Antibiotic Stewardship for General Practice

What does this mean? Could I do it in my practice?

“Antimicrobial resistance (AMR) threatens the effective prevention and treatment of an ever-increasing range of infections caused by bacteria, parasites, viruses and fungi. An increasing number of governments around the world are devoting efforts to a problem so serious that it threatens the achievements of modern medicine. A post-antibiotic era – in which common infections and minor injuries can kill – far from being an apocalyptic fantasy, is instead a very real possibility for the 21st century.

This WHO report, produced in collaboration with member states and other partners, provides for the first time, as accurate a picture as is presently possible of the magnitude of AMR and the current state of surveillance globally.

The report makes a clear case that resistance to common bacteria has reached alarming levels in many parts of the world and that in some settings, few, if any, of the available treatment options remain effective for common infections. Another important finding of the report is that surveillance of antibacterial resistance is neither coordinated nor harmonised and there are many gaps in information on bacteria of major public health importance.”

http://www.who.int/drugresistance/documents/surveillancereport/en/

“The world could soon be ‘cast back into the dark ages of medicine’ unless action is taken to tackle the growing threat of resistance to antibiotics.” – Prime Minister David Cameron

“Antimicrobial resistance (AMR) is one of the greatest health and public health challenges of our time. If we do not take action now, rates of resistance will continue to increase; we then face the real possibility that infections will become more difficult to treat, and that large swathes of modern medicine will become untenable. The actions necessary to address this problem require a response on multiple levels including on an individual, organisational, national and global level, and in all settings where antibiotic use occurs (including agricultural and veterinarian settings, but particularly in the primary care setting were as much as 80% of prescribing for humans occurs).” UK joint statement on antibiotic resistance

These are just some of the press releases on the problem of antibiotic resistance in the last few months.

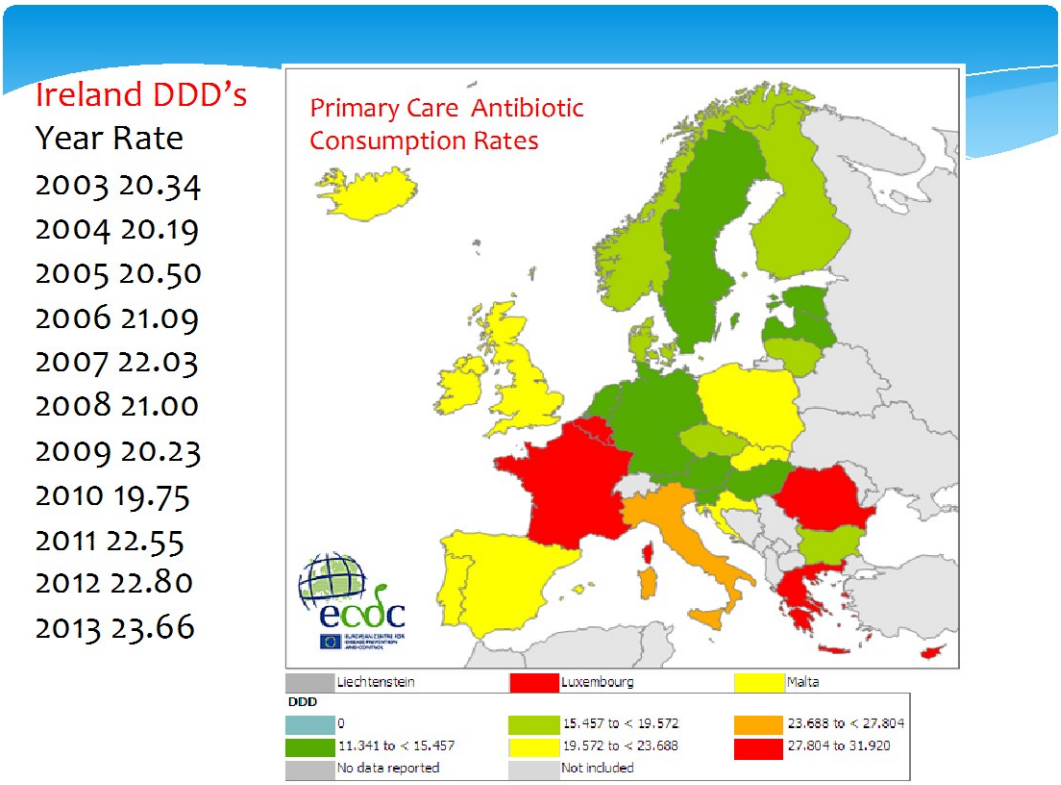
So what can you as an individual GP do to help?

