

Transforming heart rhythm management in 5 steps

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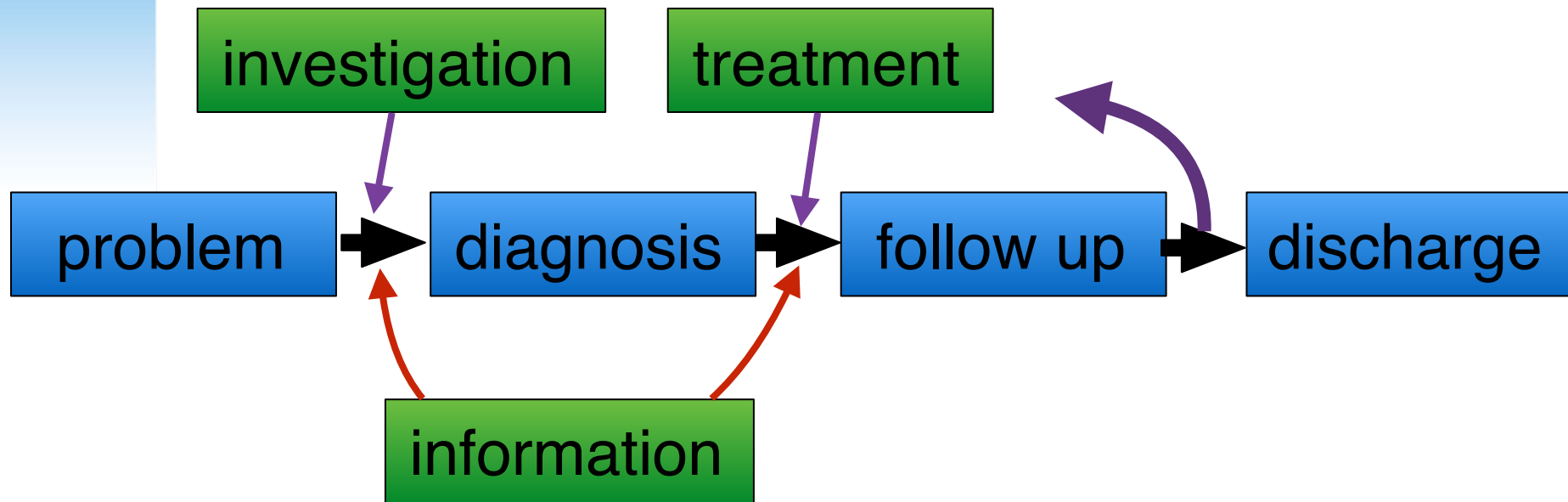
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Barts Health **NHS**
NHS Trust

