LE GOUVERNEMENT
DU GRAND-DUCHÉ DE LUXEMBOURG
Ministère de la Santé
Direction de la Santé

EUROPEAN ANTIBIOTIC AWARENESS DAY
A European Health Initiative

COMMUNIQUE DE PRESSE
18.11.2008

Journée européenne consacrée à la résistance aux antibiotiques (European Antibiotic Awareness Day)

Le Luxembourg se joint à la Campagne Européenne organisée pour encourager l'usage raisonné des antibiotiques et prévenir l'émergence de bactéries antibiorésistantes.

A l'occasion de cette première **Journée Européenne consacrée à la résistance aux antibiotiques**, célébrée le 18 novembre 2008, une enquête européenne récemment menée a démontré l'émergence croissante de bactéries antibiorésistantes sur le territoire européen.

Dans la plupart des pays européens, les proportions de staphylocoques dorés résistants à la méthicilline (MRSA), et celles de bactéries Escherichia coli, une cause commune d'infections urinaires, de plus en plus antibiorésistantes, sont en augmentation. En ce qui concerne les Escherichia coli cette tendance s'est fait remarquer également au Luxembourg; l'évaluation de la 2e enquête nationale de prévalence de MRSA, réalisée en octobre 2008, se poursuit.

Il existe d'importantes variations en matière de consommation d'antibiotiques et d'antibiorésistance parmi les différents pays européens, avec un gradient Nord/Sud, les populations du Sud de l'Europe consommant en moyenne trois fois plus d'antibiotiques que les populations du Nord de l'Europe. Le Luxembourg quant à lui, se situe en 5ième place européenne en matière de prescription d'antibiotiques en 2006. Ceci suggère, qu'encore trop souvent, les antibiotiques sont utilisés ou prescrits de manière inadéquate, et c'est la raison pour l'émergence de bactéries dangereusement résistantes.

La Journée Européenne de l'antibiorésistance, le 18 novembre 2008, est une initiative européenne de santé publique, afin de sensibiliser le public et les professionnels de santé au problème de l'antibiorésistance, et de diffuser largement une information sur le sujet et des recommandations sur le bon usage des antibiotiques. En 2008, l'accent est mis sur la nécessité d'efforts conjoints, afin de **stopper l'usage inadéquat des antibiotiques**. Ceci inclut la prise d'antibiotiques sans prescription médicale, ou la demande de prescriptions en cas de simple rhume ou d'état grippal, c'est à dire en cas d'affections virales. L'accent doit

Pas d'antibiotiques contre les virus.

également être mis sur la nécessité de suivre scrupuleusement les prescriptions médicales en termes de doses d'antibiotiques à ingérer, et de durée de traitement à respecter, même si la guérison est apparente après quelques jours.

Au **Luxembourg**, une **conférence de presse** informera la presse écrite et parlée sur le sujet ; Des **affiches** et des **dépliants** seront diffusés largement auprès des médecins, des pharmaciens, des hôpitaux et des cliniques, des administrations communales, des écoles et foyers de jour, des maisons-relais, des autres ministères et endroits publics, comme les CFL et les PTT, de l'Union des Caisses de Maladie.

Un **spot radio** et un **spot TV/Cinémas** diffusé en langue luxembourgeoise et portugaise sur RTL-Radio, sur Radio Latina, sur RTL-TV et dans les cinémas, expliqueront au public le phénomène de l'antibiorésistance, grâce à une conversation entre deux gélules d'antibiotiques affrontant des virus, lorsque prescrites ou prises de manière inadéquate et non nécessaire.

Un quiz interactif accessible sur l'internet (www.sante.lu), avec un set de questions/réponses, complètera la campagne et permettra aux utilisateurs de tester leurs connaissances sur le sujet.

« **Les antibiotiques sont inefficaces contre les virus** » Utilisons-les à bon escient !

Tels sont les messages de cette campagne d'information et de sensibilisation recommandant un usage raisonné aux patients et une prescription adéquate au corps médical, dans le but d'éviter la perte d'une classe médicamenteuse essentielle de notre arsenal thérapeutique, ayant contribué par le passé à sauver des millions de vies depuis leur découverte.

