

# Uterine Fibroid Embolisation. The FEMME Trial!

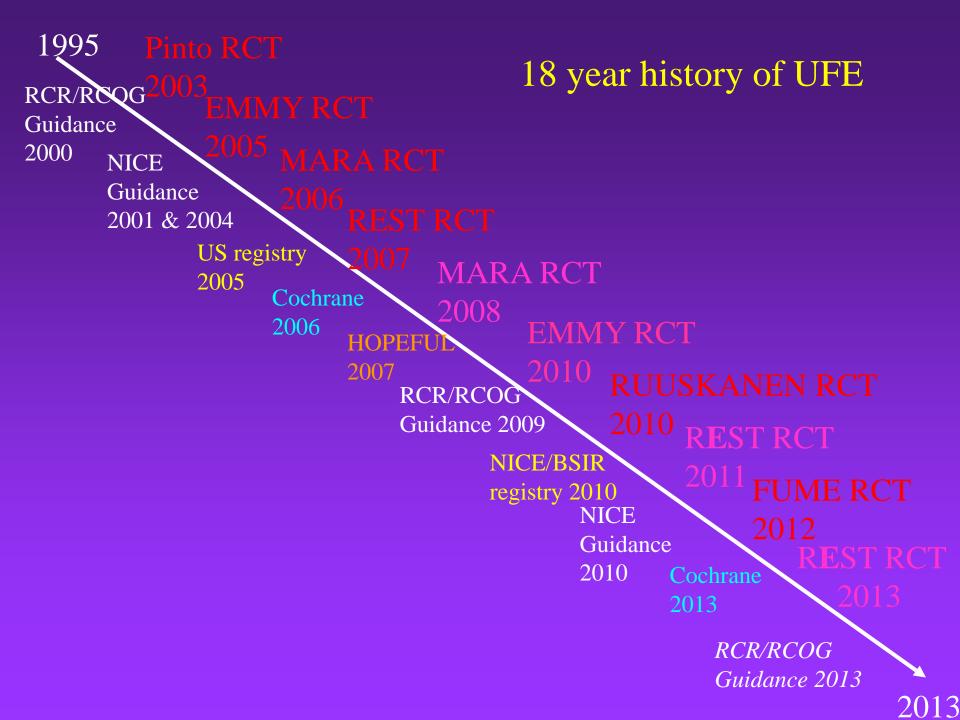
#### Anna-Maria Belli EBIR





#### FEMME

A randomised trial of treating Fibroids with Embolisation or Myomectomy to Measure the Effect on quality of life among women wishing to avoid hysterectomy





#### Randomised trials n=732

Ruuskanen n=57 REST n=157



EMMY n=177



### 4 RCTs

Pinto, Ruuskinen, REST and EMMY

- Surgical arm- hysterectomy
- Shorter hospital stay with UAE
- SFQOL significantly improved equally
- More reinterventions for fibroid symptoms after UAE
- More major complications following hysterectomy
- More minor, delayed complications post UAE
- UAE cost neutral compared with hysterectomy despite repeat interventions



#### **RCT-Mara**

#### **UAE for Fibroids**

• RCT 121 women UAE vs Myo (Mara et al CVIR 2006,2008)

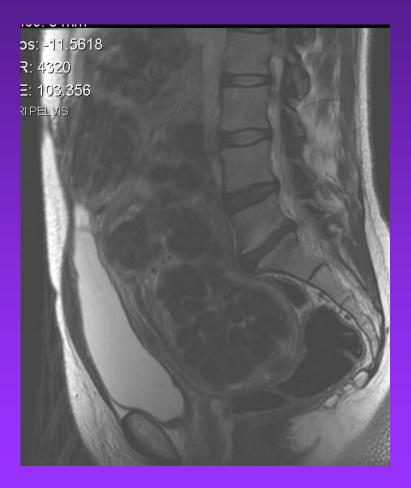
	UAE	MYO
Total treated	58	63 (42 lap)
Single myoma (%)	67	64
>5 fibroids (%)	26	33

At 2 yrs, no difference in symptomatic effectiveness, post procedural FSH levels, reintervention rates, or complications.



