



# Birmingham Women's Hospital 36<sup>th</sup> Annual Clinical Report

Over three decades of reflective practice and External validation of caring for Women, Babies and Families across Birmingham and the West Midlands

**April 2008 – March 2009**

# Contents

	<b>Page No.</b>
<b>Editors &amp; Assessors of the Hospital Clinical Reports (1973-2007)</b>	1
<b>Chief Executive's Report</b>	Mr Steve Peak 3
<b>Foreword</b>	Mr Peter J Thompson & Miss Jane Owen 4
<b>Maternity Directorate</b>	
- Overview	Dr Tracey A Johnston 5
- Midwifery Care	Ms Jenny Henry 6
- Specialist Maternity Medicine	Dr T A Johnston 7
- Antenatal Screening	Ms Caroline Capewell 8
- Fetal Medicine Centre	Prof Mark Kilby & Ms Veronica Donovan 9
- Multiple Pregnancies	Mr Bill Martin 10
- Delivery Suite/Triage Service	Mrs Justine Jeffery 12
- High Dependency Unit	Ms Lyn Davies 13
- Midwife Led Birth Centre	Ms Paula Clarke & Ms Fiona Heel 14
- Infant Feeding	Mrs Helena Stopes-Roe 15
- Clinical Risk for the Delivery Suite	Ms Coralie Rogers 16
- Clinical Education – Delivery Suite	Mrs Sue Smithson 17
- Practice Development	Ms Wendy Burt 17
- Supervision of Midwives	Mrs Sue Smithson 18
- Maternity Services Pregnancy Loss	Mrs Karen Henson 20
- Recruitment and Retention of Midwives	Ms Jenny Henry 21
- Dietetics and Nutrition	Ms Janet Gordon 21
<b>Gynaecology Directorate</b>	
- Overview	Mr Masoud Afnan & Ms Jacky Cotton 22
- Assisted Conception Unit	Dr Sue Avery & Dr Madhurima Rajkhowa 23
- Colposcopy	Miss Parveen Abedin & Ms Debbie Wise 24
- Early Pregnancy & Acute Gynaecology Assessment	Mr Justin Clark & Mrs Maureen Manion 26
- Minimal Access Surgery and Endometriosis (MASE)	Mr Yousiri Afifi 28
- Menopause Clinic	Ms Elaine Stephens & Dr Jenny Williamson 29
- Gynaecological Cancer Services	Miss Parveen Abedin 29
- Paediatric & Adolescent Gynaecology	Miss Pallavi Latthe 31
- Urogynaecology (Pelvic Floor Medicine)	Mr Phil Tooze-Hobson & Mr Matthew Parsons 32
- Dietetics and Nutrition	Ms Susan Price 33
<b>Neonatology</b>	
- Overview	Dr Imogen Morgan/Mrs Michele Emery 34
- Causes of Neonatal Deaths	Dr Andrew Ewer 39
<b>Clinical Support</b>	
- Overview	Ms Cathy Garlick 40
- Anaesthetics	Dr A Wilkey 41
- Radiology & Ultrasound	Dr Jo McHugo 42
- Operating Theatres	Ms Gael Peters 46
- Clinical Chemistry	Mr Selton Smith 47
- Haematology & Blood Transfusion	Mr Ray George, Dr Will Lester 48
- Microbiology	Dr Jim Gray, Ms Christine Roycroft 49
- Histology & Perinatal Pathology	Dr Raji Ganesan, Mrs Linda Bentley 50
- Cytopathology	Dr Christine Waddell 51
- Andrology	Dr Sue Avery 52
- Physiotherapy	Ms Nina Bridges 53

# Contents

		<b>Page No.</b>
<b>Genetics Service</b>		
- Overview	Mrs Val Davidson	54
- West Midlands Regional Genetics Laboratory	Ms Angela Daly	56
- Clinical Genetics	Dr Louise Brueton	57
- <b>Infection Control</b>	Mr Jim Gray & Ms Julie Suviste	61
<b>Research &amp; Development</b>		
- Overview	Prof Khalid Khan	67
- Research & Development – research projects and papers	Ms Kelly Hard	68
<b>Education</b>		
- Overview	Mr Neil Savage	77
- Learning Beyond Registration	Ms Anne Gaynor	77
- Practice Placement	Ms Katie Joyce	78
- Education Resource Centre	Mrs Diane Carter & Prof Khalid Khan	79
- Library & Information Centre	Ms Ann Daly	80
- Undergraduate Education	Mr Justin Clark	81
- Undergraduate Midwifery Education	Ms Wendy Burt & Alison Edwards	82
<b>Patient Experience</b>		
- Overview	Miss Jane Owen	85
- Complaints	Mrs Christine Yarnold	85
- PALS	Andy Crooke/Mrs Susan Sargeant	87
- Spiritual & Pastoral Care Services	Mr Mojalefa Khechane	87
- Safeguarding	Ms Elaine Giles	88
- Bereavement Services	Mrs Karen Henson	92
<b>Abbreviations</b>		94

The Hospital Annual Clinical Report was prepared by Christine Yarnold & Maria Mcleod  
Proof Reading was undertaken by Jane Owen and Peter Thompson

# Editors and Assessors - 1973 - 2009

## ***EDITORS OF THE HOSPITAL CLINICAL REPORT (1973-2008)***

1973 <sup>‡</sup>	Miss E K Smith	1991/2	Mr R S Sawers
1974 <sup>‡</sup>	Miss E K Smith	1992/3	Hospital Information Department*
1975	Mr H O Nicholson	1993/4	Mr H Gee
1976	Mr H O Nicholson	1994/5	Mr H Gee
1977	Mr H O Nicholson	1995/6	Mr H Gee
1978	Mr H O Nicholson	1996/7	Dr M E I Morgan
1979	Mr H O Nicholson	1997/8	Dr M E I Morgan
1980	Mr H O Nicholson	1998/9	Dr M E I Morgan
1981	Mr H O Nicholson	1999/00	Dr M E I Morgan
1982	Mr H O Nicholson	2000/01	Dr M E I Morgan
1983	Mr R S Sawers	2001/02	Mr K S Khan
1984	Mr R S Sawers	2002/03	Mr K S Khan
1985	Mr R S Sawers	2003/04	Mr K S Khan
1986	Mr R S Sawers	2004/05	Mr K S Khan
1987	Mr R S Sawers	2005/06	Professor K S Khan
1988	Mr R S Sawers	2006/07	Professor K S Khan
1989	Mr R S Sawers	2007/08	Christine Yarnold
1990/91	Mr R S Sawers	2008/09	Mr P J Thompson

We have compiled this list from records in our library. The information concerning editors is not always extrinsically recorded. There are Clinical Reports going back to 1967 (edited in 1970<sup>§</sup> and 1971<sup>§</sup> by Mrs P J M Watney, and in 1972<sup>§</sup> by Mr C J F Rowbotham), but it was in 1973 that external assessment of the Reports was first introduced.

\* Catherine Griffiths the Unit General Manager wrote the introduction  
<sup>‡</sup> Mr Henry Roberts was in charge of these

# Editors and Assessors - 1973 - 2009

**1973**            **Professor M K O'Driscoll**  
National Maternity Hospital Dublin

**1974**            **Dr R A Tennent**  
Bellshill Maternity Hospital Lanarkshire

**1975**            **Dr D J Meagher**  
National Maternity Hospital Dublin

**1976**            **Professor J McVicar**  
Leicester Maternity Hospital Leicester

**1977**            **Mr J A Chalmers**  
Ronkswood Hospital Worcester

**1978**            **Dr B S B Wood**  
The Children's Hospital Birmingham

**1979**            **Dr N M Duignan**  
Coombe Lying-In-Hospital Dublin

**1980**            **Dr C A J Macafee**  
Leicester Maternity Hospital Leicester

**1981**            **Professor J M G Harley**  
Royal Maternity Hospital Belfast

**1982**            **Dr G R Henry**  
Rotunda Hospital Dublin

**1983**            **Dr N Patel**  
Ninewells Hospital Dundee

**1984**            **Professor G V P Chamberlain**  
St George's Hospital London

**1985**            **Mr J F Pearson**  
University Hospital of Wales Cardiff

**1986**            **Professor A A Calder**  
University of Edinburgh

**1987**            **Mr S Simmons**  
Windsor Group of Hospitals

**1988**            **Mr R B Fraser**  
Northern General Hospital Sheffield

**1989**            **Dr D McDonald**  
National Maternity Hospital Dublin

**1990**            **Dr J B Scrimgeour**  
Eastern General Hospital Edinburgh

**1991/2**          **Dr P Johnson**  
John Radcliffe Hospital Oxford

**1992/3**          **Dr G Young**  
GP Penrith Cumbria

**1993/4**          **Mrs J Robinson**  
Consumer Representative (AIMS)

**1994/5**          **Professor M Kirkham**  
Professor Midwifery Research Sheffield

**1995/6**          **Mr R Settatee**  
West Midlands Perinatal Audit

**1996/7**          **Professor J Neilson**  
University of Liverpool

**1997/8**          **Professor David Taylor**  
Leicester

**1998/9**          **Mr R Atlay**  
Liverpool Women's Hospital

**1999/00** **Professor A Halligan**  
Director of Clinical Governance  
NHS Clinical Governance Support Team Leicester

**2000/01** **Dr Sue Ibbotson**  
Deputy Regional Director of Public Health NHS Executive  
West Midlands

**2001/02** **Mr Nick Naftalin**  
Consultant Obstetrician, Leicester Royal Infirmary

**2002/03** **Professor James Drife**  
Division of Obstetrics & Gynaecology University of Leeds

**2003/04** **Dr Gwyneth Lewis**  
Principal Medical Adviser – Women's Health. Department of  
Health

**2004/05** **Professor James P Neilson**  
Head of Reproductive & Developmental Medicine, University  
of Liverpool/ Liverpool Women's Hospital

**2005/06** **Mr Gavin MacNab**  
Clinical Director of Obstetrics & Gynaecology at  
Sunderland Royal Hospital.

**2006/07** **Dr Rashmi Shukla**  
Regional Director of Public Health/Medical Director at  
Government Office for West Midlands

**2007/08**          **Mr Steve Sparks,**  
Service Implementation Consultant, National Institute  
for Health & Clinical Excellence (NICE)

**2008/09** **Professor Tina Lavender**  
Professor of Midwifery & Women's Health at the University  
of Manchester & Consultant Midwife, Liverpool Women's  
Foundation Trust

# Chief Executive's Report

**Welcome to the 36<sup>th</sup> Annual Clinical Report for this organisation. I have been Chief Executive of the Trust for a little over three months at the time of writing and it is with great pleasure that I introduce this clinical report.**

The report is a fine example of the organisation's commitment to provide information about the clinical services we offer, highlighting our achievements but also the challenges faced by our teams.

