Bavarian alliance for the reduction of antibiotic resistance (BAKT)

# Consensus statement on the long-term combating of antibiotic resistance

With the discovery of antibiotics, highly effective treatments against bacterial infections have been available for decades. They have improved considerably the state of health and quality of life of patients since the middle of the last century. At the same time, however, cases of antibiotic resistance also began manifesting themselves with the first clinical use of these new therapeutics. Resistance development is increasingly recognized as a problem which has now spread worldwide to become a major challenge in the health care of humans and animals. A clear increase in multi-resistant bacteria in particular can be observed. The main focus is on clinically relevant, multi-resistant pathogens in the fields of human and veterinary medicine. Infections with these pathogens require longer and more intensive treatment as well as causing higher mortality and higher costs.

The basic causes of resistance development are known: wherever antibiotics are used, a selection towards mutated, antibiotic resistant bacteria can take place. Antimicrobial therapy runs the risk of becoming ineffective, particularly since new active agents have yet to be developed and established.

The extent of the occurrence of resistant and multi-resistant bacteria is an increasingly global problem, and one which gives grounds for concern. The combating of antibiotic resistance is the duty of the whole of society. It is the responsibility of all professional groups concerned, and also of the public, to counter the development of resistance through appropriate action. This demands not only an intensification of the collaboration between human and veterinary medicine but also in particular an interdisciplinary approach. Measures for rational antibiotic treatment must therefore include - besides the doctors and veterinary surgeons themselves - pharmacists, hospitals and care institutions, livestock and pet husbandry and the food industry, as well as the individual consumers and patients.

The common objective must be to avoid excessive use of antibiotics and thus to counter the development of resistance. In addition to this, however, it will also be necessary to develop new active agents to ensure the care of sick people and animals in the long term. Health protection must take precedence over economic considerations. At the same time environmental considerations must not be ignored.

BAKT, the Bavarian Alliance for the Reduction of Antibiotic Resistance, brings together the actors from human and veterinary medicine, pharmacy, agriculture and the food industry along with consumers and patients in order to develop joint approaches, to find solutions for limiting and preventing the spread of resistance and to work out a course of action.

Antibiotic resistance and the associated risks to society can only be reduced through concerted action for the purpose of health and consumer protection.

## **General objectives**

The partners in this consensus statement recognize the general objectives listed below as necessary for the reduction of antibiotic resistance. In order to combat the spread of antibiotic resistance the partners confirm their intention to observe these general objectives within their spheres of activity.

The reduction of antibiotic resistance is the responsibility of the whole of society, and should be supported by all areas of society. Here great importance must be attached to research.

#### Prevention

The most effective way to reduce antibiotic resistance is to prevent its occurrence in the first place. Particular importance must therefore be attached to the avoidance of infection. Prevention is practised at various levels. Protection against infectious diseases is significantly improved through observance of basic hygiene measures, because these prevent the transmission of pathogens. This is a prerequisite in both human and veterinary medicine in order to limit the use of antibiotics and thus prevent the development of resistance. The transmission of multi-resistant pathogens is also largely prevented through observance of basic hygiene measures.

Practices such as good animal husbandry and animal feed hygiene and making full use of infection prevention by vaccination play an essential part in the prevention of bacterial diseases and the reduction of antibiotic use.

In human medicine, observance of basic hygiene is an essential measure for avoiding infections and preventing the transmission of multi-resistant pathogens.

The education and regular training of the people employed in the fields concerned are basic prerequisites for achieving this objective of reducing resistance.

By giving the appropriate information to the public and the professionals, awareness of the problem of antibiotic resistance is raised and this helps to ensure that the necessary preventive measures are implemented in daily practice. In the area of medically prescribed antibiotic treatment, individual patient compliance can be encouraged through the personal advising of patients in doctors' surgeries and pharmacies in order to avoid the premature discontinuation and/or incorrect use of medicaments/medications and thus the development of resistance.

### Therapy

Antibiotics are not always necessary and are sometimes used inappropriately. This encourages the development of resistance. The guideline-based use of antibiotics in accordance with the generally recognized current state of science is therefore of eminent importance.

With due regard to therapeutic freedom, doctors and veterinary surgeons must be given ongoing training in antibiotic therapy in accordance with guidelines, and the relevant guidelines must also be to get made more binding character. Compulsory recording systems for antibiotic consumption in human and veterinary medicine and differentiated recommendations on antibiotic management provide a basis for assessing antibiotic use. Particular attention must be paid to those antibiotics regarded by the World Health Organisation (WHO) as being of particular importance to humans ("critically important antimicrobials").

#### Diagnostics

Antibiotic resistance can be identified using appropriate microbiological diagnostics. Antibiograms drawn up in accordance with the guidelines identify resistance and provide an essential basis for scientifically justified and targeted therapy, i.e. therapy adapted to the particular resistance profile.