Antibiotic (ATB) resistance is a global scourge. WHO has established an action plan to combat ATB resistance. Pharmacists of our hospital wished to follow this action plan and optimize use of ATB.

**AIM AND OBJECTIVES**

The purpose of this study is to determine if actions implemented by pharmacists in collaboration with an infectious disease specialist have improved correct use of ATB.

**MATERIALS AND METHODS**

All care services in our hospital are involved in this retrospective study. Patients treated with antibiotics were included randomly. Pharmacists and infectious disease specialists checked inpatient records and prescriptions with an assessment form. An average comparison test (n>30 ; alpha: 0.05) comparing each items average before and after implementation of improvement actions was carried out.

**RESULTS**

A pharmacist has been integrated into infectious risk management. A commission of ATB was created. A pharmacist specialized in antibiotics has been identified: he analyzes ATB consumption and alerts prescribers in case of discrepancy with recommendations. Prescription software has been set up so that initial treatment duration of ATBs is limited to 4 days in order to promote re-evaluation of ATB. During an ATB treatment > 7 days a justification is requested. This retrospective study was conducted on 34 inpatient files in 2016 before the implementation of measures and compared to 34 other inpatient files in 2019 after the implementation of improvement actions. Results showed a statistically significant improvement concerning some criteria.

**CONCLUSION AND RELEVANCE**

Pharmacists actions has improved the use of antibiotics in our hospital. There is a difference in 3 years between the pre- and post-implementation. However during these 3 years pharmacists have made prescribers aware of correct use of ATB. Pharmacists can improve use of antibiotics by conducting education and warning actions with prescribers.

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