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


1University Clinical Center of Serbia, Belgrade, Serbia; 2University Clinical Center “Zvezdara”, Belgrade, Serbia; 3Institute of orthopaedics Banica, Belgrade, Serbia; 4General Hospital Dr. Tomislav Bardek, Koprivnica, Croatia; 5University Medical Center Ljubljana, Slovenia; 6University Clinical Center Tuzla, Bosnia and Herzegovina; 7City General Hospital 8 September, Skopje, North Macedonia; 8University Clinical Center “Majka Tereza”, Skopje, North Macedonia; 9Special Hospital “Vaso Ćuković” Risan, Montenegro.

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.

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.