The patient journey

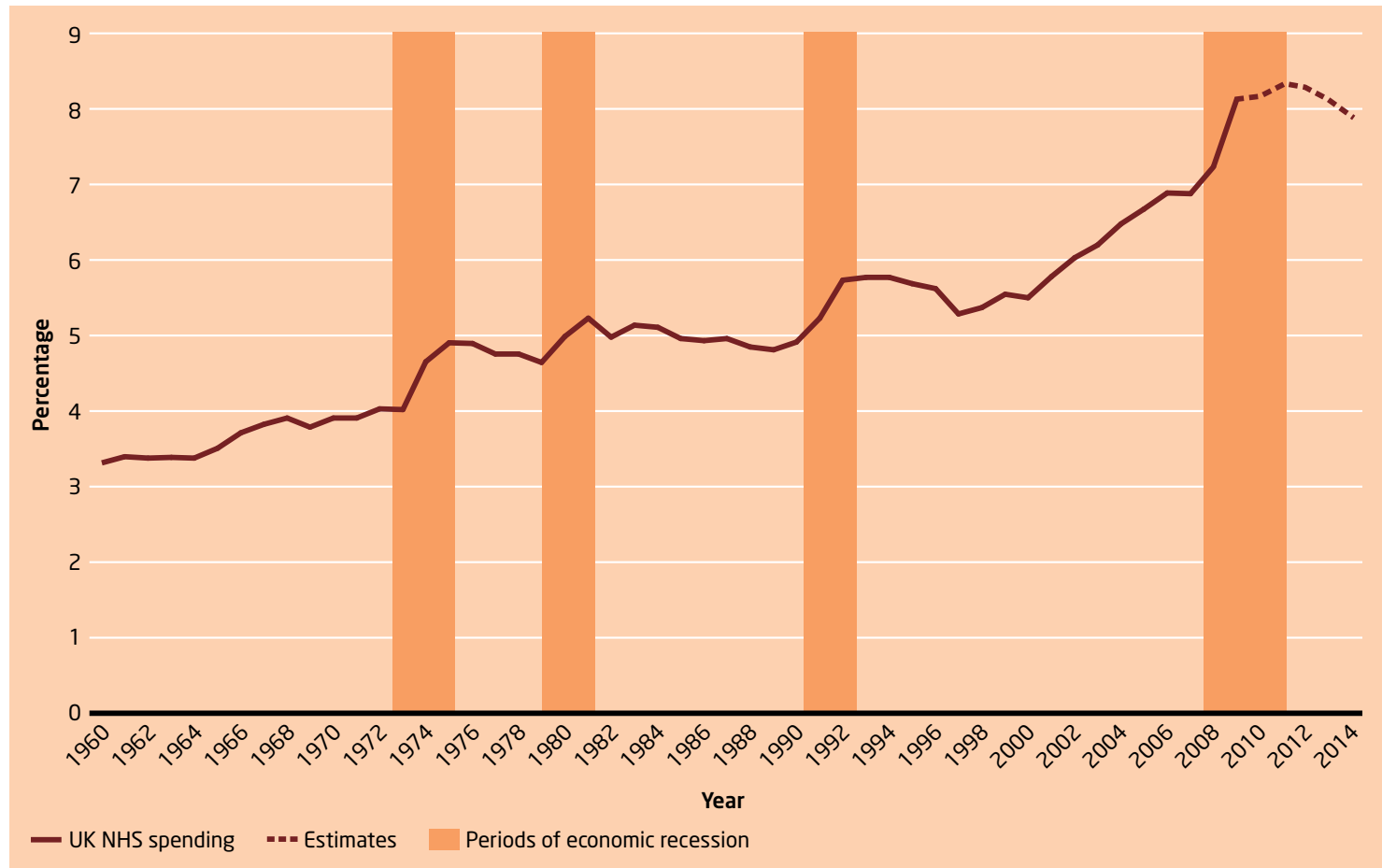


The challenges we face

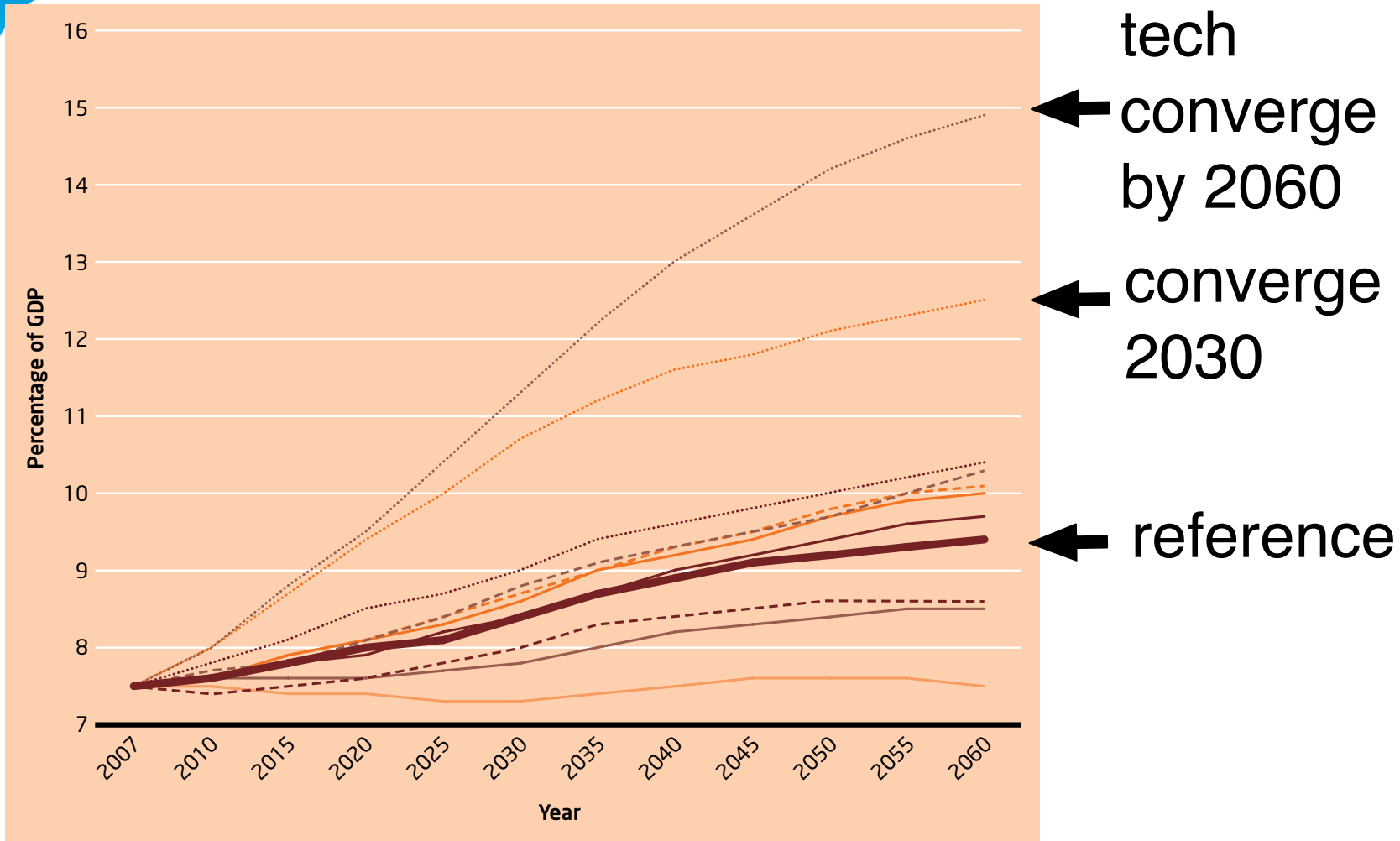
- Rising demand
- Rising healthcare costs
- Increased expectations
- Increasing competition for resource
- Rhythm management predominantly lifestyle