(communiqué par la Direction de la Santé)

Contact campagne:
Silke Christmann, Tél. 2478-5508, silke.christmann@ms.etat.lu

Des informations supplémentaires sur le « European Antibiotic Awareness Day » sont disponibles sur: http://antibiotic.ecdc.europa.eu/

Pas d'antibiotiques contre les virus.

Prescriptions des antibiotiques à usage systémique en ambulatoire, 2007

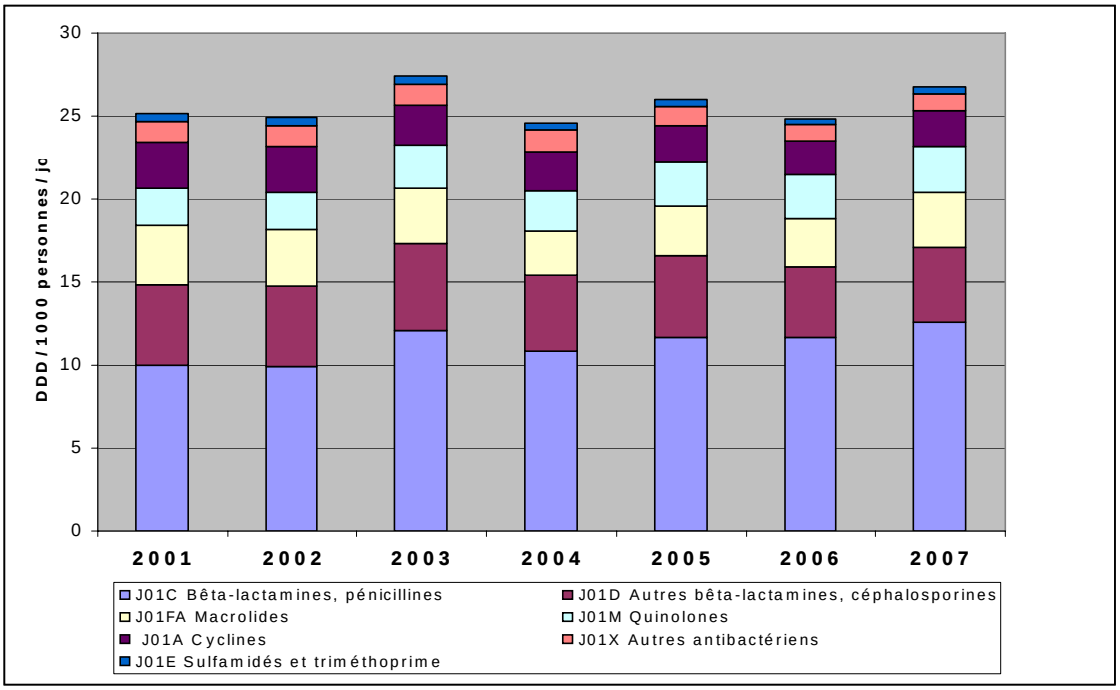
La prescription des médicaments antibiotiques à usage systémique a été évaluée à l'aide de la méthodologie ATC/DDD, 2008 à partir des données anonymisées représentant le recueil informatisé des prescriptions médicales délivrées par les pharmacies au GDL et mises à disposition par l'IGSS/CISS.

Par rapport à l'année précédente, le volume total des antibiotiques prescrits, exprimé en DDDs (en anglosaxon *Defined Daily Doses*), **a augmenté de 9% pendant l'année 2007 soit 7,5%** en tenant compte de l'accroissement de la population.