The organisation has been a Foundation Trust for over a year now and in that year has recorded some significant achievements. The Trust once again reported no MRSA bacteraemias or Clostridium Difficile infections. This is the 6<sup>th</sup> year running this has been achieved and reflects the hard work of clinical and non-clinical teams alike. We have again achieved an excellent rating for hospital cleanliness and food having been assessed by the national Patient Environment Action Team. We also received very good feedback through the national inpatient survey that placed the organisation in the top 20% of Trusts for the majority of questions asked.

In 2008/09 the organisation continued to achieve the 18 week referral to treatment target despite rising referral rates thanks again to the commitment of our teams. During the year, we received our Annual Health Check results from the Healthcare Commission with a rating of 'good' for the quality of our services and 'excellent' for use of resources.

Work has recently begun on a brand new Neonatal Unit which will bring state of the art facilities for the care of premature babies, parents and our dedicated clinical team. The new Unit will open in the summer of 2010.

Our plan for the year ahead will be to build upon our achievements in 2008/09 and our strategic goals. These goals are to:-

- Continue to provide services which offer high quality access and care to our local population
- Further develop as a lead provider of specialist care
- Continuously improve the efficiency of our organisation to make the best use of resources
- Build upon and enhance the positive patient experience
- Build upon and strengthen our excellent reputation as a teaching hospital with a focus on research and development

I am excited about the future, we have a very proud history and a strong base from which to make even greater improvements to the services we offer, cementing our position as a leading specialist provider and an important service to the populations we serve.

I would like to take this opportunity to thank teams across the organisation without whom the successes and achievements highlighted in this Clinical Report would clearly not have been possible. These successes demonstrate the dedication and excellence that takes place within the organisation every single day.

**Steve Peak**

**Chief Executive**



***Peter Thompson, Medical Director and Jane Owen, Director of Nursing, Midwifery, Infection Prevention & Control and Operations***

This last year has once more seen an increase in both the activity and the complexity of cases managed in all areas of the Trust. This workload has been performed against a backdrop of improved quality which has seen us produce our first Trust Quality Accounts and obtain Board commitment to sign up to specific Quality Targets, as well as work with the PCT to achieve our Commissioning for Quality and Innovation targets-CQUINs.

We have now worked together for over a decade and throughout that time have seen the Trust evolve from its previous position of strength to one of even greater success. We have achieved high performance levels in external assessments and reviews, including;

- Patient Environment Action Team (PEAT) inspection
- Unannounced Health Care Commission visit
- Clinical Pathology Accreditation (CPA) visits
- Newborn Network assessment

The Women's Foundation Trust is proud to be a specialist organisation providing an exceptional service to patients and their families across the West Midlands and beyond. However being special is not just about the services we provide; the continued success of the Women's is a reflection of the people that work, visit and are treated here. Although we are rightly proud of all the achievements this year, it is the dedicated staff of the hospital, who strive to provide our patients with the best possible care that give us the greatest satisfaction. We both feel proud and honoured to work amongst a group of individuals who strive for this common purpose.

*Tracey Johnston, Clinical Director Maternity Services*

## Overview 2008 – 2009

This has proved to be another busy and successful year for the Maternity Directorate, resulting in a stable, managed level of activity and a good financial position at the end of the year. Birmingham has seen a continual rise in the number of births over the past few years which has had an impact on maternity services across the city. A capping system has been in place at Birmingham Women's for the last four years, and this was revisited this year to try and manage the increasing demand. A decision was made to cap the number of bookings at 7200 which would ensure non closure of the hospital and transfers out in labour, thus ensuring patient safety. This decision was endorsed by the Trust Board. The capping levels for out of area women and our local residents were reviewed due to an increase in the number of local women being declined, leading to earlier capping for out of area women to facilitate accommodation of our local population. To ensure minimal delays in securing a hospital booking appointment for those who have been declined, we have worked in partnership with an external agency to establish a free-phone call centre for women to ensure rapid access to another provider of their choice. This decision to decline bookings has not been popular with the women, GP's, and MP's however, safety remains paramount.

On the back of this pattern of referrals, BWNFT has raised the concerns of current and future capacity in the city with the commissioners. This has resulted in SHA involvement and the development of a pan Birmingham Commissioning Group to take this issue forward, in which we actively participate. The work of this group will be extremely important to the future planning of maternity services across the city.

This year, the PCT has been very supportive of reducing the community midwifery caseloads with the aim of achieving a ratio of 1:110, and have funded additional midwifery posts in the community which we have been recruiting to. They have also funded a radiographer to train both sonographers and midwives in nuchal translucency scanning to ensure we are able to deliver the National Screening Programme for Down's syndrome.

### Improving Quality

The Directorate worked very closely with the commissioners in developing a Maternity Services Specification and agreed as a key performance indicator (KPI) achievement of 80% of bookings before the 12<sup>th</sup> week of pregnancy, which has been achieved. In 2009/10 further work will be done as part of QIPP's to maintain or improve on 80% in all the community teams. Other KPI's include;

- 75% women having a named midwife - achieved
- 80% of women receiving continuity of care – not achieved
- Improved identification and referral of intrauterine growth restriction – not achieved
- Improving breastfeeding 2% year on year - achieved
- Referral of pregnant smokers to the Smoking Cessation Service in the PCT - achieved

Continuity of care will improve with the investment in community midwifery staffing levels as discussed further below. There is a large amount of work going on regarding intrauterine growth restriction, and we hope to see significant improvement next year. Smoking Cessation in pregnancy has remained a challenge, despite appropriate referral to the Smoking Cessation Service, with 13% of women smoking at delivery. Many of front line staff have attended a smoking cessation workshop and trained to use carbon monoxide monitors, although women are encouraged to engage in quit smoking programmes the uptake of the service remains very low.

# Maternity Directorate

## Activity

	06-07	07-08	08-09
Registrable births	6755	7207	7092
Other delivery activity (SA, TOP, BBA)	167	176	204
Total delivery suite activity (excl. antenatal admissions)	6922	7383	7296
Bookings	6940	7216	7279
Numbers declined	206	285	622

## Women who gave birth at BWNFT

	06-07	07-08	08-09
Nulliparous	29%	28.5%	27%
Multiparous	71%	71.5%	73%

## Babies born at BWNFT

	06-07	07-08	08-09
Singleton	96.3%	96%	96.4%
Twins	3.5%	3.9%	3.5%
Triplets	0.2%	0.1%	0.1%

## Midwifery Care

*Jenny Henry, Head of Midwifery & Paula Clarke, Consultant Midwife*

The Trust is responsible for providing midwifery care to women and their families living in South Birmingham and its surrounding areas. Over the past few years we have seen a significant rise in births which has been a challenge in providing high quality care whilst striving to develop the service.

### ● Booking Clinics with midwives undertaking booking scans

The community midwifery led scanning service has continued to grow. It now offers more women the choice of where they receive their initial dating scan from a variety of venues across South Birmingham. In addition, we have received funding from the PCT for a radiographer to train the midwife sonographers and clinician's in nuchal translucency scanning in the first trimester (screening for Down's syndrome). This screening will be implemented by April 2010.

### ● Community Midwives on-line

This year has seen the long awaited personal laptops available for each individual community midwife. The advantage being that they can now access their women's lab results, emails and guidelines all at the woman's home. In 2007/2008 a community team piloted remote IT access. The aim of this was to enable the community staff to have access to all information systems which are currently available to staff in the hospital i.e. maternity information systems, pathology results, LORENZO patient information system and email. The pilot was very successful and this year we commenced the rollout of laptops for all community midwives and community clerks. The roll out is due to complete June 2009. This is the first major development for the community and the Strategic Health Authority is very interested in its implementation and future developments.

# Maternity Directorate

## ● Birth centre open 24 hours/day

The Birth Centre has had another successful year, offering 24hour access and almost achieved full capacity from the initial predictions of 1200 births. The Maternity Services Directorate remains committed to ensuring women have choices around their place of birth and optimum staffing is achieved on the birth centre.

## ● Acupuncture Service

An acupuncture service will be available early in the next financial year for women with back pain. The service will be provided by an acupuncturist midwife and will be evaluated. A second midwife has commenced the acupuncture course recently.

## ● Community Activity

Community activity has continued to increase and delivering antenatal and postnatal care has proved a challenge. The Community Teams have developed and implemented care in different ways and in different settings in line with Maternity Matters i.e. postnatal clinics in Children's Centres. In the forth coming year we will be investing in community clerks, thus enabling the midwifery assistants more time to support the midwife, the women and their families.

We will continue to work with the commissioners to ensure the midwives caseloads agreed are maintained and increased in line with the continuing rising birth rate.

## Community Activity

	06-07	07-08	08-09
<b>Antenatal Contacts</b>	39750	38778	40402
<b>Postnatal Contacts</b>	26991	23376	23886

## Specialist Maternal Medicine

### *Dr TA Johnston, Consultant in Fetal Maternal Medicine*

The philosophy of the hospital is to provide midwifery led care for all low risk women, who are booked under a midwife and receive their care in the community. For those women from outside our catchment area, a core team of midwives provide low risk midwifery care in the hospital clinics. Women with obstetric risk factors are seen in the consultant led hospital based clinics. Over and above this, the hospital offers a comprehensive maternal medicine service, with joint care from a range of physicians from neighbouring trusts. These clinics consist of:

#### ● Diabetes clinic

This clinic is run by Dr Tracey Johnston in conjunction with Dr Jonathan Webber and the diabetes team from Selly Oak Hospital and the dietetic service. The service continues to expand with the rising numbers of Type 2 and gestational diabetes in the local population.

#### ● Endocrine Clinic

This clinic provides care to women with other endocrine disorders, including thyroid, adrenal and pituitary disease, and is provided by Dr Alex Pirie.

# Maternity Directorate

## ● **Cardiology Clinic**

This provides a regional tertiary service to women from across the region with both congenital or acquired cardiac disease, and is provided by Dr Sarah Thorne, Consultant Cardiologist from UHBFT, and Mr Peter Thompson.

## ● **Perinatal Mental Health**

Professor Femi Oyeboode, Consultant Psychiatrist and Ms Olive Downer, specialist midwife, provide a comprehensive antenatal mental health service, and link with the Mother and Baby Unit at the Mental Health Trust.

## ● **Obstetric Haematology**

Dr Will Lester, Consultant Haematologist and Pam Jordan, specialist midwife, provide a comprehensive service to women with the spectrum of haematological disorders in pregnancy, as well as co-ordinating the anticoagulant service.

## ● **Renal Clinic**

A tertiary, regional clinic provided by Dr Graham Lipkin, consultant renal physician from UHBFT, and Mr Alex Pirie and Dr Tracey Johnston, providing expert care to pregnant women with renal disease including transplants, as well as preconceptual counselling.