UK health spending as % of GDP

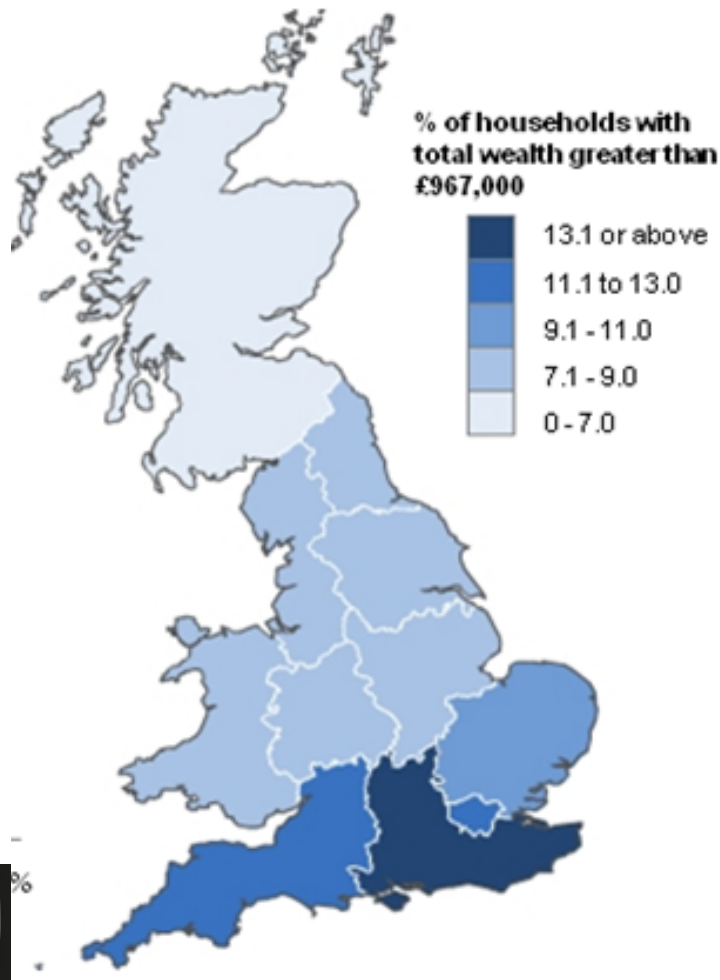


Projected health costs for the UK

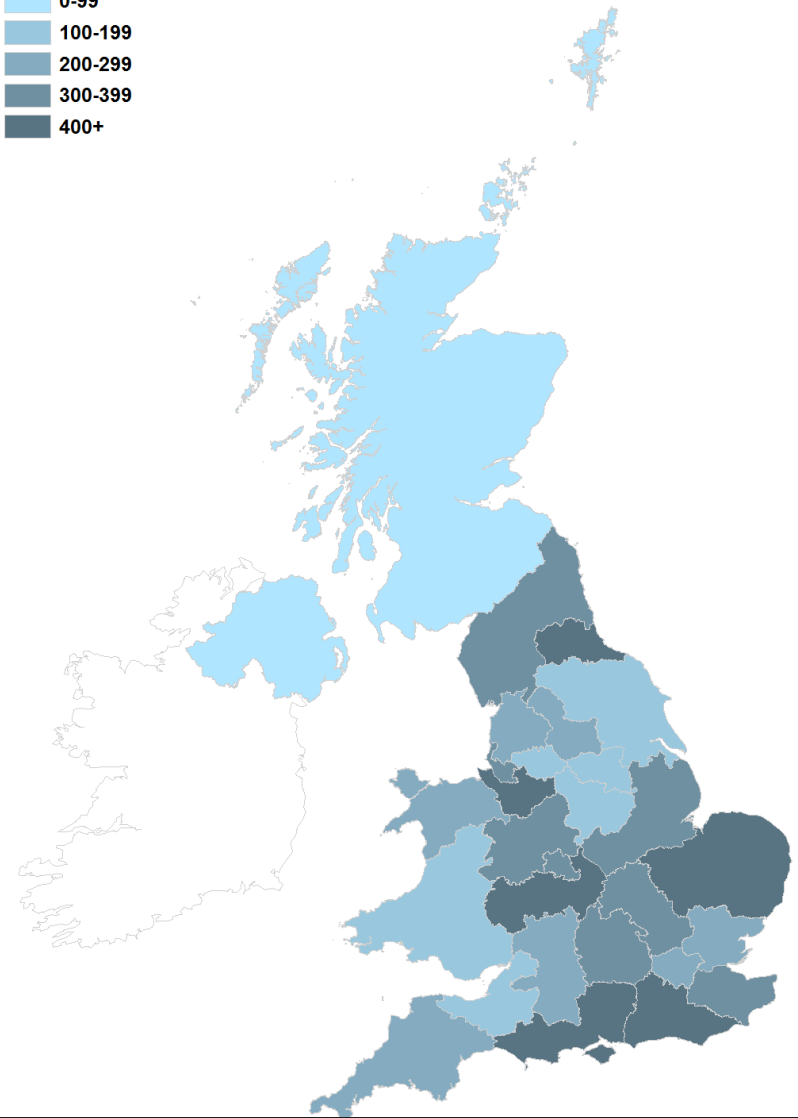
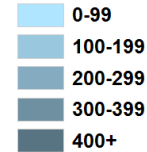


