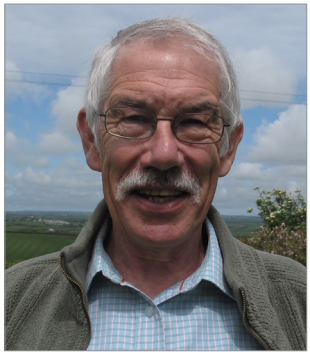
The post-antibiotic era: what will you do?



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A new report by the World Health Organization (WHO, 2014a) on antibiotic resistance has revealed that this serious threat is no longer a prediction, it is happening right now in every region of the world and has the potential to affect anyone, of any age, in any country. Antibiotic resistance is now a major threat to public health (Huttner et al, 2013).

"Without urgent, coordinated action [...] the world is headed for a post-antibiotic era, in which common infections and minor injuries which have been treatable for decades can once again kill," to quote Dr Fukuda, the WHO Assistant Director General for Health Security (WHO, 2014a). The European Centre for Disease Prevention and Control (ECDC, 2013) reported that for the European Union, 18.8 million antibiotic prescriptions are issued per day in primary care. Antibiotics use on skin and wounds in the UK accounted for 6.1% of the total national usage. In UK care homes, this rises to 24.5% (European Surveillance of Antibiotic Consumption [ESAC], 2009). Wound care in the UK primary care setting is a target for optimising antibiotic use, this is in broad accord with Howell-Jones et al (2006).

Resistance is not a new phenomenon. In a review, Brandt et al (2014) studied publication activity in PubMed. They found, using MeSH terms for resistance to antibiotics, 49,690 papers between 1940–2013. Nor is it news for wound care professionals (White, 2003).

Attributing blame will not, at this stage, help in any way. Clearly practices must change, and immediately. For all involved in wound care this will mean responsible use of topical antiseptics, reserving antibiotics for occasional 'emergency' use. While it is impossible to prioritise needs for antibiotic treatment, major surgery and paediatrics will be special cases. What of antibiotic usage on chronic wounds? The irresponsible and widespread use of both topical and systemic antibiotics for leg ulcers, prevalent in community care will have to change. Use of narrow-spectrum topical agents, such as metronidazole and mupirocin must be used with caution. The diagnosis of cellulitis will have to be more precise; too many cases of non-infected erythema, often allergic contact dermatitis, are being treated with antibiotics (Keller et al, 2012).

Many organisations have published detailed position papers highlighting the problem and the consequences; among them ECDC (2003), ESAC (2009), Health Protection Agency (2013), WHO (2014b); the Royal College of Nursing (2013) and NICE (2014).

What can we all do? The following will be a start:

- Take active steps to reduce healthcare associated infections (HCAIs)
- Adopt antibiotic stewardship principles
- Use topical antiseptics, when indicated, on wounds
- Speak out against irresponsible antibiotic usage
- Follow the various published guidelines and teach the principles to others.

What can wound care clinicians do?

- Be more vigilant in recognising wounds 'at risk' of infection
- Use topical antiseptics according to guidelines
- Routinely use modern infection criteria (Cutting and Harding, 1994).

The scale and nature of the problem is abundantly clear. We have been told! WUK

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