Sexually transmitted diseases in 2018

Syphilis
In 2018, the number of those diagnosed with syphilis in Iceland decreased compared with the previous year, see figure 1. Nevertheless, the frequency is high. The gender difference has decreased significantly since 2015 when over 90% of those diagnosed were men who had sex with men, whereas they made up 60% of those diagnosed in 2018. This epidemic has primarily been associated with men who have sex with men, although it is clearly starting to reach women as well. Most of those who have been diagnosed with syphilis in recent years have been Icelandic citizens, but in 2018, the proportion of those infected was equal between people with foreign and native citizenship.

Gonorrhea
An increase in the number of gonorrhea cases continued in 2018, see figure 2. The epidemic is primarily domestic, or up to 80% in of the cases. The vast majority of those diagnosed in 2018 were men, or 84%. Gonorrhea
bacteria that are multi-resistant to antimicrobial agents are a growing problem abroad and presumably it is therefore only a matter of time until they become so in Iceland as well.

**HIV infection**

In 2018, there was a large increase in the number of those diagnosed with HIV infection, see Figure 3. It should be noted, however, that among the 39 diagnosed 30 were foreign-born. Among those diagnosed in 2018, the infection was due to heterosexual sex in 17 cases, homosexual sex in 14 cases and two cases were due to intravenous drug use. One case involved an infection in a foreign born child due to mother-to-child transmission that occurred abroad. It is believed that five individuals were infected in Iceland in 2018, two of whom were infected due to drug use, two due to homosexual sex and one due to heterosexual sex. The routes of transmission of the other four Icelandic cases is not known with certainty.

**Chlamydia**

In 2018, the number of chlamydia infections decreased significantly compared with previous years, see figure 4. In total, 1634 cases were diagnosed in 2018 compared with 2197 cases in 2017, which is a 26% reduction. It is possible, however, that not all reports of chlamydia cases for the year 2018 have been delivered, something that could change this result slightly. Women made up a slight majority, or 54% of the cases. Chlamydia, which is the
most common sexually transmitted disease (STD) in Iceland, distinguishes itself from the other STDs in terms of gender and frequency. There is no definite explanation for this, but possibly the reason lies in the fact that syphilis, gonorrhea and HIV can largely be traced to men who have sex with men.

Influenza in the autumn of 2018

At the beginning of 2018, the seasonal influenza epidemic was dominated by influenza A (H3N2) strain. Soon afterwards, the epidemic was characterised by the Yamagata strain of influenza B until the epidemic had mostly passed in early April 2018. Influenza began to manifest itself again in October 2018. This time, the first cases were connected to a limited outbreak in the town of Selfoss in the south of Iceland that was caused by influenza A (H3N2) strain. In the beginning of December, the proper seasonal influenza gradually started and the number of confirmed cases and registration of influenza-like illness increased at a rate similar to that of recent years. Influenza due to B strain has so far been limited, but both influenza A (H1N1) and influenza A (H3N2) strains have been circulating.

Norovirus infections related to oysters

In mid-November 2018, the Chief Epidemiologist received information that indicated an outbreak of food-borne infection after a joint meal at a restaurant in Reykjavik. A member of the 18-person group who had been eating together five days earlier remembered that most of the group had suffered from diarrhea, vomiting, fever and body aches about one and a half days after the meal. The illness was mild in the group and lasted for two to three days. A case-control study was conducted on those who had eaten at the restaurant. The study revealed that the infection could be traced to oysters contaminated with norovirus. When studying food-borne infections the guidelines "Food-borne Disease Study Guide" are followed. The Reykjavik Health Inspection conducted an on-site investigation into this matter in consultation with the Icelandic Food and Veterinary Authority and the Chief Epidemiologist. Information gathering revealed that over a period of 19 days, 54 individuals had become ill with norovirus following the consumption of oysters.
The oysters in question are imported as live juveniles from Spain and are cultivated for several years in sea cages around Iceland and are therefore considered to be Icelandic oysters. On investigation of the oysters, the norovirus was detected. It is not known with certainty how this contamination came about, but it is well known that oysters, which naturally are very healthy and good food, can be contaminated during cultivation by both viruses and bacteria and cause infections. In 2018, the Chief Epidemiologist, in consultation with the Food and Veterinary Authority and the relevant local Sanitation Inspection, investigated five outbreaks considered to be the result of the consumption of contaminated food. In four of these outbreaks, norovirus was confirmed in three instances while also considered a like cause in the fourth case. The fifth outbreak was due to salmonella. Norovirus, therefore, was the most common cause of food-related outbreaks in 2018.

Childhood Vaccination Day

On 31 October 2018, an Education Day on the National Childhood Vaccination Programme was held for the second time for primary healthcare staff in the country. Among topics of discussion were the results of childhood vaccinations in Iceland, measures to promote participation and improve the monitoring and registration of vaccinations, the opposition of parents to vaccinations, and the vaccines in general use in neighboring countries although not in Iceland. The Education Day was very well attended, with close to 200 healthcare workers participating. This event is planned to take place annually in the future.

Infection Control Day 2018

On 19 October 2018, the annual Infection Control Day, held for the first time in 2015, was held for the third time. On this day, the regional and local epidemiologists meet with the staff of the Chief Epidemiologist. Many of the issues related to disease prevention and control were covered, such as vaccination, antibiotic use, vaccines, infection tracking and reports on serious infectious diseases. There was also discussion on health preparedness and the main tasks of the regional and local epidemiologists when a public health threat is imminent. Helgi Reynisson from the National Emergency Number (112) gave a short talk about Tetra telecommunications and at the end of the day, a short table-top practice took place.
on first response after an outbreak has occurred. The next Infection Control Day will be held in October 2019.

New report on antimicrobial resistant bacteria

The results of a new study conducted by the European Centre for Disease Control and Prevention (ECDC), published in the scientific journal Lancet 5.11.2018 (Figure 6), reveals that about 33,000 people die from antimicrobial resistant bacteria in the European Economic Area each year, and the burden of disease caused by these bacteria is as high and equals the disease burden of influenza, tuberculosis and HIV/AIDS combined. About 75% of the infections are related to the healthcare service of individual countries according to this study, which shows the importance of infection control in healthcare facilities in order to prevent the spread of antimicrobial resistant bacteria. The conclusion of the study also shows that the disease burden varies greatly across the countries involved, being most prominent in Italy and Greece and by far the smallest in Iceland.

Fig. 6

The results of the above-mentioned study clearly show that antimicrobial resistance is a major health problem in Europe (as well as elsewhere in the world), which needs to be systematically addressed. Although the situation is indeed good in Iceland, it is important for Icelanders to be aware of the risk involved and the importance of taking decisive measures in this country to maintain that position. By reducing the spread of multi-resistant bacteria, we can influence the prognosis of patients with infectious diseases and the cost of the healthcare system. The Ministry of Health’s working group submitted proposals for measures to reduce the spread of antimicrobial resistant bacteria in 2017, which hopefully will have a significant effect in slowing down further spread of antimicrobial resistance in Iceland. Most of the proposals have already been implemented, but some of them will hopefully be implemented in the near future.

References:
- Lancet 05.11.2018
- Report on measures to reduce the spread of antimicrobial resistant bacteria. 2017