

# How EnSite Precision enhances my workflow?



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What are the  
challenges  
we face?

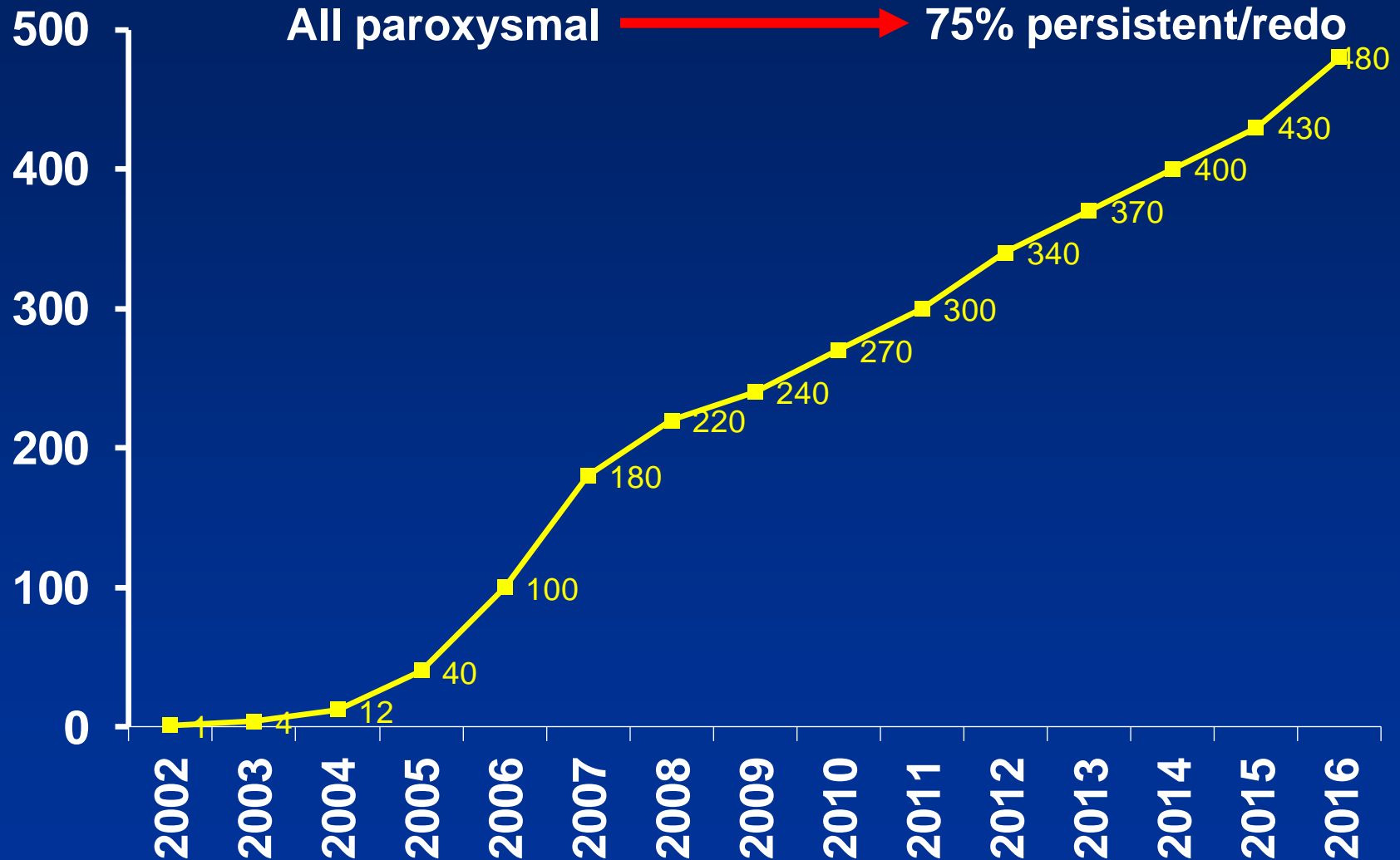


# **What are the challenges we face?**

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- **Image integration/radiation**
  - **Contact force/lesion assessment**
  - **Mapping**
-

# AF ablation in Oxford



# Case history

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- 58 year old ♂
  - Recurrent persistent AF
  - EHRA class 2-3
  - Tried flecainide and amiodarone
  - Relatively normal heart
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# Case history

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- What is your approach?
  - PVI
  - PVI + lines
  - PVI + CFAEs
  - PVI + lines + CFAEs
  - Other
-