Ablations/^{million} population

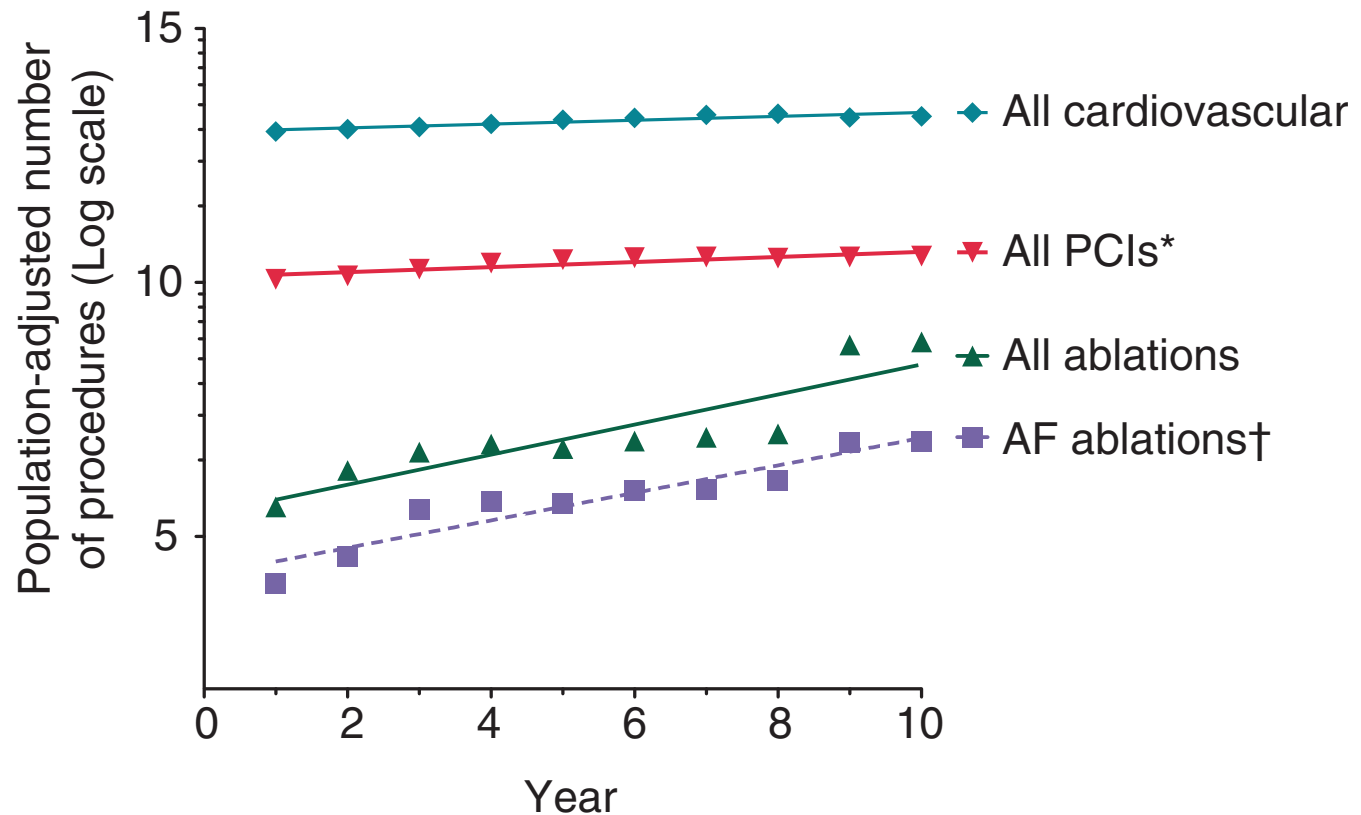
- ONS survey 2008/10



Total Ablations, pmp, 2013



Demand for AF ablation



5 ways to address the challenges

1. Simplify the patient journey
2. Reduce variation
3. Get technology to deliver more value
4. Encourage patient leadership
5. Open audit

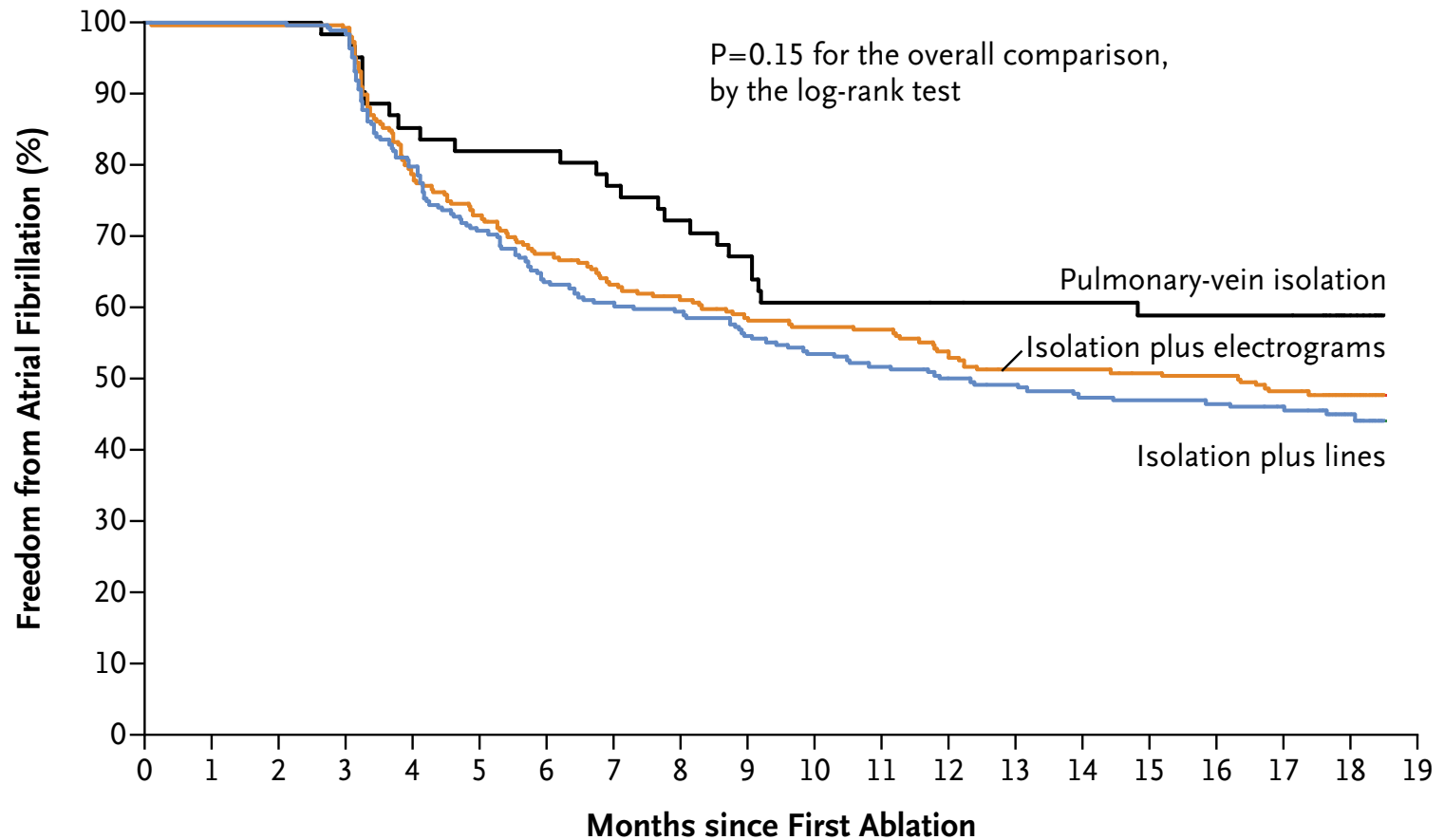


1) Simplify the patient journey

- Eliminate 90% of hospital admissions for arrhythmia
- Paramedic treatment of many SVT
- Nurse led patient triage
- Nurse assisted, patient-led decision making
- National online resource for patients with intelligent information delivery



