

PEDIATRIC ANTIBIOTIC STEWARDSHIP

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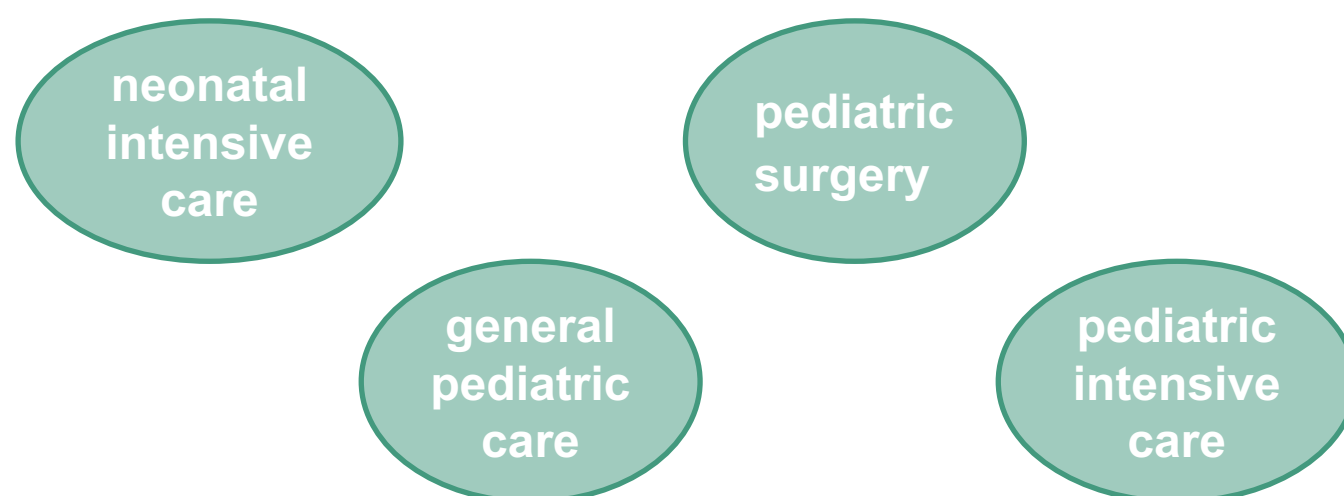
INTRODUCTION

Antibiotic resistance is an increasingly worldwide problem, with particularly in the context of impact in hospital infections. As serious infections can be caused by multi-resistant microorganisms and new antibiotics are lacking, antimicrobial stewardship programs are necessary to ensure the judicious use of antibiotics.

METHODS

Retrospective study

Antibiotic consumption in a tertiary pediatric center



Main aim: evaluate trends of antibiotics use with implementation of a **restrictive policy** for prescription of restricted antibiotics



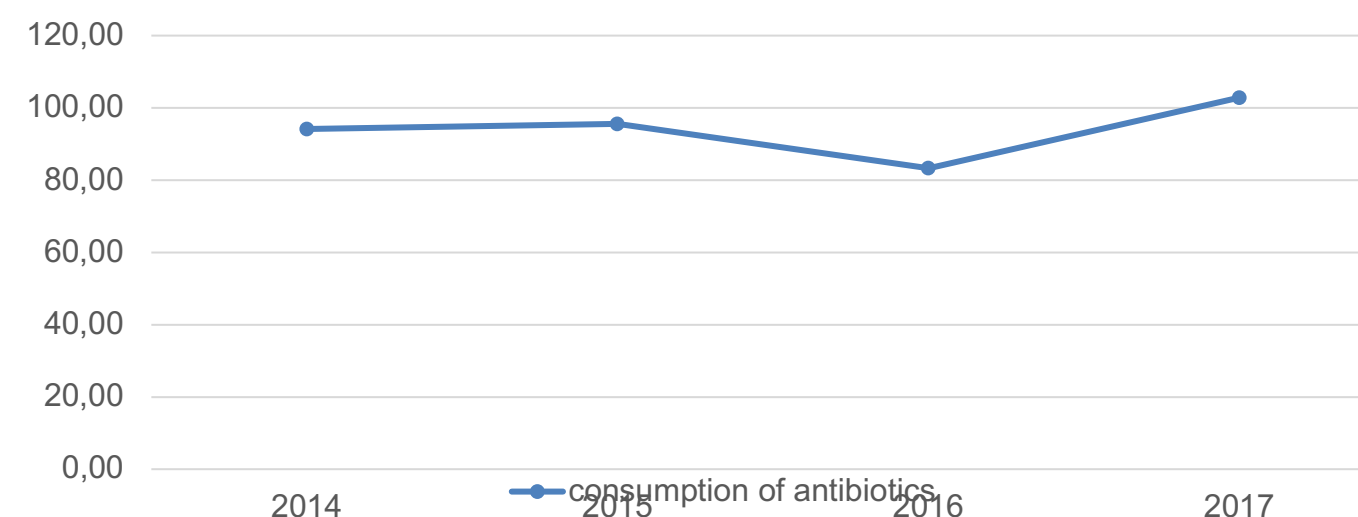
Formal review of prescribers' justification for prescription of restricted antibiotics – **CARBAPENEMS + QUINOLONES**

in a maximum of 24 hours after prescription in weekdays and a maximum of 72 hours in weekends

made by local antimicrobial stewardship team and if necessary an intervention of a pediatric infectious diseases specialist was asked