Cette augmentation est principalement liée à la prescription des antibiotiques de la classe des pénicillines à large spectre et des associations de ces pénicillines avec un inhibiteur des bêta-lactamases. Cette classe représente à elle seule 47,1 % de la consommation des antibiotiques. (Fig.1)

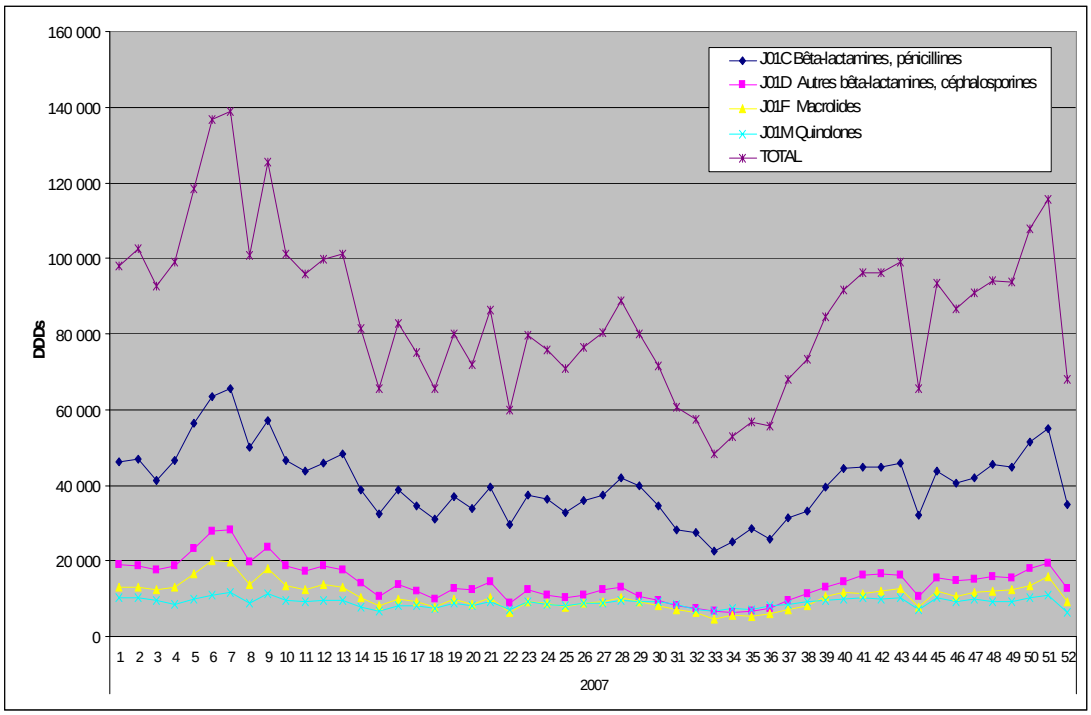
Le relevé hebdomadaire des prescriptions montre une forte augmentation du nombre des doses prescrites à partir de la quatrième semaine 2007, coïncidant avec l'incidence des activités d'influenza. (Fig. 2)

Fig. 1 *Evolution de la prescription des différentes classes d'antibiotiques à usage systémique pendant la période 2001-2007.*



Marcel.Bruch@ms.etat.lu

Fig. 2 Evolution hebdomadaire des prescriptions en 2007 (en DDDs prescrites).



Summary of Latest EU-wide Data on Antibiotic Resistance and Antibiotic Consumption

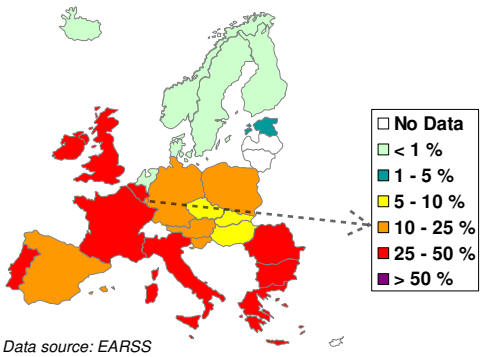
Antibiotic resistance is an emerging problem throughout the European Union (EU) and increasing trends in antibiotic resistance in bacteria causing infections in humans are being reported by many Member States. There are large, inter-country variations in occurrence of antibiotic resistance in the EU.

