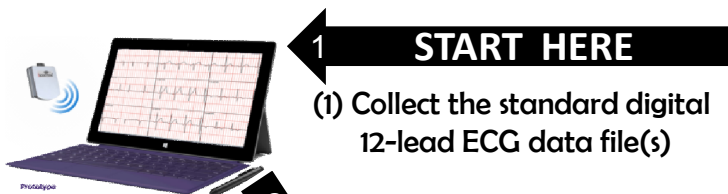


Patient's standard 12-lead ECG data file(s)

How does a clinician obtain an A-ECG report for his patient?

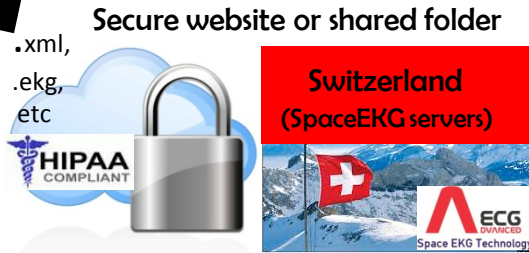


START HERE

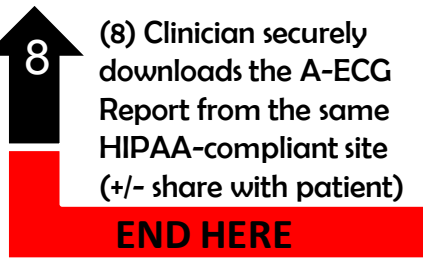
(1) Collect the standard digital 12-lead ECG data file(s)



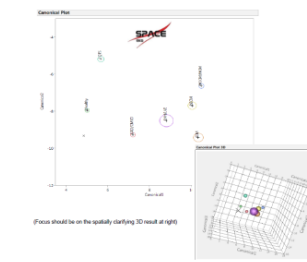
(2) Then upload the file(s) to our secure, HIPAA-compliant website or shared folders in Switzerland.



(8) Clinician securely downloads the A-ECG Report from the same HIPAA-compliant site (+/- share with patient)



The patient's personalized A-ECG Report



(7) The patient's A-ECG results will most resemble those either from a known "Heart Healthy" group or from one or more known "Heart Diseased" groups. If "Heart Diseased", then the personalized A-ECG report will also display which disease(s) are most likely, by probability. If "Heart Healthy", and the patient had a 5-min+ ECG, then his/her personalized A-ECG report can also include an A-ECG "Heart Age", as compared to true chronological age or "Body Age".

(3) We download file(s) and analyze with multiple A-ECG programs (per the below)

Beat-to-beat QT interval variability (QTV)

T-wave and QRS wave complexity via singular value decomposition

Derived 3-dimensional ECG and VCG

Signal averaging and digital filtering techniques

Beat-to-beat RR interval variability (HRV)

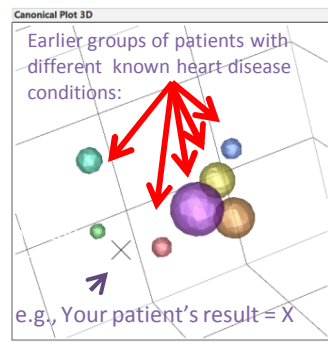
Patient Summary for: Patient X (Index #)		Healthy Population	Heart Disease
3-Dimensional (3D) ECG via Kurt Transform:			
Spatial Mean QRS T angle (deg)	54	>	52
Spatial Peak QRS T angle (deg)	18	>	57
Spatial Ventricular Activation Time (ms)	-43	>	14.60
Central QRS angle (above 5 Hz) (m/s)	-3.40	>	0.95
QT/QTc (ms)	380	>	0.035
Spatial Ventricular Gradient (SVD, m/ms)	0.072	>	30
Rotation angle of SVD, frontal plane (deg)	140	>	19.8
Lead area of T-wave (m/ms)	20.6	>	40
Sagittal direction of QRS/T axis (deg)	152	>	60
Random Complexity (by singular value decomposition):			
Complexity (PCA) Ratio of T wave (%)	14	>	30
Interpolated Ratio (QRS of T wave (%))	0.243	>	1.53
QRS Wave Noncircular Voltage Sum (mV)	0.56	>	1.33
First Eigenvector QRS T angle (deg)	21	>	62
First QRS Eigenvector T angle (deg)	0.001	>	0.206
Transverse Voltage Sum (mV)	8.77	>	4.04
QT Interval Variability (QTV, via algorithm of SVD and SVDavg):			
QTV Index (QTV) Lead II, units	-2.10	>	-0.97
Index of unexplained QTV (lead II), units	0.76	>	1.39

Results to our A-ECG databases

(4) The patient's A-ECG results are then generated, and compared to those of thousands of earlier patients who have already had A-ECG and clinical imaging.



(5) The patient's final results are then also pictorially displayed, within statistical pattern recognition techniques.



(6) Multiple A-ECG scores (probabilities) and pictorial displays are provided for various heart diseases in the A-ECG Report, by using logistical regression and pattern recognition.