# Case history

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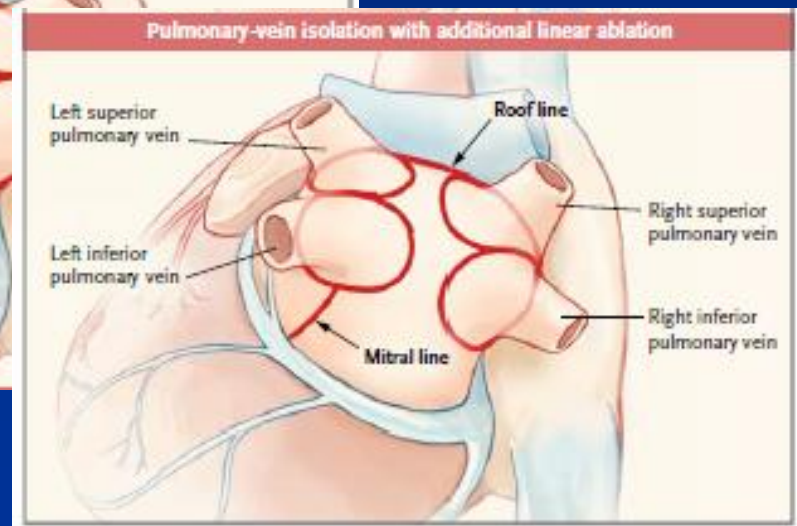
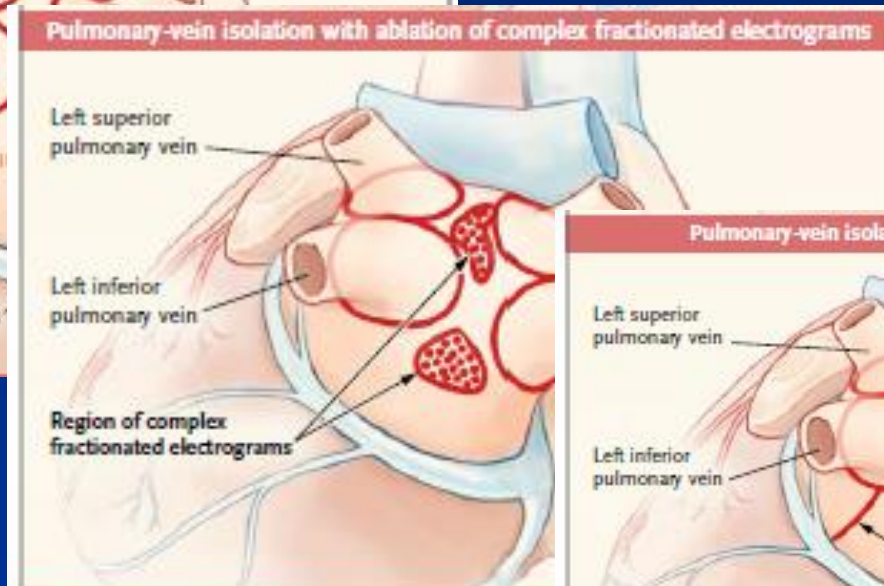
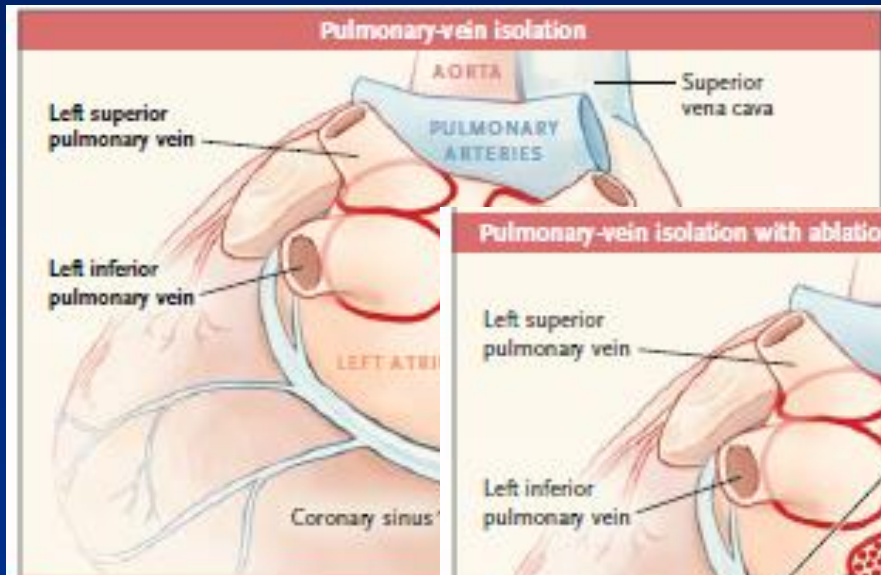
- What is your approach?

## Approaches to Catheter Ablation for Persistent Atrial Fibrillation

Atul Verma, M.D., Chen-yang Jiang, M.D., Timothy R. Betts, M.D., M.B., Ch.B.,  
Jian Chen, M.D., Isabel Deisenhofer, M.D., Roberto Mantovan, M.D., Ph.D.,  
Laurent Macle, M.D., Carlos A. Morillo, M.D., Wilhelm Haverkamp, M.D., Ph.D.,  
Rukshen Weerasooriya, M.D., Jean-Paul Albenque, M.D., Stefano Nardi, M.D.,  
Endrj Menardi, M.D., Paul Novak, M.D., and Prashanthan Sanders, M.B., B.S., Ph.D.,  
for the STAR AF II Investigators\*

# Case history

- What is your approach?





# Set up

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- Impedance field flexibility + magnetic field stability
- Enhance navigation and model creation with dual technology



- Narrow head on cath lab table can be an issue  
– may need patient lower on the bed
  - Get the 'dots' right at the start
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# Set up

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- Improved adhesive hydrogel patches<sup>1</sup>
- Improves ECG patch placement options
- Accommodate patients of all sizes



but very sticky so  
try and get right  
first time (seems  
forgiving)/remove  
before patient too  
awake



## **Into the procedure....**

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- **No added time so far**
  - **Catheters in – nice to be able too get a lot of the ‘validating’ etc. done during this time**
  - **System reference now used for all cases**
  - **Consider catheter choice – Oxford approach**
  - **Get on with the geometry.....**
-