Use of antibiotics is recognized as the main driving force behind increasing occurrence of antibiotic resistance. As observed for antibiotic resistance, there are also large, inter-country variations in the consumption of antibiotics in the EU. Previous studies have reported on correlations between the level of antibiotic consumption and occurrence of antibiotic resistance in European countries (see e.g., Goossens H, et al. Lancet 2005;365:579-87).

Antibiotic resistance in the European Union

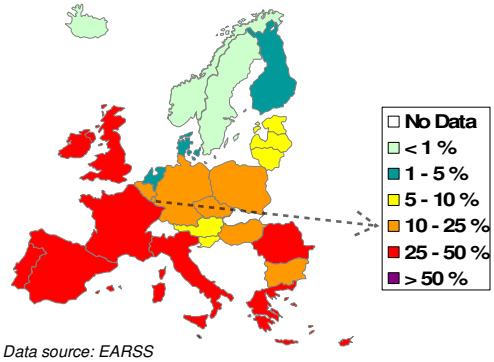
Occurrence of methicillin-resistant Staphylococcus aureus (MRSA) continues to increase in several European countries, although in some cases national control efforts have resulted in decreased resistance. Most southern European countries as well as the UK and Ireland report MRSA proportions of 25% or higher. In the northern part of Europe, the proportion of MRSA remains at a lower level (Figures 1a and 1b). MRSA is one of the most commonly identified microorganisms resistant to antibiotics in hospitals, and it is associated with prolonged hospitalisation and increased mortality.

Fig 1a) Proportion of methicillin-resistant *Staphylococcus aureus* isolates in EU and EEA/EFTA countries in 2002



Data source: EARSS

Fig 1b) Proportion of methicillin-resistant *Staphylococcus aureus* isolates in EU and EEA/EFTA countries in 2007

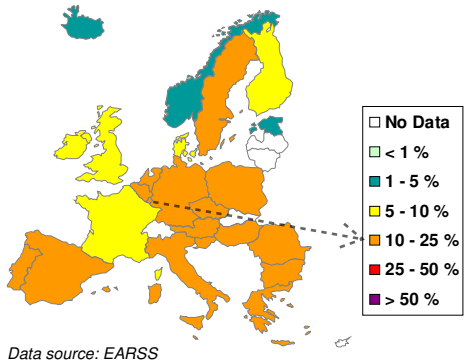


Data source: EARSS

For some other bacteria an even sharper increase in resistance has been observed. One example is the occurrence of fluoroquinolone resistance in Escherichia coli which has increased significantly in nearly all Member States in recent years (Figures 2a and 2b). The speed at which fluoroquinolones are loosing their activity against E. coli is alarming. E. coli is a common cause of urinary tract infections as well as bloodstream infections and, in intensive care units, even pneumonia.

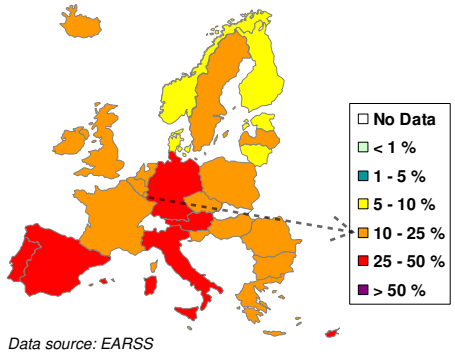
Antibiotic resistance constitutes an increasingly important human health hazard in the European Union. Containment and prevention of antibiotic resistance calls for international cooperation as well as concerted, multi-disciplinary efforts at the national level.

Fig 2a) Proportion of fluoroquinolone-resistant *E. coli* isolates in EU and EEA/EFTA countries in 2002



Data source: EARSS

Fig 2b) Proportion of fluoroquinolone-resistant *E. coli* isolates in EU and EEA/EFTA countries in 2007



Data source: EARSS

The data presented were collected by the European Antimicrobial Resistance Surveillance System (EARSS) which is contracted by the European Centre for Disease Prevention and Control (ECDC), and funded by the EU, the Dutch Ministry of Health, Welfare and Sports and the Dutch National Institute of Public Health and the Environment (RIVM). EARSS maintains a comprehensive surveillance and information system that collects data on occurrence of antimicrobial resistance in invasive bacteria (http://www.rivm.nl/earss/).

