

# Venous thromboembolism in Asia and worldwide: Emerging insights from GARFIELD-VTE

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## BACKGROUND

- Although the incidence of venous thromboembolism (VTE) in Asia has been reported to be lower than that of the Western world, its prevalence is increasing and has become a major health concern in several Asian countries<sup>1</sup>.
- The Global Anticoagulant Registry in the FIELD (GARFIELD)-VTE (ClinicalTrials.gov identifier: NCT02155491) is an on-going non-interventional prospective, observational study of VTE management and outcomes<sup>2</sup>.

## PURPOSE

- Compare the baseline characteristics, treatment patterns, 12 month outcomes in VTE patients from Asia with those from the rest of the world, enrolled in GARFIELD-VTE.

## METHODS

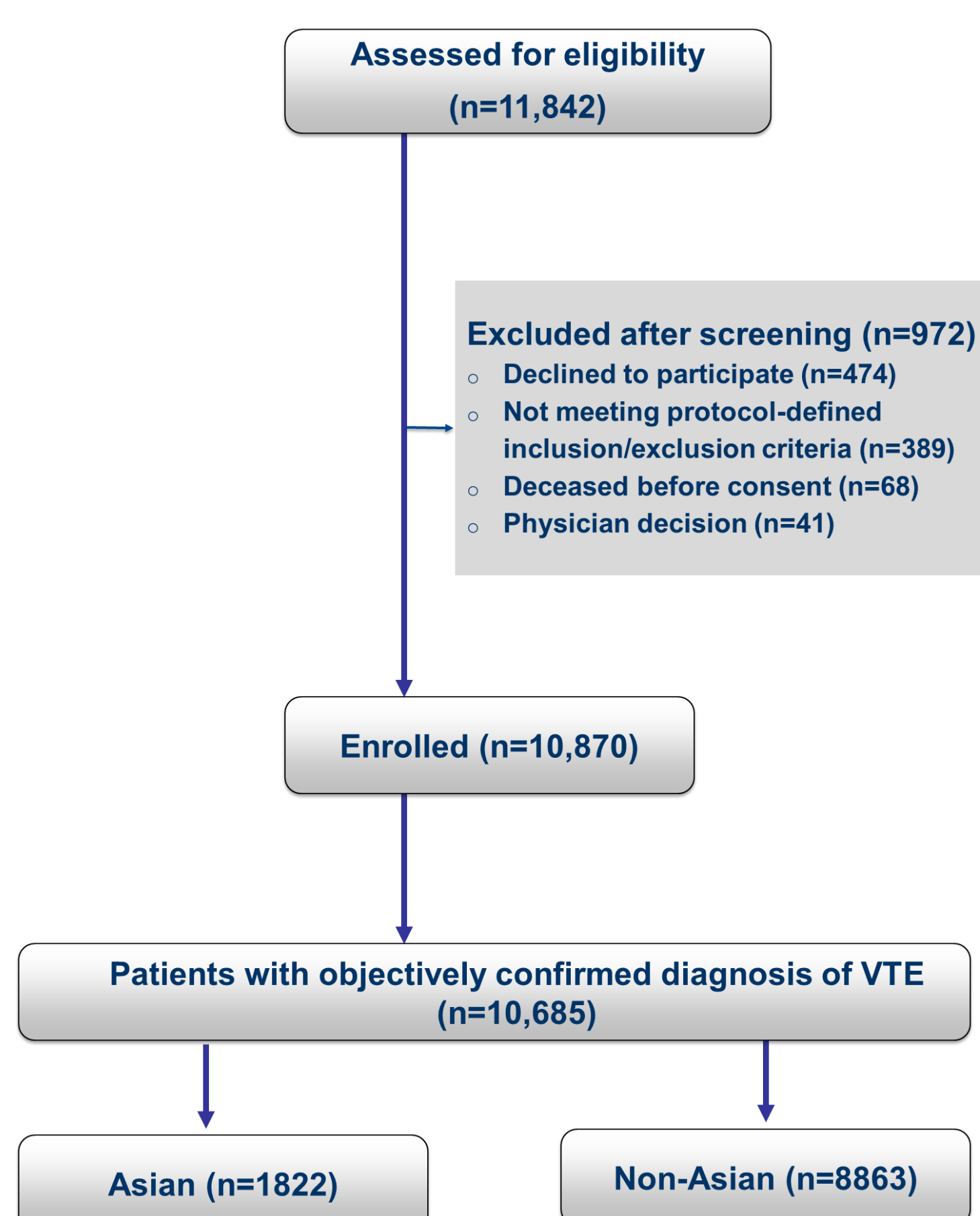
- Eligible patients were required to be  $\geq 18$  years of age with an objectively confirmed diagnosis of VTE within 30 days of entry into the registry.
- All patients provided written informed consent. The study was approved by the individual ethics committees of each participating site.