## ● **Immunology Clinic**

This clinic provides a region wide tertiary service for women with rheumatological disorders in pregnancy, including SLE, rheumatoid arthritis and antiphospholipid syndrome. The service is provided by Professor Caroline Gordon, Consultant Rheumatologist from UHBFT, Dr Tracey Johnston and Mr Alex Pirie.

## ● **Epilepsy Clinic**

Mr Alex Pirie, Dr Dougal McCorry, consultant neurologist from UHBFT, Dr Manny Bhagrey, Consultant Neuropsychiatrist and epilepsy nurse specialists Lynn Greenhill and Marion O'Donnell provide a comprehensive service to pregnant women with epilepsy.

## ● **Drugs and Alcohol, Teenage Pregnancy, HIV**

Mr Alex Pirie provides specialist antenatal care to these groups of women along with a team of specialist midwives. These include Olive Robinson-Downer (Mental Health and Domestic Violence), Jo Mardell (Teenage Pregnancy) and Heather Gray (Drugs, Smoking Cessation and Alcohol).

## **Antenatal Screening**

### ***Caroline Capewell, Acting Antenatal Screening Co-ordinator***

The antenatal screening department is responsible for the co-ordination of effective, timely care for all women following screening for any of the three national programmes, namely, fetal anomaly, infectious diseases and haemaglobinopathy. Three midwives work within this department, liaising with multi-agency/disciplinary colleagues in order to provide first class care to women, ensuring it is in line with the standards set by the National Screening Committee (NSC) for each programme.

The Screening Team is responsible for all training of staff in relation to the introduction of any new aspects or initiatives of the three programmes, as well as ensuring efficacy and efficiency in the ongoing provision of well established aspects of them. Care provided by the screening department is not only directed by local guidelines, protocols and national standards, but also by patient satisfaction. This is periodically monitored by means of patient survey, which provides insight into their experience of care and how it might be enhanced.

# Maternity Directorate

The efficacy of care provided in relation to meeting national targets is also closely monitored. This is achieved by audit of quarterly figures and submitted by request to the regional antenatal screening co-ordinator. The total number of bookings at BWNFT for this period was 7519. The table below gives an overview of antenatal screening department activity.

During the coming year, the screening department will be influential in the process of introducing first trimester screening for Down's syndrome at BWNFT - a challenging yet exciting development which will bring us in line with the targets set by the NSC for detection and false positive rates.

## Antenatal Screening

	Offered 06 – 07 (%)	Uptake 06-07 (%)	Cases Detected 06-07	Offered 07-08 (%)	Uptake 07-08 (%)	Cases Detected 07-08	Offered 08-09 (%)	Uptake 08-09 (%)	Cases Detected 08-09
Downs Syndrome	100	52.26	5	100	50.4	6	100	47	3
Hepatitis B	100	99.51	41	100	99.8	28	100	99.8	45
HIV	100	97.8	14	100	98.9	15	100	99.3	12
Syphilis	100	99.47	13	100	99.7	16	100	99.7	13
Rubella Immunity	100	99	183	100	100	201	100	100	232
Haemaglobinopathies	100	89.19	161	100	96.4	173	100	96.6	283
Rhesus Factor & FBC	100	99	N/A	100	100	N/A	100	100	N/A

## Fetal Medicine Centre

### **Professor Mark Kilby – Clinical Co-ordinator for Fetal Medicine & Veronica Donovan – Midwife Specialist**

The Fetal Medicine Centre at the Birmingham Women's Hospital continues to offer local, Regional and supra-regional service for prenatal diagnosis and fetal therapy, as well as pre-pregnancy and pregnancy loss clinics. The successful delivery of the service to patients both in South Birmingham and from other Primary Care Trusts is a credit to the hard work of our multidisciplinary team and its interaction with affiliated teams in neonatal paediatrics, surgery, cardiology and genetics. In addition, the Centre continues to work closely with the Newborn Networks and the West Midlands Specialist Services Agency to deliver a 'seamless' service.

**Service developments and achievements** in 2008-09 have included:

- Building work to increase the ultrasound rooms in the centre from two to three and improve efficiency and patient experience
- Employment of a full time Specialist Radiographer to support the Fetal Cardiology Service and improve scan support and training in the Fetal Medicine service as a whole
- A successful funding bid to increase Consultant Paediatric Cardiologist support to the service in 2009-10.

### **Activity**

There were 6737 examinations performed in 2008-2009 an increase of 4.6% from the previous year. There were also 826 attendances to the Pre-pregnancy counselling / loss clinics. Activity is shown in the following tables.

## Fetal Medicine Contracted Examinations 2006-2009

Year	Examinations		
	2006-2007	2007-2008	2008-2009
West Midlands PCT	5351	5976	6162
Other Region PCT	542	467	575
<b>Totals</b>	<b>5893</b>	<b>6443</b>	<b>6737</b>

**Fetal Medicine detailed ultrasound scans 2006-2009** (less intensive scanning not included in these figures i.e. viability, growth, doppler)

	2006-2007	2007-2008	2008-2009
Detailed scan	2848	3349	3764
Raised AFP Detailed	78	82	50
Detailed Rhesus scan	174	207	164
Fetal Cardiac scan	937	1110	1196
<b>Totals</b>	<b>4037</b>	<b>4748</b>	<b>5174</b>

## Fetal Medicine invasive procedures 2006-2009

Procedure	2006-2007	2007-2008	2008-2009
Amniocentesis	317	332	301
Amnio drainage	28	13	12
CVS / placental biopsy	213	184	198
Fetal Blood Sample	27	41	55
Intrauterine Transfusion	29	31	29
Selective Reduction	9	5	7
Late Termination of Pregnancy	38	39	42
Drainage / shunt Procedures	11	13	10
Fetal Therapy / fetoscopy	36	25	50
<b>Totals</b>	<b>708</b>	<b>683</b>	<b>704</b>

## Multiple Pregnancy

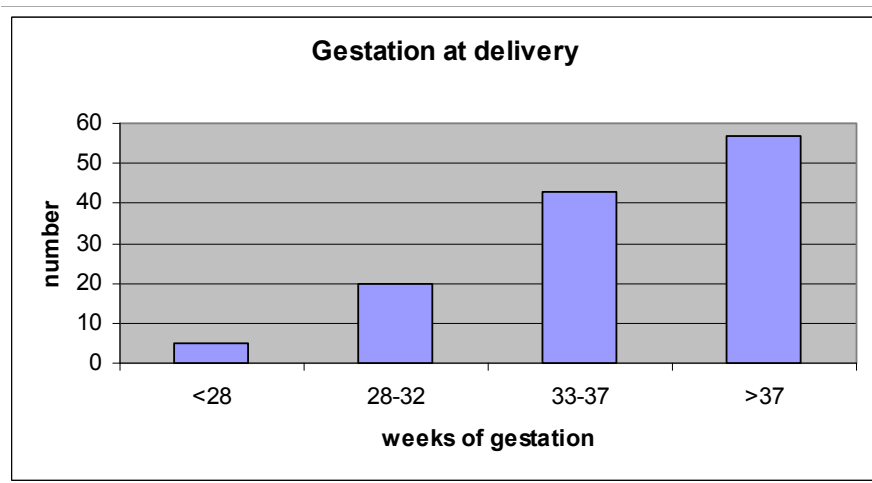
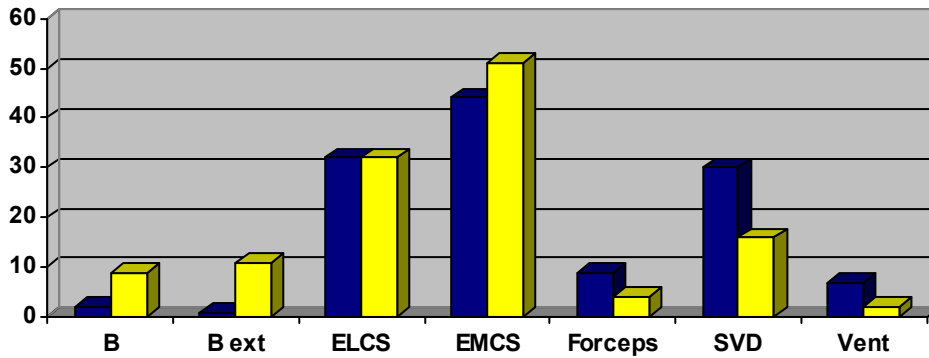
**Bill Martin, Fetal Medicine Consultant**

### Activity

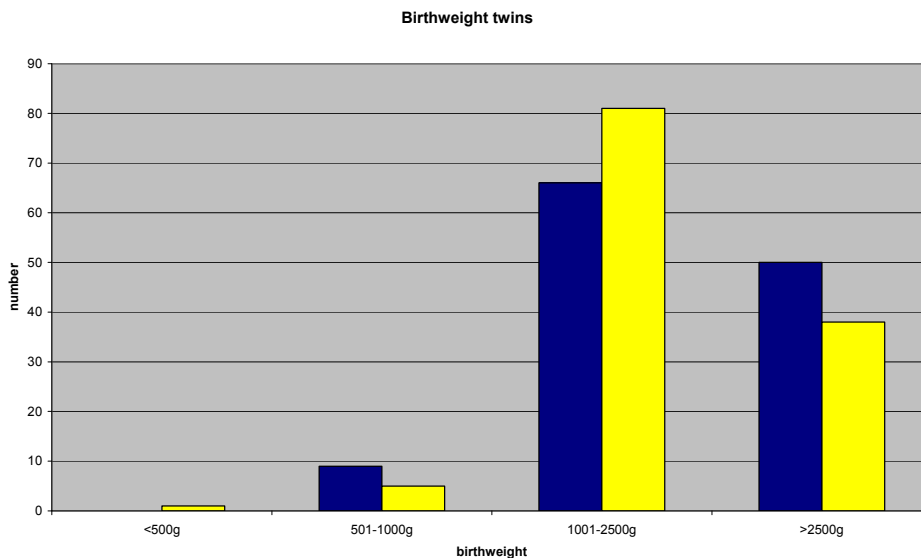
125 patients were delivered with twins and 3 with triplets. This is consistent with previous years. The triplets were delivered at 25, 28 (spontaneous vaginal) and at 31 weeks' gestation (emergency caesarean). All 9 went to NNU and 3 died.

The outcome data for the twin gestations are provided in the tables below. One hundred and fifteen of 125 twins (>90%) were delivered over 30 weeks. The average gestation was 35 weeks. A quarter of patients opted for elective Caesarean delivery. The commonest mode of delivery was by emergency Caesarean section (35%), followed by elective CS (26%) and spontaneous vaginal delivery (24%). In 7 cases (6%) the second twin was delivered by caesarean section when the first was a vaginal delivery. The discordancy in birthweight shown below, but was less than 10% in nearly half, with marked discordancy (>40%) in <3% of twin pregnancies. There were 4 deaths in the twins group, one of which had a major congenital cardiac problem. The remaining 3 died of prematurity.

