

# ASSESSMENT OF KNOWLEDGE, ATTITUDES AND PRACTICES REGARDING ANTIBIOTIC RECONSTITUTION AMONG HEALTHCARE PROFESSIONALS IN 12 SOUTHEASTERN EUROPEAN HOSPITALS: A MULTICENTRE CROSS-SECTIONAL STUDY

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## BACKGROUND

Preparation and administration of intravenous medicines, especially antibiotics, have many steps or aspects that are usually interrelated, which makes these medicines most commonly involved in medication errors in hospitals. Therefore, it is important to focus on contextual aspects of antibiotic use in hospitals especially in terms of antibiotic reconstitution/dilution.

## PURPOSE

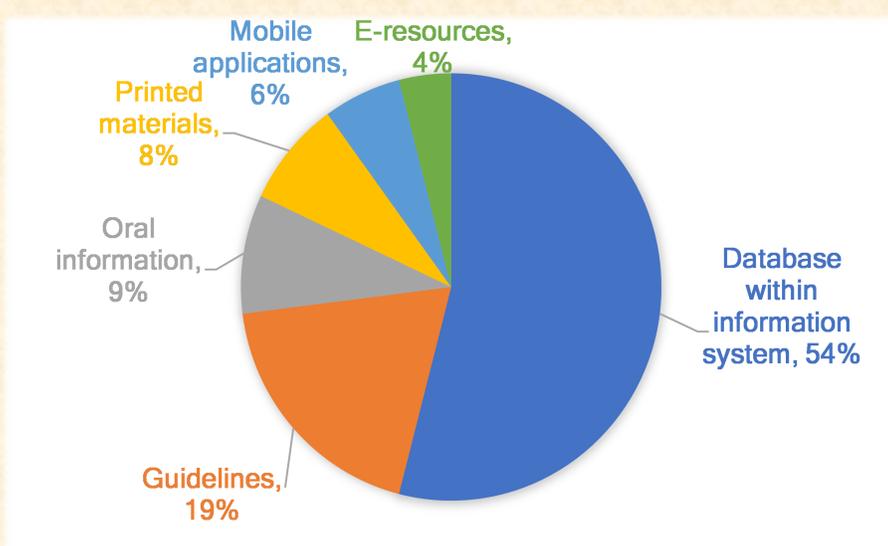
The aim of this study was to explore the knowledge, attitudes and practices (KAP) regarding antibiotic reconstitution/dilution among healthcare professionals in twelve Southeastern European hospitals.

## MATERIALS & METHODS

The study was conducted from May to September 2021 using interviewer-administered questionnaires or self-administered questionnaires mailed to healthcare professionals.

## RESULTS

From 206 physicians, 91.8% consult pharmacists for the advice concerning stability of reconstituted antibiotics, incompatibilities with other medicines or solvents or preparation and administration of parenteral antibiotics for special patient groups. Medical nurses/technicians (N=359) consult with their colleagues (up to 56.10% rather than asking pharmacists for the information concerning antibiotic reconstitution/dilution (up to 36.90%). Results on the most trusted source of information are presented in Figure 1. The study revealed that knowledge depends on the educational level, since physicians had higher percentage of correct answers (52.05-88.10%) in comparison to medical nurses/technicians (33.33-68.42%). Furthermore, there was statistically significant difference in knowledge level among healthcare professionals of different hospitals.



**Figure 1.** The most trusted sources of information according to 565 healthcare professionals

## CONCLUSION

The study indicates the need for database within hospital information system regarding antibiotic reconstitution/dilution in order to decrease the inappropriate preparation and administration of parenteral antibiotics in hospitalized patients. Moreover, it is important to raise the awareness about this issue as a part of everyday practice of hospital pharmacists. It is needed to introduce a specific training on preparation and administration of parenteral antibiotics among healthcare professionals in hospitals.