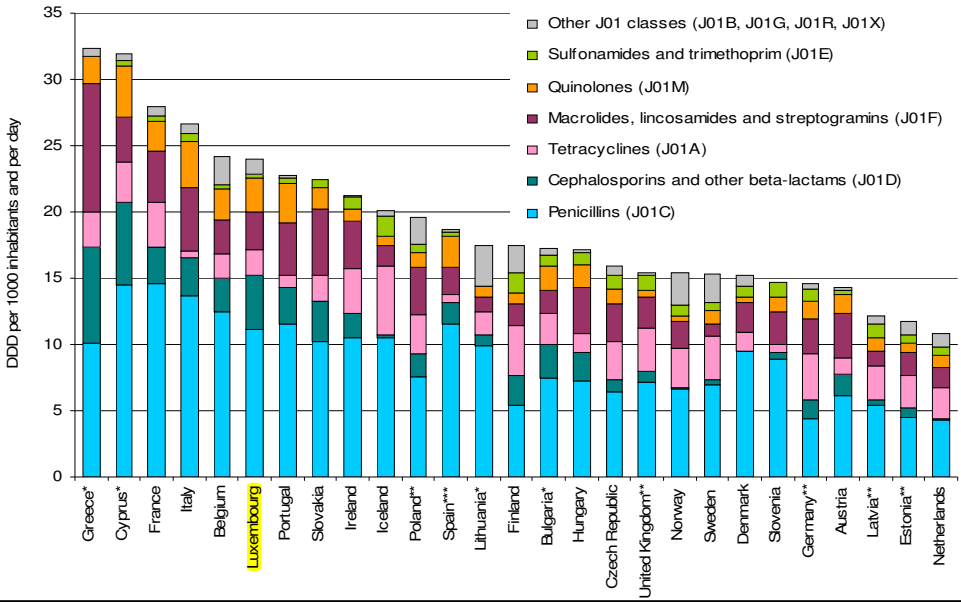
Antibiotic consumption in the EU

The vast majority of human use of antibiotics takes place outside hospitals (outpatient use). In 2006, total outpatient antibiotic use measured in Defined Daily Doses (DDD) per 1 000 inhabitants and per day varied from 10.8 in The Netherlands to 32.4 in Greece (Figure 3).

Penicillins represented the most frequently prescribed antibiotic class in all countries, ranging from 30% (Germany) to 62% (Denmark and Spain) of total outpatient antibiotic use. The proportion of use of other antibiotic classes varied greatly among countries, e.g. cephalosporins, from 0.2% (Denmark) to 22% (Greece); macrolides, 6% (Sweden and Lithuania) to 30% (Greece); and quinolones, 2% (Denmark) to 13% (Italy, Portugal).

Three countries (Italy, Ireland and Denmark) have shown a continuous increase in antibiotic consumption since 1999. In Greece, a continuous increase was observed until 2005, but was followed by a decrease in 2006. Conversely, total outpatient antibiotic use decreased in some countries, e.g. France, Belgium, Slovenia and, until 2004, in Sweden (Figure 4). These decreases have been attributed to national public campaigns (France and Belgium) or repeated media coverage on the prudent use of antibiotics (Slovenia and Sweden).

