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Background

Non-valvular atrial fibrillation (NVAF) affects 750 000 people in France and is associated with significant morbidity, use of healthcare resource and costs. The randomized controlled trial (RCT) ROCKET-AF demonstrated that rivaroxaban is an efficacious alternative to warfarin in NVAF patients. The new oral anticoagulants (NOAC) appear to have an acceptable cost effectiveness ratio in France. But, is it possible that rivaroxaban could become cost saving with the introduction of generic drugs?

Objective

To determine the price threshold enabling rivaroxaban to become cost-saving vs. vitamin K antagonists (VKA) in the treatment of NVAF, using real-world evidence and from a French payer perspective.

Materials & methods

Global strategy : Estimating annual cost differences associated with rivaroxaban versus VKA in atrial fibrillation patients

Cost data

	Clinical events reflecting the efficacy and safety	Study in French setting [1,2]
	Drugs	2018 French National Health Insurance data
	VKA monitoring	Study in French setting [3]

Clinical event rates data

	Ischemic (or undefined) stroke (IS) / systemic embolism (SE) Haemorrhagic stroke (HS) Major bleeding (MB) Clinically relevant bleeding (CRB) Death (all causes) Acute coronary syndrome (ACS)	Pragmatic study BROTHER [4]
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Evaluation of 4 scenarios

1	2	3	4
Base case	Price of rivaroxaban reduced by 20%	Price of rivaroxaban reduced by 32.5%	Price of rivaroxaban reduced by 60%
	Corresponding to the reduction in the price of the brand-name drug when the first generic is marketed	Corresponding to total decrease in the price of the brand-name drug 18 to 24 months after the first generic is marketed	Corresponding to the price of a generic compared to the brand name drug

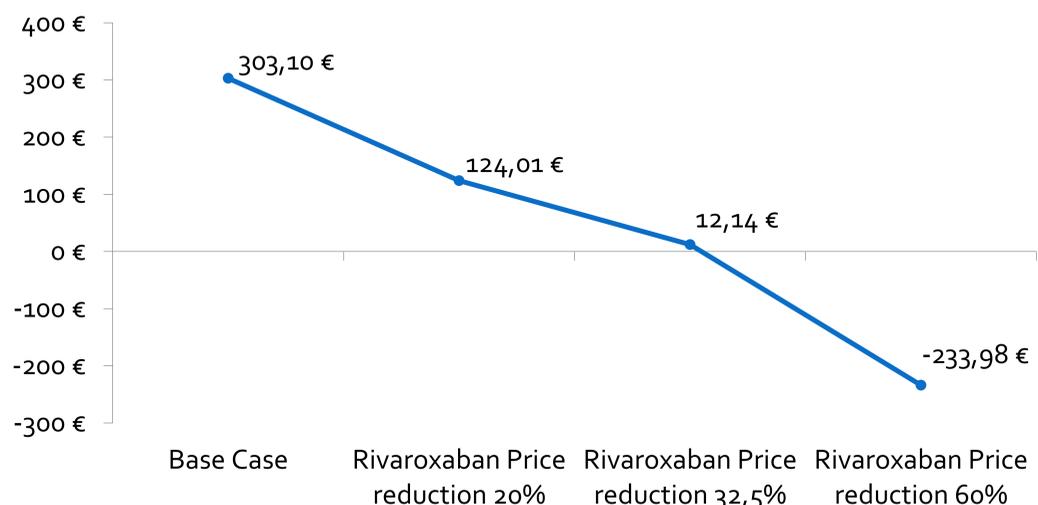
Results

Base case results

Rivaroxaban 15 mg or 20 mg vs. VKA (€ per patient-year)	
Acute care	- 82,28 €
IS / SE	- 21,73 €
HS	- 20,83 €
MB	- 13,45 €
CRB	- 14,98 €
ACS	- 11,28 €
Maintenance care	- 30,07 €
IS / SE	- 10,88 €
HS	- 8,19 €
ACS	- 11,00 €
Drug therapy	415,36 €
Drug	862,14 €
VKA monitoring	- 446,78 €
Total	303,01 €

The reduced costs associated with the effect of rivaroxaban in reducing the risk of ischemic stroke and the reduced risk of haemorrhage associated with this anticoagulation do not compensate for the cost of the drug from a health insurance perspective.

Scenarios analysis



The threshold to be cost saving with rivaroxaban is a 34% decrease in the price of the drug.

Discussion & Conclusion

Rivaroxaban can become cost saving with 34% price reduction. The commercialisation of NOAC generics should allow them to play an even more important role in the treatment of NVAF.

References

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