

# Dr Mark Earley MD FRCP

## Consultant Cardiologist

### PERSONAL DETAILS

ADDRESS	(NHS) Dominion House, St Bartholomew's Hospital, London, EC1A 7BE	(Private practice) St Olaf House, London Bridge Hospital 27 Tooley Street, London SE1 2PR
TELEPHONE	02076017804	02072342497
MEDICAL SCHOOL	University of Bristol	1987-93
GMC REGISTRATION	4009089	

### QUALIFICATIONS:

BSc 1 <sup>st</sup> Class Honours in Anatomical Science	1990
MB ChB with Honours (top 4 in year)	1993
MRCP (UK)	1997
ALS	2004
MD (University of London)	2007
FRCP	2010

### AWARDS:

Distinction in Pathology	1993
BHF Junior research fellowship (FS/02/078/14748)	2002
Shortlisted for Heart Rhythm Society and British Cardiac Society Young Investigator Awards.	2005

### SOCIETY MEMBERSHIPS:

Royal College of Physicians  
Heart Rhythm UK

**CURRENT CONSULTANT APPOINTMENT:**

NOV 2006- Consultant Cardiologist, St Bartholomew's Hospital  
Specialist interest: Cardiac Electrophysiology

**PREVIOUS APPOINTMENTS:**

JAN 2006- Consultant Cardiologist, Manchester Royal Infirmary  
NOV 2006 Specialist interest: Cardiac Electrophysiology

OCT 2001- Specialist trainee in cardiac electrophysiology  
NOV 2005 St Bartholomew's Hospital

SEP 1997- Specialist training in general cardiology  
SEP 2001 Hammersmith, St Mary's and West Middlesex Hospitals

AUG 1993- Junior medical and surgical posts  
AUG 1997

**OTHER CURRENT RESPONSIBILITIES:**

- Lead for postgraduate training in Cardiac CAU at Barts and the London NHS Trust
- Member of London Deanery committee for developing new curriculum for specialist training in cardiac electrophysiology.
- Lead for arrhythmia on North East London Cardiac Network, developing new heart rhythm services across the sector.
- Examiner for Queen Mary University of London.
- Lead for medical student training in cardiology at St Bartholomew's Hospital

## RESEARCH:

I have an active program of research at St Bartholomew's Hospital, supervising a research team of doctors and nurses that publish regularly in peer reviewed journals. I was awarded my MD thesis in 2007 titled Investigations of the mechanisms and management of permanent atrial fibrillation. Although atrial fibrillation has been the main focus of interest I have also been active in all areas of research as listed here:

### MECHANISMS OF ATRIAL FIBRILLATION.

I have used a combination of non contact and electroanatomical mapping to better understand the mechanisms of AF. I have performed frequency analysis of virtual intra cardiac electrograms and identified areas of the left atrium where regular high frequency wavefronts exist which may act as perpetuators of AF. I aim to continue this research and verify these findings by making contact electrogram maps of the left atrium in patients undergoing catheter ablation.

### CLINICAL OUTCOMES OF AF ABLATION

I am responsible for the collection and auditing of our AF ablation data. I designed the St Bartholomew's AF database that allows collection of baseline, follow up and procedural data for patients undergoing either catheter or surgical ablation of AF. This has been the foundation of several observational and controlled trials examining the impact of new techniques which aim to improve outcomes. An example is the integration of CT scans of the patients own LA into the cardiac mapping system to allow improved accuracy of location of the ablation catheter. This has recently been accepted for publication (see publications).

### PERIOPERATIVE ANTICOAGULATION AROUND CATHETER ABLATION

I have demonstrated that performing catheter ablation for atrial flutter while patients are on warfarin leads to fewer complications than replacing it with sub cutaneous heparin.

### ABLATION OF ATRIOVENTRICULAR NODAL REENTRY TACHYCARDIA

I have recently audited our 3 years results of this procedure and shown that radiofrequency ablation has superior results to and far more economical than Cryoablation.

