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LETTER TO THE EDITOR

Antimicrobial resistance and prescribing for acute respiratory tract infections; where are we now?

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Dear Editor,

The IJMS recently published a review paper conducted by a general practice research group at the University of Limerick Graduate Entry Medical School that described the global threat of antimicrobial resistance, which is associated with increased consumption of antibiotics [1]. Most antibiotic prescribing takes place in primary care, and the commonest reason for antibiotic prescription in adults is acute respiratory tract infection (ARTI) [1]. One of the most important reasons for antibiotic prescribing is how much doctors think that the patient expects an antibiotic for their ARTI [1]. Further qualitative research on this topic from our department confirms that general practitioners (GPs) believe that high levels of expectation exist in patients presenting with ARTI, especially if they are not entitled to free care and were attending an out of hours (OOH) center [2]. However, a quantitative study conducted by our research group during the same time period investigated the expectations of patients attending an OOH center, and it reported relatively low levels of expectation [3]. In our study, 435 patients presenting to an OOH facility in Limerick City were studied. This number represented 25.4% of the total number attending this facility with all complaints. Participation was high with 95% of those offered the survey questionnaire returning it while they waited to see the doctor. The antibiotic expectation was measured by the following question: "Do you expect to receive an antibiotic for this illness?" The three options were "yes," "no," and "unsure." All those returning the questionnaire answered this question, making the finding on antibiotic expectation robust. The study did not ask patients what, if any, treatment those presenting had already used including over the counter antibiotics sourced in other countries.

Only 34% of those attending expected to be prescribed an antibiotic for their symptoms. This is one of the lowest levels of patient expectation recorded in recent years [3]. The remainder of the patients either did not expect an antibiotic or were unsure. The most common expectations were for further examination, reassurance, information and symptom treatment. Interestingly, there was no difference in the level of antibiotic expectation between those entitled to free care and those who were not. This finding was unexpected [1, 2]. It is difficult to comment on any association between the patient's socioeconomic status and antibiotic expectation in this study [3]. Previously, eligibility for free care has been an indication of a lower socioeconomic status [4]. However, recently introduced automatic free care eligibility for the under 6 and over 70 year age groups has made this association less robust.

Another concern of GPs was the difficulty they had in applying guidelines for antibiotic prescribing in an everyday situation, particularly when managing patients with multimorbidity and who are on long-term medication that might interact with antibiotics [2].

The message from this research is clear. Most patients presenting to GPs in an OOH setting (and probably also in a routine clinic setting) with ARTI do not expect an antibiotic for their illness. The concept of antimicrobial resistance and its association with overprescribing of antibiotics is getting through to the public.

Patients want us to act as doctors and examine them, explain, and treat their symptoms.

Guidelines also need to be modified to take into account multimorbidity and polypharmacy which is becoming increasingly common. Such polypharmacy also makes dangerous interaction with commonly used drugs for chronic disease and antibiotics increasingly possible (for example, the risk of

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rhabdomyolysis when erythromycin is co-prescribed with simvastatin).

Sincerely,

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Compliance with ethical standards

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This article does not contain any studies on animals performed by any of the authors.

Conflict of interest The authors declare no conflict of interest.

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