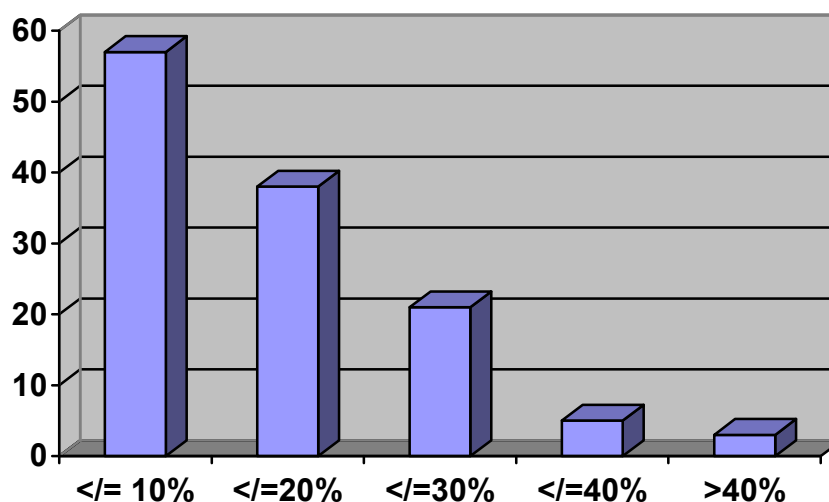
## Mode delivery Twin 1 (blue) and Twin 2 (yellow)



## Birthweight (Twin 1 blue, Twin 2 yellow)



## Birth weight discordancy



## Delivery Suite/Triage

### *Justine Jeffery, Clinical Manager, Delivery Suite*

The dedicated multidisciplinary team continues to provide high quality care to women and their families. The active recruitment of midwifery and clerical staff has had a positive effect on service provision and the retention of staff in the department has remained at a high level.

The department has eleven delivery rooms, a modern twin theatre suite, a three bedded high dependency area, a two bedded bereavement suite and a triage department that provides assessment for approximately 1000 women per month. The triage service is a valuable resource providing access to midwifery and medical management 24 hours per day. This service is currently being audited by a small team of Supervisors of Midwives, having secured funding from the Local Supervising Authority. The results from this audit will be available in the autumn of 2009.

A need has been identified to increase the number of theatre lists to perform the current volume of elective caesarean sections. This will be accompanied by dedicated recovery care and an enhanced on call service.

The modernisation of the water birth facility began in autumn 2008. The plan to redevelop the water birth facility has taken longer than was initially anticipated, however we are very pleased with the pool and the decoration to the room and look forward to the pool opening later this year.

The refurbishment of all of the bathrooms on delivery suite has now been completed and these areas are now clean and bright. Some of the delivery rooms have had replacement windows, providing a modern and well ventilated environment.

A rest area for the junior doctors has been provided and a number of office areas decorated and equipped for use by the delivery suite specialist midwives.

## Onset of Labour

Type	%		
	2006/7	2007/8	2008/9
Spontaneous	72	74	71
Induction	19	18	21
Elective C/S	9	8	8

## Mode of Delivery

	06-07	07-08	08-09
	%	%	%
Spontaneous Vaginal	63	65	62
Forceps	5	5	8
Ventouse	6	7	7
Breech	1	1	1
Elective Caesarean Section	9	8	8
Emergency Caesarean Section	16	14	15

## Planned Home Birth/Unplanned Birth Outside of Hospital

	2006/07	2007/08	2008/09
Home Births	50	62	55
Outside Hospital	5	22	14

## High Dependency Unit

### Lyn Davies, Lead Critical Care Midwife

The high dependency unit consists of a 3-bedded unit providing evidence based level 2 care to critically-ill obstetric patients. Direct medical cover includes anaesthetic and obstetric teams with multidisciplinary team working emphasised. Specialised advice is sought from physicians, surgeons and intensivists at UHBFTFT.

405 women were admitted to HDU between April 2008 – March 2009 (5.6% of all deliveries). 30% of these women had invasive monitoring (arterial line, central line or both). The transfer rate for specialist care including level 3 critical care was 1.8 per 1000 deliveries; the need for respiratory support being the most common reason for transfer. These figures have remained fairly consistent over the last 6 years.

Obstetric haemorrhage continues to be the commonest reason for admission to HDU followed closely by the hypertensive disorders of pregnancy (see Table 1). Among the non-obstetric causes for admission, maternal cardiac disease remains the most common indicator for prolonged monitoring.

A Lead Critical Care Midwife continues to provide competency based training to midwives and is also responsible for environmental monitoring within HDU. All Delivery Suite Core Midwives will have attended the formal HDU study day by the end of this year. Education provision for student midwives at BCU is expanding.

Emergency drill scenarios and PROMPT training are ongoing and a link with intensivists at UHBFTFT regarding use of SIM MAN and e-learning modules for obstetric emergencies is under development.

Clinical audit for obstetric haemorrhage, pre-eclampsia and eclampsia, severely ill pregnant woman, high dependency care and maternal transfer is continual with guidelines reviewed and updated as necessary in line with audit and external standards recommendations.

## Indications for admission to HDU

	06 - 07	07 - 08	08 - 09
PPH	132	104	134
PET	98	94	92
Hypertension	39	23	29
Cardiac	14	33	30
Others	117	63	123
<b>Total</b>	<b>400</b>	<b>317</b>	<b>405</b>

## Midwife Led Birth Centre

### *Paula Clarke, Consultant Midwife & Fiona Heel, Acting Birth Centre Manager*

Our midwife led birth centre has been open for five years. We are now well established and recognised nationally as one of the largest and most successful birth centres in the UK. We regularly show guests, clinicians and managers around from other units around the country.

We have almost fulfilled our aim that 1200 women give birth on the Birth Centre per annum. During this year, 1164 women gave birth. This is an increase of 125 births on the previous year (when the number doubled on the year prior to that). This equates to 16% of the total number of trust births. Our transfer out rate is 35% (662 women) which is similar to other 'alongside' birth centres nationally. The three main reasons for transfer out remain the same as in previous years (which includes postnatal reasons), and are slow progress; meconium liquor and abnormal fetal heart rate. 28% of our women used water for analgesia and 10% choose to give birth in the pool. We also have a well established aromatherapy service.

During the year we reviewed our admission criteria and now accept low risk women who have undergone induction of labour for postdates.

Our figures show us that once a woman entered the birth centre and either gave birth or transferred out to the main delivery suite, she had:

- 81% chance of achieving a vaginal birth
- 14% chance of an instrumental delivery
- 5% chance of a caesarean section

Over the year the Birth Centre there has been limited closures. This has been maintained due to a number of initiatives put in place to include:

- Development of core Birth Centre band 6 midwives 'acting up' to cover shift lead in the absence of a band 7
- Increased numbers of women accessing the Birth Centre over the past 2 years

We continually strive to improve upon:

- The entry criteria and negotiate agreement for additional groups of women.
- Early transfers home to meet women's needs
- Demonstrating good standards of midwifery practice
- Benchmarking our figures nationally

## Birth Centre Activity and Outcomes

	2006/07	%	2007/08	%	2008/09	%
<b>Birth Centre Admissions</b>	1257	100	1746	100	1826	100
<b>Birth Centre Births</b>	700	58	1039	62	1164	65
<b>Transfers</b>	557	42	707	38	662	35
<b>Transfer Reason</b>						
Slow Progress (1st or 2nd stage)	134	24	173	25	212	32
Meconium liquor	108	19	134	19	136	21
Abnormal fetal heart rate	68	12	68	10	94	14
BC closed	52	9	21	3	7	1
Other	195	35	310	44	213	32
<b>Total</b>	557	100	707	100	662	100
<b>Birth following transfer:</b>						
Normal	314	56	395	56	320	48
Ventouse	84	15	116	16	115	17
Forceps	59	11	90	13	133	20
EM LSCS	103	18	102	14	93	14
Vaginal Breech	4	<1	4	<1	1	<1
		100	707	100	662	100
LSCS Rate		8.1		5.8		5

## Infant Feeding

### *Helena Stopes-Roe, Infant Feeding Co-ordinator*

The Infant Feeding Team comprises 5 members with a WTE of 0.9 at band 7 and 0.4 at band 6. The remit is for the Trust to achieve Baby Friendly Initiative Status by 2011 which will ensure that breast feeding is promoted and supported throughout the Trust.

During this year, the Trust has been continuing activity to achieve Baby Friendly Stage 2 Assessment. This has resulted in 77% of staff completing the 2 day training to date, the target being a minimum 80% of staff with direct contact with mothers and babies being fully trained to Baby Friendly standards, as shown by audit of their skills. Audit shows that 60% of the staff, on average, demonstrated skills which comply with Baby Friendly Standards.

The Infant Feeding Team has worked closely with Delivery Suite staff and the Theatre Team to promote early skin to skin contact and initiation of breast feeding despite mode of delivery.

The Team will continue with targeted training, pinpointing the particular areas that are well below the 80%, by working in a creative way to meet the demands of shift patterns and the different demands of the various clinical areas.

# Maternity Directorate

## Breastfeeding at Birth

	Total	%
2006/07	4207	59
2007/08	4706	65
2008/09	4784	67

## Clinical Governance - Clinical Risk for Delivery Suite

### Coralie Rogers, Specialist Midwife Risk Management - Delivery Suite

Over the past few years the culture of incident reporting has continued to improve as reflected in the tables below. This year, however, has seen vast changes within incident reporting for the Maternity Directorate. The new DATIX™ incident reporting system was introduced halfway through the year which has initially resulted in a significant decrease in the numbers of incidents being reported, however the feedback from those staff that have used it has been positive so far.

INCIDENTS REPORTED	2008/2009			
	Q1	Q2	Q3	Q4
Ratio of incidents reported to deliveries	1:5.5	1:4.5	1:9	1:10
Number of Deliveries	1902	1869	1889	1793
Number of forms submitted	346	419	212	178

### The top 10 most common incidents reported 2008 - 09

Incident	Q4	Q3	Q2	Q1
Total incident forms submitted	176	212	419	346
1 Staffing ( midwifery)	26	71	155	75
2 Communication/ documentation	18	13	18	19
3 Failure to follow guideline / Take appropriate action	8	12	11	15
4 Equipment Failure / Unavailable	7	12	13	18
5 Drug Error	10	9	6	9
6 Other	-	9	14	10
7 Staff injury	18	7	16	23
8 Patient / Visitor Injury	-	7	3	5
9 Delay in care	7	7	32	45
10 Violence abuse or aggression	7	6	8	0

This year included five incidents that required more in depth investigation in the form of Root Cause Analysis (RCA). The outcomes of the investigations are used to facilitate changes in practice or to highlight the need for updates or implementation of guidance.

