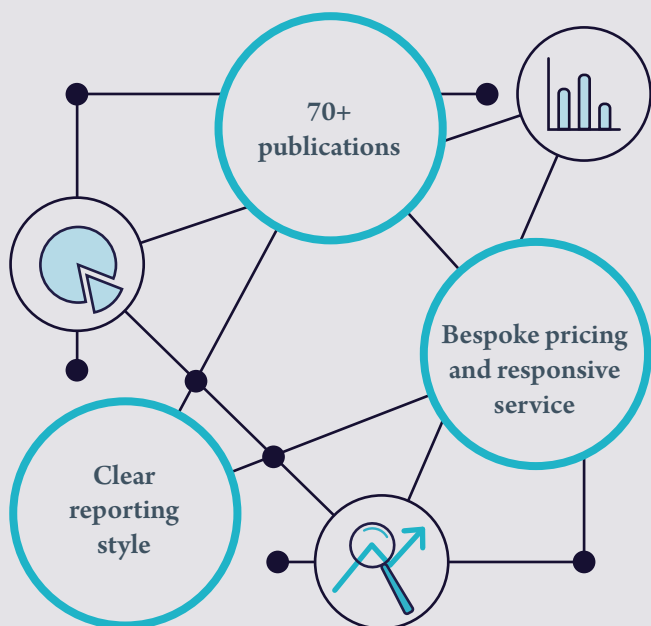


# Statistics & Data Science

## Delivering Empowering Insights for You

Data analysis, reporting and insight for quality medical research studies with special interests in cardiovascular diseases, cancer-associated thrombosis, and other thrombotic conditions



### Expertise

- Randomised clinical trials
- Observational studies
- Survival analysis
- Causal inference
- Prediction modeling
- Clinical risk scores development
- Sample size calculations
- Modeling studies and simulations
- Machine learning
- Health economics



### How we'll work for you

- **Design:** Advise on appropriate study design, optimal research methods and conduct sample size calculations for primary data collection
- **Analysis Plan:** Draft statistical analysis plan that link the research question to the most appropriate statistical tools
- **Data Collection:** Provide help with randomisation, questionnaire/CRF development, quality control checks.
- **Data Management:** Check, structure, combine, transform, clean datasets so to proceed to further analysis
- **Analysis:** Exploratory data analysis to understand relationships in the data, hypothesis testing, causal or predictive modeling
- **Communication:** Develop statistical report with emphasis on using visualisations and clear non-jargon language
- **Training:** Provide tailored training to the statistical methods required, as well as coding lessons in SAS and R

We successfully partner with biotech, pharma and clinical investigators in protocol and grant development, presentations for major meetings and publication in peer reviewed journals, e.g:



**European  
Heart Journal**



The Journal of the American Medical Association

# Case Study: GARFIELD-AF

GARFIELD-AF is the largest global registry of prospective AF patients. Using data from 57,000 patients, we produced published articles, international symposiums, and developed an innovative AF risk calculator.



## CASE STUDY 1.1

### Setting Standards for Data Quality

For a Nov 2016 article in the European Journal of Cardiology we designed, articulated and applied robust data quality standards for the GARFIELD-AF registry suitable to guide other registries when testing treatments used outside clinical trials.



## CASE STUDY 1.2

### The Detrimental Effects on Non-recommended NOAC Dosing

Use of a different dose of a direct oral anticoagulant (DOAC) than the one recommended on the package insert – usually a lower one – is common around the world and is associated with poorer outcomes, data from the GARFIELD-AF registry affirm.



## CASE STUDY 1.3

### Underscoring Innovation: Risk Calculator Development

A valuable resource for clinicians to assess patients' risk of stroke, major bleeding and mortality when placed on varying treatment paths, the GARFIELD-AF calculator is fully validated and outperforming current go-to models. Risk estimates are underpinned by data we organised from 52,000 patients. Visit [af.garfieldregistry.org/garfield-af-risk-calculator](http://af.garfieldregistry.org/garfield-af-risk-calculator) to try it.



## Researcher Insight

*The care and clarity TRI Stats Team bring to their statistical work is laudable – a real boon to conveying the most important insights from our work, and on a personal level they are always friendly and responsive.*

**Professor John Camm**

## Talk to us ... how can we help you?

To learn more about our methods, how we can help your research project, and get a bespoke estimate, email Saverio Virdone at [svirdone@tri-london.ac.uk](mailto:svirdone@tri-london.ac.uk)