# No need for CT/MRI

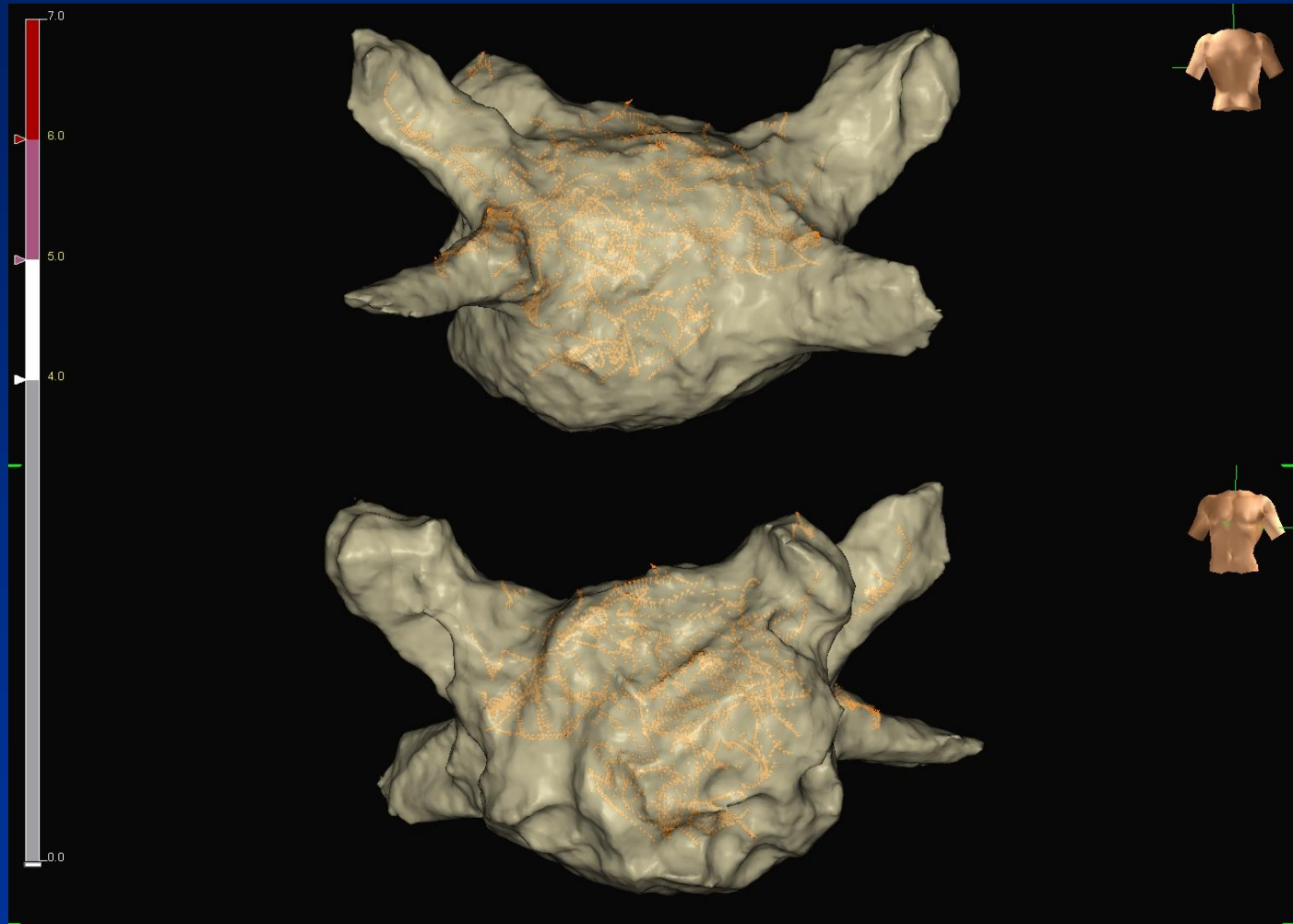
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- Rapid geometry acquisition
- Little or no false space
- LAA-LPV ridge much better defined
- Do not get too hung up on magnetics

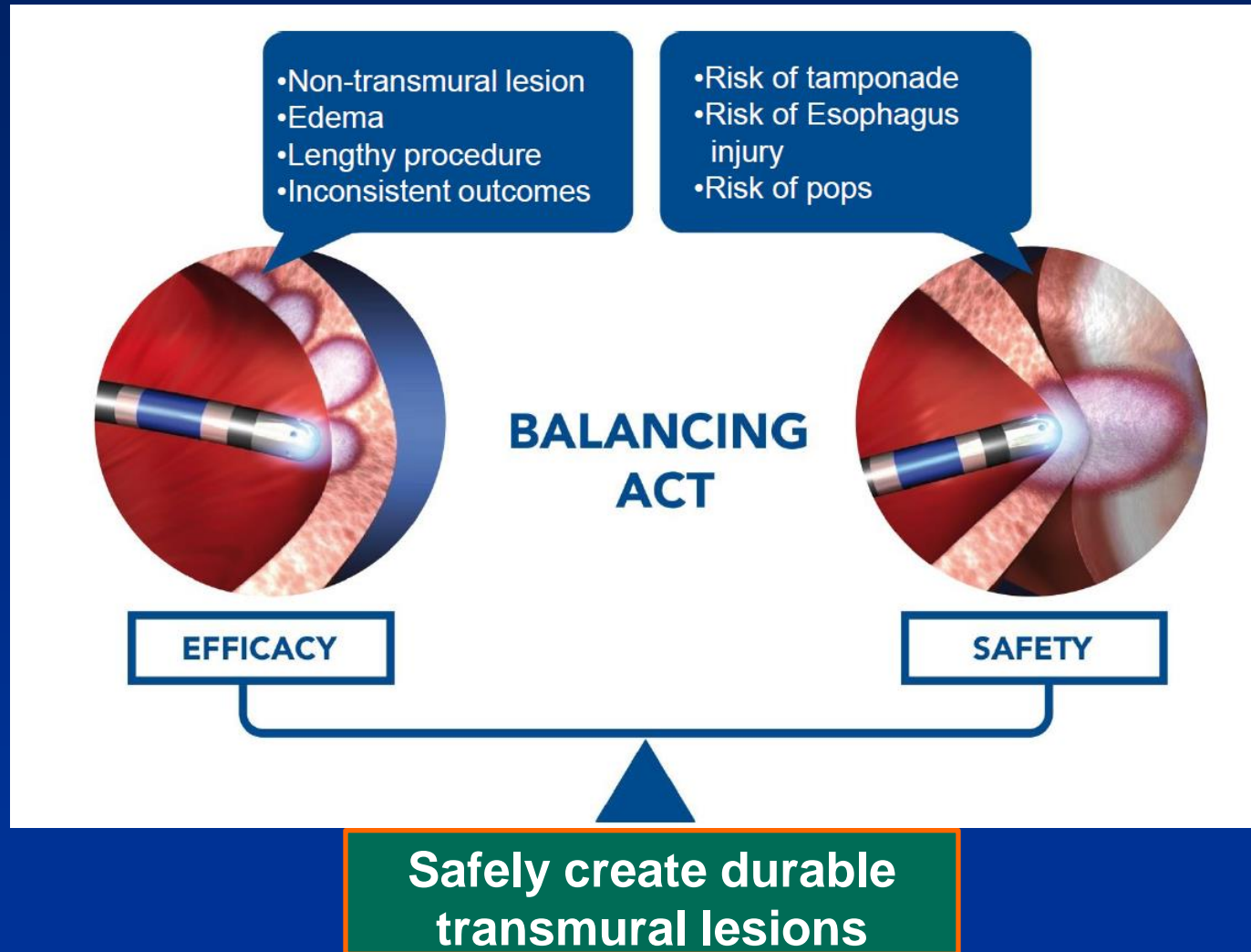


# 5 minutes with the Advisor SE (& can get voltage data at the same time)

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# Why do we want to know Contact Force?