## Changes as a result of RCA's have included:-

- The introduction of new delivery packs with a single large swab to reduce the risk of loss.
- Removal of the old drug cupboards from the delivery rooms.
- Easier access to clinical guidelines via a desktop icon link to the hospital 'U'drive.
- Increased multi disciplinary attendance in the morning case reviews on Delivery Suite.
- Concerns regarding midwifery and (emergency) theatre staffing levels added to the Trust risk register.

## Maternal and perinatal morbidity and mortality for inborn babies

	2006-2007	2007-2008	2008-2009
Shoulder Dystocia	84	61	61
Admission to NNU	444	414	416
Cord pH < 7.20	58	60	82
Apgar <4 at 5 minutes	89	82	86
Unadjusted PMR /1000	16.2	12.5	12.6
Adjusted PMR / 1000 *	6.56	8.2	5.8

	2006-2007	2007-2008	2008-2009
3 <sup>rd</sup> Degree Tear	135	140	133
4 <sup>th</sup> Degree Tear	5	7	4
Massive PPH (<2 litres)	10	6	16
Peripartum hysterectomy. Ruptured or inverted uterus	N/A	13	13
Maternal Death	0	1	1

\* Adjusted Perinatal deaths exclude terminations of pregnancy, babies with lethal congenital abnormalities, babies delivered prior to 22 weeks gestation and babies with a birth weight of <500g. These exclusions are in line with those suggested nationally in the latest reports from Centre for Maternal and Child Enquiries, CEMACE

There was one maternal death, which was a late death from suicide 8 months after delivery. All appropriate agencies had been involved throughout the antenatal and postnatal period, and good care had been given by the maternity services.

## Clinical Education, Delivery Suite

### Sue Smithson, Clinical Education Facilitator-Delivery Suite

Close links have been maintained with both the Consultant Midwife and Professional Development Midwife to deliver appropriate and effective training for student midwives, and updating and post registration training to midwives on delivery suite. The orientation programme and supernumerary support offered to the newly qualified band 5 midwives evaluates well. Support is also provided to more experienced midwives returning to delivery suite following an extended period of absence based on their individual needs.

Training has been provided for student midwives, relating practice to theory in the clinical environment, as well as providing teaching at the university on subjects such as CTG interpretation and care of high risk women in labour.

Programmes of training and updating in clinical skills such as perineal suturing and intravenous cannulation continue to be provided and currently target the core delivery suite midwives.

A training needs analysis has been completed to identify areas where training is required, particularly with a view to introducing practices such as water birth.

## *Practice Development*

### **Wendy Burt, Practice Development Midwife**

Practice Development provides and administers a broad range of training and development opportunities for midwives and midwifery assistants.

Midwifery mandatory training continues to remain a high priority and we strive to maintain our overall good figures for attendance. The Directorate will continue to maintain current training programmes for midwifery assistants and provide placement support for newly qualified midwives, and qualified midwives who may require updating in a new area.

In November 2008, a multidisciplinary team attended PROMPT (practical obstetric multi-professional training) at the RGOG. This was with the aim of updating the current skills drills training. This programme was launched in March 2009. Prompt manuals have been purchased and are available for all staff to borrow from the library prior to attending their PROMPT update day.

The Directorate continues to provide legal training for midwives in conjunction with the Trust Solicitors Bevan Brittain - this study day has proved invaluable and very popular.

The Trust held a national waterbirth study day for midwives by Dianne Garland which proved very successful and a further day is planned for the forthcoming year. Members of the NCT and the MSLC have requested to attend the next study day.

Moving forward to 2009/10 we aim to maintain provision for support of educational opportunities and development for maternity service staff of all bands. However, there will be some constraints on funding, some courses for example supporting learning and assessment in practice and the supervisor of midwives course, are now charged as part of the Learning Beyond Registration funding. This will impact on the availability of overall funding for midwives from 2009 / 10.

## *Supervision of Midwives*

### **Sue Smithson, Contact Supervisor of Midwives**

Supervision of midwives is a statutory function, overseen by the Local Supervising Authority (LSA). There are currently 20 supervisors of midwives giving a ratio of 1:17, the recommendation from the LSA being 1:15. 2 midwives have just commenced the Preparation for Supervisors course and we have actively recruited a further 6 midwives for courses over the next year.

The Supervisors of Midwives benefited from an LSA funded facilitated day where a Strategy for Supervision was developed. This has been reviewed on a regular basis and achievements made, particularly in maintaining and raising the profile of supervision within the Trust and with women in our care. Information for women about the role of the Supervisors of Midwives has been added to the Trust web site. Supervisors have also strengthened links with the Maternity Services Liaison Committee (MSLC) and the National Childbirth Trust (NCT) led parent education sessions in order to improve our communication with the women in our care and awareness of our role.

Supervisors of Midwives continue to be pro-active in leading change and facilitate the Practice Development Forum. They are involved in audit, and are currently involved in an LSA funded project looking at the triage services and have developed a strong interface with risk management within the Trust.

The Supervisors of Midwives were pleased to receive a very positive report from the LSA following their annual audit visit.

## Infection Control

### Jenny Henry Head of Midwifery

Within the Maternity Directorate the lead responsibility for infection control sits with the Head of Midwifery and her senior team. Prevention of infection and infection control is everyone's responsibility. Within 2008-09 the directorate saw significant improvement in the clinical environment both in maintenance and cleanliness, and in general hygiene standards.

#### Hand hygiene audits results

Wards		% Score
Ward 1	Q4	71%
	Q3	95%
	Q2	85%
	Q1	67%
Wards	Q4	95%
	Q3	100%
3&4	Q2	87%
	Q1	94%

The main areas of concern during this period were results from a bed and mattress audit which identified that most of the beds in maternity needed to be replaced. Significant investment meant the purchasing of a large number of inpatient and delivery suite beds and mattresses which have now been replaced.

Routine inspection and audit raised concerns about the general standard of the bathroom and shower areas in some of the wards and on delivery suite. Housekeeping services for the directorate had been stretched and therefore we identified the need for more resources for 2009/10 to maintain the cleanliness of the directorate.

Most clinical areas within the directorate now have a named link person who is responsible for infection control in their area and feedback in the monthly local infection control meetings.

Maternity has introduced the Dr Foster Patient Tracker units to receive real-time patient feedback on their experiences in maternity services. One area explored is the cleanliness of the environment. The units are being used in Delivery suite, the postnatal floor and 2 teams in the community.

Routine screening for MRSA in elective and high risk women commenced at the end of March 2009.

#### Development and changes in practice this year

- Adherence to the Trust's 'Work wear' Policy has seen an overall improvement in maternity with medical and midwifery staff.
- Hand hygiene has improved significantly in all clinical areas with gel readily available in all clinical areas and at the end of all inpatient beds
- All delivery suite and birth centre mattresses have been replaced
- Most of the inpatient beds in maternity have been replaced
- All fabric curtains in clinical areas have been replaced with disposable curtains
- Cleaning schedule in delivery suite (triage) has improved significantly
- Significant investment has improved the bathroom and shower facilities on the wards and delivery suite.
- Commencement of replacement of windows on delivery suite

## Maternity Services Pregnancy losses

**Karen Henson, Bereavement Services Manager**

During April 2008 to March 2009 there were 7372 births in BWNFT. From our catchment area of South Birmingham there were 4018 births. There were 51 stillbirths, 27 were from South Birmingham, and of these 15 had a fetal abnormality. The Stillbirth Rate (SBR) was 6.9/1000 births, and when corrected for fetal abnormality was 4.9/ 1000 births. Intra-uterine growth restriction remains a major cause of stillbirth in our population. A prospective audit is to be performed to assess the care given to all women who give birth to a baby weighing less than the 10<sup>th</sup> customized centile. Guidelines are in development for screening for IUGR and management of identified cases, to try and reduce mortality.

A prospective Clinical Stillbirth Audit has commenced in January 2009 with the intention of developing a data base and this will enable us to bench mark against similar units

### Stillbirth Statistics

	2007/2008	2008/2009
<b>Late fetal losses</b>		
16 – 21+6	42	42
22 – 23+6	2	12
<b>Total</b>	<b>44</b>	<b>54</b>
<b>Termination (TOP)</b>		
14+6 – 21+6	27	20
22 – 23+6	2	8
<b>Total</b>	<b>29</b>	<b>28</b>
<b>Stillbirths</b>	<b>54</b>	<b>51</b>
of which TOP after 24+0	<b>4</b>	<b>6</b>

### Categories (n=51)

	Fetal Abnormality	>500g	<500g
<b>Number</b>	14	27	10

### IUGR (Of those >500g with no fetal abnormality n=27)

	No IUGR	Known IUGR	Unidentified IUGR
<b>Number</b>	9	1	17

### Post Mortem (n=51)

	Offered	Full PM	Limited PM	Declined
<b>Number</b>	51	17	13	21

# Maternity Directorate

## Recruitment and Retention of Midwives

### *Jenny Henry, Head of Midwifery*

In 2008/2009 the Maternity Service saw an increase in midwifery posts (212.4 wte to 244.7 wte). Sixteen new band 6 midwife posts were funded by South Birmingham PCT for the community midwifery service. The funding was part of the Government's commitment to increasing the midwifery workforce (Maternity Matters DOH 2007). An agreement with South Birmingham PCT commissioners was to reduce the caseload of the community midwives. The reduced caseload would enable the midwives to meet the KPI's as discussed above.

Whilst recruitment of band 5 midwives has been very positive, recruitment to band 6 posts has proved challenging. The Maternity Services Directorate made a decision to appoint band 5 midwives to some of the vacant community posts and have supported them with a robust support package to enable them to consolidate their learning whilst developing their experience in community midwifery. This approach proved to be very successful and the Directorate is now seeing the band 6 midwifery workforce increase.

This year we saw a number of valued members of the midwifery team retire and we have welcomed them back post-retirement either in band 6 or band 7 roles. Through this scheme the maternity service has been able to retain valuable midwifery skills and experiences which would otherwise have been lost. This is unusual in other Trusts and we owe our thanks to this exceptional group of midwives.

## Maternity Nutrition and Dietetic Service

### *Janet Gordon, Team Leader for Maternal Nutrition Team, Birmingham Community Nutrition & Dietetic Service*

The Dietetic service to Maternity is 0.5 wte provided by Birmingham Community Nutrition & Dietetics via a Service Level Agreement (SLA). The main focus is outpatients. 2008/2009 has seen a 23% increase in referrals for women with diabetes. Women with other dietary issues are referred via the midwives and seen in antenatal clinic or in the community (Sparkbrook). A new clinic is planned for 2009/2010 in Weoley Castle. Additionally the Northfield locality funds an outreach clinic in Longbridge.

Work progresses with midwifery teams to increase referrals for women with high BMI resulting in a modest increase. Women with high BMI living in the Northfield locality can access separately funded 'Fit Moms' (group sessions).

