To assess the impact on non-drug healthcare costs in Italy associated with rivaroxaban, rates of major bleeding were similar in both treatment groups. One-way sensitivity analysis conducted on the main model inputs showed that results were robust against the different hypotheses tested (Table 1). During 2004, there were 96,000 THR/TKR surgeries performed in Italy. Rivaroxaban might reduce VTE substantially and could potentially generate total non-drug cost savings of approximately €7.6 million in this population. The one-way sensitivity analysis conducted on the main model inputs showed that results were robust against the different hypotheses tested (Table 1). During 2004, there were 96,000 THR/TKR surgeries performed in Italy. Rivaroxaban might reduce VTE substantially and could potentially generate total non-drug cost savings of approximately €7.6 million in this population.

### Objective

To assess the impact on non-drug healthcare costs in Italy associated with rivaroxaban, rates of major bleeding were similar in both treatment groups. One-way sensitivity analysis conducted on the main model inputs showed that results were robust against the different hypotheses tested (Table 1). During 2004, there were 96,000 THR/TKR surgeries performed in Italy. Rivaroxaban might reduce VTE substantially and could potentially generate total non-drug cost savings of approximately €7.6 million in this population.

### Methods

An economic model was developed to assess the clinical and economic consequences of rivaroxaban versus enoxaparin from the Italian Healthcare Service perspective. The model is divided into three modules: prophylaxis, post-prophylaxis and long-term complications (Figure 1). The first two modules constitute the acute phase and are represented with a decision tree, whereas the third module is developed as a Markov process. The base-case analysis examined all events occurring during the acute phase and long-term complications arising as a result of VTE events and estimates costs and outcomes over a 5-year time period. The model was populated using RECORD1–3 data. Risks of VTE, post-thrombotic syndrome and chronic thromboembolic pulmonary hypertension beyond the trial were estimated from published data. Resource consumption related to events is based on clinical guidelines, product labels, published data and expert opinion. Unit costs were derived from published Italian sources and expressed in 2008 euros (€). Costs were discounted at 3%. The following costs were not considered in the analysis:

- Asymptomatic events costs were excluded from the analysis due to lack of evidence of their impact on healthcare resources use.
- Administration costs have not been included for any drug.
- Acquisition costs for rivaroxaban and enoxaparin were excluded because the reimbursed price of rivaroxaban has not yet been established.
- A one-way sensitivity analysis was conducted on the following parameters: separate results for THR/TKR, symptomatic VTE event costs, long-term complication costs and discount rate.

### Results

**Rivaroxaban reduced total VTE after THR by 70% versus 35 days’ enoxaparin (RECORD1) and 79% versus 12±2 days enoxaparin followed by placebo (RECORD2)**

![Figure 1. Economic model. DVT, deep vein thrombosis; PE, pulmonary embolism; VTE, venous thromboembolism.](image-url)

During 2004, there were 96,000 THR/TKR surgeries performed in Italy. Rivaroxaban might reduce VTE substantially and could potentially generate total non-drug cost savings of approximately €7.6 million in this population. The one-way sensitivity analysis conducted on the main model inputs showed that results were robust against the different hypotheses tested (Table 1).

### Conclusions

**The one-way sensitivity analysis conducted on the main model inputs showed that results were robust against the different hypotheses tested (Table 1). During 2004, there were 96,000 THR/TKR surgeries performed in Italy. Rivaroxaban might reduce VTE substantially and could potentially generate total non-drug cost savings of approximately €7.6 million in this population.**

### Table 1. One-way sensitivity analysis

<table>
<thead>
<tr>
<th>Sensitivity analysis</th>
<th>Savings with rivaroxaban</th>
<th>Symptomatic events avoided with rivaroxaban</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base case</td>
<td>81.32</td>
<td>0.021</td>
</tr>
<tr>
<td>Total hip replacement (RECORD1 and 2)</td>
<td>68.16</td>
<td>0.017</td>
</tr>
<tr>
<td>Total knee replacement (RECORD3)</td>
<td>101.66</td>
<td>0.030</td>
</tr>
<tr>
<td>10% decrease in deep vein thrombosis and pulmonary embolism costs and 20% decrease in long-term complications costs</td>
<td>71.38</td>
<td>0.021</td>
</tr>
<tr>
<td>Costs and events undiscounted</td>
<td>85.67</td>
<td>0.021</td>
</tr>
<tr>
<td>Costs and events discounted at 5%</td>
<td>78.74</td>
<td>0.021</td>
</tr>
</tbody>
</table>

**During 2004, there were 96,000 THR/TKR surgeries performed in Italy. Rivaroxaban might reduce VTE substantially and could potentially generate total non-drug cost savings of approximately €7.6 million in this population.**

The one-way sensitivity analysis conducted on the main model inputs showed that results were robust against the different hypotheses tested (Table 1).

### References

10. CFT 2000 – Compendio Farmaceutico Telematico Farmadati Italia.

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### Disclosures

This study was supported by Bayer HealthCare AG and JARDIPEX. Xarelto® (rivaroxaban) is licensed in the EU and Canada for the prevention of venous thromboembolism in adult patients undergoing elective total hip and knee replacement surgery. The data contained within this poster do not support or recommend the use of Xarelto® in any other indication or countries in which it is not licensed.