# Lesion Size Index (LSI)

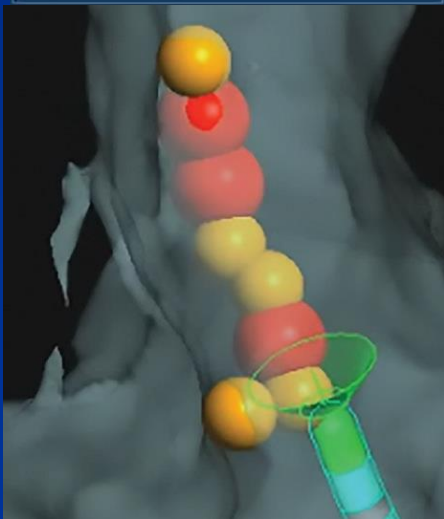
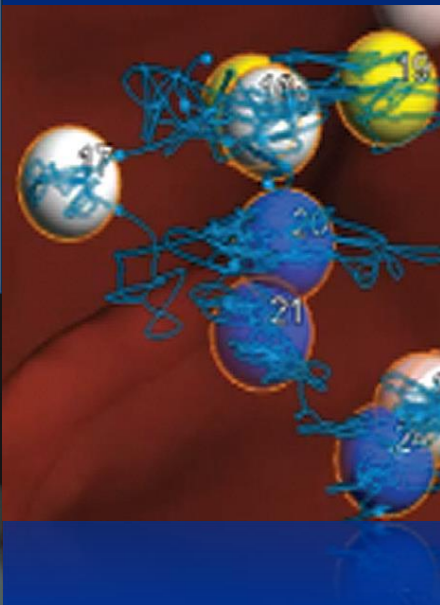
The TactiCath Quartz comes with unique **FTI (Force Time Integral)** and **LSI (Lesion Index)** designed as indicators of lesion quality