DNA rates are constantly monitored and have reduced significantly. The service is compliant with NICE, CEMACH and NSF guidelines.

### **Activity**

Number of actual dietetic contacts for 2008/2009

Location	New	Follow up	Total	3yr average
Inpatients	5	6	11	13
Diabetic clinic	195	28	223	190
Antenatal Outpatients	48	23	}	}
Sparkbrook CC clinic	18	6	}106	}86
Home visits	11	0	}	}
Total			340	289

# Gynaecology Directorate

*Masoud Afnan, Clinical Director & Jacky Cotton, Head of Nursing for Gynaecology*

## Overview

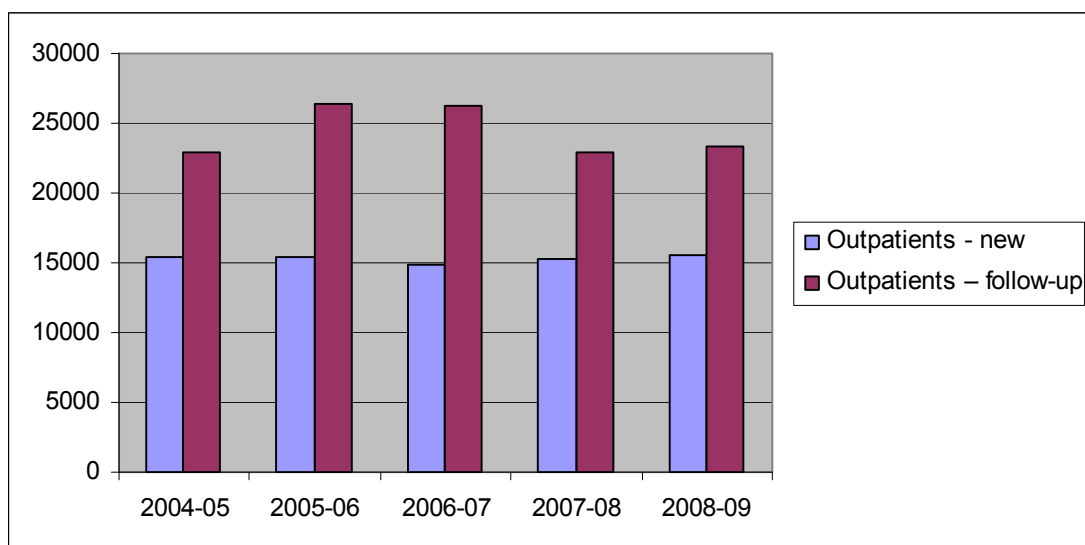
The Directorate continued to provide both elective and emergency inpatient and out patient gynaecology services for women. In addition to general gynaecology and specialist outpatient clinics, community clinics for urogynaecology patients were developed at two local GP practices. This involved partnership working with the GPs allowing care to be delivered closer to home. Activity was based on meeting contract targets and ensuring 18 weeks referral to treatment targets were met. The Directorate undertook reviews of elective services to ensure sufficient capacity. Compliance with cancer waiting times were achieved throughout the year. Another key performance indicator which improved was the unplanned overnight stay rate for day cases, due to close monitoring and actions led by the Ward Manager, Ward 7.

## Activity

The Directorate had a challenging year to ensure activity targets were achieved. The actual numbers of patients seen are detailed in tables and graphs below.

## Out Patient Activity

Category	2004-05	2005-06	2006-07	2007-08	2008-09
Outpatients – new	15,416	15,424	14,925	15,275	15,490
Outpatients – follow-up	22,885	26,328	26,309	22,951	23,367

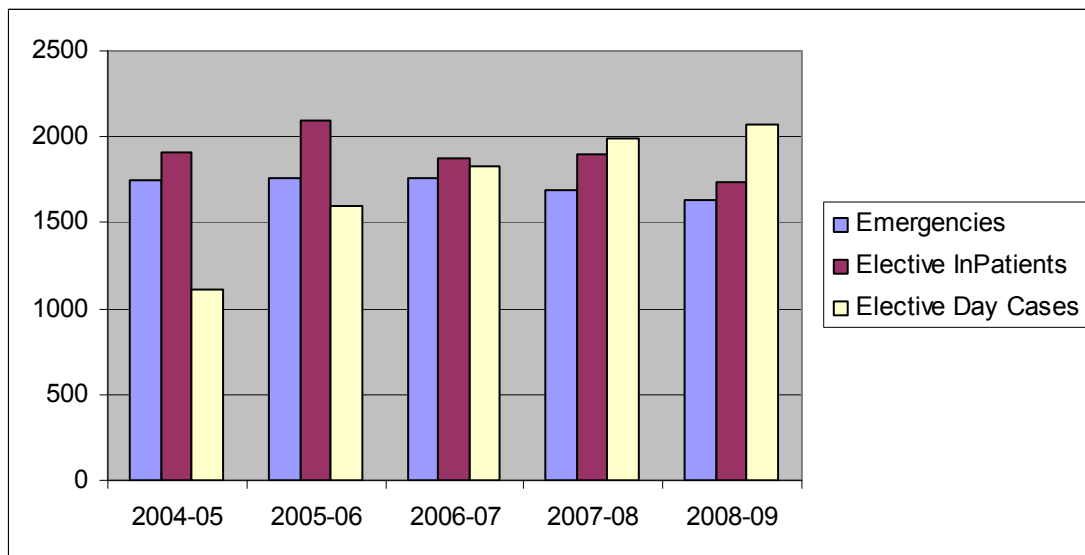


The target for 18 weeks referral to definitive treatment to be achieved by December 2008 was 95% of non admitted patients. The Directorate achieved this. The performance at 31<sup>st</sup> December was 95% and by 31<sup>st</sup> March was 95.7%.

# Gynaecology Directorate

## In Patient Activity

Category	2004-05	2005-06	2006-07	2007-08	2008-09
Emergencies	1751	1757	1762	1694	1637
Elective Inpatients	1911	2093	1876	1897	1735
Elective Day-cases	1115	1598	1833	1994	2071



The target for 18 weeks referral to definitive treatment to be achieved by December 2008 was 90% of admitted patients. The Directorate achieved this. The performance at 31<sup>st</sup> December was 95% and by 31<sup>st</sup> March was 94%.

## Assisted Conception Unit (ACU)

**Sue Avery, Director of the Assisted Conception Unit & Madhurima Rajkhowa, Consultant Gynaecologist**

The Assisted Conception Unit provides a full range of Assisted Conception Services from Ovulation Induction to Intracytoplasmic sperm injection. In 2008/9 the unit carried out over 900 treatment cycles. Success rates have consistently performed above the national average.

### Activity

- In January 2009 a policy of elective single embryo transfer in patients under 37, having their first cycle, was introduced in response to the drive to reduce the number of multiple pregnancies, in line with Department of Health/HFEA guidance. To date this has not impacted negatively on the overall pregnancy rates.
- Electronic witnessing has now been fully implemented for all procedures involving gametes and embryos, and the Unit has been granted a second inspection "holiday" by the Human Fertilisation and Embryology Authority as it has been given a low risk rating.

# Gynaecology Directorate

- All clinical protocols have been reviewed with the aim of reducing the risk of Ovarian Hyperstimulation Syndrome and other complications of treatment, and improve patient experience.
- The research licence for pre-implantation genetic diagnosis was granted, and work to prepare to apply for the full clinical licence is proceeding.

## Success rates

The most recent data is from 2007 (see HFEA.gov.uk)

IVF / ICSI	Live birth rate per cycle started		
	Under 35 yrs	35-37 yrs	38-39 yrs
National	32.3%	27.7%	19.2%
BWNFT	33.1%	27.4%	21.1%

## Good Performance Indicators

- Clinical training in infertility and assisted conception continues, with 1 trainee due to complete her ATSM in infertility, and another due to start, as well as the appointment of a sub-specialist trainee.
- A new facility for male patients is due to be opened shortly as part of the privacy and dignity initiative. This includes separate waiting and procedure rooms, as well as two additional procurement rooms.
- The Unit continues to participate in Department of Health campaigns to recruit gamete donors.
- Mr Arri Coomarasamy (senior lecturer) was appointed to lead the clinical academic program in reproductive medicine. Arri has an international reputation and is sub-specialty trained.
- Mrs Madhurima Rajkhowa was appointed as clinical lead, though she takes up her post after the dates of this report. Rima is also subspecialty trained and was the HFEA person responsible at the hospital from which she comes to us.

## Colposcopy

### *Debbie Wise Clinical Nurse Specialist & Parveen Abedin, Clinical Lead for Colposcopy*

It has been a challenging year for the Colposcopy service. We had our three yearly Quality Assurance visit and following the visit a service review has been undertaken and is ongoing in conjunction with Pan Birmingham Cancer Network.

The department has been affected by high levels of maternity leave and succession planning is underway (at the time of writing, 2 new consultant appointments have been made) following the departure of Mr Chan, clinical lead for Colposcopy.

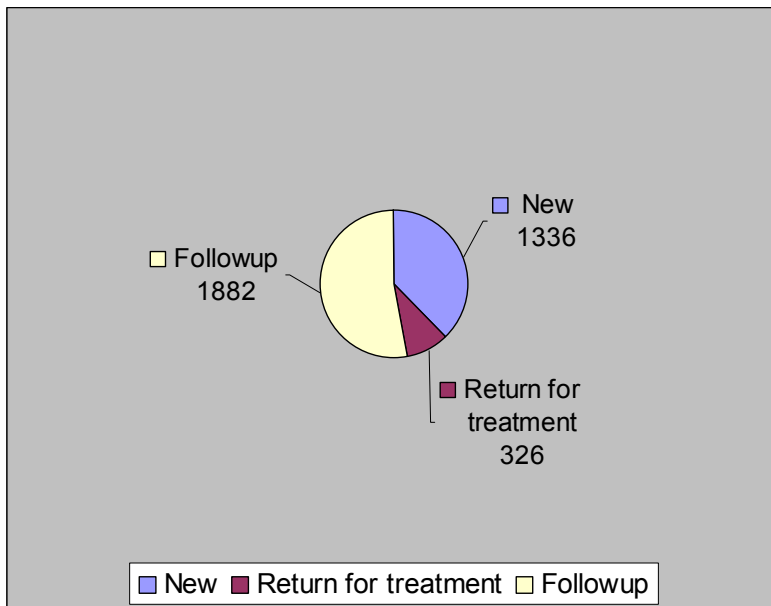
Referrals are predominately abnormal cervical cytology and appointments are triaged in line with National QA standards and the NHS cervical screening programme Guidelines. However, following the death and media coverage of a celebrity from cervical cancer, referral rates have increased dramatically.

The department offers a specialist service for women with vulval conditions, and a nurse led cytology clinic.

