

**GUCH ablations and device
implantation should only be
undertaken by a GUCH
arrhythmia specialist**

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County Hospital, Brighton

BHRS Standards of Care

- Cardiac Rhythm Management in Patients with Congenital Heart Disease
 - Standards of Care for patients undergoing catheter ablation and device implantation
- Martin Lowe, on behalf of BHRS Council
- February 2016

NHS review of Congenital Heart Disease services

- Proposes 3 levels:
 - Specialist (onsite CHD surgery)
 - Intermediate
 - Local
- On a congenital cardiac network basis

Proposed...

- CHD CRM intervention should be in a Level 1 unit
- 'Simple' procedures could be carried out at a Level 2 hospital
- All patients should have their case reviewed by a CHD specialist before cardiac rhythm intervention
- 'Complex' and 'simple' CRM procedures have yet to be fully defined but...

What's Simple?

- CTI flutter ablation post ASD device closure
- Isolated mild left sided valve abnormalities

What is Complex?

- ASD repair with atriotomy and patch atrial flutter
- AVSD repair atrial flutter
- Ebstein's anomaly WPW, flutter or VT
- Mustard / Senning for TGA with IART or VT
- Fontan circulation IART, focal AT
- Tetralogy of Fallot flutter IART VT
- Unrepaired single ventricular physiology atrial flutter, atrial tachycardia

Simple Devices

- Post-operative ASD SA node disease
- Post-operative AV block for isolated left sided valvular lesions

Complex Devices

- Senning or Mustard TGA with SA node disease
- Fontan SA node disease
- Repaired Ebstein's anomaly SA node disease or AV block (CS lead may be more appropriate than RV lead)
- Post-operative Fallot SA node disease
- Glenn shunts, TAPVD SA node disease
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**GUCH arrhythmia specialists & BHRS
don't agree**

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What is a “GUCH Arrhythmia
Specialist”?

Typical Adult Electrophysiologist in 2016 in “Level 2 Centre”

- AF ablation
- VT ablation
- Highly experienced with 3D mapping, steerable sheaths, transseptal punctures, irrigated ablation
- Limited experience with abnormally connected patients

Typical Non-GUCH arrhythmia specialist

- “IART” is standard fare
 - CTI flutter
 - Atypical flutter
 - Post catheter ablation
 - Post surgical ablation
 - Spontaneous

“Level 2” Centre - Brighton

- 84 CTI flutter
- 16 Atypical Flutter
- 242 AF ablations
 - 68 MV flutter lines
 - 62 Roof lines
 - 40 CTI lines
- 197 3D mapping cases
 - 127 Velocity
 - 70 CARTO

Level 1 Centre – St. Thomas’ vs Level 2 Centre – Brighton

	St Thomas’	Brighton
AF	213	242
Flutter	98	100
Total ablation	506	528

Interventional Paediatric Cardiologist?



- Who does some EP
 - AVNRT
 - Pathways
 - (atrial tachycardia)
- Has interventional skills for abnormally connected patients
- More limited 3D mapping and IART ablation experience

