DANMAP

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FACT SHEET

About antimicrobial resistance
Treatment with antimicrobials is intended to kill pathogenic bacteria. Unfortunately, antimicrobial treatment may—during the course of the treatment—also cause the bacteria to develop resistance towards the antimicrobials with which they are being treated, causing the antimicrobials to lose their effectiveness.

Resistant bacteria can be transmitted between humans, animals and food and bacteria can transmit resistance to each other. However, resistant bacteria are provided with better conditions if antimicrobials are present. Therefore, it is important to have an overall focus on using as few antimicrobials as possible for the treatment of both animals and humans.

Bacteria know no borders and antimicrobial resistance in a country can cause problems outside of its borders. Excessive use of antimicrobials in both animals and humans is a global problem.

Narrow and broad spectrum antimicrobials
Not all antimicrobials are the same. Some have a narrow spectrum and affect single groups of bacteria. They are used when you know which bacteria are causing the disease.

Others are broad spectrum and affect numerous groups of bacteria at the same time. They are used to treat diseases, before it has been established, which bacteria is causing the disease. However, antimicrobials unfortunately also kill useful and harmless bacteria such as bacteria from the intestine and may lead to the emergence of resistant bacteria.

Critically important antimicrobials
All antimicrobials are important in the treatment of humans—either because they need to be available for frequent treatment of common infections or because they are among the few types of antimicrobials, that can be used to treat serious and life threating infections. The WHO has given special global status of “highest priority critically important” to certain types of antimicrobials. Denmark has declared three types to be ’critically important’, namely carpabenems, third and fourth generation cephalosporins and fluoroquinolones. These must be used with great care to treat both and animals and human to ensure they remain effective in the future.

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