Figure 3. Total outpatient antibiotic use in 27 European countries in 2006



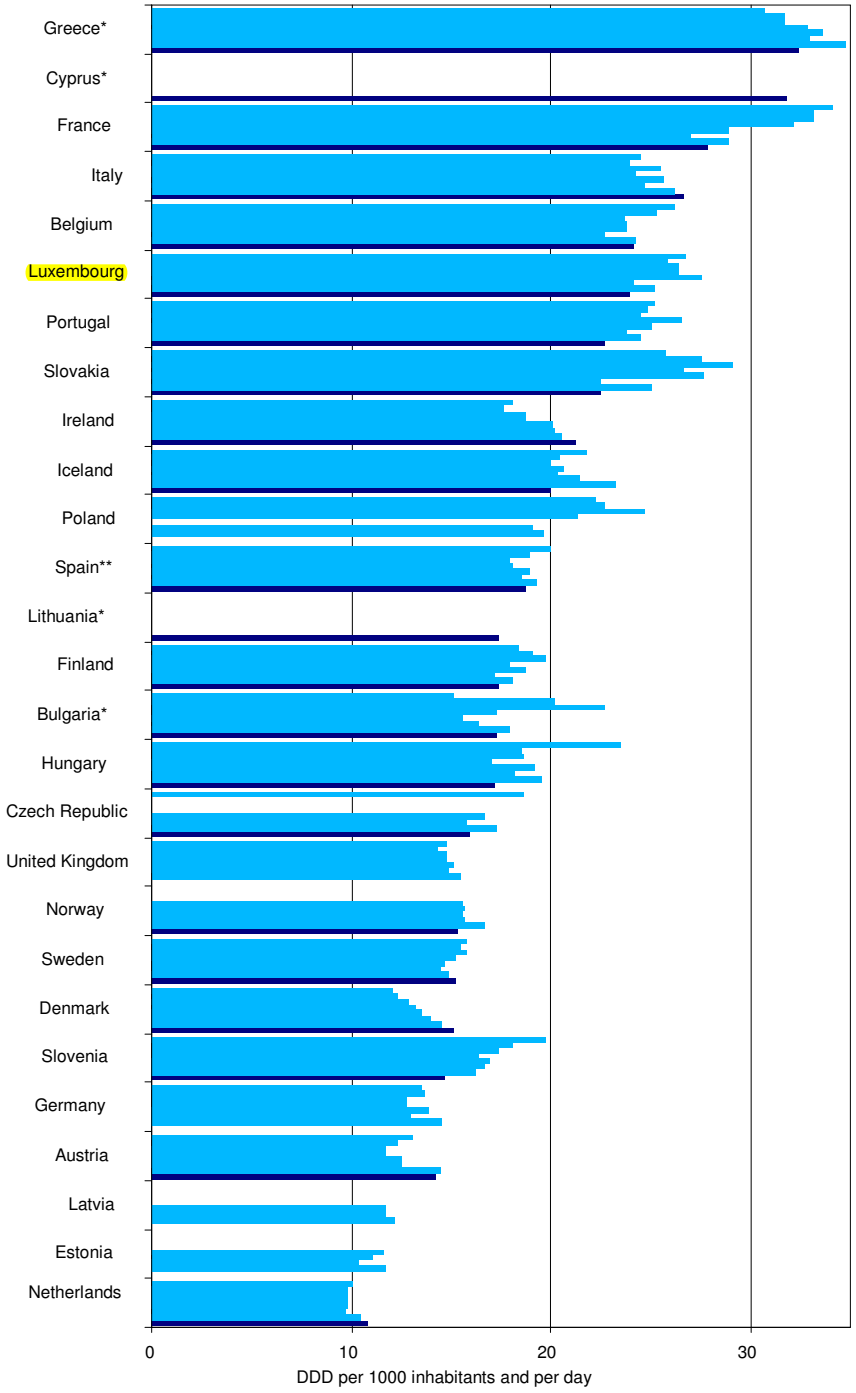
Source: ESAC.

*Total use, i.e. including inpatients, for Bulgaria, Cyprus, Greece and Lithuania.

**2005 data for Estonia, Germany, Latvia, Poland and United Kingdom

***Reimbursement data, which do not include over-the-counter sales without a prescription for Spain

Figure 4.Trends of total outpatient antibiotic consumption (ATC group J01) in 27 European countries, from 1999 (top bar) to 2006 (bottom bar, dark blue)



Source: ESAC.

*Total use, i.e. including inpatients, for Bulgaria, Cyprus, Greece and Lithuania.