2. Reduce variation



Standardisation of procedures

- 203 pts, 60 ± 0.9 years, 34% female
- CHA₂DS₂VASc 0 to 6
- procedure time 63.7 ± 1.2 mins
- fluoroscopy time 5.6 ± 0.2 mins
- fluoroscopy dose 18.3 ± 2.8 mGy



Outcomes

- Success 58% complete, 30.4% improved
- repeat 19.6%
- complication rate 4.9%
 - 3 phrenic nerve palsies (1.5%)
 - 2 tamponades (1.0%)
 - 3 groin complications (1.5%)
 - 1 pericardial effusion, no drainage (0.5%)
 - 1 temp wire (0.5%)
- 4 overnight admissions



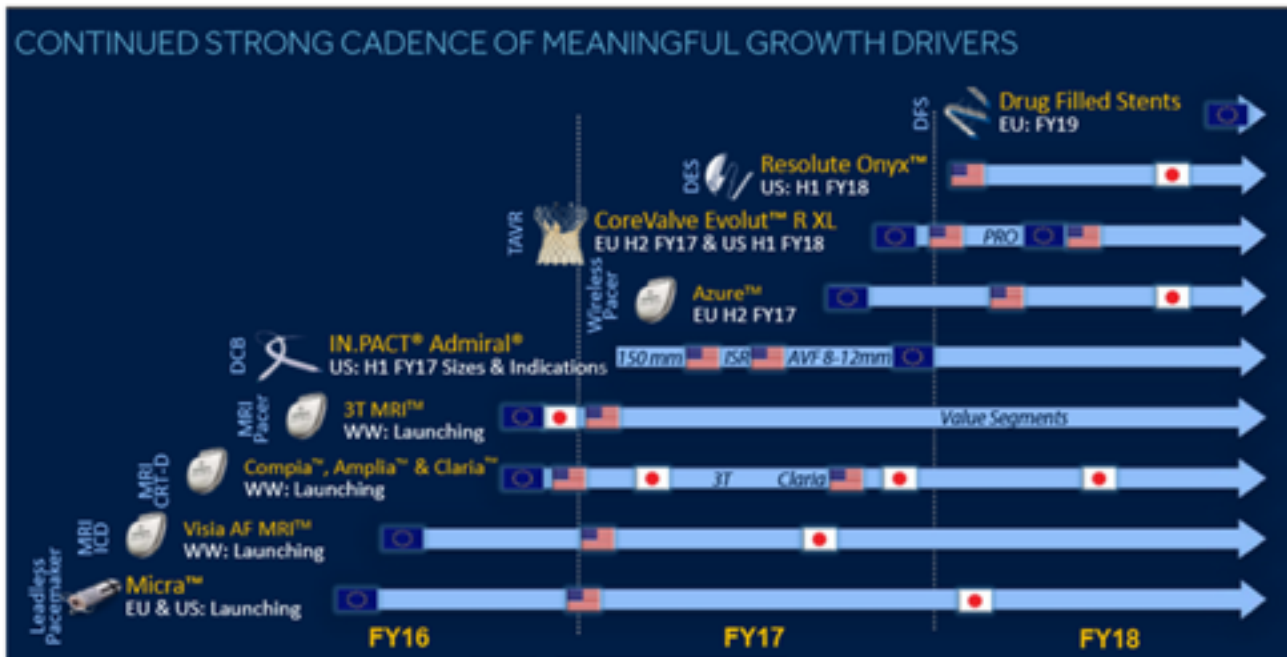
3. Get more value from technology

- Industry focus on adding value
- Increases cost and margin
- company policy driven by corporate structures and KOL's
- EP is changing from bespoke to mass production
- technology needs to reflect this



Medtronic - from the investor perspective

Therapy Innovation: Key Growth Driver for CVG Group



Therapy innovation has consistently contributed approximately 250–350 basis points towards CVG revenues



National Service Framework for Coronary Heart Disease

Chapter Eight: Arrhythmias and Sudden Cardiac Death

March 2005

National Service Framework for Coronary Heart Disease 2000

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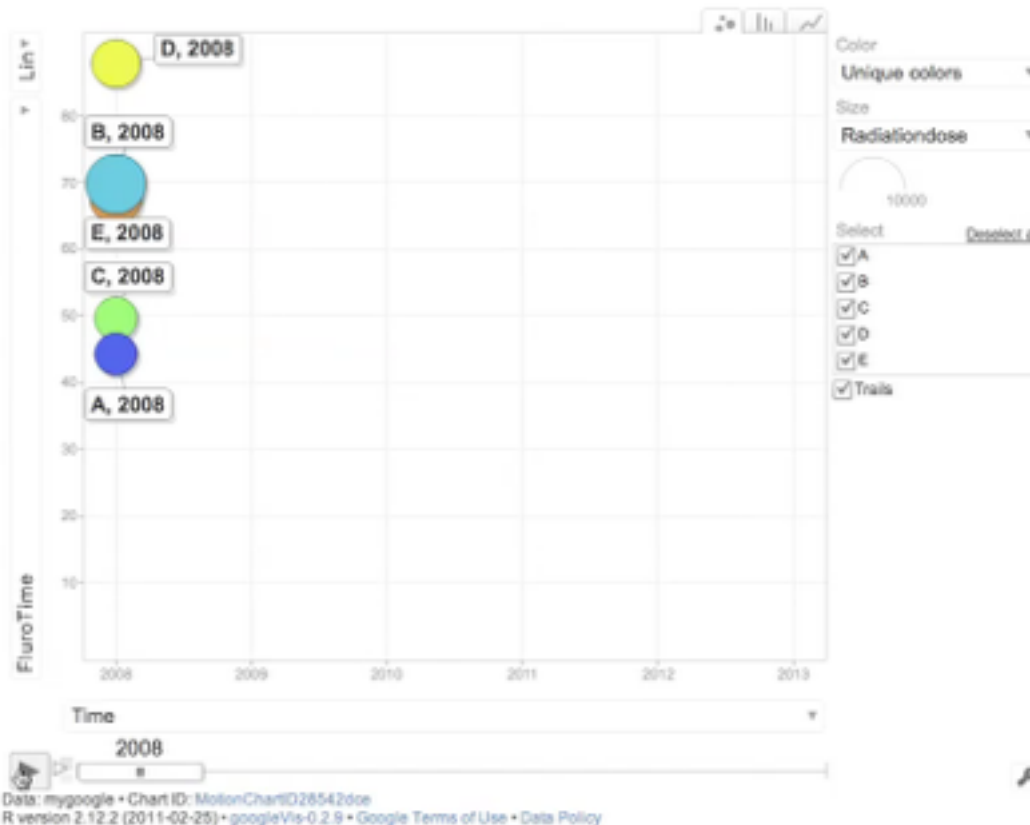
4. Encourage patient leadership

