



An AIFA “traffic-light” app to promote the appropriate use of antibiotics

Bronchitis? Red light to the use of any antibiotic. Otitis in children? Orange light to antimicrobials usable only for severe cases, small immunocompromised or under 2 years of age. Pneumonia? Green light to the use of Amoxicillin or Doxycycline. This is the AIFA “traffic-light” app, called **Firstline**, with useful information on the treatment of the 10 most common infections in adults and children, which can be downloaded free of charge from the official Google and Apple stores, but also from the website <https://firstline.org/aifa> for the web version. It is a simple and flexible consultation tool, available to doctors as a support in antibiotic prescription, but also available to citizens. This is intended to discourage ‘do-it-yourself’ use and is a clear warning never to take antibiotics without first consulting your doctor.

The App – developed for AIFA on the Firstline platform, from which it takes its name – incorporates and revises the recommendations provided by the World Health Organization (WHO) in the AWaRe Antibiotic Book on the management of the most common infections in children and adults. The Agency, in collaboration with scientific societies and medical unions, has selected some of them for outpatient care, adapting them to the epidemiological context and the availability of medicines in Italy. By selecting the infection to be treated, the App provides for each of the 10 diseases the viruses or bacteria that cause them, the most frequent symptoms, the recommended diagnostic tests and the most appropriate pharmacological therapies (antibiotic or non-antibiotic).

The Agency recalls that antibiotics are prescription drugs and that any form of self-medication is not recommended. Only the doctor can assess on a case-by-case basis whether to prescribe an antibiotic and which medicine is best suited, based on an overall clinical assessment that takes into account several factors, including a correct diagnosis, the patient’s medical history and condition, and possible interactions with other medicines. Another important aspect for an appropriate prescription is linked to the growing phenomenon of bacterial resistance to antibiotics. For this reason, the App can be a useful tool for doctors and also to curb the inappropriate and ‘do-it-yourself’ use of citizens.

The antibiotic therapies indicated in the App are divided according to the AWaRe classification introduced by the WHO, which identifies three categories: Access, Watch and Reserve.

The **Access** category, highlighted in green, includes antibiotics with a narrow spectrum of activity and low risk of inducing resistance. These antibiotics are to be used preferably in most of the most frequent infections, such as those of the upper airways.

Watch antibiotics, represented in orange, have a wider spectrum of action and are recommended as first choice options only for particular clinical conditions.

The **Reserve** category, marked in red, includes a small number of antibiotics to be used only in multidrug-resistant infections.

Increasing the share of Access antibiotics compared to those in the other two classes is a useful choice in our joint effort to ensure that our antibiotics remain effective against bacterial infections in the future. Data from the 2023 AIFA Report on the use of antibiotics in Italy confirm that there is ample room for improvement in Italy in terms of both consumption and appropriateness. The use of Access antibiotics is still too low (50.8%) compared to WHO recommendations (60%) and the EU targets for 2030 (65%), compared to a European average of 61.5%. On the other hand, the use of Reserve drugs is high, with an incidence of 6.8% compared to a European average of 5.4%. This could be due to inappropriate use but also to the higher prevalence of bacterial resistance in Italy and, therefore, the greater need to treat multidrug-resistant infections compared to other European countries.