**Reimbursement data, which do not include over-the-counter sales without a prescription for Spain

The data presented here were collected by the European Surveillance of Antimicrobial Consumption (ESAC) project which is contracted by the European Centre for Disease Prevention and Control (ECDC), and funded by the EU and University of Antwerp, Belgium. ESAC aims at collecting standardised, harmonised and comparable data on antimicrobial consumption (www.esac.ua.ac.be) and was launched on November 2001, acting on the Council Recommendations of 15 November 2001 on the Prudent Use of Antimicrobial Agents in Human Medicine.

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What Does "Antimicrobial Resistance" Represent?

- **Several, inter-related compartments of healthcare,** i.e. food animals, food, general population and patients in the community, hospitals, nursing homes and long-term care facilities)
- **Many types of infection**, i.e. bloodstream, respiratory tract, skin and soft tissue, urinary tract, surgical site, related to medical devices, etc.)
- **Many bacteria / microorganisms**
- **Many antimicrobials and mechanisms of resistance**

➔ **A topic rather than a disease**

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Two Main Actions to Prevent and Control Antimicrobial Resistance

- **Prudent use of antimicrobials**
  (only when needed, correct dose / dose intervals / duration)

- **Infection control** (hand hygiene, screening, isolation)

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Burden of Healthcare-Associated Infections and Multidrug Resistance

(preliminary estimate)

- **Healthcare-associated infections (HCAI)**
  - approximately 4 million per year
  - approx. 37,000 directly attributable deaths each year
- **Multidrug-resistant bacteria**
  - approximately 1/2 of the deaths attributable to HCAI
    - are due to the 7 most common multidrug-resistant bacteria
    - in the 4 main types of HCAI: bloodstream infection, pneumonia, skin and soft tissue infection, urinary tract infection

This is an underestimate!

Source: Suetens C & Monnet DL, ECDC (preliminary estimate)

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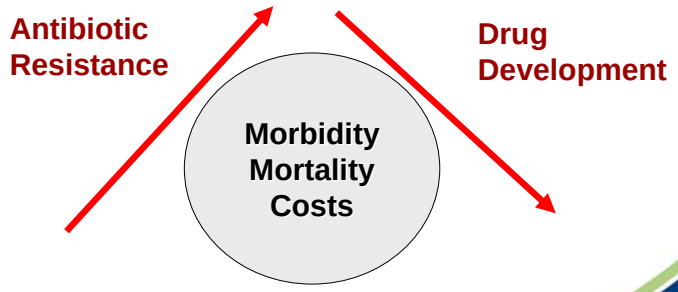
The Current Paradox



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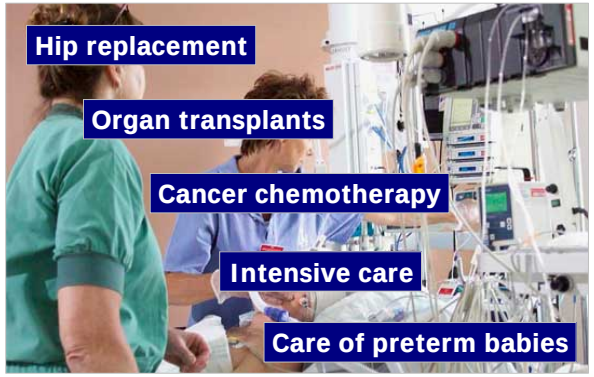
Modern Medicine Is Not Possible Without Effective Antimicrobials



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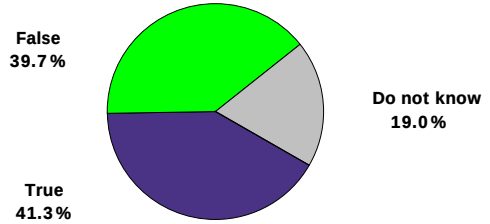
Using antibiotics responsibly: The challenge of public awareness

Please indicate whether the following statement is true or false: "Antibiotics kill viruses as well as bacteria"



Source: Eurobarometer 55.2: Europeans, Science & Technology, May-June 2001

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About European Antibiotic Awareness Day

What is *European Antibiotic Awareness Day*?