- Patient/clinician partnership:
 - national service framework
 - persistent AF ablation
 - LAAO occlusion
 - what happens if AF ablation improves prognosis?
- Critical we mobilise patients



5. Open audit

Open audit is the single most powerful tool we can use to drive innovation and improvement



Fluoroscopy times for physicians performing AF ablation at Barts



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Open Audit

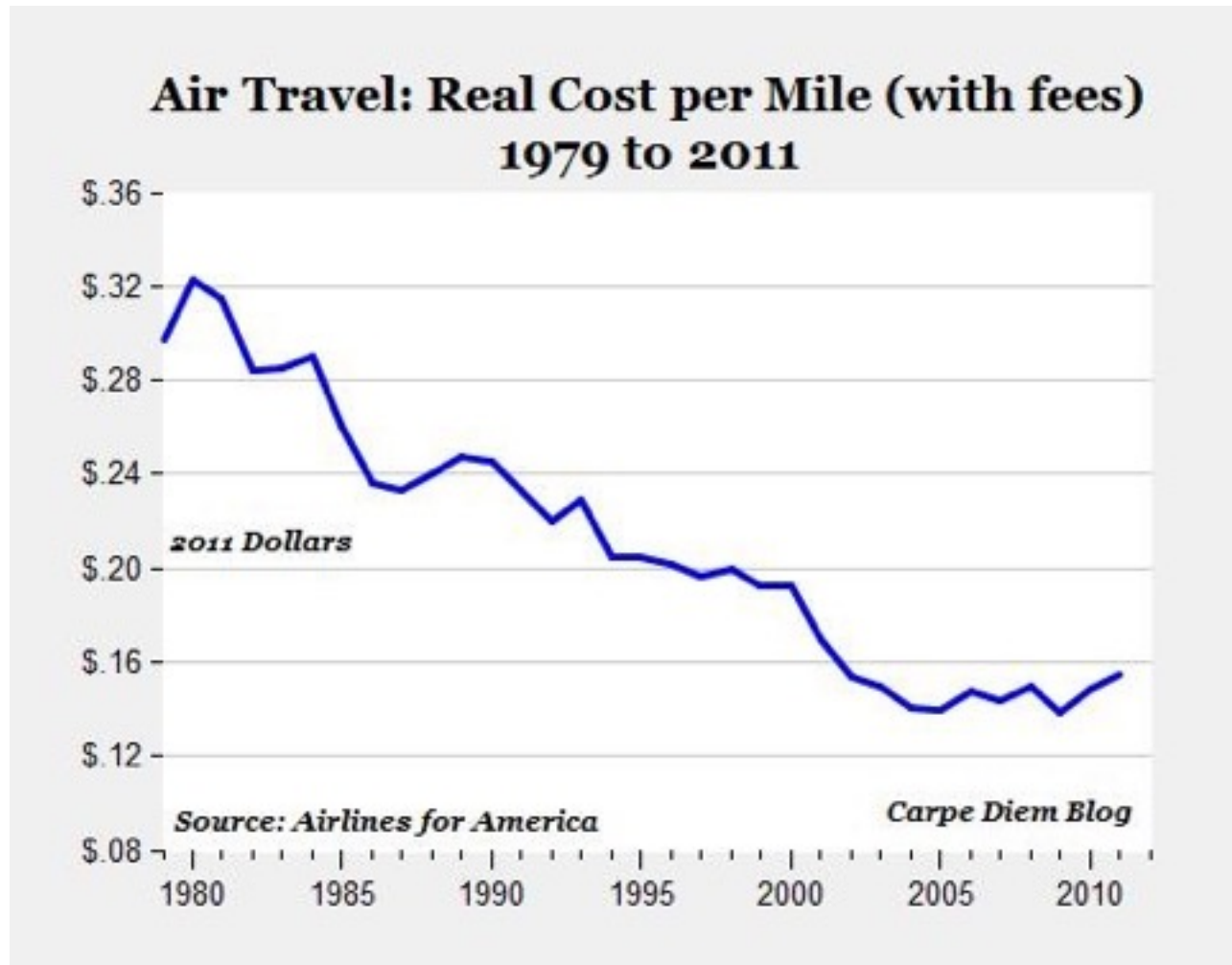
- The 2015-6 annual report, to be published at the end of 2016, will contain more detail about data completeness & quality, procedure numbers, doctors performing device procedures, and adherence to NICE/BHRS guidance, for each centre.

The 2016-7 report (i.e. data being submitted currently) will for the first time detail each operator's volume for simple and complex devices. In future this will be extended to procedure outcomes.