## RESULTS

### Study design

- Between May 2014 and January 2017, A total of 10,685 eligible patients with an objectively confirmed diagnosis were entered into the study (Figure 1).
- 1,822 patients were Asian (China n=420, Hong Kong n=98, Japan n=148, Malaysia n=244, South Korea n=343, Taiwan n=232, Thailand n=337).

Figure 1. Study population



### Study population

- The patient demographics and clinical characteristics, summarized in Table 1, identified some notable differences between the patient groups
  - Asian patients were more often female (57.4% vs. 48.0%) and non-smokers (74.0% vs. 58.9%).
  - Asian patients were also older (61 years vs. 59 years) with a lower BMI (24.2 kg/m<sup>2</sup> vs. 28.0 kg/m<sup>2</sup>), and more likely to have active cancer (19.6% vs. 7.9%) or a history of cancer (18.9% vs. 12.0%).
  - Asian patients were more often managed in the hospital setting (86.9% vs. 70.4%).

Table 1. Baseline demographics

	Asia (n=1822)	Non-Asia (n=8863)
Male, n (%)	777 (42.6)	4605 (52.0)
Age at diagnosis, years, median (IQR)	61 (47-72)	59 (45-70)
Body mass index, kg/m <sup>2</sup> , median (IQR)	24.2 (21.6-27.1)	28.0 (24.8-32.1)
Current/previous smoker, n (%)	454 (26.0)	3508 (41.1)
Active cancer*, n (%)	358 (19.6)	704 (7.9)
History of cancer, n (%)	344 (18.9)	1060 (12.0)
Site of VTE, n (%)		
DVT alone	1134 (62.2)	5392 (60.8)
PE $\pm$ DVT	688 (37.8)	3471 (39.2)
Care setting, n (%)		
Hospital	1583 (86.9)	6236 (70.4)
Outpatient	239 (13.1)	2627 (29.6)

\*Cancer  $\leq 90$  days before and up to 30 days after VTE diagnosis

### Transient Risk Factors

- Hospitalization (17.0%) was more common in Asian patients compared to non-Asians (Table 2).