- *European Antibiotic Awareness Day* is a European public health initiative that provides an annual opportunity to raise public awareness about the risks associated with inappropriate use of antibiotics and how to take antibiotics responsibly.
- *European Antibiotic Awareness Day* will be an annually recurring event celebrated across Europe.
- **18 November 2008** will mark the first-ever *European Antibiotic Awareness Day*.

Why do we need a *European Antibiotic Awareness Day?*

- **Inappropriate use of antibiotics has become a serious threat to public health**
  - Taking antibiotics for the wrong reasons or incorrectly causes bacteria to become resistant to antibiotic treatments.
  - So when you do need antibiotics in the future they may no longer work.
- **Keeping antibiotics effective is everyone's responsibility**
  - Responsible use of antibiotics can help stop resistant bacteria from developing and help keep antibiotics effective for the use of future generations.
  - *On this basis, it is important to inform about when it is appropriate to take antibiotics and how to take antibiotics responsibly.*

European Antibiotic Awareness Day Campaign objective - 2008

- **To inform the general public about:**
  - **When to take antibiotics**
  - **How to take antibiotics**
  - **Why responsible use of antibiotics is important**

When should we take antibiotics?

- Antibiotics are effective only against bacterial infections.
- Antibiotics cannot help you recover from infections caused by viruses such as common colds or flu.
- Antibiotics do not prevent viruses from spreading to other persons.
- Antibiotics often give you side-effects.
- **Always seek your doctor's advice before taking antibiotics!**

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How should we take antibiotics?

- It is important not to take antibiotics for the wrong reasons or incorrectly.
- Take antibiotics only when prescribed by a doctor and follow the doctor's advice on how to take the antibiotics so that they can stay effective also in the future.
- **Do not keep left-over antibiotic treatments!** If you have received more doses than you were prescribed ask your pharmacist about how to dispose of the remaining medicines.

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Why should we take antibiotics responsibly?

- Antibiotic use causes bacteria to become resistant to antibiotic treatments.
- If we continue to consume antibiotics at the current rate, Europe may face a return to the pre-antibiotic era where a common bacterial infection such as pneumonia could be a death sentence.
- **Do not use antibiotics for the wrong reasons or incorrectly!**
- **Always follow your doctor's advice** on when and how to use antibiotics in a responsible way!

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COLD? FLU?
TAKE CARE
NOT ANTIBIOTICS

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COLD? FLU?
GET WELL
WITHOUT ANTIBIOTICS
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COLD? FLU?
TAKE CARE
NOT ANTIBIOTICS
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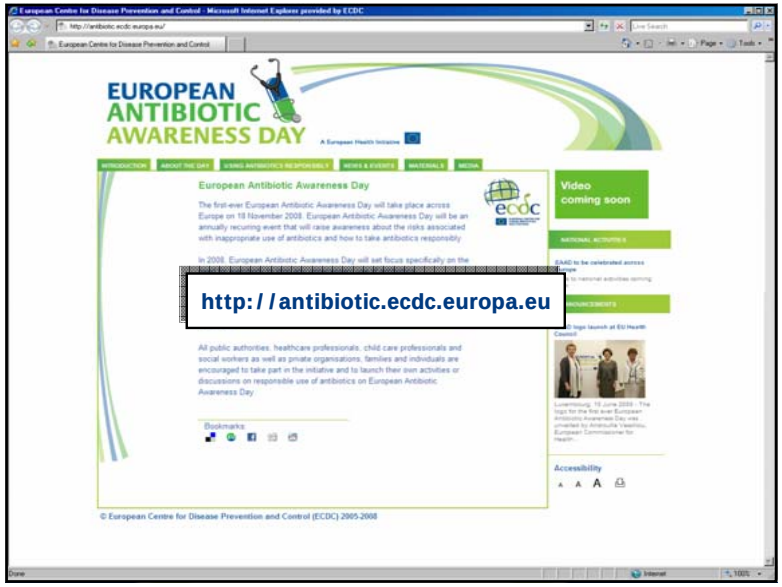
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