What is Xarelto®?

Xarelto® (rivaroxaban) is a novel, oral direct Factor Xa inhibitor¹ approved in the European Union for the prevention of venous thromboembolism (VTE) in adult patients undergoing elective hip or knee replacement surgery. Additional approvals have been granted in a number of countries, including Australia, Canada, China and Mexico. Xarelto® does not require injection or routine coagulation monitoring.²

‘Xarelto’ significantly reduces the incidence of symptomatic VTE compared to enoxaparin and has consistently demonstrated an improved benefit-risk profile.³⁻⁶

‘Xarelto’ is the only new oral anticoagulant that has consistently shown superiority over enoxaparin in VTE prevention following elective hip or knee replacement surgery.³⁻⁶

The extensive clinical trial program for ‘Xarelto’ makes it the most studied oral Factor Xa inhibitor in the world today.⁷

Rivaroxaban is also in advanced development in a range of indications for the prevention and/or treatment of potentially deadly blood clots.⁸

Oral direct Factor Xa inhibitors, such as ‘Xarelto’, may also overcome disadvantages of current treatments in the outpatient setting, such as the need for regular injections or routine coagulation monitoring.²,¹⁰

‘Xarelto’ Efficacy and Safety at a Glance

VTE Prevention in the Orthopedic Setting

Oral, once-daily ‘Xarelto’ for the prevention of VTE in adult patients undergoing elective hip or knee replacement surgery requires no dose adjustment for age, sex or body weight and no routine coagulation monitoring due to the predictable pharmacokinetic (PK) and pharmacodynamic (PD) profile.⁷⁻⁹,¹⁰,¹¹

In the pooled analysis of RECORD 1-4, ‘Xarelto’ significantly reduced symptomatic VTE and all-cause mortality compared to enoxaparin, while maintaining a similar and low rate of major bleeding.³⁻⁶

Fig. 1 Illustration of the simplified coagulation cascade

Source: www.thrombosisadviser.com

*Both in head-to-head comparisons with enoxaparin (RECORD1, 3 and 4) and when comparing extended-duration (5 weeks) ‘Xarelto’ with short-duration (2 weeks) enoxaparin (RECORD2).
Criteria for an Ideal Anticoagulant

<table>
<thead>
<tr>
<th>Property</th>
<th>Benefit</th>
<th>Therapies without this benefit</th>
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<tr>
<td>Oral administration</td>
<td>Convenient use both in and out of hospital in an acute and chronic setting</td>
<td>Parenteral drugs, such as the heparins</td>
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<td>A predictable PK/PD profile</td>
<td>Safe and effective regulation of coagulation from the first dose and throughout therapy</td>
<td>Warfarin / vitamin K antagonists</td>
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<tr>
<td>Fixed dose</td>
<td>No dose adjustment for majority of patients</td>
<td>Warfarin / vitamin K antagonists</td>
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<tr>
<td>No routine coagulation monitoring</td>
<td>Saves healthcare costs (fewer hospital/physician visits) and patients’ time</td>
<td>Warfarin / vitamin K antagonists</td>
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<td>A rapid onset and offset of action</td>
<td>Anticoagulation from the first dose, which stops quickly after cessation of therapy</td>
<td>Warfarin / vitamin K antagonists</td>
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<td>Low risk of food and drug interactions</td>
<td>Hassle-free use regardless of concomitant use of other medication/diet</td>
<td>Warfarin / vitamin K antagonists</td>
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RECORD: Venous Blood Clot Prevention in Major Orthopedic Surgery

Regulation of Coagulation in major Orthopedic surgery reducing the Risk of DVT and PE.

RECORD is a global program of four trials in more than 12,500 patients, comparing ‘Xarelto’ taken as one tablet, once daily and subcutaneous enoxaparin in the prevention of VTE after elective (planned) hip or knee replacement surgery.

- RECORD1 and 2: total hip replacement surgery
- RECORD3 and 4: total knee replacement surgery

Regulatory Filings and Availability

Rivaroxaban was invented in Bayer’s Wuppertal laboratories in Germany, and is being jointly developed by Bayer Schering Pharma and Johnson & Johnson Pharmaceutical Research & Development, L.L.C. Rivaroxaban is marketed under the brand name Xarelto® for the prevention of VTE in adult patients undergoing elective hip or knee replacement surgery. Approvals have been granted in over 80 countries, including the EU, Australia, Canada, China and Mexico. To date, rivaroxaban has been launched in more than 50 countries around the world by Bayer Schering Pharma.

Other Rivaroxaban Phase III Clinical Trials

The extensive program of clinical trials evaluating rivaroxaban makes it the most studied oral, direct Factor Xa inhibitor in the world today.7 In total, more than 65,000 patients are expected to enroll in the rivaroxaban clinical development phase III program which, in addition to RECORD includes:

- EINSTEIN: VTE treatment and secondary prevention
- ROCKET AF: Stroke prevention in patients with atrial fibrillation
- MAGELLAN: VTE prevention in hospitalized, medically ill (non-surgical) patients
- ATLAS ACS TIMI 51: Secondary prevention of acute coronary syndrome
References


About Rivaroxaban

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The extensive clinical trial program supporting rivaroxaban makes it the most studied oral, direct Factor Xa inhibitor in the world today. More than 65,000 patients are expected to be enrolled into the rivaroxaban clinical development program, which will evaluate the product in the prevention and treatment of a broad range of acute and chronic blood-clotting disorders, including VTE treatment, stroke prevention in patients with atrial fibrillation, secondary prevention of acute coronary syndrome, and VTE prevention in hospitalized, medically ill patients.

To learn more about thrombosis please visit www.thrombosisadviser.com
To learn more about ‘Xarelto’ please visit www.xarelto.com