

Antibiotics: it's time to get a GRIP

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Let's get one thing clear, for the vast majority of cases seen in primary care, use of antibiotics for simple respiratory tract infections such as sore throats, colds and flu, acute cough and acute otitis media, does not give benefit and may cause harm. Over the last two decades numerous trials have provided this evidence and many articles and reviews have reached the same conclusion. There may be a few people at increased risk from these infections (for example, babies, the very old and the immunocompromised) and these people should be identified and assessed carefully. In 1998 the Standing Medical Advisory Committee in their report *The Path of Least Resistance* emphasised the importance of tackling unnecessary antibiotic prescribing in primary care to avoid antibiotic resistance. In the context of respiratory tract infections this was reinforced in 2006 by the NICE guideline on respiratory infections (CG69) that also noted that around 60 per cent of antibiotic prescriptions in primary care were for these infections.

So what has changed?

Several recent reports make sobering reading. One research report looked at individual patient data on a large primary care database between 1995 and 2011.¹ The researchers found that the proportion of patients who were prescribed an antibiotic for coughs and colds fell from 47 to 36 per cent from 1995 to 1997, but then rose again to 51 per cent by 2011. Antibiotic prescribing for sore throats also fell, from 77 per cent in 1995 to 62 per cent in 1999, after which it remained stable. But the 2011 data showed that over 30 per cent of patients who were prescribed antibiotics for sore throats had received one that was not recommended by national guidance. Furthermore, the research highlighted a several-fold variation in prescribing between one GP and another. In October 2014, The *English surveillance programme antimicrobial utilisation and resistance* (ESPAUR) report also identified considerable variation in antibiotic use across English general practices and also in hospitals, alongside a concerning increase in infections caused by some common bacterial pathogens resistant to standard antibiotics.² There had been an overall 4 per cent rise in GP antibiotic prescribing in the four years to 2013 and a 12 per cent rise in hospital use.

Why do GPs continue to prescribe antibiotics for respiratory tract infections and help to perpetuate the myth that these infections require antibiotic treatment? There appear to be several reasons why we continue. One of these is workload and faced with a seemingly never-ending stream of respiratory infections in the winter, antibiotics may seem a quick fix. However, by feeding unrealistic expectations we increase future workload with continued inappropriate use of our services. Possibly, some GPs do it because they wish to appear nice and avoid confrontation and see little harm, or maybe because they want to avoid complaints or risk of complications. For most acute cases there is no evidence that prescribing 'prophylactically' to avoid complications works; it is much better to treat infrequent complications at the point that these arise.

What can be done?

A lot of work is taking place to improve public understanding, enhance prescribing practice and modify how healthcare professionals approach this problem. Driven by the Chief Medical Officer for England, there is a five-year (2013–18) UK cross-government antimicrobial resistance strategy. The RCGP hosts an excellent resource, the TARGET (Treat Antibiotics Responsibly, Guidance, Education, Tools) antibiotics toolkit. This has guidance to help clinicians decide when and what antibiotics to prescribe, education resources for groups of primary care staff or individual clinicians and tools such as patient leaflets to share in consultations, and posters and videos for waiting areas (see <http://bit.ly/1xWB5wr>).

One of the criticisms to such work is that even if we sort this out in the UK, the issue of antibiotic use and antibiotic resistance is a global problem. There are examples of much greater antibiotic profligacy in other countries and in many this is unregulated such that antibiotics can be bought in pharmacies and even in shops. People travel easily between countries and carry antibiotic-resistant organisms with them. The World Health Organization is taking steps to address this but this work may not be visible to many of us working in the UK. In Europe, Antibiotic Awareness Day on 18 November promotes a publicity campaign (see <http://bit.ly/10he9fZ>).

Another initiative, which I am involved in, is the Global Respiratory Infection Partnership (GRIP) – a group of like-minded healthcare professionals from around the world who have pledged to tackle this issue (see www.grip-initiative.org). GRIP provides a set of resource materials to encourage self-management and promote the role of the community pharmacist in talking to people about respiratory tract infections and the role of symptomatic treatments. Many of the concerns are the same in the various countries where this initiative is active and perhaps surprisingly the materials need little adaptation for local use. An example of a patient education video can be seen at: <http://bit.ly/1rXez1W>. The key messages from GRIP are that there is good evidence that symptomatic interventions are effective in simple respiratory infections and that antibiotics, in most cases, don't work. If we continue to use them unnecessarily they won't be there in the future for the infections where they are really needed.

References

1. Hawker J, et al. 2014 *J Antimicrob Chemother*; doi: 10.1093/jac/dku291.
2. ESPAUR report, October 2014. <http://bit.ly/1EpeoTR>.

Declaration of interests

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