- critical that we have timely open audit nationally
- Motivates us to learn from best practice



Deregulation and competition



Costs for complex ablation 2009-10

- 6 high volume centres in UK
- “real” cost (not charge) for ablation

Hospital	Cost (£)
1	4230
2	6500
3	4625
4	2485
5	5670
6	3804

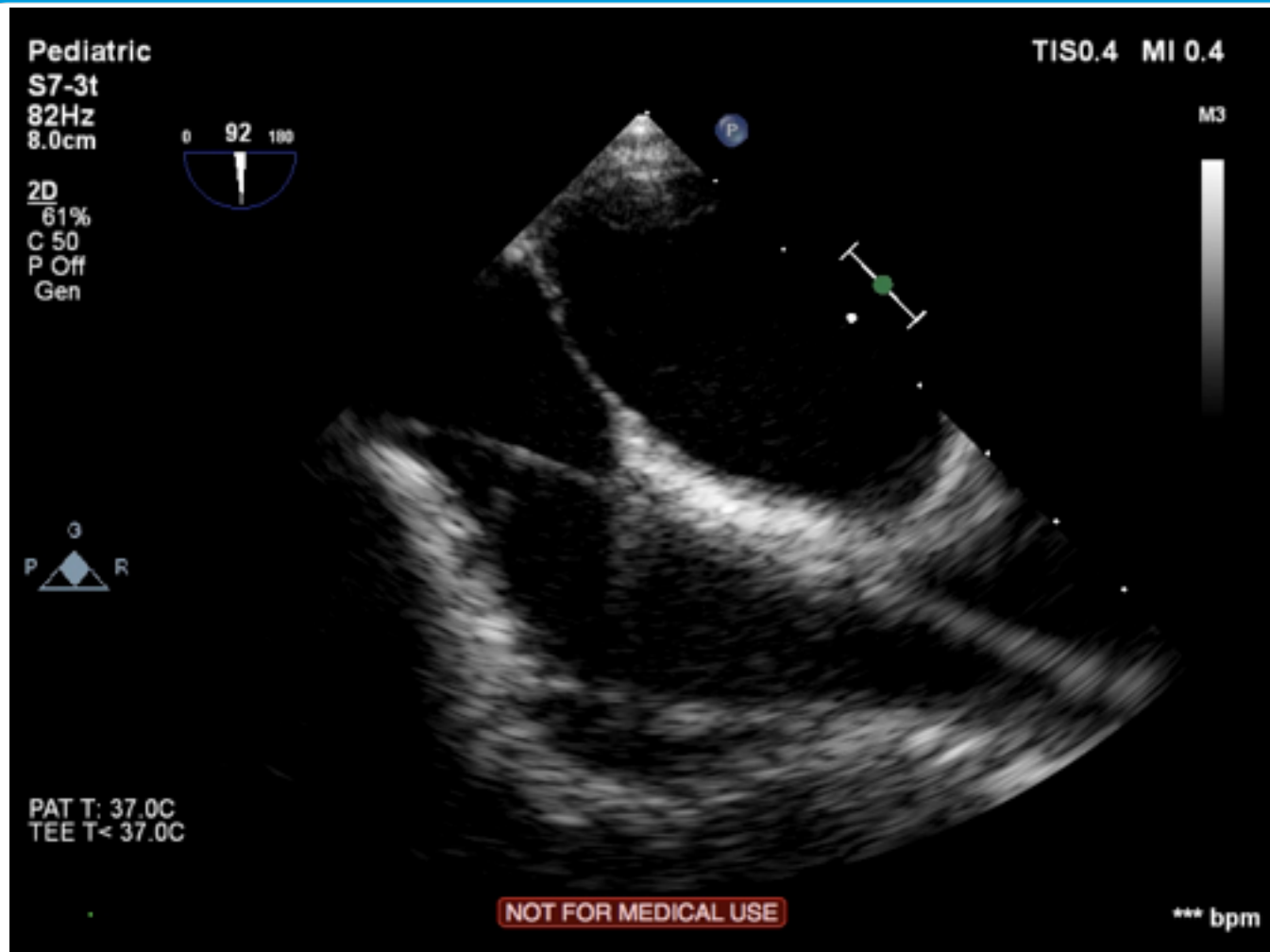


Conclusions

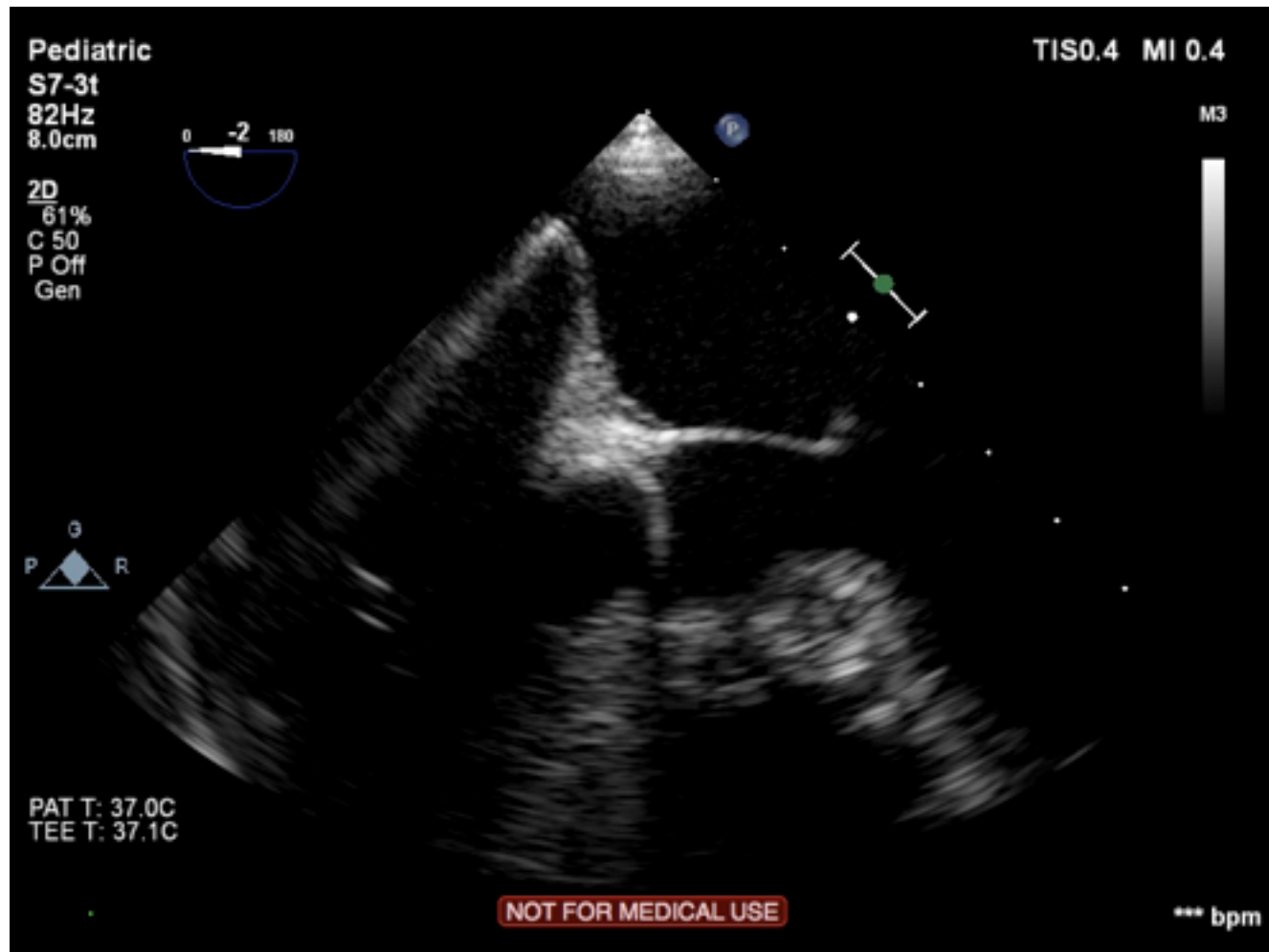
- Technology will have much less influence than it has in the past
- Process will define the future
- Being open, honest and transparent about our performance will only help us get better
- We need to partner with our patients to get them the treatment they need



