IRRATIONAL USE OF ANTIBIOTICS

- the misuse of a miracle

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Strama-The Swedish Strategic Programme for Rational Use of Antibiotics

ReAct – Action on Antibiotic Resistance
Antibiotics - A major part of medicine use

In India, antibiotics constitute 15.7% of the drug market (the largest therapy group) (1)

In the UK, antibiotics accounted for 19% of the total expenditure on medicines in secondary care, which was the highest spend of all categories of medicinal product (2)

(1) MIHR report to CIPIH, April 2005 WHO ref. CIPIH study 10d (Page 122)
(2) Journal of Antimicrobial Chemotherapy 2004 54(2):529-533;
Antibiotics: A unique class of medicines

• Bacterial Resistance
• Human Toxicity
• Economic Cost
• Environmental ecological consequences

Much of the progress in modern medicine has evolved under the protective umbrella of antibiotics


The more we use them
... the more we lose them
In South Asia alone one child is dying every second minute.

Treating these infections with appropriate second line antibiotics would cost an excess of $120 million (at bulk purchase costs, excluding delivery systems).

A Global Problem

*Worldwide spread of the 23F clone of penicillin resistant pneumococci*
What needs to be done?

- **Monitoring**
  - Monitor: Antibiotic usage
  - Resistance patterns
- **Decrease the need for antibiotics**
  - Reduce disease incidence and prevent spread of bacteria
- **Use antibiotics properly**
  - Improve diagnostics and usage
- **Non medical usage**
  - Environment, food, plants etc.

Coordinate national activities
Knowledge education, information, research
International commitment

Awareness and knowledge

- Patient
- Prescribers and pharmacists
- Authorities
- MEDIA
STRAMA
Swedish Strategic programme for The Rational use of Antibiotics

Create a **national multisectoral co-ordinating group** with all relevant authorities and organizations to

- share information
- formulate national strategies
- support and initiate research activities
- collaborate with media

**Examples on STRAMA activities**

- Treatment guidelines
- Local consumption/resistance patterns
- Feed-back to prescribers
- Patient information leaflets
- Free return visits for patients with respiratory tract infections
LOCAL LEVEL
Implementation
Behavioural change
Regional co-ordinating groups

NATIONAL LEVEL
Political awareness
Financial support
National co-ordinating group

Total use of antibiotics in Sweden 1987-2005
DDD/1000 inhabitants/day
Data source: NLN

Initiation of the Strama project
For Iceland, total data (including hospitals) are used

Data from ESAC http://www.esac.ua.ac.be/

Change in antibiotic consumption,

Co-ordination programmes and national campaigns *

* Preliminary data
For Iceland, total data (including hospitals) are used
Data from ESAC
Conclusions

It is possible to achieve a significant change in antibiotic use at the national level

To be sustainable, political/financial support is needed and there needs to be a multidisciplinary coordinating body with broad engagement of stakeholders.

Besides rational antibiotic use, the prevention of bacterial infections and their spread are essential in the containment of antibiotic resistance.

Current and future generations should have access to effective prevention and treatment of bacterial infections as part of their right to health.