E0046 The global point-prevalence point survey of antimicrobial consumption and resistance (global-PPS): 2015 results of antimicrobial prescribing in Kyrgyzstan

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Background: A uniform and standardized method for surveillance of antimicrobial use in hospitals (the Global-PPS) was used to assess the variation in antimicrobial (AM) prescribing in Kyrgyzstan and identify targets for improving AM prescribing. BioMérieux provided unrestricted funding support for the survey.

Materials/methods: PPS was conducted in February 2015, in two paediatric hospitals. The survey included all inpatients receiving an AM on the day of PPS. Data collected included details on the AM agents, reasons and indications for treatment as well as a set of quality indicators. A web-based application is used for data-entry, validation and reporting as designed by the University of Antwerp (www.global-pps.com).

Results: On the day of the PPS there were 684 inpatients of which 599 were admitted on a paediatric wards. Out of all admitted children, 38.9% received at least one antibiotic. Highest prevalence was found on paediatric intensive care units (66.7%). The most commonly used antibiotics were ampicillin (19.5%), ceftriaxone (15.8%) and cefazolin (13.4%). The indication for treatment was recorded in 98% of the prescribing episodes. The most common anatomic sites of infection for which AM were prescribed were: pneumonia (15%), ear, nose, throat (ENT) (14%), and prophylaxis for orthopaedic surgery (13.4%). Top 3 antibiotics to treat pneumonia were: ampicillin (24.4%), ceftriaxone (22.2%) and gentamicin (13.3%). Ampicillin was combined with gentamicin in accordance with WHO handbook on Integrated management of childhood illness for children under five. In total, 77% of the surgical prophylactic antibiotic prescriptions were for >24 h. Overall 55% of the prescribed antibiotics were in compliance with the national guidelines. Physicians were not following guidelines for management of ENT diseases, acute bronchitis and osteomyelitis. Antibiotics were commonly empirically prescribed (99.9%).

Conclusions: This Global-PPS identified the following indicators as targets for quality improvement: indication recorded in patient notes, the duration of surgical prophylaxis and compliance with national guidelines. We are planning to perform repeated PPS in all hospitals for regular monitoring of AM prescribing and decision making, after implementing antibiotic stewardship initiatives.