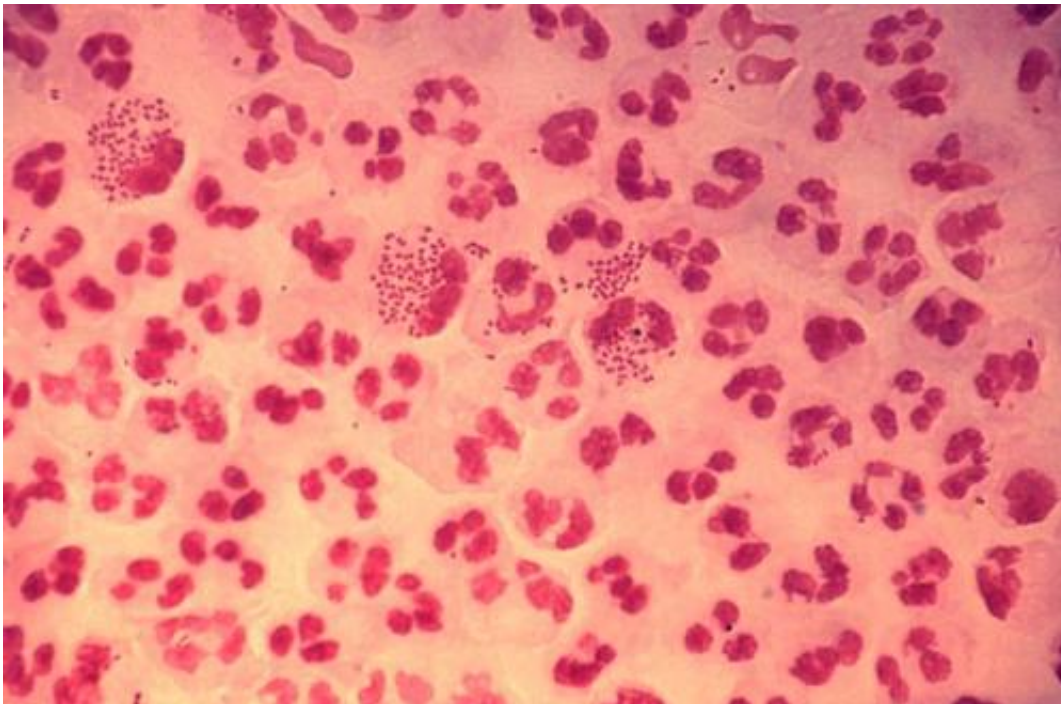


First cases of extensively drug-resistant gonorrhea threaten future treatment

May 14 2018



Credit: CDC

Within a matter of weeks, three cases of gonorrhea that are resistant to the recommended first-line antibiotic treatment have been detected in Europe and Australia. At a time with limited alternatives to the current dual therapy, lack of a vaccine and insufficient surveillance capacity in some regions, these cases highlight the growing threat of drug-resistance—which could lead to untreatable gonorrhea.

