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Jessica Correa[a], Jose Luis Lopez-Negre[a], Carmen Barrio[b] y David Parés[a,*]

[a] *Servicio de Cirugía General y del Aparato Digestivo, Hospital General, Parc Sanitari Sant Joan de Déu, Universitat de Barcelona, Sant Boi de LLobregat, Barcelona, España*

[b] *EAP Camps Blancs, Sant Boi de LLobregat, Barcelona, España*

* Autor para correspondencia.
Correo electrónico: david.pares@pssjd.org (D. Parés).

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Should we always improve adherence to antimicrobial treatment? I don't think we should

¿Debemos siempre mejorar la adherencia al tratamiento antimicrobiano? Yo no creo que debamos

Dear Editor,

In a recent paper, Bernabé Muñoz E et al. state that lack of treatment adherence and self-medication are two of the biggest problems in antibiotic misuse among patients.[1] I fully agree with the latter but clear evidence about the former is lacking, since most of the antibiotics currently used at least in respiratory tract infections are unnecessary. The authors base their study on the WHO Strategy for Containment of Antimicrobial Resistance statement which encourages prescribers and dispensers to educate patients on the proper use of antibiotics and the importance of completing the prescribed treatment. However, this strategy was published in 2001 and is only intended in those cases in which antibiotic therapy is necessary.

Primary care accounts for >80% of all human antimicrobial use, with 60% being prescribed for mainly self-limiting respiratory tract infections (RTI).[2] More specifically, in acute respiratory tract infections, usually defined as an acute cough with at least one of the following criteria – sputum, chest pain, shortness of breath, and/or wheeze – between 52% and 100% (median 88%) of patients are currently prescribed an antibiotic.[3] Cochrane Collaboration systematic reviews and meta-analyses conclude that the benefits of antibiotic use are marginal at best in acute bronchitis, otitis media, common cold, influenza, and are outweighed by the risk for adverse drug events. Other recently published clinical trials have reached similar conclusions. This has forced some societies and scientific communities to endorse more stringent guidelines. For instance, in the United States, since 2005, a Healthcare Effectiveness Data and Information Set measure for patients aged 18–64 years states that the antibiotic prescribing rate for acute bronchitis should be zero, not to mention the goals for the upper respiratory tract infections, it means that the percentage of unnecessary antibiotics prescribed is overly underestimated.

Widespread use of antibiotics has led to the increasing problem of antibiotic resistances. No new class of antibacterial has been discovered in the last 26 years, and while the pharmaceutical industry is running out of options to develop new antibiotics, the only way to decrease the extending pressure is to handle the antibiotic prescriptions more cautiously and appropriately. In a recently published book, the UK Chief Medical Officer Prof Sally Davies stated that we are losing the battle against infectious diseases, since bacteria are fighting back and are becoming resistant to modern medicine so that, in short, antibiotics will not work.[4] And antimicrobial use is the key driver of resistance.[5]

General practitioners should be more aware of how big the problem of antimicrobial resistance is. How many times are we requested to prescribe an antibiotic recommended by another clinician, bought in the pharmacy or previously taken by the patients themselves? And how many times do we attend patients who are taking antibiotic courses that should never have been initiated? We have always been told that an antibiotic course should always be completed even in unappropriated cases. This is one of the numerous medical myths that should be debunked. Now we know that the longer the patient takes an unnecessary antibiotic the greater the antimicrobial resistance is. In the last years semFYC is recommending the primary care physicians to stop unnecessary antibiotic courses and this should be our main goal.[6] Only by doing this and prescribing these drugs if indicated will we be able to preserve these drugs. Obviously, I do agree that adherence should be improved, but only when antibiotic treatment is warranted.

Conflict of interest

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Carles Llor

University Rovira i Virgili, Primary Care Jaume I, Tarragona, Spain
E-mail address: carles.llor@urv.cat

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Author's reply

Respuesta de los autores

Dear Editor,

We appreciate the interest shown by the authors of this letter to the editor about our work and considerations about it.[1]

The author states his disagreement with the importance of improving adherence to antibiotic treatment from patients. This statement is based on the lack of need often associated to these treatments, and the problems associated with improper use, not by patients but professionals using these drugs in unsuitable situations. In these cases, the authors state that the correct intervention is detention of unnecessary cycles. We did not consider as the aim of our study to assess the adequacy or otherwise of prescribed antimicrobial treatments. However we cannot but agree with the author.

In fact one of the authors of this paper is working in another study covering this issue. Several medical records of patients treated with antibiotics have been audited in order to assess the appropriateness of such treatments. A local guide has been used as reference, and, as a matter of fact, this paper reveals the inappropriateness of many prescribed antibiotic.[2]

There is ample room for improvement in the adequacy of some treatments, and in these cases the use of antibiotics should be limited to those instances in which there is real evidence of their possible benefit, but it is also true that the treatment being appropriate, the misuse by patients, interrupting the indicated treatments ahead of time, can also affect the generation of resistance. The importance of the patient's behavior with antibiotics is evident, when it is observed that despite the decrease in the use of antibiotics in outpatient level, this is still one of the most therapeutic groups used by the Spanish population, which seems have a more pragmatic and carefree attitude regarding their use, than other European populations.[3] In the use of antibiotics there are many actors involved. In each step, from prescribing to dispensing or administering it is necessary to conduct a public awareness campaign on the importance of their proper use thereof.

We agree therefore with the importance of basing the prescription of antimicrobials in the evidence, and limit their use to situations where you really have shown benefit. We further agree with the idea of promoting among medical professionals, as responsible for the prescriptions, the suspension of antibiotic treatments in cases that they detect that the treatment is unnecessary. However the qualified professional to decide to stop a course of antibiotics is a physician, and our study was conducted in a community pharmacy. So it was not the aim of this study to evaluate the appropriateness, but, based on the prescriptions backed by a physician, make sure the patient makes a correct use of the drug.

Clearly, the correct use of antibiotics is a major public health problem that we must face from all areas. We must work with health professionals involved, as well as with patients, that with adherence and self-medication, have a crucial role in the success of treatment.

Initiatives such as the upcoming publication of the document ''No hacer'' of SEMFYC are aimed at improving antimicrobial prescribing.[4] However, most interventions of health administrations focus on promoting the correct prescription, and it is necessary to emphasize the proper use of these drugs by patients. We must consider community pharmacy as a close and affordable health area, which we can use in health education interventions. Unifying work strategies would mean a benefit to patients and more efficient use of our resources.

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