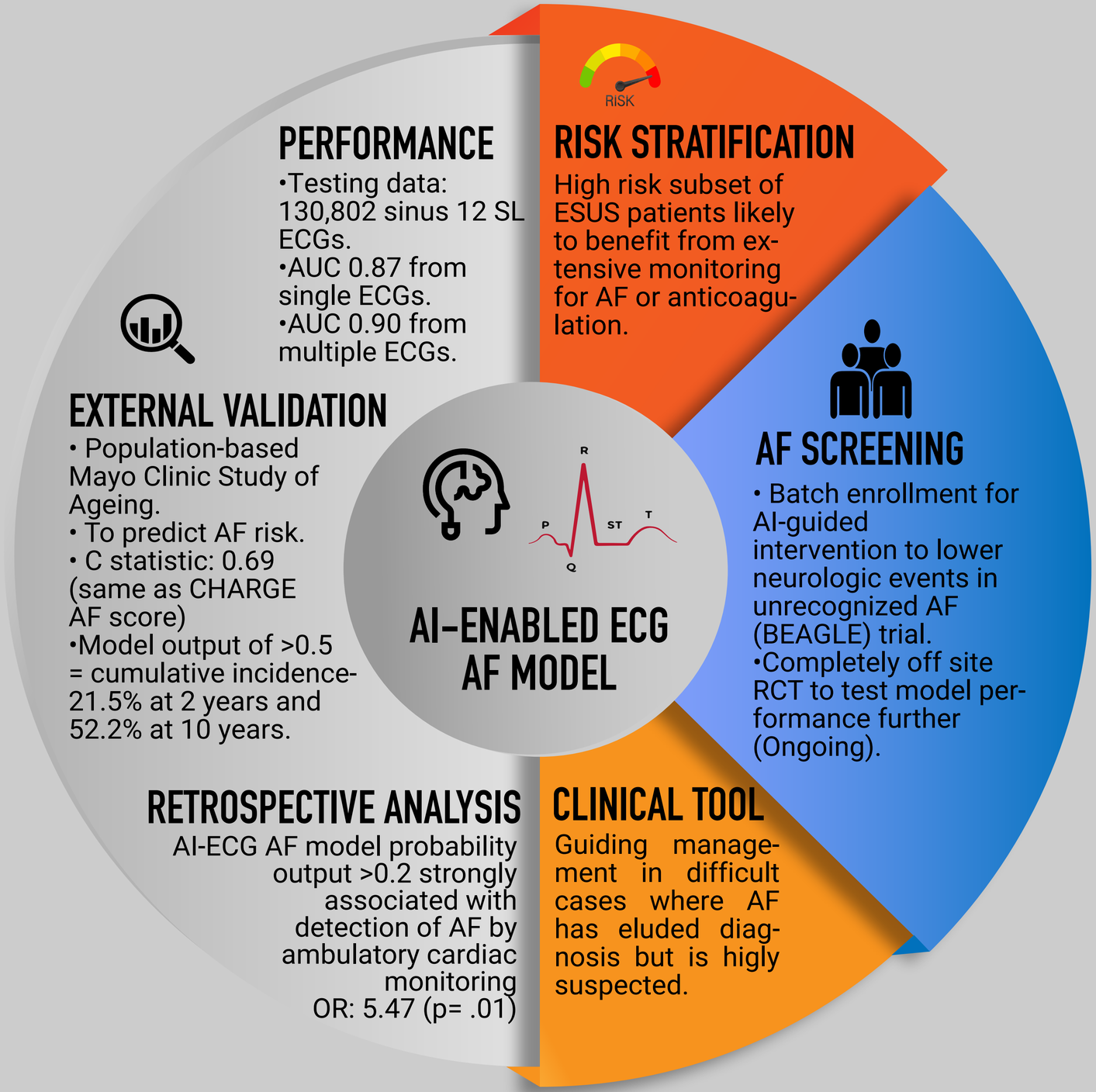
RISK
PERFORMANCE
•Testing data: 130,802 sinus 12 SL ECGs.
•AUC 0.87 from single ECGs.
•AUC 0.90 from multiple ECGs.
RISK STRATIFICATION
High risk subset of ESUS patients likely to benefit from extensive monitoring for AF or anticoagulation.
EXTERNAL VALIDATION
• Population-based Mayo Clinic Study of Ageing.
• To predict AF risk.
• C statistic: 0.69 (same as CHARGE AF score)
•Model output of >0.5 = cumulative incidence- 21.5% at 2 years and 52.2% at 10 years.
R
P
ST
T
Q
AI-ENABLED ECG AF MODEL
AF SCREENING
• Batch enrollment for AI-guided intervention to lower neurologic events in unrecognized AF (BEAGLE) trial.
•Completely off site RCT to test model performance further (Ongoing).
RETROSPECTIVE ANALYSIS
AI-ECG AF model probability output >0.2 strongly associated with detection of AF by ambulatory cardiac monitoring
OR: 5.47 (p= .01)
CLINICAL TOOL
Guiding management in difficult cases where AF has eluded diagnosis but is higly suspected.

Figure 1: Overview of performance, validation, potential uses and ongoing work with AI-ECG AF model from Mayo
Clinic
(AF: Atrial Fibrillation; AUC: Area under the receiver operating characteristic curve; ESUS: Embolic stroke of
undetermined significance; RCT: Randomized controlled trial)