



Practice sting 2023-16

Practice sting Therapeutic substitution of escitalopram

This practical incentive is particularly interesting for pharmacists and healthcare professionals who administer medication

VMI regularly receives notifications about incorrect use of medicines due to substitution. Is a medicine not available, not available in the hospital's range of medicines or is the patient experiencing side effects or insufficient effect? Then therapeutic substitution may be necessary. The following notification is a good example of what can go wrong with therapeutic substitution.

Notification

A 72-year-old patient takes one tablet of escitalopram 20 mg once a day. During his hospitalization for a surgical procedure, escitalopram 20 mg is replaced by citalopram 40 mg. Based on the administration list, the nurse distributes the 40 mg citalopram without properly informing the patient about the substitution. The patient takes half a tablet of citalopram 40 mg during the first days of his hospitalization.

Analysis

Escitalopram and citalopram are antidepressants from the SSRI category. Citalopram is a racemic mixture of equal amounts of two chemical compounds that are mirror images of each other (an S variant and an R variant). Only the S variant has an antidepressant effect. Escitalopram only contains the S variant. Hence the name 'es-citalopram'. Citalopram works per mg, so it is half as strong as escitalopram. Because the nurse did not (properly) inform the patient about this substitution, the patient did not take the full dose.

Recommendations

For the hospital pharmacist

- Limit therapeutic substitution during hospitalization, unless necessary due to side effects, insufficient effect or supply problems.
- Inform the nurse via the (electronic) administration list which medicine (in what dosage) has been substituted for which other medicine (and in what dosage).

For the community pharmacist

- Limit therapeutic substitution unless necessary due to side effects, insufficient effect or supply problems.
- Educate the patient about therapeutic substitution upon initial dispensing.
- Test whether the message has been conveyed by having the patient explain in his own words how the use will change and by asking open questions.
- If necessary, offer the patient additional guidance when switching to another medicine.

For the healthcare professional who administers medication

- Inform the patient which medicine (and in what dosage) has been converted to which other medicine (and in what dosage).

Generic medicine substitution is the substitution of a medicine by another medicine with the same active substance, the same strength and the same pharmaceutical form, for example replacement of Seroxat by paroxetine.

Therapeutic substitution is replacement with a medicine with a different active substance but with a similar mechanism of action and similar indications. In practice, this means active substances from the same drug class, for example replacement of escitalopram by paroxetine.