Antibiotic-resistant infections fell in 2020 for first time since 2016, but UKHSA warns drop likely temporary

New data published by the UK Health Security Agency (UKHSA), ahead of World Antibiotics Awareness Week (WAAW), 18 to 24 November, shows that antibiotic-resistant bloodstream infections fell in 2020 (from 65,583 in 2019, to 55,384) for the first time since 2016 but still remain at a higher level than 6 years ago. Importantly, the decline was largely driven by a reduction in recorded bloodstream infections overall, likely due to less social mixing, enhanced hand hygiene and changes to healthcare access and delivery.

Antibiotics are vital for the treatment of bacterial infections causing pneumonia, meningitis and sepsis. Without them, modern medical technology could not exist, as they also help to protect against infection during chemotherapy, caesarean sections and other common surgeries. However, they are sometimes prescribed to treat coughs, earache and sore throats where it is now clear they may have little or no effect.

Antibiotic resistance occurs when bacteria no longer respond to treatment, causing serious complications, including bloodstream infections and hospitalisation. Taking antibiotics encourages harmful bacteria that live inside you to become resistant. That means that antibiotics may not work when you really need them. This is why it is important to take antibiotics only when they are needed.

Analysis of the bacteria that most commonly cause bloodstream infections, including E. coli, revealed that although the overall number of bloodstream infections decreased in 2020 compared with 2016, the overall proportion of infections that were resistant to antibiotics increased over the same time frame. This was most likely driven by changes in behaviour, prescribing and healthcare delivery in 2020 – 1 in 5 people with a bloodstream infection in 2020 had an antibiotic-resistant infection. This suggests that resistant infections are likely to rise in the post-pandemic years and will require ongoing action.

Concerted antimicrobial stewardship efforts over several years has led to continued decreases in antibiotic prescribing, with antibiotic prescribing dropping further during the pandemic, from 18 Defined Daily Doses (DDDs) per 1,000 inhabitants per day in 2019 to 16 DDDs per 1,000 inhabitants in 2020 – driven by reductions in antibiotics usually prescribed for respiratory infections. Antibiotics of last-resort use increased in hospitals.

Antibiotic prescribing in the dental setting showed, however, an increase in 2020 for the first time in many years, highlighting the importance of face-to-face practice in dentistry.

Dr Susan Hopkins, Chief Medical Advisor at UKHSA, said:

Antimicrobial resistance (AMR) has been described as a hidden pandemic and it’s important that we do not come out of COVID-19 and enter into another crisis.

It is likely that COVID-19 restrictions in 2020 including enhanced infection, prevention and control measures also played a part in driving down antibiotic resistance and prescribing. While these measures were severe, serious antibiotic-resistant infections will rise once again if we don’t act responsibly and that can be as simple as regular and thorough handwashing.

As we head into winter, with increasing amounts of respiratory infections in circulation, it’s important to remember that antibiotics are not needed for many cold-like symptoms. Stay at home if you feel unwell. Taking antibiotics when you don’t need them only puts you and your loved ones at more risk in the future so please listen to your GP, nurse, dentist or pharmacist’s advice.