# Gynaecology Directorate

## Activity

New patient referrals	1484
High grade	316
Low grade	1168
Total clinic attendance	3544



## Clinical Governance

Quarterly audits continue of Quality Assurance Standards in the form of KC65 reports. These are submitted to the Department of Health ensuring the Department meets the recommended standards as outline by the QA reference centre. These measure waiting times for new appointments, type of procedure and result of referral, histology outcomes and waiting time for results.

Monthly multidisciplinary meeting are held to discuss complex cases requiring team decision.

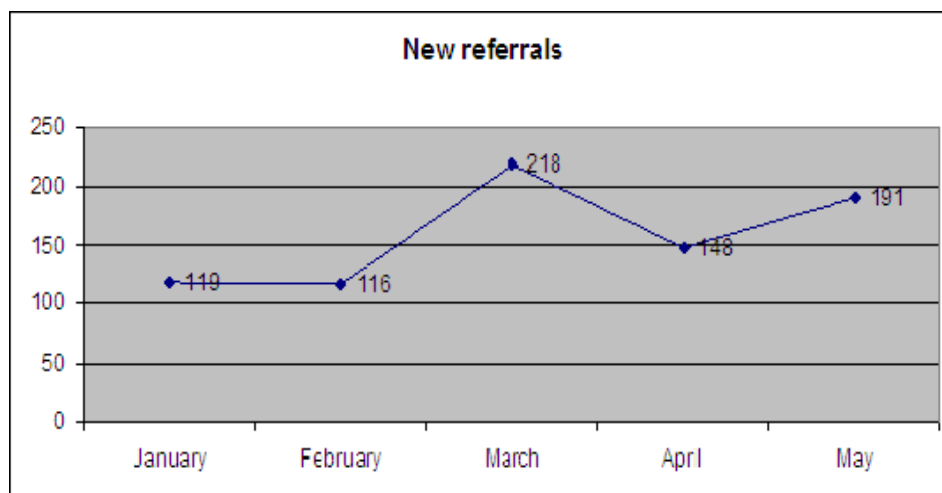
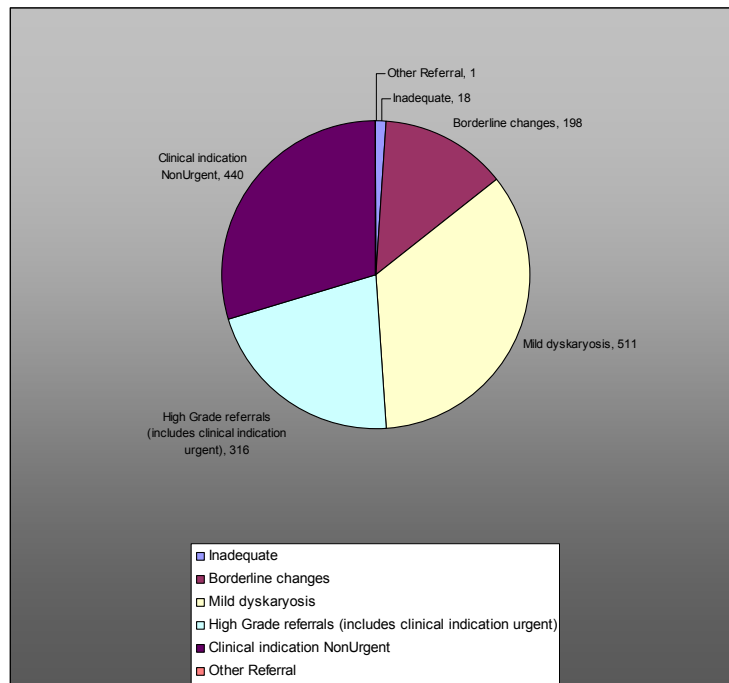
## Good Performance

- Following an increase in public awareness of cervical cancer, referral rates increased. Due to the dedication of the team and initiative clinics every patient was offered an appointment within QA recommendation.

- Service review commenced looking at demand and capacity, clinic structure and provision of Colposcopy

Recruitment commenced for Colposcopy Co-ordinator.

# Gynaecology Directorate



## Early Pregnancy & Acute Gynaecology Assessment

**Maureen Manion, Clinical Nurse Specialist & Justin Clark, Consultant Clinical Co-ordinator**

The Early Pregnancy Assessment Unit (EPAU) provides a convenient patient-centred service for the diagnosis and management of early pregnancy related problems and gynaecological emergencies. Outpatient management, surveillance and follow up is co-ordinated from the EPAU which provides ongoing support and emergency contact including direct phone advice, reducing the need for unnecessary inpatient stay. This includes the follow up of suspected and medically managed ectopic pregnancies and conservative management of miscarriage.

# Gynaecology Directorate

The bulk of the Unit's activity revolves around the diagnosis of early pregnancy related problems (up to 17 weeks gestation) and their initial management. The majority of patients undergo initial clinical assessment followed by a transabdominal +/- transvaginal ultrasound scan and blood testing. Miscarriage management options are discussed in detail and appropriate counselling and emotional support provided. The unit also provides an emergency gynaecology service, for non-pregnant women referred with acute gynaecological complaints.

There have been 6321 attendances in EPAU this year with an average of 530 pregnancy related problems and 42 gynaecological complaints seen per month.

Nursing staff now carry out gynaecological examinations, screen for genital tract infections, administer methotrexate and perform pelvic ultrasound in addition to their established role in providing counselling and support. The EPAU evidence based Guidelines reflect the expanded nursing role and should facilitate more independent practice.

We have established a multi-disciplinary EPAU committee which meets regularly. We have established a prospective audit of clinical activity as a basis for assessing key areas of performance such as the impact of changes in guidelines on specific clinical conditions and patient outcomes.

The EPAU is a key contributor to the training of junior doctors in transvaginal pelvic ultrasound and acute obstetrics and gynaecology. During 2008 two Specialist registrars in O&G successfully completed their RCOG Advanced Specialist Training Module in Acute Gynaecology and Early Pregnancy Complications.

## Workload

	2006/07	2007/08	2008/09
<b>Attendances</b>			
<b>Pregnant</b>	6512	7324	6320
<b>Non pregnant</b>	487	520	508
<b>TOTAL</b>	6999	7844	6828
<b>New Referrals (DNA)</b>	3708 (50)	3837 (39)	3505 (51)
<b>Follow ups (DNA)</b>	3291 (261)	4301 (255)	3324 (168)
<b>Admitted into beds</b>	18.40%	15.41%	10.5%

## Minimal Access Surgery

**Mr Yousri Afifi, Consultant Gynaecologist**

Minimal Access Surgery and Endometriosis (MASE) Unit is a tertiary referral unit. It provides:

- Management of patient with chronic pelvic pain.
- Management of patients with advanced endometriosis, including infiltrative and recto-vaginal disease.
- Hysteroscopic management of intracavity uterine pathology
- Provision of national training centre for advanced laparoscopic surgery. It provides the training site for advanced training skill modules in laparoscopic and hysteroscopic surgery.

The unit is led by 4 consultants, supported by junior doctors and a special nurse and a chronic pain management team.

### Activities

- The Unit continues to provide high quality of care for patients with chronic pelvic pain and endometriosis.
- Ongoing cooperation with other specialties to integrate minimal access surgery as the preferred route.
- A large series of advanced laparoscopic surgeries were carried out (336) including hysterectomies, endometriosis excision, adnexal surgeries and tubal infertility surgeries.
- New services were introduced successfully including laparoscopic cerclage and myomectomy.
- Four different types of advanced endoscopic courses have been provided, in addition to the three basic, intermediate and special courses for postgraduate training.

### Development and activity within annual plan

- Implementation of integrated pathway for chronic pelvic pain.
- Further development of clinical skill laboratory to fit with the need of advanced training.
- Further development of clinical services including:
  - Regional referral centre for laparoscopic cerclage
  - Laparoscopic myomectomy
- A multidisciplinary meeting for advanced and recurrent endometriosis.

### Development and activities for 2009-2010

- New nurse led triage pelvic pain clinic
- Development of community based chronic pelvic pain clinic to be incorporated into the pathway.
- Implementation of the integrated pathway for pelvic pain
- Integrate the psychological assessment in chronic pelvic pain management through cooperation with Psychologist.
- Alternative medicine (Acupuncture).

### Clinical governance summary

- The unit reviewed its practice with the new NICE guidelines for Laparoscopic hysterectomy and cerclage.
- Clinical audits completed in 2008-2009 included:
  - Laparoscopic hysterectomy audit: This audit examined the outcome of LH including complications, hospital stay and patient satisfaction.
  - Laparoscopic entry documentation: This audit has been published in Journal of Surgical Gynaecology as it proposed a new Performa to make the documentation systematic to avoid litigation risk.
  - Distance of insertion for primary entry.

# Gynaecology Directorate

## Menopause Clinic

**Elaine Stephens, Specialist Nurse & Jenny Williamson, Associated Specialist**

The menopause clinics provide an important resource for General practitioners and valuable support to other gynaecology specialties. Referrals are regional and the majority of women seen within the clinic fall into the following categories,

- Women who have specific medical problems or perceived contraindications to hormone therapy that require specialist advice concerning the use of HRT.
- Women who have an early menopause or who have their ovaries surgically removed.
- Women who are having difficulty finding a suitable HRT preparation.
- Women with a family history or personal history of breast cancer.

The menopause team consists of Dr Jenny Williamson, Associate specialist and two specialist nurses, Elaine Stephens and Maureen Bristow. The team run two clinics per week and deal with approximately 300 new referrals per year. We also run a helpline service that provides advice and support to patients and healthcare professionals.

The team liaises and works with other gynaecology and endocrine specialties to provide continuity of care. We are currently involved in securing funds for 2010 for a joint research study with endocrinology colleagues.

The Menopause clinic is accredited by the Royal College of Obstetrics and Gynaecology to provide support and training in Menopause management. Specialist registrars and SHOs regularly attend the clinic. Maureen Bristow provides information evenings and pre operative counselling clinics for patients undergoing hysterectomy and oophorectomy within the trust.

Dr Williamson and Elaine Stephens are both council members of the British Menopause Society (BMS) and are responsible for running a local Menopause society which provides education and support for community based GPs, nurses and other healthcare professionals.

Working with the BMS they are involved in the provision of educational courses and meetings that are local, national and international.

## Gynaecological Cancer Services

**Parveen Abedin, Unit Lead for Gynaecological Oncology**

The Gynaecological Oncology service at the Birmingham Women's Hospital is dedicated to the timely diagnosis and management of gynaecological cancers in our patients while ensuring a holistic approach to patients' needs.

### Cancer waiting times

The cancer waiting times of 14, 31 and 62 days are reported monthly at the Gynaecology Oncology Locality meeting and throughout 2008/2009, achieved the following targets: (*These targets changed part way through the year Jan 09*)

Patients seen within two weeks of referral

Total number of patients = 712 (97%)

Patients receiving first definitive treatment within 31 days

Total number of patients = 57 (100%)

# Gynaecology Directorate

## Activity

### Urgent Referrals

There were 719 suspected cancer referrals in 2008/09 compared to 650 in 2007/08, an increase of 10%. Of note, there is an 11% increase in the number of gynaecology referrals to the Trust for the same period.

