Background

The European Surveillance of Antimicrobial Consumption (ESAC) project, launched in 2001, is currently funded by the European Centre for Disease Prevention and Control (ECDC) to continue the collection of antimicrobial use data in Europe from September 2003 until June 2011.

The ESAC Management Structure anno 2011

**Management Team**
- Coordinator: Herman Goossens
- Project manager: Vanessa Vankerckhoven
- Data manager: Arno Muller, Ann Versporten
- IT specialist: Nico Drapier
- Clinical scientist: Samuel Coenen
- Clinical scientist: Sam Vaerenberg
- Clinical scientist: Peter Davey
- Clinical scientist: Adrian Blommaert
- Clinical scientist: Katrien Latour

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- Managing editor: Marie-Ange Gogolin-Corvino
- Clinician: Clotilde Mouly

**Advisory Board**
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- Clinical scientist economics: Adriaan Blommaert
- Clinical scientist nursing homes: Katrien Latour

**ESAC Lead National Representatives**
- Giorgio Zanetti (Switzerland)
- Hryniewicz (Poland), Malfada Ribeirinho (Portugal), AndaBaicus (Romania),
- Antonis Kontemeniotis (Cyprus), Jiri Vlcek (Czech Rep), Niels Frimodt-Møller
- Haraldur Briem (Iceland), Robert Cunney (Ireland), Raul Raz (Israel),
- Stephanie Natsch (The Netherlands), Serhat Unal (Turkey), Peter(RU)
- Giorgio Zanetti (Switzerland), Helen Giamarellou (Greece), Gabor Ternak (Hungary),
- Winnfried Kern (Germany), José Campos (Spain), Gunilla Skoog (Sweden), Giorgio Zanetti
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- Svetlana Ratchina (Russia), Viliam Foltan (Slovak Republic), Milan Cizman
- V. Vankerckhoven, A. Muller
- Director: Sophie Nys
- Administrator: Sophie Nys
- ESAC National Networks
- - EU funded projects
- - Collaborators
- - ESAC Lead National Representatives
- - Other National Representatives, including representatives of the national intersectorial coordinating mechanisms, healthcare workers, policy makers, scientists, data providers

The ESAC interactive database

A new, easier to use interactive ESAC database containing antibiotic use data for the participating European countries is available on our website. You can explore the database in 3 ways:
1. By comparing countries for one year
2. By comparing yearly trends for one country
3. By visualising maps of Europe
4. New: drug-specific quality indicators

Methods

Data on systemic antimicrobial use in 2009, aggregated at the level of the active substance were collected using the ATC/DDD methodology (version 2010) and expressed in DID per 1000 inhabitants per day (DID) from the 35 participating countries (27 member states, 3 applicant countries and 5 others). The ESAC methodology is described in detail in the Br J Clin Pharmacol 2004;58:419-28.

Results

Outpatient use

- **Antibiotics**
  - Outpatient and total antibiotic (ATC J01) use data were provided by 29 and 2 countries, respectively. Use varied with a factor of 3.6 between the countries with the highest (38.6 DDD in Greece) and lowest (10.2 DDD in Romania) use (fig.1). The median use (interquartile range) was 19.0 (15.1–23.1) DDD, respectively. The proportion of penicillin use ranged from 28.7% in Germany to 66.0% in Slovenia.

- **Antivirals**
  - Outpatient and/or hospital direct acting antivirals for systemic use (J05A) data were reported by 24 countries (fig.3). Use varied with a factor 10.2 between the country with the highest (4.8 DDD in Latvia) and lowest (0.47 DDD in Malta) use. A high variation in use is observed within and between the different chemical subgroups of J05A. This is consistent with results found for previous years. Use of oseltamivir (J05AH02) in Europe increased from a median of 0.001 (maximum of 0.357) DDD in 2008 to 0.104 (0.980) DDD in 2009, the year of the A/H1N1 pandemic, respectively.

Outpatient antimycotic and antifungal (ATC J02 & D01B) use data were provided by 27 countries (fig.4). Use varied with a factor 9.8 between the country with the highest (3.24 DDD in Belgium) and lowest (0.33 DDD in Romania) use. Out of 25 countries reporting terbinafine (D01B02), its use represented more than 50% of the total antimycotic and antifungal use in 19 and more than 75% in 5 countries.

Conclusions

The ESAC database is completed with 2009 data on antibiotic, antimycotic/antifungal and antiviral use in Europe. Antimicrobial use in Europe in DID seems to be increasing. More and more countries have implemented or continue to implement actions to control antimicrobial resistance through rational use of antibiotics. The impact of these actions will be monitored, using DID and other indicators of antibiotic use.

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For more information please consult the ESAC website: www.esac.ua.ac.be

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