Table 2. Transient Risk Factors

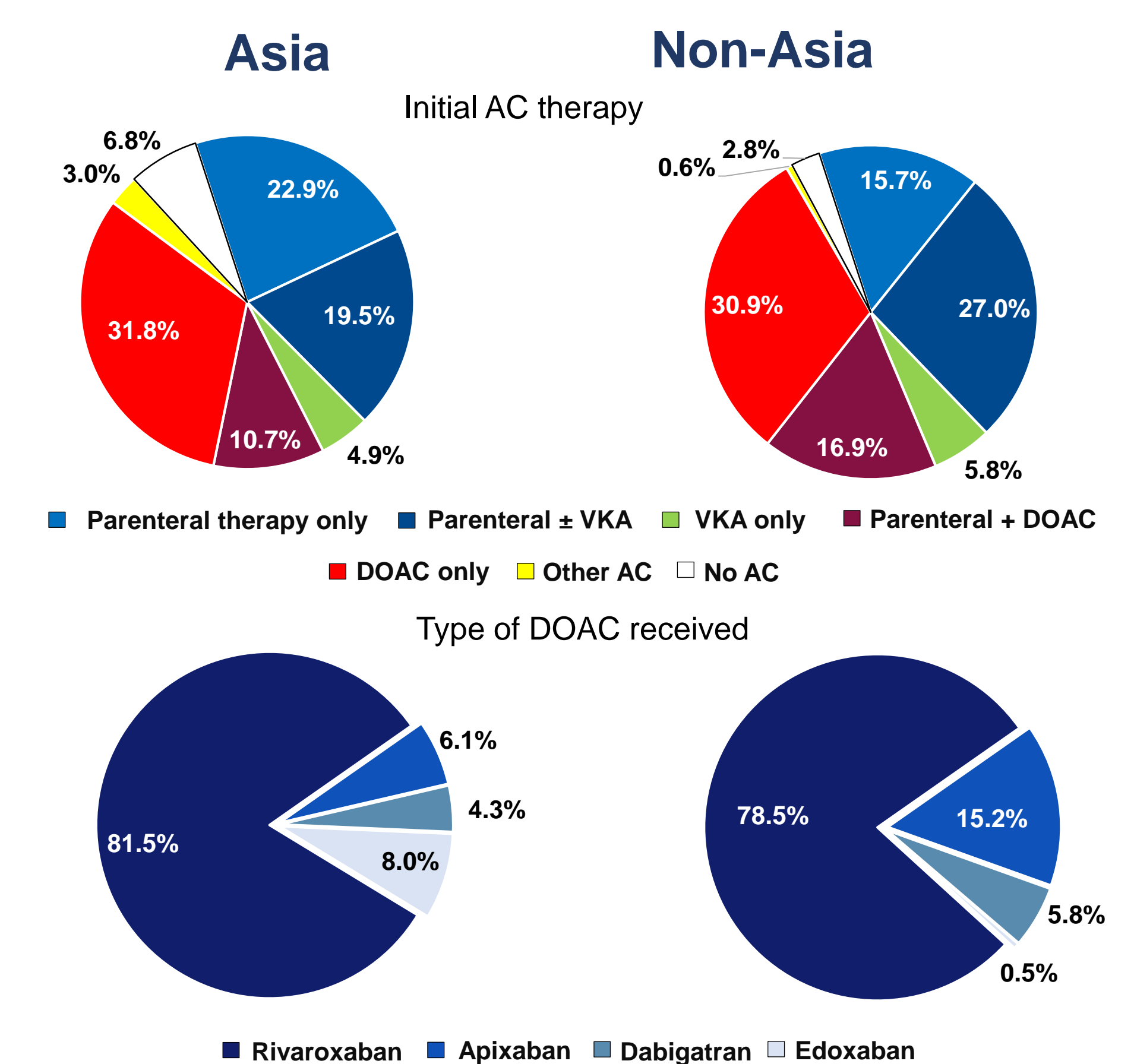
	Asia (n=1822)	Non-Asia (n=8863)	P-value
Hospitalization	310 (17.0)	982 (11.1)	< 0.0001
Surgery	575 (31.6)	2836 (32.0)	0.2032
Trauma of the lower limb	111 (6.1)	718 (8.1)	0.0035
Acute medical illness	98 (5.4)	499 (5.6)	0.6704
Oral contraception*	43 (4.1)	486 (11.4)	< 0.0001
Pregnancy*	36 (3.4)	155 (3.6)	0.7615
Hormone replacement therapy*	12 (1.1)	132 (3.1)	0.0005

As defined by Kearon et al. 2016<sup>3</sup>

### Anticoagulation 0-30 days after VTE diagnosis

- Anticoagulant treatment profiles were comparable between groups. Of patients receiving DOACs, apixaban was used less frequently and edoxaban more frequently in Asia than non-Asia (Figure 2).

Figure 2. Initial AC treatment and type of DOAC received



### 12 Month Clinical Outcomes

- The mortality rate was significantly higher in Asian patients than non-Asians (Table 3).

Table 3. Event rates during 12 months follow up.

	Asia (n=1802)	Non-Asia (n=8817)	P-value
All-cause mortality	15.0 (13.2-17.1)	5.9 (5.4-6.4)	<0.0001
Recurrent VTE	5.6 (4.5-7.0)	5.1 (4.6-5.6)	0.4010
Major bleed	2.4 (1.7-3.3)	1.7 (1.4-2.0)	0.0713
Any Bleeding	9.1 (7.7-10.8)	11.1 (10.4-11.9)	0.0340
Cancer*	1.7 (1.1-2.5)	2.5 (2.2-2.8)	0.0623
Stroke/TIA	0.7 (0.4-1.2)	0.8 (0.6-1.0)	0.6772
MI	0.8 (0.5-1.4)	0.7 (0.5-0.9)	0.6946

Event rates are shown per 100 person-years (95% confidence interval). \*Cancer which occurred > 30 days after VTE diagnosis.

## CONCLUSIONS

- Asian and non-Asian patients have different risk profiles which may contribute to differences in outcomes.
- Future studies will investigate how the choice of anticoagulant treatment influences clinical outcomes in Asian patients.

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### DECLARATION OF INTEREST

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