

New data shows 148 severe antibiotic-resistant infections a day in 2021

[The latest data published by the UK Health Security Agency](#) (UKHSA) reveals that the estimated total number of serious antibiotic resistant infections in England rose by 2.2% in 2021 compared to 2020 (53,985 compared to 52,842). This is the equivalent of 148 severe antibiotic resistant infections a day in 2021.

Antibiotic resistance occurs naturally, but inappropriate usage and overuse of antibiotics can accelerate this process. Antibiotic-resistant bacteria are less likely to respond to treatment, causing serious complications, including bloodstream infections, sepsis and hospitalisation. This is why it is important to take antibiotics only when they are prescribed and necessary for the condition.

The number of severe antibiotic-resistant infections remains below pre-pandemic levels (62,422 in 2019), driven by a number of factors including changes in how NHS services were delivered and how much people contacted the NHS, as well as social behaviour (reduced social mixing and enhanced hand hygiene) during the pandemic.

In England, total antibiotic use fell by 15.1% between 2017 to 2021, from 18.8 Daily Defined Doses (DDD) per 1,000 inhabitants per day to 15.9. This means that England has exceeded the government's National Action Plan goal to reduce prescribing by 15% by 2024 from a 2014 baseline. However, this downward trend may not be sustained unless we continue to use antibiotics appropriately and continue to drive down infections overall.

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

We are already seeing resistance emerge to our very newest antibiotics – innovation to find new treatments will only succeed if we use what we have responsibly. Overuse of antibiotics will mean they stop working against life threatening conditions such as sepsis.

Antibiotics won't help the symptoms of cold, flu or coronavirus (COVID-19) – please trust your healthcare professional, take antibiotics only as prescribed, never share with others and don't save for later. Taking antibiotics when you don't need them puts you and your loved ones at risk of having an untreatable infection in future.

Professor Dame Jenny Harries, Chief Executive of UKHSA, said:

Antibiotic resistance is not a distant problem that we can ignore –

infections caused by antibiotic resistant bacteria are killing thousands of people every year in this country and globally, as well as having a huge economic impact. As we emerge from the COVID-19 pandemic, this is a pivotal moment to maintain focus on the 'silent pandemic' of antibiotic resistance through our extensive surveillance and antibiotic stewardship activities.

While the number of severe antibiotic resistant infections has reduced during the pandemic compared to 2019, resistance to some key antibiotics remains high. Over two-fifths of *E. coli* bloodstream infections are resistant to co-amoxiclav, a key antibiotic used in the treatment of serious infections in hospital. UKHSA is also monitoring newer antibiotic therapies such as cefiderocol to identify resistance.

An initial assessment of cefiderocol susceptibility in *E. coli* and *Pseudomonas* spp. bloodstream isolates in England has already identified resistance. Investigating and understanding resistance to newer antibiotics is an important area of development.