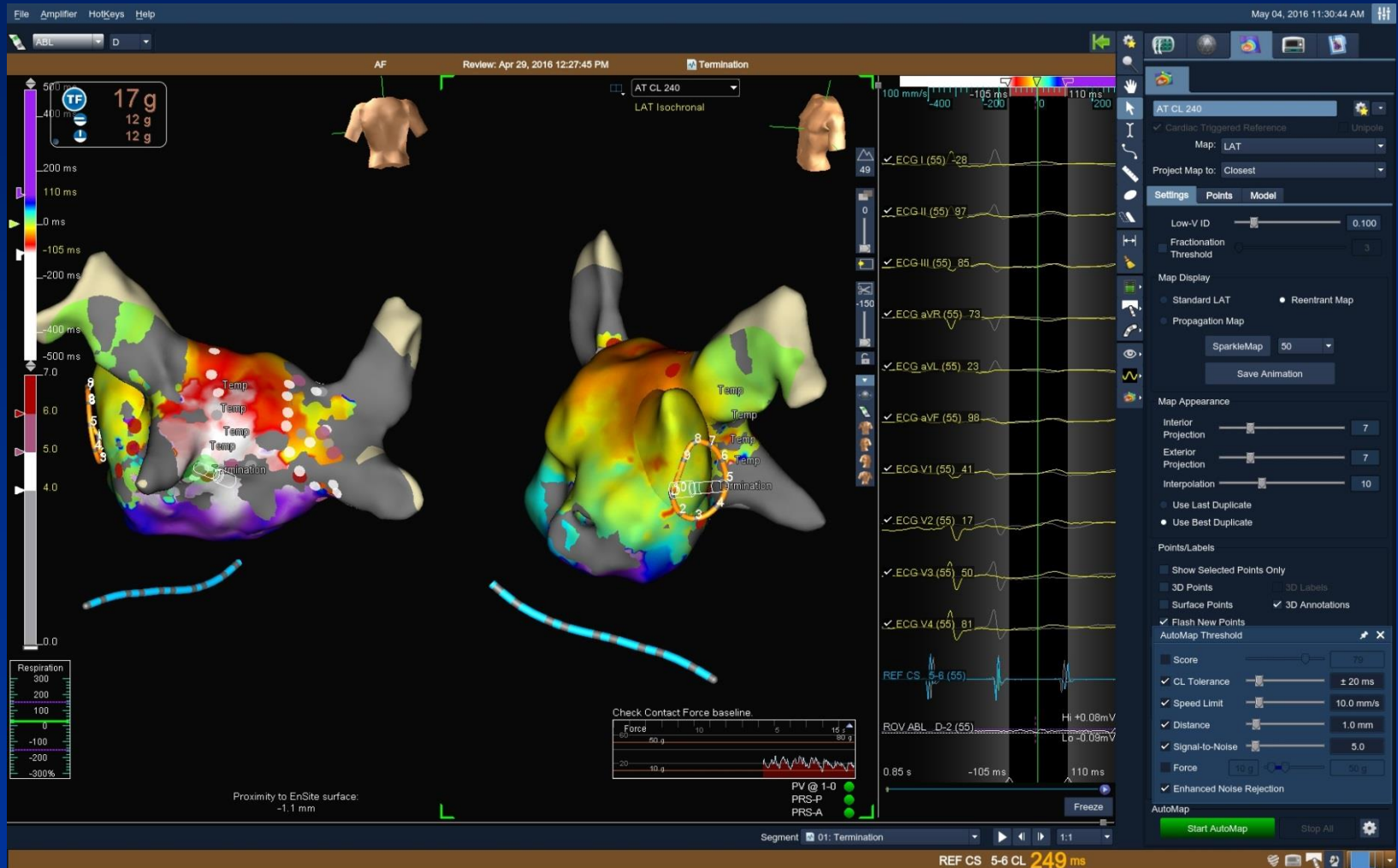
# Let's start burning

- Automated lesion marking guidance with the AutoMark module

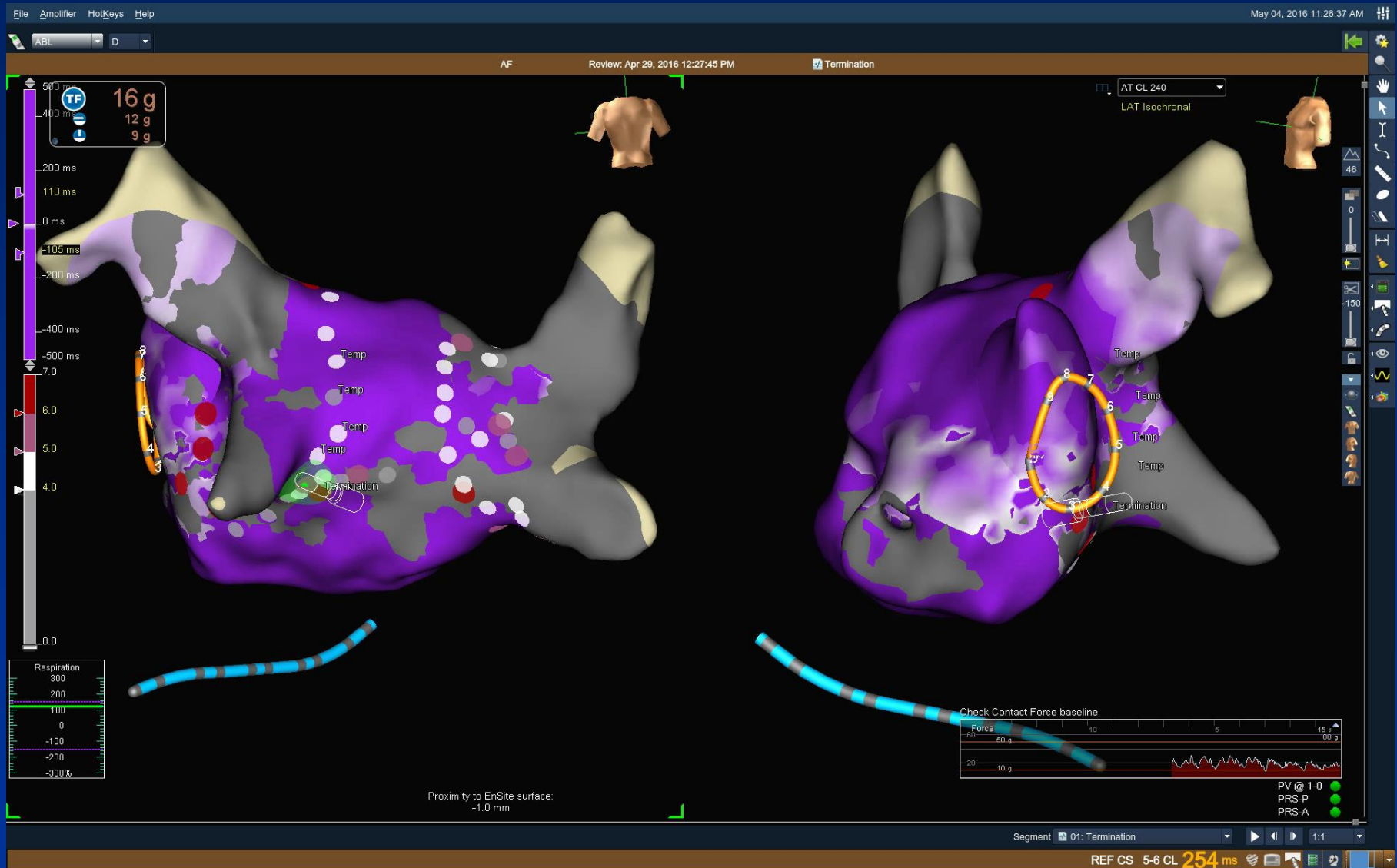




# Great PVI done, but what about mapping....

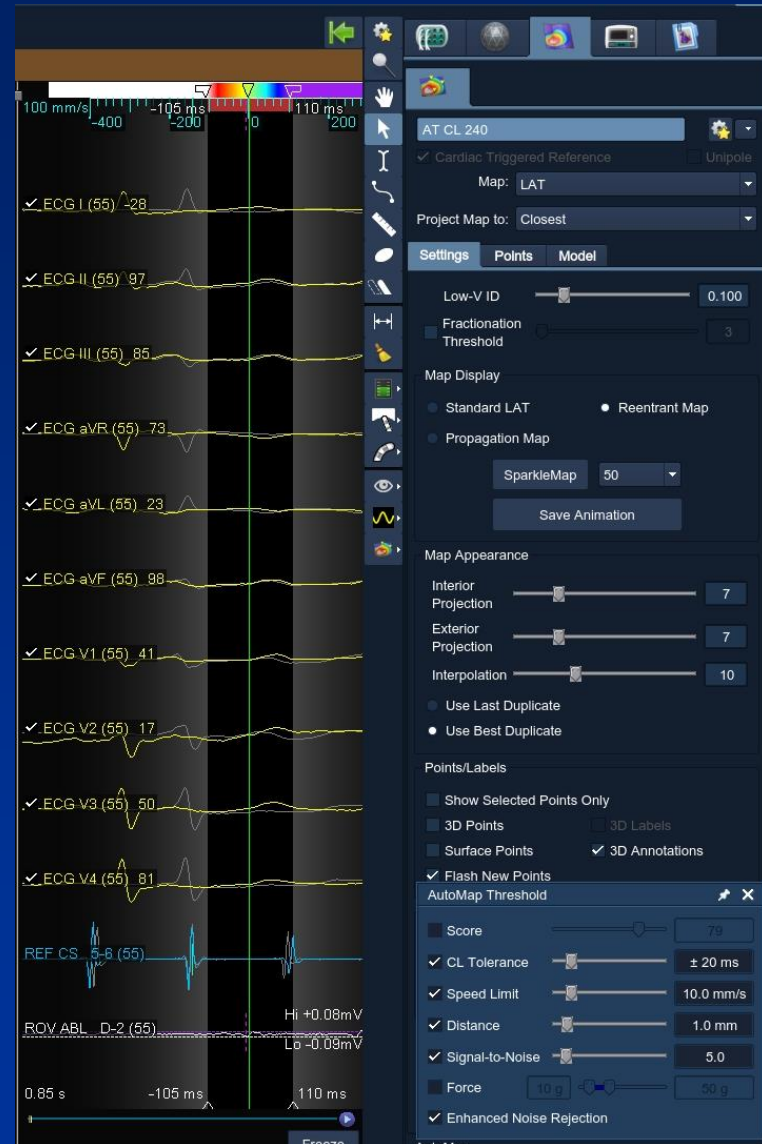


# Great PVI done, but what about mapping....



# Great PVI done, but what about mapping....

- CS 5,6 used as reference trigger (Max)
- Reference line moved to P wave onset
- Tach CL 250msec
- Window pre-P 105msec, post- P 110msec
- Reentrant map
- Diastolic signals will be
  - White/Red
  - Purple
- P wave onset will be yellow
- LVID set to 0.1mV



