Apixaban versus other anticoagulants in the prevention of stroke and systemic embolism in patients with non-valvular atrial fibrillation: a comparison of all-cause and event-related costs in real-life setting in France

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Introduction

- Direct oral anticoagulants (DOAC), i.e. apixaban, rivaroxaban, and dabigatran: indicated for prevention of stroke and systemic embolism (SE) in patients with non-valvular atrial fibrillation (NVAF).
- High economic burden of NVAF, mainly driven by hospitalizations.
- RCTs demonstrated superiority of DOAC safety and at least similar efficacy compared to vitamin K agonists (VKAs)[1,2]
- Use of apixaban in real world settings: better effectiveness, better safety, and lower all-cause mortality compared to VKAs, superior safety than rivaroxaban, similar safety to dabigatran, and similar effectiveness than rivaroxaban recently showed[3]

Objective

- To estimate and compare costs associated with all-cause health-care resource use (HCRU), SE and major bleedings between patients with NVAF initiating apixaban and patients initiating other OAC, i.e VKAs, rivaroxaban, dabigatran.

Methods

- Observational retrospective cohort generated from the French National Health System healthcare claims database (SNDS)
- Inclusion criteria: patients aged ≥18, diagnosed with NVAF, with ≥1 reimbursement of OAC during the study period, i.e. between 2014/01/01 and 2016/12/31
- Index date: date of the first dispensing of OAC

Methods (continued)

- 4 sub-cohorts of AC-naive NVAF patients initiating apixaban, VKAs, dabigatran, rivaroxaban or VKAs
- 1:n propensity score matching between patients initiating apixaban and patients initiating VKAs, rivaroxaban and dabigatran.
- All-cause HCRU and events-related costs estimated from a medical care perspective by OAC treatment (€) per patient per month (pppm).
- Costs compared between patients initiating apixaban and those initiating other OAC using 2-parts generalized liner models with gamma distribution.

Results

Study population: 3 matched subcohorts

- Apixaban (n=68,208) – VKA (n=107,558): N=175,766
- Apixaban (n=81,759) – Rivaroxaban (n=100,050): N=181,809
- Apixaban (n=21,245) – Dabigatran (n=21,245): N=42,490

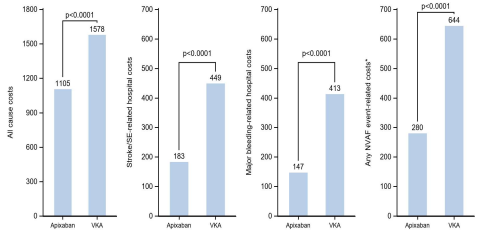
Main results

- Patients initiating **apixaban** had:
  - **Lower all-cause HCRU costs** than patients initiating VKAs, rivaroxaban, and dabigatran
  - **Lower costs related to stroke/SE and major bleedings** than patients initiating VKA and rivaroxaban
  - **Lower costs related to stroke/SE** than patients initiating dabigatran

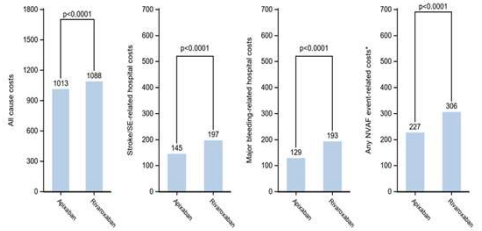
Results (continued)

Figure 1. Comparison of costs associated to all-cause HCRU, stroke/systemic embolism, major bleedings and any NVAF event over the follow-up period between:

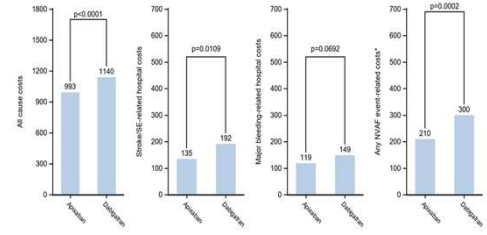
a) apixaban (n=68,208) and VKA (n=107,558) matched cohorts



b) apixaban (n=81,759) and rivaroxaban (n=100,050) matched cohorts



c) apixaban (n=21,245) and dabigatran (n=21,245) matched cohorts



Conclusions

- All-cause HCRU and most events-related costs were lower in patients initiating apixaban compared to patients initiating other OAC. These findings suggest that apixaban may be cost saving (all-cause HCRU costs) compared to all pharmaceutical alternatives.

References

1. Briere JB, Bowrin K, Coleman C, et al. Real-world clinical evidence on rivaroxaban, dabigatran, and apixaban compared with vitamin K antagonists in patients with nonvalvular atrial fibrillation: a systematic literature review. Expert Rev Pharmacoecon Outcomes Res. Sep 19 2018:1-10.
2. Ruff CT, Giugliano RP, Braunwald E, et al. Comparison of the efficacy and safety of new oral anticoagulants with warfarin in patients with atrial fibrillation: a meta-analysis of randomised trials. Lancet (London, England). Mar 15 2014;383(9921):955-62.
3. Van Ganse E, Danchin N, Mahe I, et al. Comparative Safety and Effectiveness of Oral Anticoagulants in Nonvalvular Atrial Fibrillation: The NAXOS Study. Stroke. Jul 2020;51(7):2066-2075.

4.Disclosures

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