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## Antibiotic resistance and international travel

### Antimicrobial resistant infections are rising in all parts of the world

[Antibiotic resistance](#) occurs when bacteria no longer respond to treatment. World Health Organization surveillance reports high levels of antibiotic resistance worldwide [1]. Other types of microbe including viruses, parasites and fungi can also become resistant to treatment (antimicrobial resistance) [2].

While antibiotic resistant infections are present in the UK, these infections may be more common in other countries and have been reported at destinations popular with UK travellers [1]. Recent examples of antibiotic resistant infections diagnosed in returned UK travellers include [extensively drug-resistant typhoid fever in travellers to Pakistan](#), Salmonella Typhi in a traveller returning from a mass gathering in Iraq [3, 4]; and [gonorrhoea in a traveller returning from South East Asia](#) [5, 6]. Antibiotic resistant *Pseudomonas aeruginosa* surgical site infections have recently been reported in American tourists returning from Mexico after travelling to have medical treatment [7,8].

### Advice for travellers

See our [Country Information pages](#) for current travel health advice for your destination. Arrange an appointment with your GP, Practice Nurse, Pharmacist or travel clinic to ensure you are up-to-date with all recommended routine UK vaccines as well as vaccines for travel, which may include typhoid vaccination; check current malaria advice if appropriate.

If you are considering travelling abroad for health treatment, including operations such as plastic surgery, you should research your trip carefully (including checking out the health regulations of the country, the qualifications of the doctor you plan to consult and your travel insurance, including medical cover). Be aware that antibiotic-resistant strains of bacteria may be more common in some countries than others [1]. See our [medical tourism](#) factsheet for further information.

While travelling, you can reduce your risk of infections generally by regular handwashing, taking care with [food and water hygiene](#), avoiding close contact with others if they are sick, and [practising safe sex](#). You should always take medications as prescribed, including antimalarial medication. Be aware that medication obtained abroad may be counterfeit or substandard [9]. Our [medicines and travel factsheet](#) has more information about this.

Get urgent medical attention for any fever or flu-like symptoms. If you have returned to the UK and develop symptoms suggestive of an infection, remember to tell your doctor you have travelled abroad. Include the destination, the dates of travel and the dates, location, and type of medical care received if applicable.

### Advice for health professionals

Travellers should be advised of the correct way to take any prescribed medication. Antibiotic use for often self-limiting conditions including the use for standby treatment [of travellers' diarrhoea](#), whilst abroad should be carefully considered before prescribing. Guidance on antimicrobial stewardship is available for prescribing clinicians [10-12].

## Resources

- [Antibiotic resistance](#)
- [Food and water hygiene](#)
- [Medical tourism \(travelling for treatment\)](#)
- [Medicines and travel](#)
- [Sexually transmitted infections](#)

## References

1. [Glass Antimicrobial Resistance Surveillance System \(GLASS\). GLASS Early Implementation Report: 2017-2018](#)
2. [World Health Organization. Antimicrobial resistance. 15 February 2018. \[Accessed 22 May 2019\]](#)
3. [Public Health England. UK Public Health Resistance Alert: Salmonella Typhi resistant to third-generation cephalosporins isolated in England from a traveller returning from Pakistan. Health Protection Report 2017; 15 December;11\(45\) \[Accessed 22 May 2019\]](#)
4. [Godbole G, McCann N, Morris Jones S et al. Ceftriaxone-resistant Salmonella Typhi in a traveller returning from a mass gathering in Iraq. Lancet Infect Dis 2019; 19\(5\): 467 \[Accessed 22 May 2019\]](#)
5. [Public Health England. Multi-drug resistant gonorrhoea in England: 2018. \[Accessed 22 May 2019\]](#)
6. [Public Health England. Update on investigation of UK case of Neisseria gonorrhoeae with high-level resistance to azithromycin and resistance to ceftriaxone acquired abroad. HHealth Protection Report 2018; 20 April; 12\(14\). \[Accessed 22 May 2019\]](#)
7. [World Health Organization. Carbapenam-resistant Pseudomonas aeruginosa infection – Mexico, 5 March 2019 \[Accessed 22 May 2019\]](#)
8. [Padillaly P et al 2018. Medical Tourism and Postoperative Infections: A Systematic Literature Review of Causative Organisms and Empiric Treatment. Plast Reconstr Surg. Dec;142\(6\):1644-1651 \[ Accessed 22 May 2016\].](#)
9. [World Health Organization. Substandard and falsified medical products. 31 January 2018 \[Accessed 22 May 2019\]](#)
10. [Public Health England. Summary of antimicrobial prescribing guidance – managing common infections 2018 \[Accessed 22 May 2019\]](#)
11. [British Society for Antimicrobial Chemotherapy. Antimicrobial Stewardship from Principles to Practice 2018](#)
12. [National Institute for Health and Clinical Excellence. Antimicrobial prescribing guidelines 2019](#)