# Great PVI done, but what about mapping....

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## COMPLEX (!) EQUATION

(A) What goes in = What goes out

(B) Junk In = Junk Out

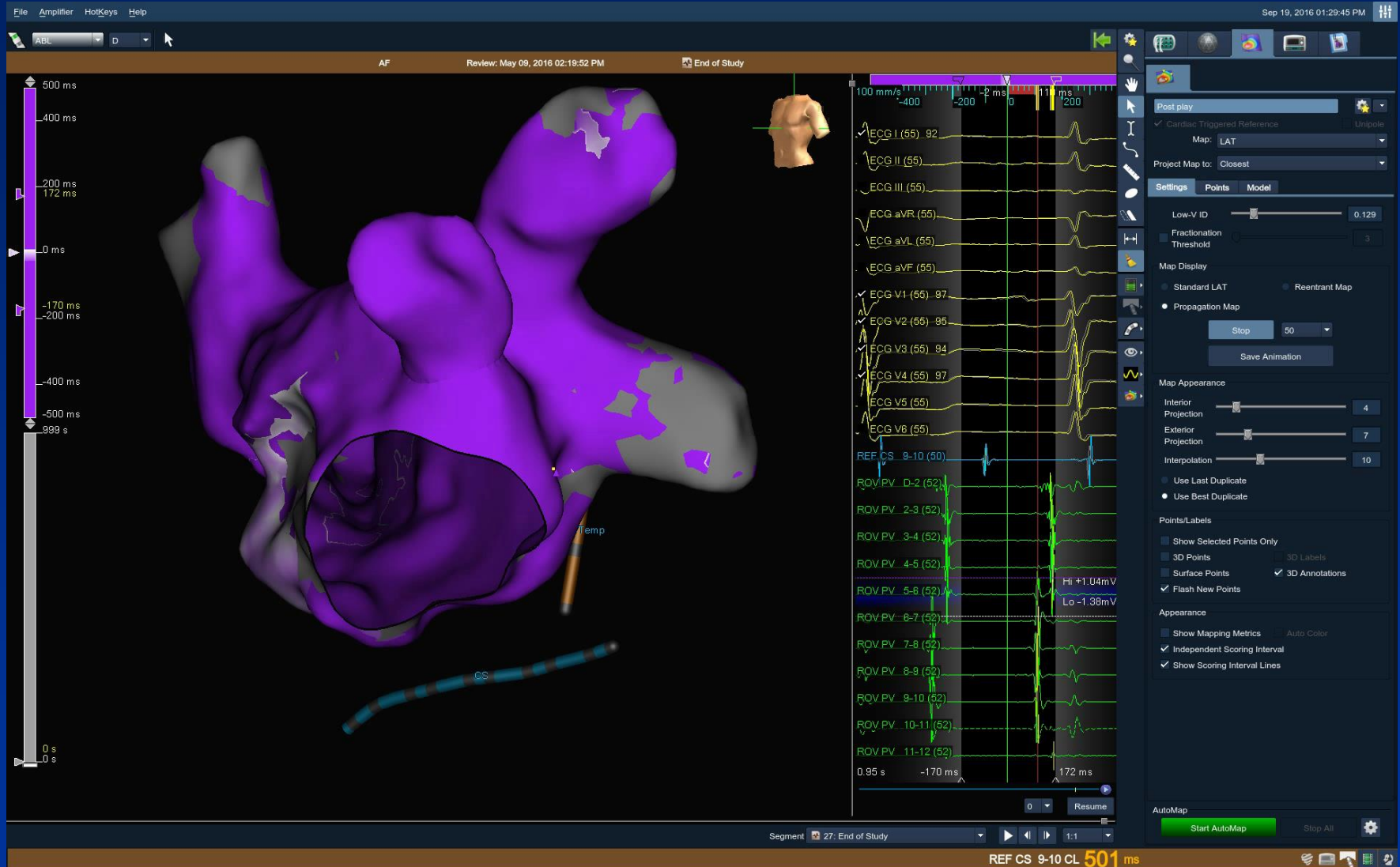
(C) Good stuff In = Good stuff Out



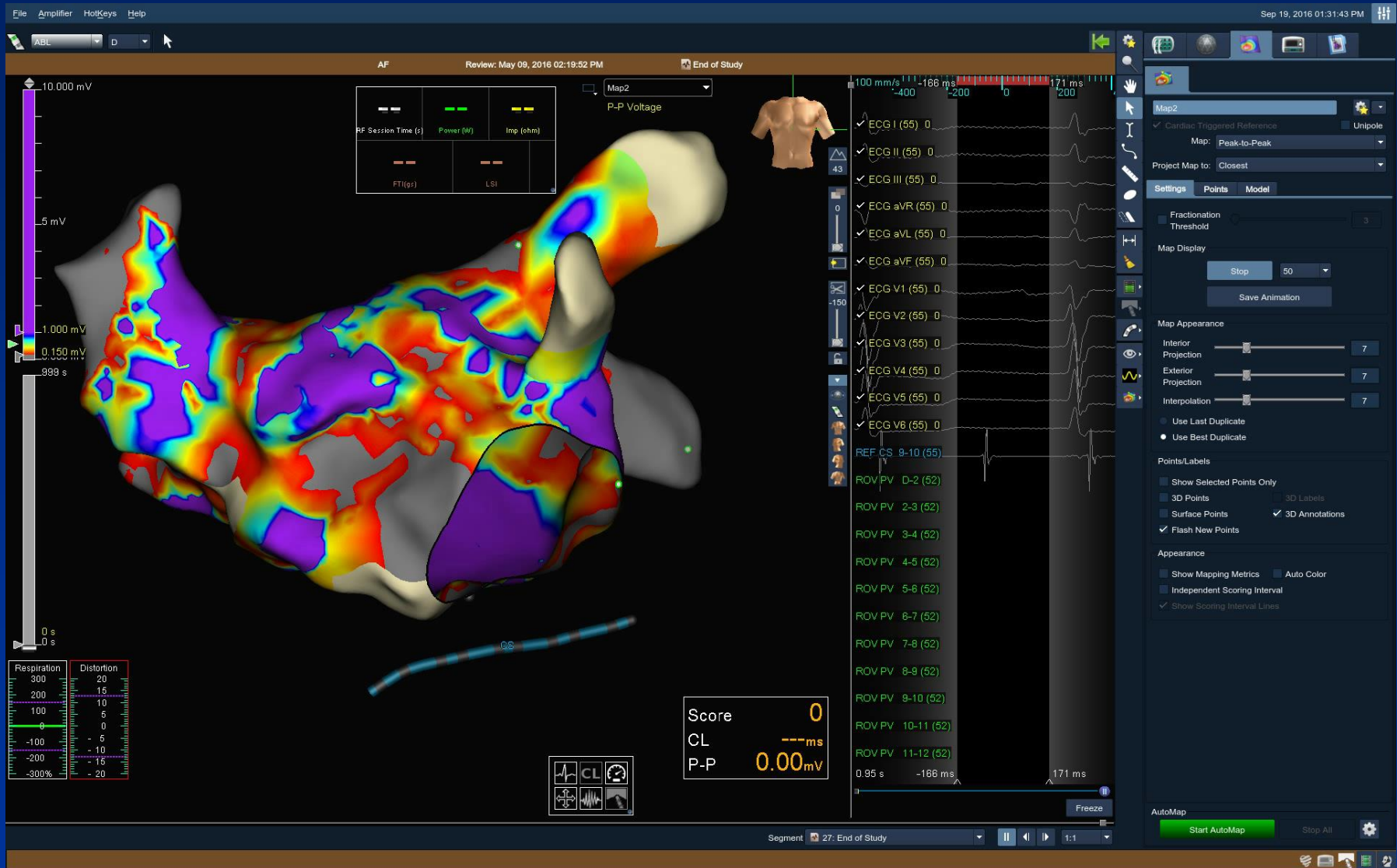




# Great PVI done, but what about mapping....



# Great PVI done, but what about mapping....



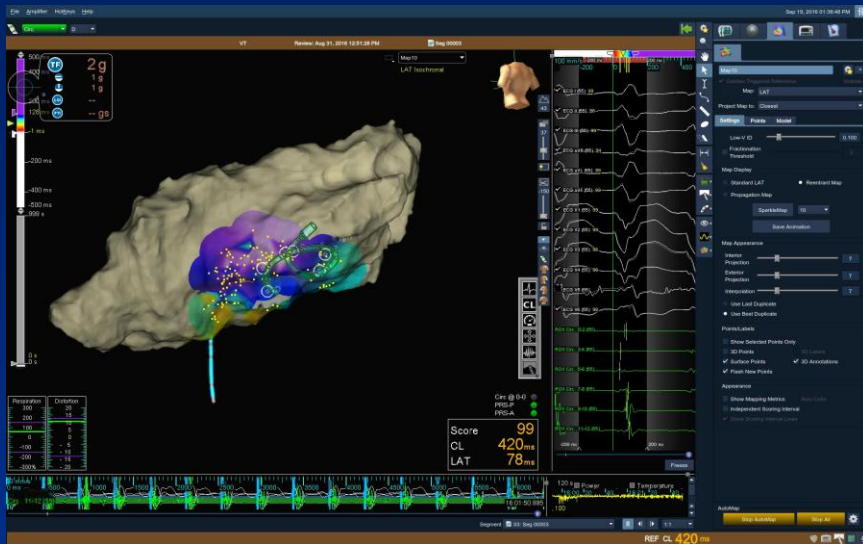
# Great PVI done, but what about mapping.....

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- Will not always be perfect first time
  - Worth spending a few minutes setting up correctly
  - What are you most interested in? e.g. voltage – may 'turn off' CL/reduce score
  - Now you have turbomap.....
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# I want to map again but with different reference/timing window....