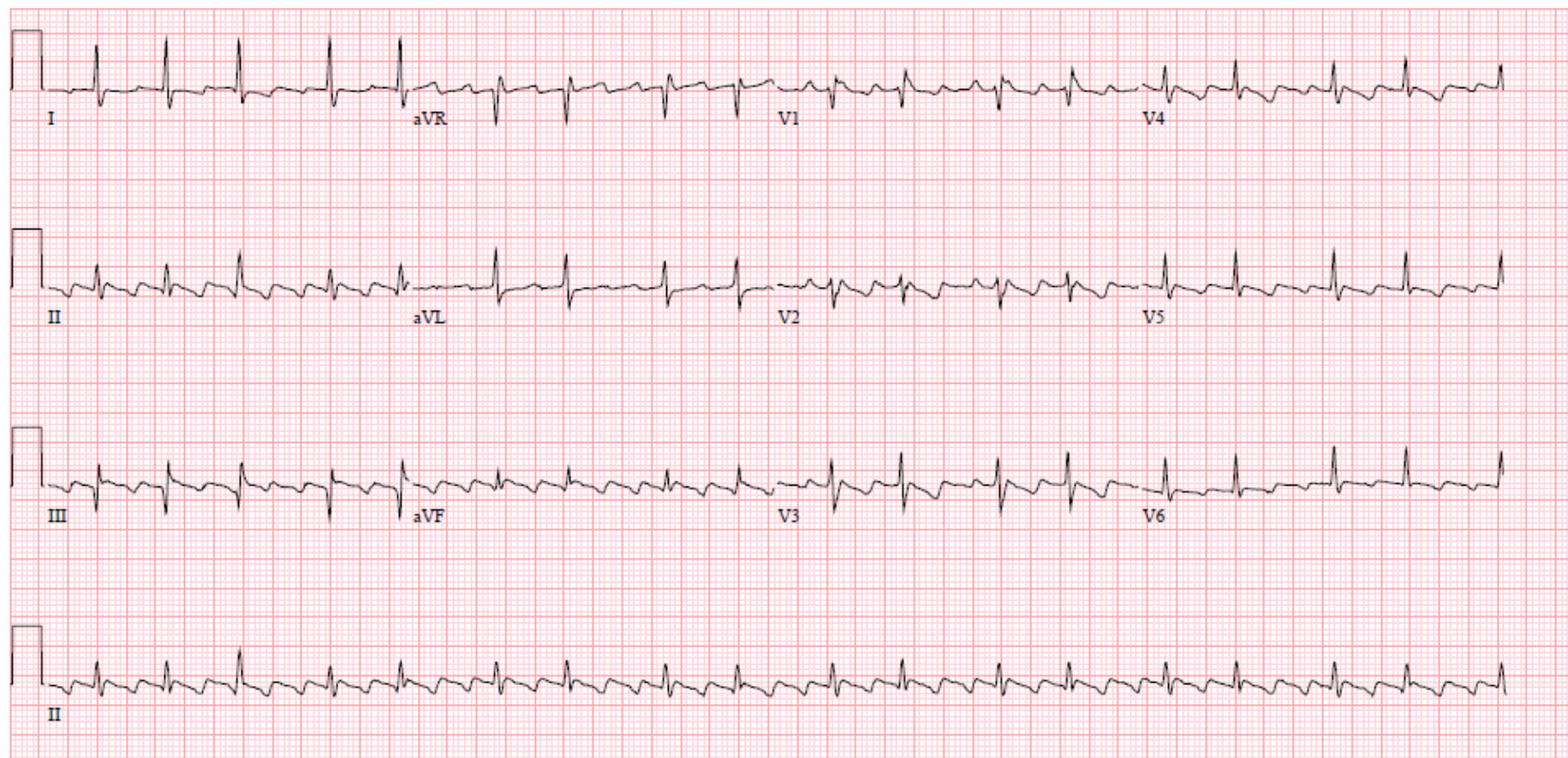
Can **all** GUCH ablation be undertaken by Non-GUCH arrhythmia specialist?

- Mustard
- Senning
- Fontan
- Univentricular physiology

No thank you

Case

- 55 year old lady
- Surgical ASD repair 1993 (Brompton)
- Presents with increased breathlessness
- Echo
 - Normal
 - Right heart normal

