

ECDC DIRECTOR'S PRESENTATION

Latest Europe-wide data on antibiotic resistance

Presentation to midday press briefing by Dr Marc Sprenger, ECDC Director, European Commission press room, Brussels 17 November 2011

Today is the launch of the 4th European Antibiotic Awareness Day. The goal of this Europe-wide health initiative is to support national campaigns on prudent use of antibiotics. Overuse of antibiotics, both in hospitals and in the community, is one of the major drivers of drug resistance in bacteria. ECDC collects EU-wide data on these resistant bacteria, mostly from laboratories testing blood samples taken in hospitals. New data, released by ECDC today, shows that antibiotic resistance is increasing across the EU.

But there is some good news too.

These maps show trends for meticillin-resistant *Staphylococcus aureus,* the so called "hospital super-bug" MRSA. The greens and yellows show countries with lower rates of MRSA, the reds countries with higher rates.



You can see that last year some countries managed to **decrease** their rates of MRSA. So this means that it <u>is</u> possible to change the trend.

The bad news, however, is that resistance in other bacteria increased.

Klebsiella pneumoniae is another "hospital super-bug". It can also cause lethal infections.

What this slide shows is that it has become resistant to multiple antibiotics.



As a consequence, hospital doctors must increasingly rely on <u>last line antibiotics</u>, such as carbapenems, to treat infected patients.





Klebsiella is now starting to show resistance to the last-line class of antibiotics known as carbapenems.

In 2009, most of the EU was green, meaning very few *Klebsiella* infections were resistant to carbapenems. Our new data for 2010 shows carbapenem resistance in this bacterium emerging as a problem in several EU countries

This is worrying, as options for treating patients with such infections are very limited. Those few antibiotics that may still work have treatment limitations, and sometimes even toxic side-effects.

In 2009, ECDC and EMA estimated that each year 25,000 Europeans die as a direct consequence of a multidrugresistant infection. The economic impact was estimated at \in 1.5 billion per year.

Human ar antimicro		nic impac tance*	t of	
Each year, in	EU countrie	25		
25,000 dea	ths directly at	tributable to m	ultidrug-resista	nt infections
Extra in-hospital costs	Extra outpatient costs	Productivity losses due to absence from work	Productivity losses due to patients who died from their infection	TOTAL
€ 927.8 million	€ 10 million	€ 150.4 million	€ 445.9 million	€ 1.5 billion
EMA, Stockholm, http://ecdc.europ	September 2009. a.eu/en/publicatio	ime to react, Joint T Available online at: ns/Publications/For stant bacteria (EU Men	ms/ECDC DispForn	n.aspx?ID=444

This certainly is an underestimate of the true economic impact of antimicrobial resistance. In particular, the figures were based on data for just five multidrug-resistant bacteria. The estimate was also based on a conservative figure for the cost of a day in hospital: we took the EU average figure of \in 366 per day.

We think the real cost of treating a patient with a multidrug-resistant infection would be higher than this. In particular, we did not count the costs of:

- intensive care
- expensive last line antibiotics and other drugs
- and of infection control precautions that are necessary to prevent spread to other patients.

Behind all these statistics are patients. I will be saying more about their stories at the technical briefing.

My take home message to you is that antimicrobial resistance is one of the most serious public health challenges that we face in the EU. This underlines the critical importance of the Commission's Action Plan.

Control of antimicrobial resistance including prudent use of antibiotics and hand hygiene is a responsibility for everybody – patients, doctors, all healthcare personnel, veterinarians, policy makers... you and me.