# **RCT-FUME**

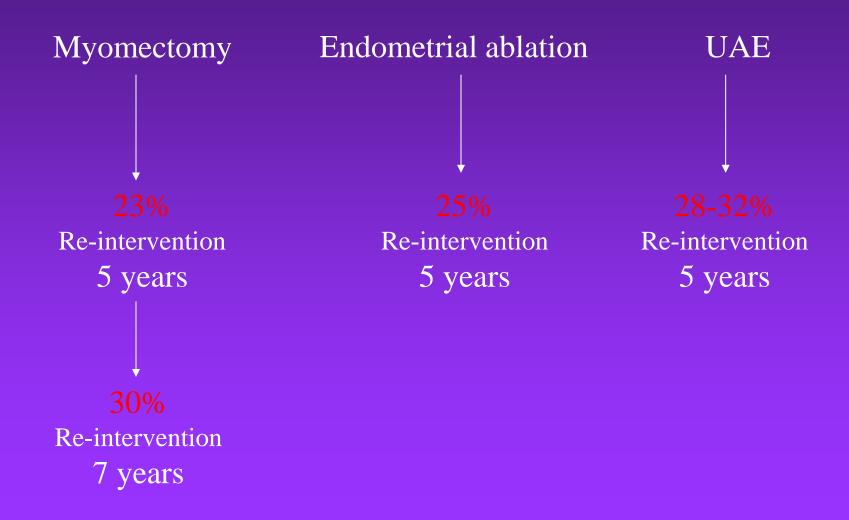
- 82 UAE vs 81 abdominal myomectomy
- Shorter hospital stay
- SFQOL significantly improved in both
- Major complications 3% UAE vs 8% myo
- Reinterventions at 2 years 14% UAE vs 3% myo



(Manyonda et al CVIR 2012)



#### Uterine sparing procedures





#### NHS National Institute for Health and Clinical Excellence

#### **Uterine artery embolisation for fibroids**

This document replaces previous guidance on uterine artery embolisation for the treatment of fibroids (interventional procedure guidance 94).

#### 1 Guidance

- 1.1 Current evidence on uterine artery embolisation (UAE) for fibroids shows that the procedure is efficacious for symptom relief in the short and medium term for a substantial proportion of patients. There are no major safety concerns. Therefore this procedure may be used provided that normal arrangements are in place for clinical governance and audit.
- 1.2 During the consent process patients should be informed, in particular, that symptom relief may not be achieved in some women, that symptoms may return and that further procedures may therefore be required. Patients contemplating pregnancy should be informed that the effects of the procedure on fertility and on pregnancy are uncertain.
- Patient selection should be carried out by a multidisciplinant team, including a gynaecologist and an interventional radiologist.

NICE encourages further research into the effects of UAE compared with other procedures to treat fibroids, particularly for women wishing to maintain or improve their fertility. UK. They may be asymptomatic or may cause symptoms such as abnormal uterine bleeding, urinary incontinence, a feeling of pelvic pressure, or pain. They may also be associated with reproductive problems such as infertility and miscarriage.

2.1.3 Asymptomatic fibroids require no treatment. Treatments for symptomatic fibroids include hysterectomy and myomectomy.

#### 2.2 Outline of the procedure

- 2.2.1 The aim of UAE for fibroids is to offer a less invasive alternative to hysterectomy or myomectomy with preservation of the uterus, and a faster recovery time. Uterine artery embolisation is sometimes used before a planned myomectomy.
- 2.2.2 With the patient under conscious sedation and local anaesthesia, a catheter is inserted into the femoral artery (bilateral catheters are sometimes used). Fluoroscopic guidance is used to manipulate the catheter into the uterine artery. Small embolisation particles are injected through the catheter into the arteries supplying the fibroids, with the aim of causing thrombosis and consequent fibroid infarction.