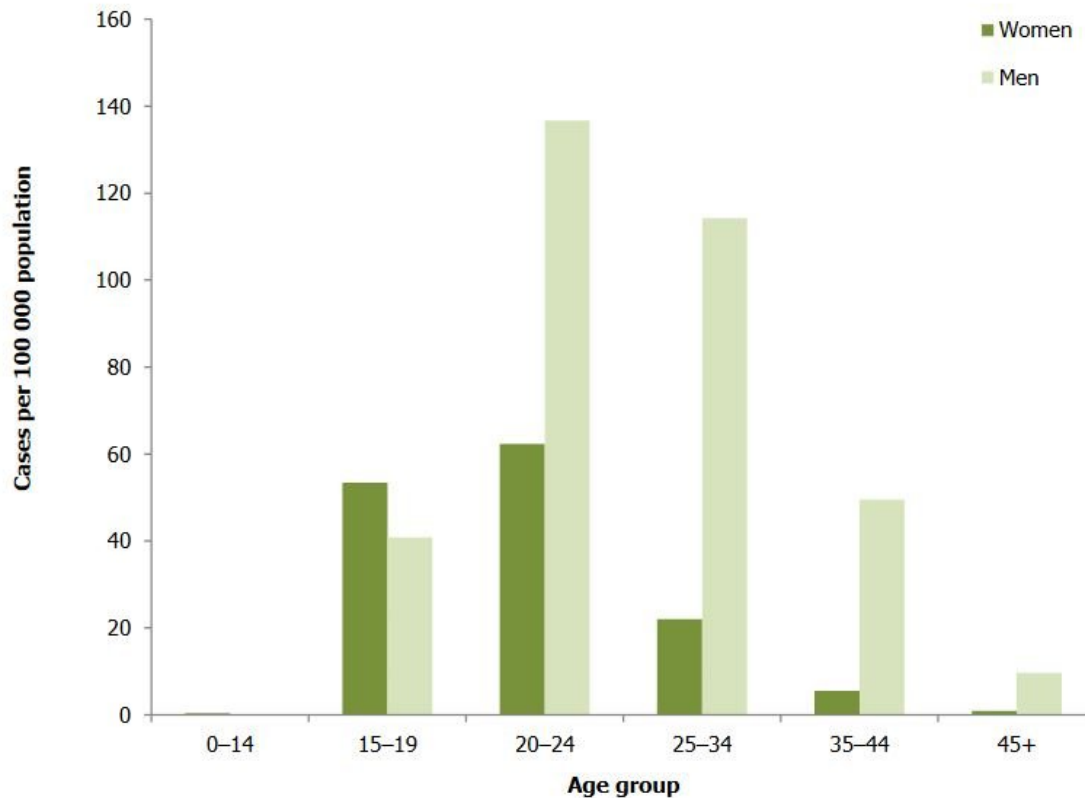
With more than 75 000 reported cases in 2016, gonorrhoea is the second most commonly notified [sexually transmitted infection](#) (STI) in Europe. Successful gonorrhoea treatment with antibiotics not only reduces the risk of complications such as [pelvic inflammatory disease](#), ectopic pregnancies, infertility or increased HIV transmission in some settings, but—combined with regular testing—also serves as one of the main public health strategies for reducing further transmission.

However, over the past decades, *Neisseria gonorrhoeae* has been developing resistance to several antimicrobial classes.

Between February and March 2018, the United Kingdom (1) and Australia (2) notified the first three cases globally of extensively drug-resistant *Neisseria gonorrhoeae* with high-level resistance to azithromycin and ceftriaxone resistance that are thus not susceptible to the currently recommended first line dual therapy for gonorrhoea (ceftriaxone intramuscularly and azithromycin orally). These cases were not epidemiologically linked.

The control of gonorrhoea depends on [primary prevention](#), including promoting safer sex practices (in particular the use of condoms), regular testing of individuals at risk as well as treatment with effective antibiotics to reduce the chance of further transmission.

Figure 3. Rate of confirmed gonorrhoea cases per 100 000 population, by age and gender, EU/EEA, 2015



Source: Country reports from Cyprus, the Czech Republic, Denmark, Estonia, Finland, Greece, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Norway, Portugal, Romania, Slovakia, Slovenia, Sweden, and the United Kingdom.

In the EU/EEA, the largest proportion of reported gonorrhea cases in 2015 was among 25- to 34-year-olds (36 percent of cases) and 15-24 year olds (35 percent of cases). Credit: ECDC

Even a small change in drug resistance may have a broader impact as those infected can continue to transmit the infection without knowing. Spread of extensively drug-resistant strains like the ones identified in the UK and Australia can have an even more serious impact on the control of gonorrhoea.

How do we keep gonorrhoea treatable?

In its Rapid Risk Assessment, ECDC outlines the necessary steps to respond to the threat of multidrug- and extensively drug-resistant gonorrhoea: across disciplines, clinicians, microbiologists, epidemiologists and [public health](#) authorities at national and international level need to work closely together to preserve ceftriaxone and azithromycin as viable treatment options for this bacterial infection.

The most important actions needed are:

- primary prevention interventions, such as sexual education and promotion of barrier methods (condom use), aiming to reduce the overall prevalence of gonorrhoea;
- effective identification and management of infected patients, by ensuring that all those infected are promptly diagnosed and appropriately treated and receive a follow-up test of cure as recommended in current patient management guidelines;
- reminding those diagnosed with gonorrhoea of the importance of partner notification and of attending for their test of cure.

The reported cases of extensively drug-resistant [gonorrhoea](#) also highlight the need for developing novel antimicrobials for this disease as well as prioritisation and funding of an effective vaccine.

More information: [ecdc.europa.eu/en/publications ... a-gonorrhoeae-united](https://ecdc.europa.eu/en/publications/_a-gonorrhoeae-united)

Provided by European Centre for Disease Prevention and Control (ECDC)

Citation: First cases of extensively drug-resistant gonorrhea threaten future treatment (2018, May 14) retrieved 4 May 2024 from <https://medicalxpress.com/news/2018-05-cases-extensively-drug-resistant-gonorrhea-threaten.html>

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