

## THROMBOSIS RESEARCH INSTITUTE (TRI) LAUNCHES INNOVATIVE RISK CALCULATOR FOR PREDICTING STROKE, MAJOR BLEEDING AND MORTALITY IN ATRIAL FIBRILLATION OVER TWO YEARS

- *Rapidly predicts differences in risk when treated with different anticoagulants or not treated*
- *Crucially, risk is calculated using patient-specific measurements rather than standardised measures, providing personalised results*
- *Underscored by data of 52,000 AF patients and externally validated*

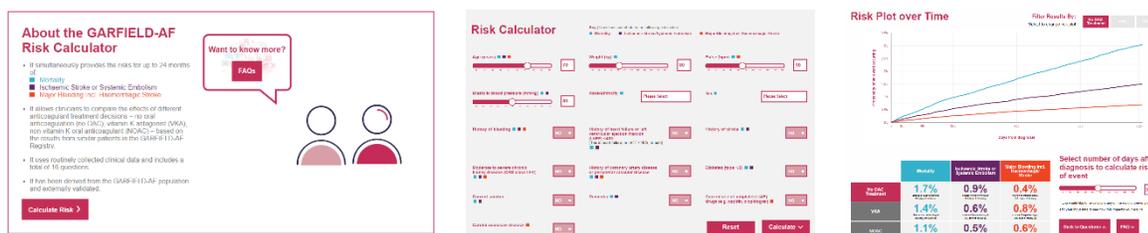
**London, England; 21<sup>st</sup> November 2019** – TRI has launched the GARFIELD-AF Risk Calculator, an innovative tool for aiding clinician decision making in treating patients with newly diagnosed atrial fibrillation (AF). The tool utilises individual patient factors to contribute to a clinical prognosis via easily interpretable risk scores, and its ability to estimate rates of stroke, major bleeding and mortality according to different treatment options is a unique feature.

### Challenges in AF

Up to one third of the highest-risk patients are not anticoagulated, whereas many patients with very low stroke risk are. To address the gap, TRI has developed a risk tool to calculate risk rapidly; in a single calculation, clinicians can make more informed, evidence-based decisions.

### Modelling and validation

Originally conceptualised from the data of nearly 40,000 GARFIELD-AF participants over 1 year<sup>1</sup>, the calculator uses data from over 52,000 patients over 2 years. This performed well in comparison with standard AF risk tools CHA<sub>2</sub>DS<sub>2</sub>-VASc and HAS-BLED at predicting 2-year mortality, and was externally validated in the ORBIT-AF registry.



Figures 1, 2 and 3: the input interface and a risk calculation

### Importance of actual values

A further challenge for clinicians is that simplified risk scores often use binary decisions (heart failure, advanced age) but the underlying risk factors have a continuous relationship with hazard, and this may be non-linear (heart rate, blood pressure). Furthermore, when a measure is converted into categories, the score implies everyone in that category has the same level of risk. Clinical lead Professor Keith Fox explained: “The GARFIELD-AF Risk Calculator maintains the actual values of age, weight, pulse and blood pressure, and shows differences in outcomes with treatment selection across two years”.

### Availability

The GARFIELD-AF Risk Calculator is freely available to use, currently hosted on the registry website (<https://af.garfieldregistry.org/garfield-af-risk-calculator>), with a forthcoming app version to be widely distributed and promoted for clinical adoption on QxMD.

### **About GARFIELD-AF**

GARFIELD-AF is a worldwide observational registry that aims to enhance the understanding of stroke prevention in atrial fibrillation (AF), under the auspices of TRI, London, UK.

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1. Fox, K.A.A *et al.* Improved risk stratification of patients with atrial fibrillation: an integrated GARFIELD-AF tool for the prediction of mortality, stroke and bleed in patients with and without. *BMJ Open* 2017; Dec 21;7(12):e017157