# Patient characteristics

The best treatment option in a given clinical situation is the one that offers the best balance between efficacy and harm, making it the most suitable option for most patients. For most patients, but not all. Because sometimes a patient characteristic shifts this balance to a point where another treatment would be more suitable. A classic example is acute pharyngitis in a patient who is allergic to beta-lactam antibiotics: if antibiotic treatment appears justified, a macrolide antibiotic (*spiramycin* or *azithromycin*) is a better choice than a beta-lactam antibiotic such as *amoxicillin*.

A drug allergy is just one of the many patient characteristics that healthcare professionals encounter and must take into account. For example, if a patient with asthma suffers from migraine, *amitriptyline* would be chosen to prevent headaches, rather than *propranolol*. If a pregnant woman develops renal colic, *morphine* would be the drug of choice, rather than *ibuprofen* or *naproxen*. Some patient characteristics are routinely taken into account when selecting treatments, such as pregnancy, breastfeeding and age. But other, less common, characteristics may be overlooked. This is the case for example with certain genetic characteristics, such as glucose-6-phosphate dehydrogenase deficiency: although *nitrofurantoin* is used as a first-line treatment in certain urinary tract infections in men, it is among the drugs best avoided in patients with this enzyme deficiency.

Patient characteristics can also influence the choice of diagnostic investigations. Some are well known to most healthcare professionals. For example, the presence of a metallic foreign body in or near the eye is a contraindication to magnetic resonance imaging (MRI), due in particular to the risk of MRI-induced migration of the foreign body. And *metformin* should be stopped before undergoing a CT scan with iodinated contrast medium and withheld for 2 days afterwards, to prevent lactic acidosis. Other patient characteristics interfere with the results of diagnostic investigations, creating a risk that patients will receive inappropriate treatment. This is the case for example when using pulse oximetry to measure oxygen saturation in dark-skinned patients (see "Oxygen saturation and pulse oximetry" *Rev Prescrire* August 2023).

Knowledge of the general principles of treatment or diagnosis is essential when making healthcare decisions. It is equally essential to take the characteristics of the individual patient into account.

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EDITORIAL



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