant strains (42.5%) than prescription of patients who discharged without antibiotic (n=866; 7.7 days; 62.9%) or prescription of patients who died (n=208; 7.1 days; 52.2%) (p<0.001).

The figures below illustrate the proportion of prescribed therapeutic interventions, the association between clinical discharge and multidrug resistant strains and the mean duration of treatment.



Conclusion

Pharmacy-driven interventions could be a strategy for decreasing cost with human resource associated with Antimicrobial Stewardship Program due to the effective screening of antibiotics prescription (physician only reviewed the inappropriate prescriptions).

The investment in surveillance of antibiotic treatment results in early hospital discharge with shorter in-hospital length of antibiotic treatment and consequently decreasing of multidrug resistant strains isolates.