

**Supplement Table S1.** Comparative characteristics of DOACs pivotal trials and Palermo claims database.

|                  | DABIGATRAN   |         |  |       | RIVAROXABAN  |  | APIXABAN   |  | EDOXABAN   |         |  |        |
|------------------|--|---------|--|-------|--|--|--|--|--|---------|--|--------|
| Data source      | RE-LY (2009)   |         | Palermo claims database                                |       | ROCKET- AF (2011)  | Palermo claims database                                | ARISTOTLE (2011)   | Palermo claims database                                | ENGAGE AF-TIMI 48 (2013)   |         | Palermo claims database                                |        |
| Study design     | Pivotal randomized trial   |         | Observational, non-interventional, retrospective study |       | Pivotal, multicenter, randomized, double-blind, double-dummy, event-driven trial                     | Observational, non-interventional, retrospective study | Pivotal, randomized, double-blind trial  | Observational, non-interventional, retrospective study | Pivotal, randomized, double-blind, double-dummy trial  |         | Observational, non-interventional, retrospective study |        |
| Study Years      | <u>Enrolment:</u><br>December 2005-<br>December 2007;<br><br><u>Final follow-up visit:</u><br>April 2009 |         | January 2013-<br>December 2017                         |       | <u>Enrolment:</u><br>December 2006- June 2009<br><br><u>Final follow-up visit:</u><br>September 2010 | January 2013-<br>December 2017                         | <u>Enrolment:</u><br>December 2006- April2010<br><br><u>Final follow-up visit:</u><br>May 2011 | January 2013-<br>December 2017                         | <u>Enrolment:</u> November 2008- November 2010<br><br><u>Final follow-up visit:</u><br>May 2013          |         | January 2013-<br>December 2017                         |        |
| Study drugs      | Dose-specific comparison   |         |  |       | Non dose-specific comparison   |  | Non dose-specific comparison   |  | Dose-specific comparison   |         |  |        |
| Study Population | N=6,015  | N=6,076 | N= 794   | N=635 | N=7,131  | N= 3,028   | N=9,120  | N= 2,113   | N=7,034  | N=7,035 | N= 253   | N= 269 |
|                  | From: USA, Canada, Central Europe, Western Europe, Latin America, Asia and other                         |         | From: Palermo LHU                                      |       | From: North America, Latin America, West Europe, East Europe, Asia Pacific                           | From: Palermo LHU                                      | From: North America, South America, Europe or Asia Pacific                                     | From: Palermo LHU                                      | From: North America, Latin America, Western Europe, Eastern Europe, Asia pacific region and South Africa |         | From: Palermo LHU                                      |        |