

# European Antibiotic Awareness Day provides platform for campaigns on prudent use of antibiotics for the fourth time

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Antibiotic resistance restricts therapeutic options for treatment of bacterial infections and may put patients at risk. It is thus a major public health issue in Europe and globally. The European Antibiotic Awareness Day (EAAD) is a European health initiative coordinated with the involvement of the European Centre for Disease Prevention and Control (ECDC) that aims to provide a platform and support for national campaigns about prudent antibiotic use [1]. It falls in the week of 18 November every year and sets the date for the launch of national campaigns.

On the occasion of the upcoming fourth EAAD, the surveillance data on antibiotic resistance, gathered by the European Antimicrobial Resistance Surveillance Network (EARS-Net, a network coordinated by ECDC), are released in a new report [2] and a European Commission five-year action plan to tackle antimicrobial resistance is launched [3].

According to the new data from the EARS-Net report, the percentage of carbapenem-resistant *Klebsiella pneumoniae* is on the increase in Europe. Between 2005 and 2010, a total of 140 laboratories from 18 countries continuously reported results on the susceptibility to carbapenems of invasive *K. pneumoniae* isolates. During this period, the number of laboratories reporting continuously per country ranged from one laboratory in the Czech Republic, Iceland, Malta and Sweden, to 33 laboratories in France. Trend analysis was performed only on the results from these 140 laboratories. Results from this analysis show that in Europe the proportion of *K. pneumoniae* isolates resistant to carbapenems increased from 8 % to 15 % between 2005 and 2010. This increase was found to be highly significant ( $p < 0.001$ ) but this is mainly due to a substantial increase in a few countries. Twelve European Union (EU) countries, reported resistance to carbapenems in 2010 [2]. Many EU Member States report that between 15 to nearly 50 per cent of *K. pneumoniae* from bloodstream infections are carbapenem-resistant. Carbapenems are the major last-line class of broad-spectrum antibiotics to treat infections with

multidrug-resistant Gram-negative bacteria such as *K. pneumoniae*, a frequent cause of pneumonia and urinary tract infections in hospitals.

For a large part, antibiotic resistance is being driven by misuse of antibiotics in humans and animals. According to the latest data from the European Surveillance of Antimicrobial Consumption Network (ESAC-Net) [4] the vast majority of human consumption of antibiotics occurs in the community. Resistance to last-line antibiotics like the carbapenems, however, cannot be explained only by the use of antibiotics outside hospitals. This growing problem of resistance against major last-line antibiotics could also indicate that misuse of antibiotics may take place in hospitals. ESAC-Net is a Europe-wide network of national surveillance systems, providing European reference data on antimicrobial consumption. It collects and analyses data on antimicrobial consumption from EU and EEA/EFTA countries, both in the community and in the hospital sector.

## References

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