## RECENT PUBLICATIONS (2006-2010):

1. Uninterrupted warfarin for peri-procedural anticoagulation in catheter ablation of typical atrial flutter: a safe and cost effective strategy. Finlay M, Sawhney V, Schilling RJ, Thomas G, Duncan E, Hunter R, Abrams D, Sporton SC, **Earley MJ**. *J Cardiovasc Electrophysiol* 2010
2. Cryoablation vs radiofrequency ablation for treatment of atrioventricular nodal reentrant tachycardia: has an increase in catheter tip size and lesion number improved results? Opel A, Murray S, Kamath N, Dhinoja M, Abrams D, Sporton S, Schilling R, **Earley M J**. *Heart Rhythm* 2010;7:340-343
3. The transeptal puncture. **Earley MJ**. *Heart* 2009;95:85-92.
4. A randomized trial to compare atrial fibrillation ablation using a steerable vs. a non-steerable sheath. Rajappan K, Baker V, Richmond L, Kistler PM, Thomas G, Redpath C, Sporton SC, **Earley MJ**, Harris S, Schilling RJ. *Europace* 2009;11:571-575.
5. The impact of image integration on catheter ablation of atrial fibrillation using electroanatomic mapping: a prospective randomized study. Kistler PM, Rajappan K, Harris S, **Earley MJ**, Richmond L, Sporton SC, Schilling RJ.. *Eur Heart J* 2008;29:3029-3036.
6. Acute and chronic pulmonary vein reconnection after atrial fibrillation ablation: a prospective characterization of anatomical sites Rajappan K, Kistler PM, **Earley MJ**, Thomas G, Izquierdo M, Sporton SC, Schilling RJ.. *Pacing Clin Electrophysiol* 2008;31:1598-1605.
7. Validation of computed tomography image integration into the EnSite NavX mapping system to perform catheter ablation of atrial fibrillation Richmond L, Rajappan K, Voth E, Rangavajhala, V.; **Earley, M.J.** et al.. *J Cardiovasc Electrophysiol*. 2008.
8. Current case mix and results of catheter ablation of regular supraventricular tachycardia: are we giving unrealistic expectations to patients? Showkathali R, **Earley MJ**, Gupta D et al. *Europace*. 2007;9:1064-1068.
9. Atrioventricular node reentrant tachycardia ablation in a patient with congenitally corrected transposition of the great vessels using the CARTO mapping system. Eisenberger M, Fox DJ, **Earley MJ** et al. *J Interv Card Electrophysiol*. 2007;19:129-132.

10. Comparison of noncontact and electroanatomic mapping to identify scar and arrhythmia late after the Fontan procedure. Abrams DJ, **Earley MJ**, Sporton SC et al. *Circulation*. 2007;115:1738-1746.
11. Ablation of supraventricular tachycardia in a 96 year old. Diab IG, **Earley MJ**. *Age Ageing*. 2007;36:346-348.
12. Can atrial fibrillation with a coarse electrocardiographic appearance be treated with catheter ablation of the tricuspid valve-inferior vena cava isthmus? Results of a multicentre randomised controlled trial. Gupta D, **Earley MJ**, Haywood GA et al. *Heart*. 2007;93:688-693.
13. Cryoablation compared with radiofrequency ablation for atrioventricular nodal re-entrant tachycardia: analysis of factors contributing to acute and follow-up outcome. Gupta D, Al Lamee RK, **Earley MJ** et al *Europace*. 2006;8:1022-1026.
14. The impact of CT image integration into an electroanatomic mapping system on clinical outcomes of catheter ablation of atrial fibrillation. Kistler PM, Rajappan K, Jahngir M et al. *J Cardiovasc Electrophysiol*. 2006;17:1093-1101.
15. Validation of the Noncontact Mapping System in the Left Atrium During Permanent Atrial Fibrillation and Sinus Rhythm. **Earley MJ**, Abrams DJ, Sporton SC, Schilling RJ. *J Am Coll Cardiol* 2006;48:485-91
16. The impact of CT image integration into an electroanatomic mapping system on clinical outcomes of catheter ablation of atrial fibrillation. Kistler PM, Rajappan K, Jahngir M, **Earley MJ** et al. *J Cardiovasc Electrophysiol* 2006;17:1093-101
17. Cryoablation compared with radiofrequency ablation for atrioventricular nodal re-entrant tachycardia: analysis of factors contributing to acute and follow-up outcome. Gupta D, Al Lamee RK, **Earley MJ** et al. *Europace*. 2006;8:1022-6.
18. Radiofrequency ablation of arrhythmias guided by non-fluoroscopic catheter location: a prospective randomized trial. **Earley MJ**, Showkathali R, Alzetani M et al. *Eur Heart J* 2006;27:1223-9.
19. Validation of three-dimensional cardiac image integration: use of integrated CT image into electroanatomic mapping system to perform catheter ablation of atrial fibrillation. Kistler PM, **Earley MJ**, Harris S et al. *J Cardiovasc Electrophysiol* 2006;17:341-8.

20. Catheter ablation of permanent atrial fibrillation: medium term results. **Earley MJ**, Abrams DJR, Staniforth AD, Sporton SC, Schilling RJ. *Heart* 2006;92:233-8.
21. Amiodarone induced thrombophlebitis. Showkathali R, **Earley MJ**, Sporton S *Emerg.Med.J* 2006;23:660.
22. Catheter and surgical ablation of atrial fibrillation. **Earley MJ**, Schilling RJ. *Heart* 2006;92:266-74.

**BOOK CHAPTERS:**

1. Pacemakers and arrhythmias. **Earley MJ**, Harris SJ. Chapter 11 in *Oxford Handbook of Cardiology*. OUP. 2007
2. Invasive Electrophysiology. **Earley MJ**, Harris SJ. Chapter 12 in *Oxford Handbook of Cardiology*. OUP. 2007