



Press release, 6 October 2020

The usage of antibiotics for humans keeps decreasing in Denmark

For the sixth year running, the consumption of antibiotics in Denmark has decreased. That is clear from the DANMAP report's presentation of the antibiotic consumption in 2019. The report was prepared by the National Food Institute, Technical University of Denmark, and Statens Serum Institut (SSI).

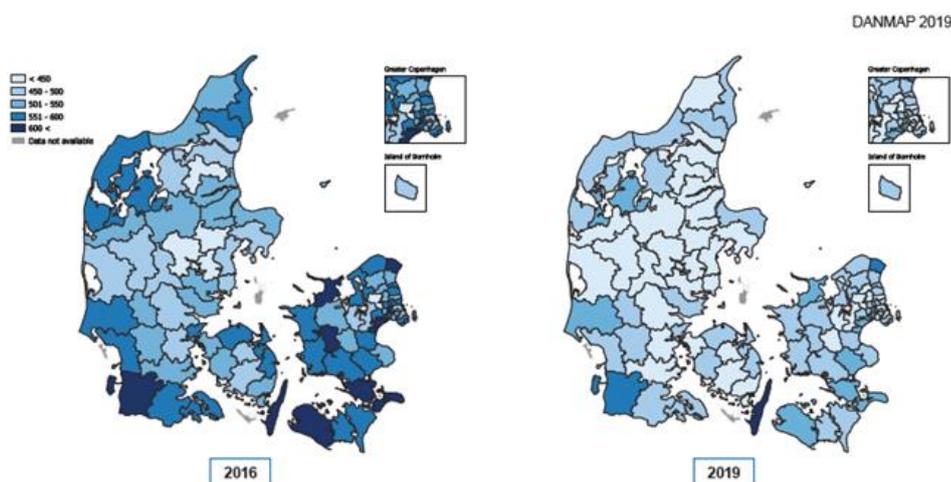
The consumption of antibiotics in Denmark keeps decreasing. This is because general practitioners prescribe ever fewer antibiotics. That is the conclusion of the latest DANMAP report covering 2019, which has just been released. The report was prepared by the National Food Institute and SSI.

Every year, DANMAP publishes new figures on the antibiotic consumption in Denmark. The latest numbers, covering 2019, show that the total consumption in Denmark was 15.76 defined daily doses per 1,000 inhabitants per day (DID). In ten years, the consumption of antibiotics in Denmark has decreased by 14%.

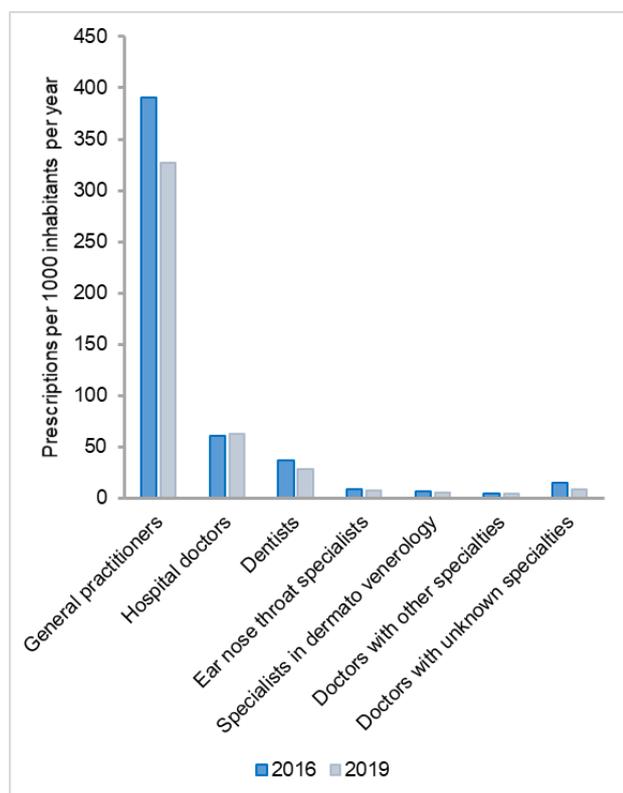
"The decrease is driven by a reduced consumption in primary healthcare, whereas hospitals' consumption has fluctuated in recent years, following an increasing trend," notes Senior Physician Ute Wolff Sönksen from the SSI.

The general practitioners are pulling the antibiotic consumption in the right direction.