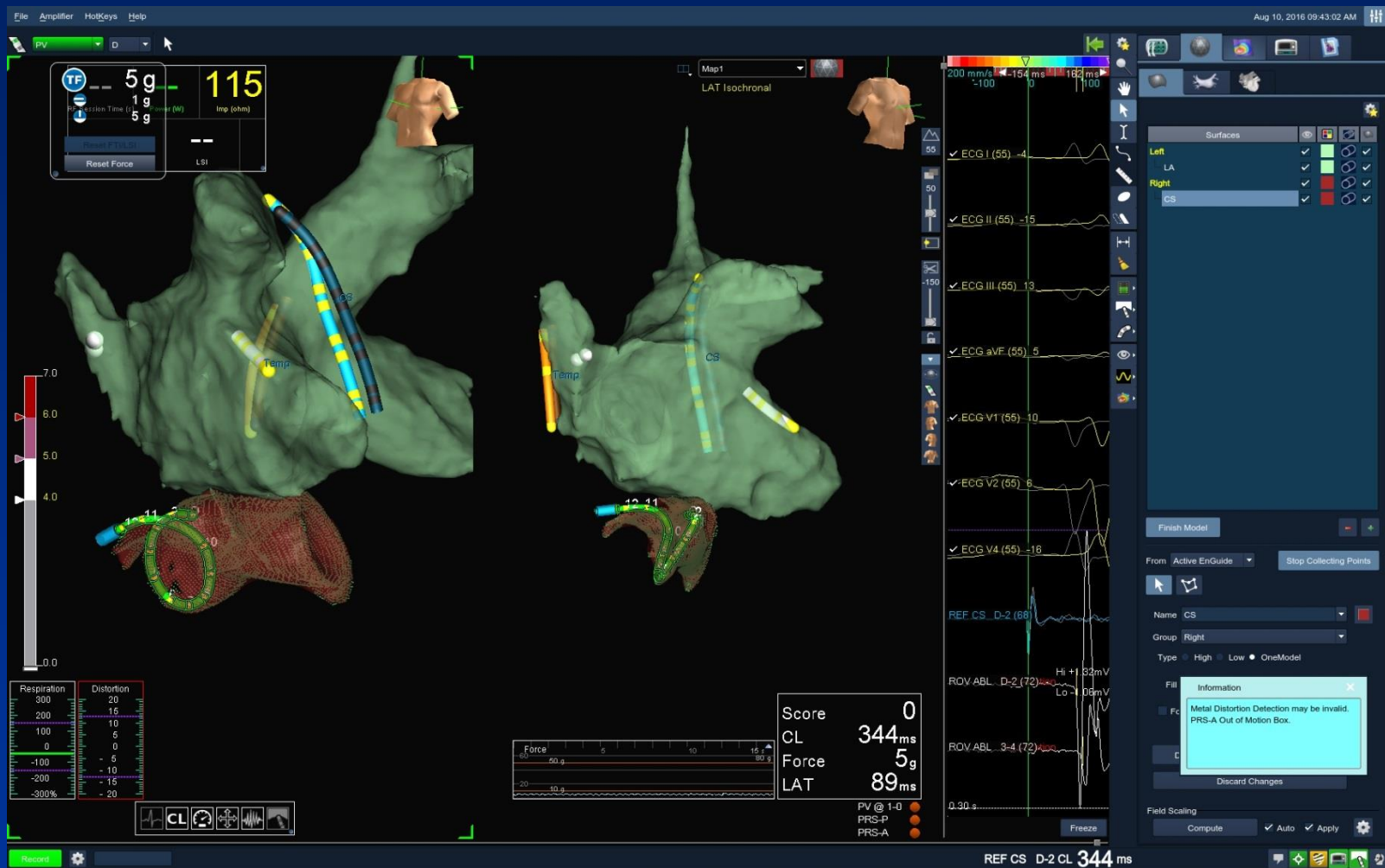


## **After our experience....**

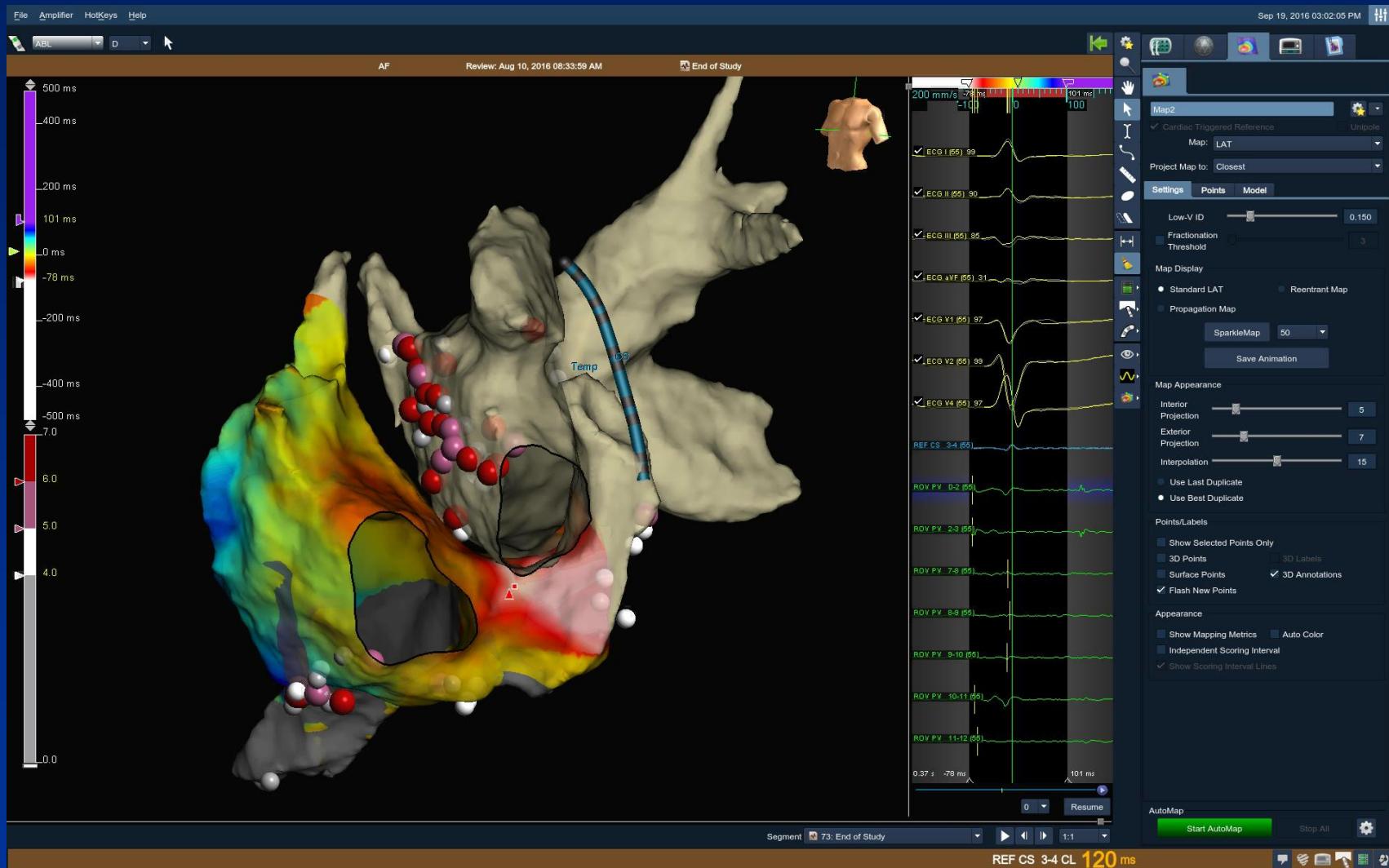
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- **Rapidly able to acquire maps with lots of information**
  - **In some cases ability to adjust timing windows and 're-map' without acquiring new points has been helpful**
  - **Detailed maps with lots of points enables identification of scar/channels**
  - **Still a role for conventional EP....**
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# Trust the map!



# Trust the map!







Oxford Heart Centre

Oxford University Hospitals



NHS Foundation Trust

# Thank you

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