## **Research Questions**

• Recurrence rates of UAE compared with all types of myomectomy



## **Research Questions**

- Recurrence rates of UAE compared with all types of myomectomy
- Complication rates & outcomes of UAE vs all types of myomectomy



## **Research Questions**

- Recurrence rates of UAE compared with all types of myomectomy
- Complication rates & outcomes of UAE vs all types of myomectomy
- Effect on fertility



#### Guidelines

• As a measure of precaution women presenting with fibroids who have a desire for children are not generally eligible for embolisation

ACOG Committee Opinion: Uterine Artery Embolisation (2004)



#### Guidelines

• As a measure of precaution women presenting with fibroids who have a desire for children are not generally eligible for embolisation

Although the same procedure is used for women with PPH since late 1970's

ACOG Committee Opinion: Uterine Artery Embolisation (2004)



## UAE & Pregnancy

• Systematic review of 21 studies

*"pregnancy rates following UAE are comparable to age adjusted rates in the general population"* 

"pregnancy complication rates were similar to patients with untreated fibroids, although a few studies have reported higher miscarriage rates following UAE"

Mohan et al JVIR 2013

#### Fibroids with Embolisation or Myomectomy to Measure Effectiveness Fibroid patients Myomectomy 400 UAE 400

QoL Ovarian reserve Cost Pregnancy outcomes

NIHR funded 2011 McPherson et al



#### **FEMME** Trial

- Other than the randomisation to myomectomy or UAE, treatment is normal practice
- If randomised to myomectomy this can be of any type including laparoscopic, hysteroscopic or open laparotomy
- If randomised to UAE this is normal practice



#### FEMME Trial

#### FEMME Newsletter May 2013

We are delighted to announce the birth of the first baby born to a patient in the FEMME trial! The baby boy was born on 23rd May 2013 to a patient randomised at a centre in Scotland who underwent a UAE prior to conceiving. Both mother and baby are doing well....congratulations!

#### Welcomel

Welcome to the latest centres to join FEMME:

 Queen's Hospital, Barking, Havering and Redbridge

Principal Investigator: Mr Leye Thompson Approval granted: 7th May 2013

Royal Free Hospital, London

(Acting) Principal Investigator: Mr Ioannis Tsimpanakos Approval granted: 21st May 2013

FEMME now has local approval at 33 sites!

We would also like to welcome two new members to the FEMME Trial Management Group! Mr Brian Brady, Consultant Gynaecologist joins us from the Royal Infirmary of Edinburgh and Mr Justin Clark, Consultant Obstetrician and Gynaecologist joins us from Birmingham Women's Hospital



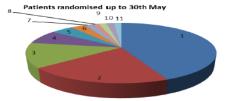
Centres pending approval

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St Georges

#### Patient recruitment

- Up to April 1022 patients have been reported as being screened
- 67 patients have been randomised to date



1. St. George's, London 2. Glasgow

- 3. Edinburgh
- 4. St. Thomas', London 5. Oxford
- 6. Birmingham Women's/QE
- 7. Sheffield
- 8. North Staffs 9. Leicester
- 10. East Surrey
- 11. York

Patients randomised up to 30th May

	Centre	Patients Recruited	
st - St. George's Hospital, Londor	I	29	
2nd - Glasgow Royal Infirmary		14	
rd - Royal Infirmary of Edinburgh		9	
St. Thomas' Hospital, London		5	
John Radcliffe Hospital, Oxford		3	
Birmingham Women's Hospital/Birmingham QE		2	
oyal Hallamshire Hospital, Sheffi	eld	1	
City General Hospital, North Staffordshire		1	
eicester General Hospital		1	
ast Surrey Hospital (Redhill)		1	
ork Hospital		1	
Total		67	
Port Talbot	Patients screened up to 30th A	pril	
Bolton/Blackburr Cambridge			
Samburge Worthing Torbay Trur Durham Devon & Exete Oxfor Bradford Birmingham Heartlands North Staff Mancheste Sheffiel City Hospital, Birmingham Mancheste Sheffiel City Hospital, Birmingham St. Thomas Glasgow Birmingham Women's/QL		) 250 300 350 400	



# FEMME Trial



http://www.birmingham.ac.uk/femme

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# Thankyou