RESULTS

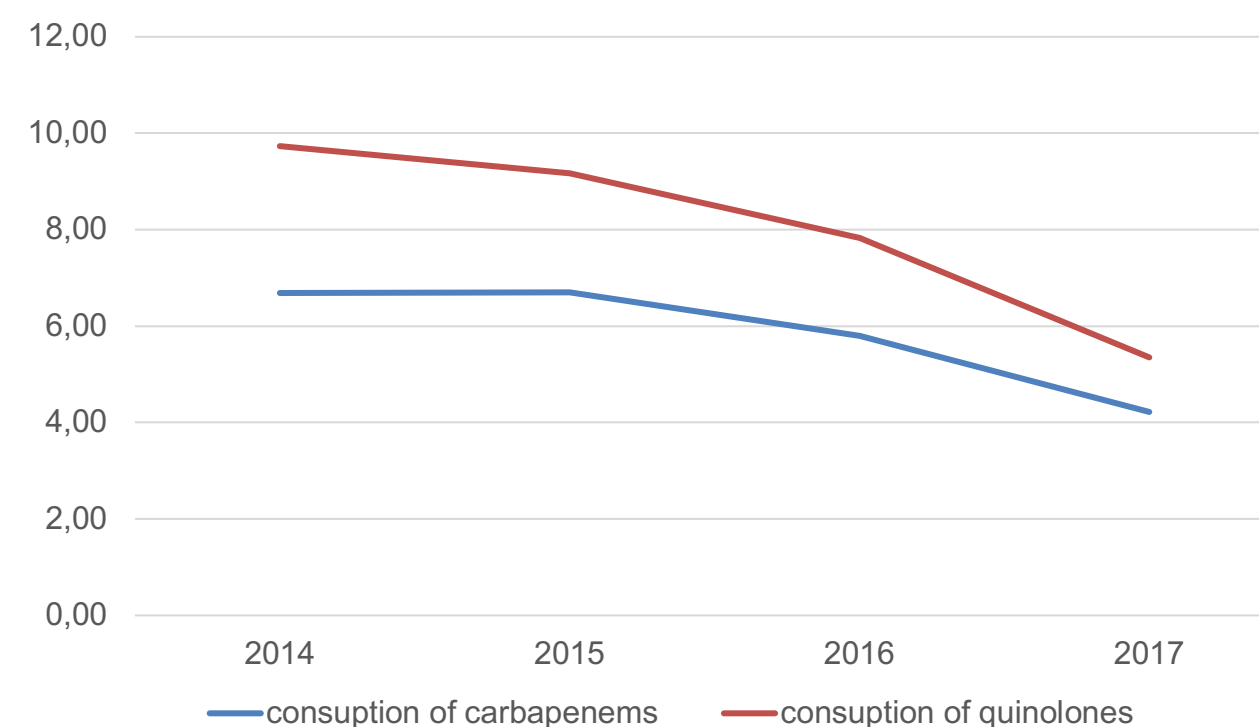
Consumption of antibiotics in DDD per 100 bed days



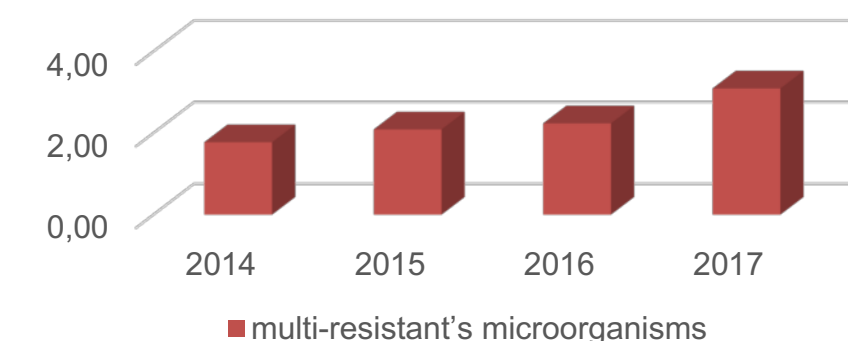
Increase in antibiotics consumption from 94 to 102,82 DDDs per bed day in 3 years

Reduction of approximately **37%** in the use of carbapenems

Reduction of approximately **63%** in the use of quinolones



Multi-resistant's microorganisms in DDDs per 1000 bed days



The incidence of multi-resistant's microorganisms has been increasing from 1,77 to 3.09 DDDs per 1000 bed days

MRSA incidence has declined in ~ 57%

CONCLUSION

In general and along these 3 years, antibiotics consumption had a small increase. This can be explained in part by the use of antibiotics with a higher weight in terms of DDDs calculation, like penicillins. With the implementation of this policy, a reduction of the use of carbapenems and quinolones was achieved in the context of increasing drug resistance, highlighting the importance of interventions targeted to restricted antimicrobials. However, these interventions should be combined with strategies to improve antimicrobial prescription in order to achieve sustainability.