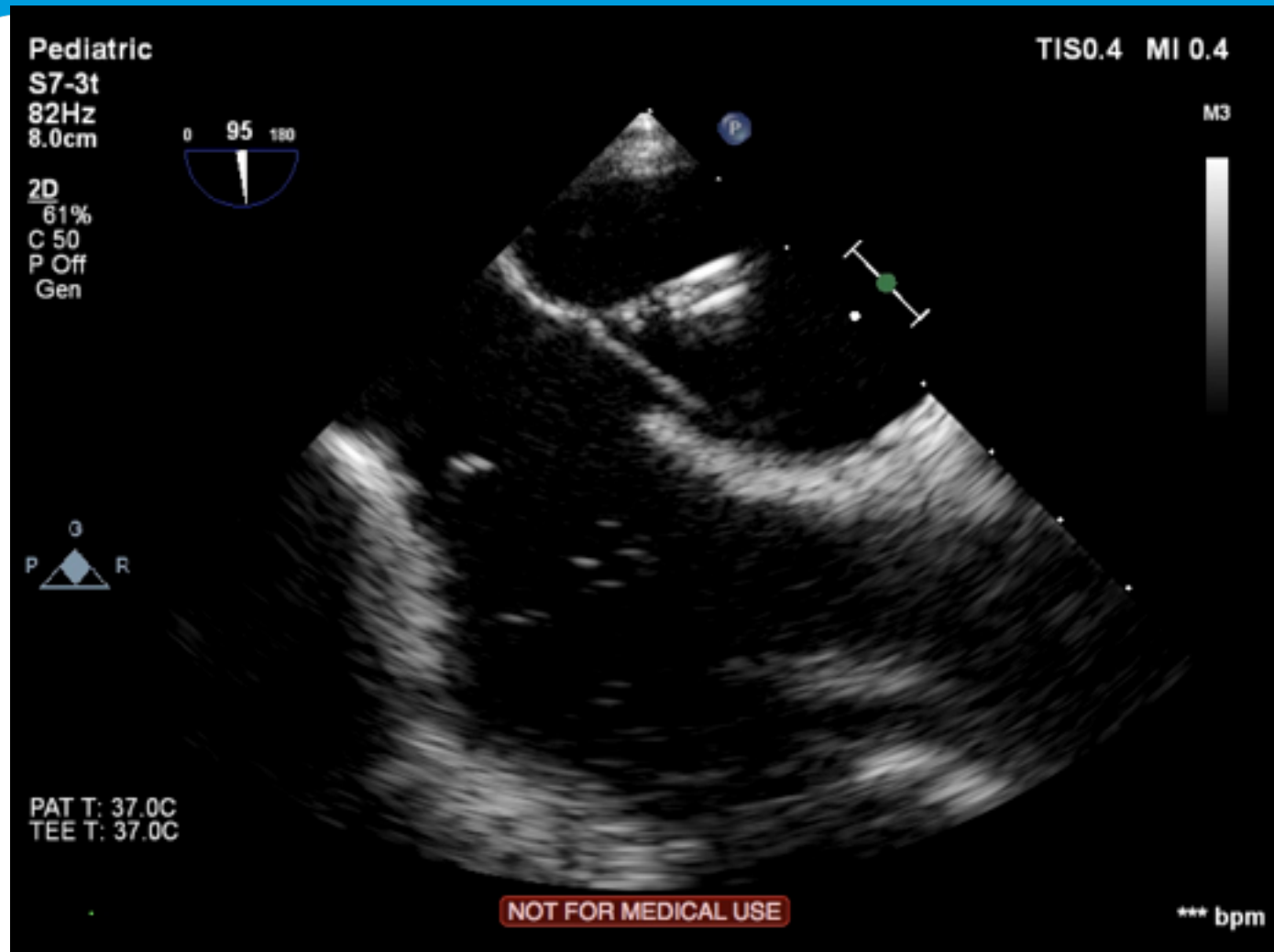
Guide wire in SVC



Needle in septum



Sheath into LA with balloon



Achieve wire advanced into LUPV

