

Antibiotic prescriptions for children: Practice across Germany is far from uniform

Antibiotics are prescribed more frequently for children and adolescents than for adults – often merely for harmless infections

The Healthcare Fact Check reveals:

In 2009, one out of every two children between the ages of 3 and 6 years received antibiotics.

In 2009, antibiotics were prescribed for

- 33 percent of all adults
- 38 percent of all children and adolescents aged from 0 to 18 years
- 51 percent of all children aged between 3 and 6 years

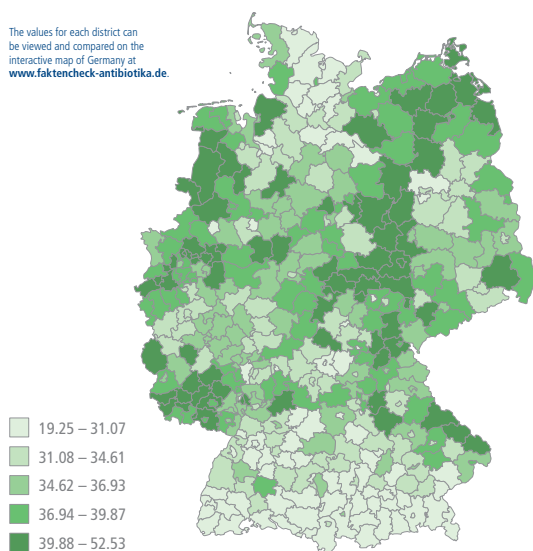
The number of prescriptions per head of population varies considerably from region to region.

In the region with the highest prescription rate, more than half of all children up to the age of 18 were given an antibiotic at least once. This is almost three times as many as in the region with the lowest number of prescriptions per person.

Prescription rates for children and adolescents in German districts 2010

Prevalence (%); total number of districts: 412

The values for each district can be viewed and compared on the interactive map of Germany at www.faktencheck-antibiotika.de.



Source: BARMER GEK; data for 2010, own calculation (ZeS 2011).

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Prescriptions also differ considerably between different groups of specialists.

Even when the diagnosis is the same, different groups of specialists prescribe differently. In the case of non-suppurative otitis media (non-purulent inflammation of the middle ear), where guidelines specify that antibiotics should only be

prescribed in exceptional circumstances, 33 percent of family doctors prescribe antibiotics but only 17 percent of pediatricians and 9 percent of ENT specialists do so. In the case of pulmonary inflammation (pneumonia), however, 80 percent of pediatricians prescribe antibiotics, as recommended by the guidelines, but only 66 percent of general practitioners do so.

Frequent and unwarranted prescriptions entail risks for the individual patient and for society as a whole.

- In the case of children, particular attention must be paid to personal health risks such as gastro-intestinal disorders, rashes and the increased risk of allergies.
- Bacterial pathogens become increasingly resistant. Broad-spectrum antibiotics often lose their effect. Physicians have to turn to reserve antibiotics, which should really be restricted to severe cases. But here, too, frequent prescriptions for reserve antibiotics result in increased resistance.
- Highly resistant pathogens can lead to serious medical conditions and become increasingly proliferate, especially in hospitals.
- This increases the need for greater clinical hygiene and more stringent measures to prevent infection.

Possible reasons for the variations in prescription rates:

- Physicians do not follow the guidelines closely enough
- Patients mistakenly expect to be prescribed antibiotics when they are running a fever, have influenza or are suffering from middle ear infections
- Physicians interpret a patient's desire for pain relief and antifebrile medication as a request for an antibiotic

INFO

On behalf of Healthcare Fact Check, a team of experts from the Centre for Social Policy Research (ZeS) at the University of Bremen led by Professor Gerd Glaeske studied prescriptions for antibiotics issued in 2009 and 2010 on the basis of data provided by the BARMER GEK health insurance fund.

Antibiotics for children: cutting down unnecessary prescriptions



Possible ways of cutting down on unnecessary prescriptions:

- Keep physicians up to date with existing guidelines through quality circles and during training, wherever possible in the context of medical specialties. In the case of family doctors in particular, it should be possible to reduce the number of prescriptions issued for infections of the middle ear by a third
- Strengthen antibiotics management as a component of selective agreements between health insurers and general practitioners
- Above all in regions with high prescription rates for antibiotics, set quantitative targets for essential prescriptions
- Develop universal medical guidelines for the use of antibiotics

- Inform patients, e.g. via media campaigns and in waiting rooms, of the ineffectiveness of antibiotics for treating colds and flu
- Improve doctor-patient communication

Further measures to combat resistance to antibiotics:

- Improve hospital hygiene in order to prevent the spread of multiresistant bacteria, for example by rigorously implementing the German Antibiotic Resistance Strategy (DART)
- Introduce stricter legislative restrictions on the use of reserve antibiotics
- Introduce legislation to cut down on the use of antibiotics in livestock breeding
- Make antibiotics prescription drugs throughout the European Union

THE HEALTHCARE FACT CHECK PROJECT (FAKTENCHECK GESUNDHEIT)

Mapping regional variations in healthcare

In its “Healthcare Fact Check” the Bertelsmann Stiftung seeks to map regional variations in healthcare in Germany. The overall goal is to identify solutions to structural deficits while providing patients with clear and accurate information. Previous endeavors to investigate variations in healthcare in the UK, the United States, the Netherlands and Spain provided both inspiration and a model for this project.

First report illustrates bandwidth and magnitude of variation

The first publication in the current series appeared in September 2011 and provides an insight into 16 different cases of regional variations in healthcare. Covering a range of topics from caesarian section to end-of-life care, this report illuminates the bandwidth and magnitude of regional variations in the German healthcare system. It is available in English at www.faktencheck-gesundheit.de/english-summary/

Single topic reports provide the public with relevant information

In the years to come, regular single-topic reports will focus on key healthcare issues, addressing the range of variations, underlying causes and possible solutions. This paper on “Antibiotic prescriptions for children”, published in 2012, summarizes the findings of one of these reports. For each issue, a website provides patients with useful tips, check lists and practical information to help them make the best individual decision in consultation with their physician.

Further information can be found at faktencheck-antibiotika.de and faktencheck-gesundheit.de

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