Antibiotic stewardship in general practice can be summed up in the following statement:

Ensure you prescribe the right antibiotic for the right patient at the right time with the right dose duration and route causing the least amount of harm to the patient and future patients.

Unfortunately, despite many GPs recognising there is a global problem with antibiotic resistance, there is little evidence we are doing enough to combat the problem. The

community antibiotic consumption rates in Ireland's DDDs (defined daily doses antibiotics) are rising rather than falling and we still consume far more antibiotics than our northern European neighbours.



"The proportion of patients given antibiotics for coughs and colds has risen 40% this century, a study found.

It comes despite government efforts to reduce prescriptions for antibiotics, which do not have any impact on common coughs and colds and work in only 10% of sore throat conditions. The University College London and Public Health England study also found big variations between GP practices. Researchers looked at more than 500 UK GP practices between 1999 and 2011.They found the proportion of patients who were prescribed an antibiotic by their GP for coughs and colds was 36% in 1999, but rose to 51% by 2011 – a rise of 40%."

We prescribe far more broad-spectrum antibiotics than narrow spectrum. Co-amoxiclav tops the list of prescribed antibiotics in most GP surveys and national prevalence studies despite not being a first line recommended antibiotic for most conditions treated in primary care, e.g. HALT Halting Infections in Long Term Care.

We use far more macrolides than our European counterparts and there is no evidence that the Irish population is "more allergic". Macrolides are not without risk. This large cohort study found a significantly increased risk of cardiac death associated with the antibiotic clarithromycin.

Statins should be avoided when taking macrolides.

We all know we prescribe unnecessary antibiotics and the social pressure to prescribe is well recognised. The yearly HSE public antibiotic awareness winter campaign aims to educate the public to reduce demand for antibiotics for self-limiting viral infections.

However, we as prescribers need to get better at two things:

1. Saying NO when we really feel an antibiotic is not needed.

2. Ensuring we prescribe the right antibiotic for the right patient at the right time with the right dose duration and route causing the least amount of harm to the patient and future patients by adhering to the national antimicrobial prescribing guidelines for Irish primary care – www.antibioticprescribing.ie.

This winter, why not decide as an individual GP or group practice to consider the following antibiotic stewardship ideas?

1. Everyone agree to open a link to antibiotic prescribing guidelines each day and check what is recommended before prescribing.
2. Everyone agree to ensure they prescribe the right antibiotic for the right patient at the right time with the right dose duration and route causing the least amount of harm to the patient and future patients by adhering to the national antimicrobial prescribing guidelines for Irish primary care
3. Remember to apply this to prescribing in OHH or nursing home prescribing.
4. Consider one of the following two quality improvement exercises/audit for your practice.

a) Take four common conditions, e.g. sore throat, otitis media, UTI, RTI.
   All write down what you normally prescribe for each age group for each condition, and the dose and duration.
   Check against prescribing guidelines and see how you compare.
   Decide what you can do to improve your prescribing as a practice and agree on goals.
   Set a date to audit compliance and that week record what you actually prescribed for the patients.
   Have you improved your compliance with guidelines?

b) Another idea would be to create a list of preferred antibiotics for your practice. e.g. penicillin V, trimethoprim. Nitrofurantoin, amoxicillin, flucloxacillin.
   If you need to prescribe any other antibiotics e.g. co amoxiclav, ciprofloxacin, clarithromycin, you need to record this and state why, and discuss at a practice meeting to see if your colleagues agree with you.

Most software packages allow you to check the amount of a particular antibiotic prescribed over a time period, and then re-audit after an intervention to see if you have to reduce your broad spectrum antibiotic prescribing – another idea for annual audit.

The guidelines adapt to any smartphone tablet and PC, and should be accessible at all OHH centers – if not, contact your OHH manager as access has been approved by the Primary Care Directorate.

Useful websites
Antibiotic use in the community in Ireland

Public information campaign on antibiotics, including campaign materials

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