

Direct factor Xa inhibitors



Description:

Direct anticoagulants block the coagulation cascade through direct effects on certain coagulation factors, in contrast to indirect anticoagulants, which inhibit coagulation via antithrombin or vitamin K metabolism.

The following oral factor Xa inhibitors are in clinical use: rivaroxaban (Xarelto®), edoxaban (Eliquis®), apixaban (Lixiana®). The substances differ in dosage, route of elimination and possible interactions with other medications.

Reversal:

In the case of life-threatening bleeding or acutely necessary surgical procedures, the effect of factor Xa inhibitors can be immediately reversed by injecting andexanet alpha (Ondexxya®).

Surveillance:

Because of the short half-life of direct factor Xa inhibitors, the effect on coagulation values depends on the time of the last administration. Shortly after ingestion (approx. after 4 hours) the effects are most pronounced, and a few hours later they become significantly less.

Direct factor Xa inhibitors can affect PT and APTT in unpredictable ways. The anti-Xa test is highly elevated (>2 U/mL). The respective drug levels can be determined precisely using appropriate dilutions and calibration curves.

If you have any questions or are unclear, you should contact a specialist coagulation department.

References:

Thomas L, Laboratory and Diagnosis, 2023, Release 5: <https://www.labor-und-diagnose.de/index.html>
Parameter catalog of the Clinical Institute for Laboratory Medicine, Med.Univ.Wien and AKH Vienna: <https://www.akhwien.at/default.aspx?pid=3982>
List of services for clinical chemistry, Univ.Klinikum Ulm: <https://www.uniklinik-ulm.de/zentrale-einrichtung-klinische-chemie/leistungskatalog.html>