In primary healthcare, medications are prescribed by general practitioners, other practicing medical specialists and dentists. Furthermore, primary healthcare prescriptions also include those issued by hospital doctors for home treatment or during outpatient visits at hospitals. In 2019, primary healthcare consumption was 445 prescriptions per 1,000 inhabitants. General practitioners generated 74% of the consumption. At the municipal level, the consumption of antibiotics in primary healthcare has been reduced by up to 20% since 2016.



By specialty, a decreasing number of prescriptions is also seen from dentists, ear, nose and throat specialists and dermatologists. On the other hand, the number of prescriptions issued by hospital doctors is increasing.



Action plan with three objectives

In 2017, the Danish Ministry of Health published a new action plan with three objectives on the use of antibiotics for humans. The first objective is to lower the number of prescriptions made by general practitioners, other practicing medical specialists and dentists, from 460 prescriptions per 1,000 inhabitants in 2016 to 350 in 2020. In 2019, general practitioners, other practicing medical specialists and dentists made 382 prescriptions per 1,000 inhabitants. This corresponds to a 17% decrease since 2016.

The second objective of the action plan is to increase the share comprised by penicillin in the total consumption of antibiotics in primary healthcare. This percentage, however, has not changed much, but remains at 31%.

“It is unsurprising that total consumption is reduced first. Changing prescription habits for specific antibiotics is much harder to achieve. But it is important that doctors continue to reduce the consumption of broad-spectrum antibiotics and increase the use of narrow-spectrum antibiotics since so-called common penicillins carry less risk that bacteria develop resistance,” notes Ute Wolff Sönksen.

Hospitals consume more antibiotics

In contrast to primary healthcare, the consumption of antibiotics in hospitals has followed an increasing trend in the past 10 years. In 2019, hospitals accounted for 1.93 DID, corresponding to 12% of the total antibiotics consumption in Denmark in 2019. In 2010, hospitals accounted for 9% of the total consumption.

Consumption at hospitals is normally stated as number of defined daily doses per 100 bed days or per 100 admissions. These measures are used to take into account any variation in hospital activity between years. In 2019, hospitals' consumption of antibiotics was 107 defined daily doses per 100 bed days. This corresponds to a 6% increase since 2018 and a 49% increase in the past decade, i.e. since 2010.

“Today, many patients are discharged for further treatment to primary healthcare. Only patients with more complex treatment requirements remain admitted for prolonged periods of time. This is reflected in the consumption per admitted person, which has increased substantially in the past decade,” notes Ute Wolff Sönksen.

Focus on reducing the consumption of critically important antibiotics

The use of broad-spectrum penicillins, in particular, has increased substantially in hospitals. Since 2010, the consumption of these penicillins has doubled from 23.3 to 48.3 defined daily doses per 100 bed days. In the same period, consumption of narrow-spectrum penicillins has increased from 8.3 to 9.8 defined daily doses per 100 bed days.

Hospitals focus in particular on reducing the consumption of critically important antibiotics. These antibiotics fall into three groups: Cephalosporins, fluoroquinolones and carbapenems. These antibiotics are important in the treatment of serious infections in severely ill patients at hospitals. Therefore, they should be reserved for these very ill patients whenever possible and should not be used more widely. Since 2010, the number of blood poisonings under surveillance have increased by 46%, from about 8,000 annual cases to almost 12,000 annual cases. Therefore, the critically important classes of antibiotics are key to preserve.

A step in the right direction

The third objectives of the action plan is all about reducing consumption of the critically important antibiotics by 10% from 2016 to 2020. In 2019, the consumption of critically important antibiotics reached 19.24 defined daily doses per 100 bed days, which is a 7.4% reduction since 2016.

“Overall, we are moving in the right direction when it comes to meeting the objectives of the plan. But we’re not quite there yet. However, if we had reached the objectives in 2019, we would not have been sufficiently ambitious when establishing the objectives,” notes Ute Wolff Sönksen.

Read more

Since 1995, the DANMAP programme has monitored the antibiotics consumption for humans and animals in Denmark. The same applies to the occurrence of antibiotics resistance in bacteria, animals, humans and foods.

[Download the DANMAP report from the DANMAP website.](#) A factsheet about antimicrobial resistance is also available from the DANMAP website.

Find more information on how antimicrobial use in animals has developed in a press release on the DANMAP website: [In the past ten years, antimicrobial use has decreased in Danish pigs, increased in calves.](#)

Contact

For more information, please contact:

MD Clinical Microbiology Specialist Ute Wolff Sönksen
Statens Serum Institut
uws@ssi.dk, tlf. +45 32 68 91 33



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