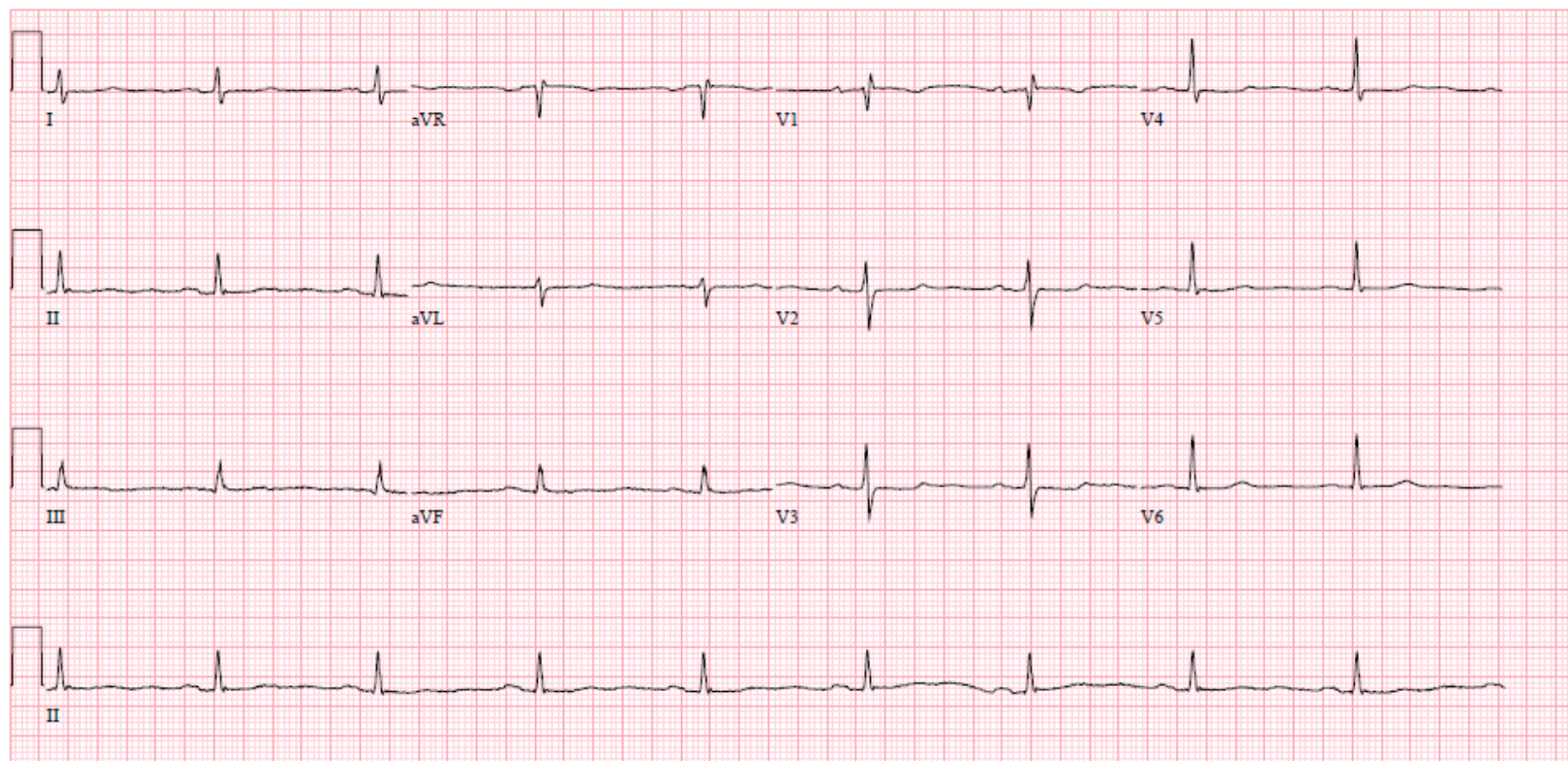


Management

- 3D mapping and ablation
- For likely CTI
 - Refer to Professor O'Neill at St Thomas'
 - Do in local "Level 2 Centre"

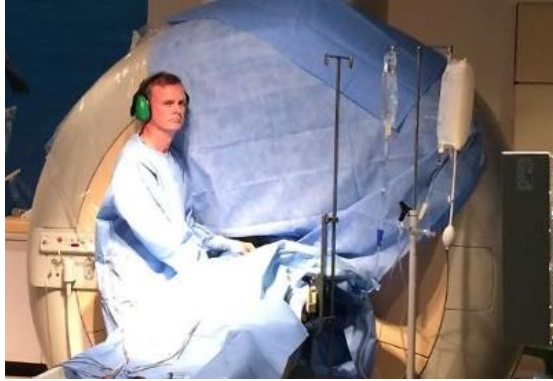
Flutter ablation at Brighton

- 2012
 - NavX Velocity
 - Irrigated 4mm catheter
- CCW CTI Flutter
- CTI line



- No other flutter inducible
- Remains well and in sinus rhythm at follow up

Where is the line?



Professor O'Neill

- 99 peer reviewed publications
 - 1 GUCH case report
- 13 review articles
 - 1 GUCH



Professor O'Neill

Non - GUCH Specialist

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In the real world

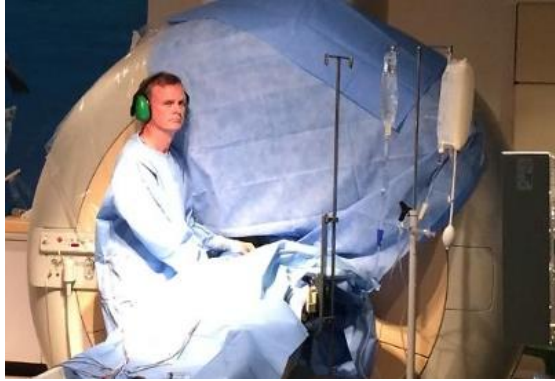
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GUCH Specialist

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Professor O'Neill



- Doesn't implant devices



Professor O'Neill

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- Clearly this is not true
- BHRS, chairman & majority of electrophysiologists don't agree
- A proportion patients will benefit from a GUCH arrhythmia specialist