### Diagnosed Cancers

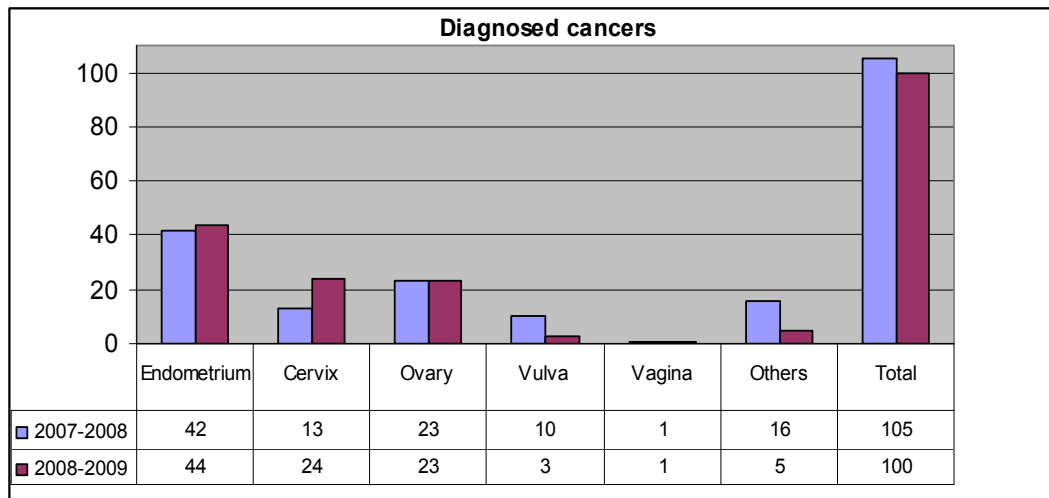
During April 2008 to March 2009, 100 new diagnoses of cancer were recorded compared to 105 in 2007/08.

During 2008/09, 1001 gynae-oncology referrals were received, of which:

- 719 were GP urgent referrals from which 31, (4%) cancers were diagnosed
- 282 were GP routine referrals from which, 25 (7%) were diagnosed with cancer.

In addition to this:

- 8 patients were upgraded to the 62 day pathway.
- 44 were diagnosed via other referral routes.
- 9 patients were found to have recurrent cancer.



Data source: Oncology database and Somerset.

A patient satisfaction survey was undertaken this year and we were very favorably graded for our level of support and quality of care by our patients.

# Gynaecology Directorate

## Service Development Plans 2009

- A full scale review of cancer services has been initiated in order to look at each aspect of the diagnosis and treatment of our cancer patients including referral pathways, imaging, communication and liaison with the centre in order to maximize efficiency and meet all the required standards.
- To recruit more actively in to clinical trials
- To set up 'drop in sessions' run by our Macmillan CNS for patients who elect for self directed follow up.

## Paediatric & Adolescent Gynaecology

*Pallavi Latthe, Consultant Obstetrician and Gynaecologist*

### Overview

The Paediatric and Adolescent Gynaecology Clinic is now in its eleventh year and continues to meet the unique and special needs of girls under 18 with a wide and fascinating range of chromosomal endocrinological and gynaecological problems. 50% of the referrals are tertiary - from other consultant gynaecologists within the region and Consultant Paediatricians from the Children's Hospital. The Disorders of Sexual Development clinic at the Children's Hospital, which is attended by Consultant paediatric surgeons, paediatric endocrinologists and clinical geneticists has become much more structured and now meets every two months at the Children's Hospital with a multidisciplinary meeting held regularly beforehand where additional cases/other topics are discussed.

### Activity

Numbers of New Patients = 98

Numbers of Follow-ups = 99

No. of operations= 15

### Summary of Clinical Governance

It is now recognised that many of the gynaecological problems in girls aged between 10 and 18 are better dealt with by a gynaecologist with special interest in this area and problems of gender assignment from birth up until 16 are best dealt with by a multi-disciplinary team.

### Achievements

We have met all the objectives that we set out last year and now have another substantive consultant with a special interest in this area, as well as a dedicated nurse specialist who attends this specialist clinic to provide a more holistic care. We have developed a number of patient information leaflets and are auditing our services. We have also been awarded the regional preceptorship in this area for interested trainees in the West Midlands.

### Objectives 2009/2010

- Development of more patient information leaflets and
- Develop an audit program of our services
- Develop a transition clinic to be run regularly along with endocrinologists.

# Gynaecology Directorate

## Urogynaecology

**Phil Tooze-Hobson & Matthew Parsons, Consultant Urogynaecologists**

### Overview

The department of pelvic floor medicine had a busy year last year. The biggest challenge was to maintain all clinical services whilst being relocated from ward 6 to allow the neonatal decant. 2 particular high points were the substantive appointment of Mrs Latthe as a third member of the consultant team and the commissioning of the community clinics; the latter being the culmination of 4 years work.

As a result we are now running the equivalent of 7 consultant led clinics and also 4 nurse led clinics to cope with the still increasing demand for our services, something that is bucking the national trend in gynaecology. We have also seen our theatre utilisation increase with over 1800 procedures being performed and over 990 of these being directly urogynaecological.

This year has also seen changes to the nursing staff with Sister Powles leaving. We were sad to see Kim leave as she had been the engine room of the department, but the loss was minimised by the appointment of Sister Perkins as the senior nurse, which has not only maintained continuity, but with the move to a new unit enabled us to review policies and procedures critically.

### Other key developments and achievements

- Introduction of Botulinum toxin A for detrusor overactivity (previously only on a named patient basis)
- Completion of the ProLong study, a 12 year follow up of a cohort of women delivered in 1996-7
- Agreed on going funding for EPAQ
- 5 departmental publications in peer reviewed journals
- Papers accepted at 2 international meetings

### Infection Control

Clinical managers implemented systems to provide assurance both internally and externally of high standards of infection prevention and control. Quarterly hand hygiene audits were implemented with other audits of patient environment and cleaning schedules. Ward 7 was one of the areas visited by HCC during their unannounced Infection Control inspection on 30<sup>th</sup> December 2008. with no breaches of compliance with Health Care Act. No cases of clostridium difficile or MRSA bacteraemia were detected on the wards. MRSA screening of all elective patients was introduced in September 2008.

### Clinical Governance

National guidance including relevant NICE guidance, NPSA safety alerts and reports from external bodies such as NCEOPD, RCOG were received into the Directorate, examined and implemented where appropriate. Action plans were developed and monitored through Gynaecology Clinical Improvement Group. There were no relevant NCEPOD studies that required data submission from the Directorate.

The Gynaecology CIG continued to meet monthly to address the increase in clinical governance work being undertaken. All elements of clinical governance including the dissemination of clinical practice updates and guidelines were discussed here.

Clinical guidelines and an integrated care pathway (ICP) were drafted jointly with clinical staff from the Directorate and UHB for Uterine Artery Embolisation.

The Core Audit Programme was updated to reflect audits required for NHSLA assessments, Essence of Care, compliance with clinical guidelines and other key clinical indicators.

Electronic incident reporting was introduced using the Datix system in October 2008. Outcomes of incidents and complaints were disseminated across the Directorate via QQIs.

# Gynaecology Directorate

## Nutrition and Dietetic Service - Gynaecology

**Susan Price, Head of Nutrition and Dietetics, UHB NHS FT**

### Service Provided

The Nutrition & Dietetic Service is provided on a 0.3wte basis from UHB NHS FT to BWFT via a Service level Agreement (SLA).

The service is to in patients only being treated under the gynaecology and oncology programme at BWH.

The service includes

- Individual Nutritional assessment.
- Advice on nutritional support.
- Advice on therapeutic diets.
- Liaison with catering department.
- Development of nutritional protocols.
- Education of patients / staff / carers on nutritional matters.
- Provision of dietary literature.
- Advice for discharge into community.

### Dietetic Activity

Quarterly reports are submitted on the activity to BWH.

The table below details the activity for the year.

MONTH	REFERRALS			DIRECT ACTIVITY	INDIRECT ACTIVITY
	NEW	REVIEWS	TOTAL		
April	5	3	8	8	9
May	0	3	3	3	3
June	8	2	10	15	11
July	1	0	1	0	1
Aug	3	0	3	5	3
Sept	3	0	3	7	4
Oct	5	5	10	14	13
Nov	1	0	1	2	1
Dec	4	1	5	6	10
<b>Total</b>	<b>30</b>	<b>14</b>	<b>44</b>	<b>60</b>	<b>55</b>

### Review meetings

Review meetings took place regularly between senior staff from BWNFT and UHB NHS FT to look at effectiveness of the service provided.

# Neonatology Directorate

## *Imogen Morgan, Clinical Director*

### Overview

This year, the first complete year for the new Management Team, has been one of continuing challenges for the Neonatal Directorate. Increased workload led by increased demand has been undertaken without an increase in cot numbers. This has meant that extremely busy periods occur at increasing frequency, together with an increased turnover of cot usage. Staff have worked very hard to deal with this, enabling us to avoid an increase in the number of babies who have to be sent out of Region for care due to lack of cots. The increased turnover reflects effective working of the Neonatal Network, enabling babies to be sent promptly, using the specialised Transport Service, from this tertiary service to Units appropriate for the level of care needed. The biggest “event” of the year has been the agreement by the Trust to replace the old NNU with a new build. The decant of the entire neonatal service to the third floor followed, in November for Transitional Care and in March for the Main Unit, in preparation for the demolition of the old building, and hopefully the creation of its successor. Much planning has gone into the design for the new Neonatal centre which should provide a better environment for staff, babies, and families, as well as up to date technology support and an increased cot capacity.

A service at Birmingham Cathedral in March 2009 was held to celebrate the lives of all the babies who had been cared for in the old Unit over the last 21 years, and proved a warm and memorable occasion for all. Towards the end of the year, the “Tiny Babies Big Appeal” fundraising appeal has been launched, with a goal to raise £2 million towards the costs of the new Centre.

This year we have also become a Resuscitation Council Newborn Life Support training centre and currently offer 6 courses annually. We also continue to offer the Cranial Ultrasound training course jointly with Radiology and have developed a new and innovative teaching course for Consultants and non training staff in Level 1 Units locally.

There is an active research programme, with participation in National studies and with two clinical Research fellows in post. This year, with the help of many staff across the Trust, this Trust led the multi-centre Pulse -Ox study, directed by Andy Ewer, which involves screening all Newborn babies for congenital heart disease. This has been so successful it has now been rolled out into routine clinical practice.

The 2009/10 Directorate programme will include the opening of two new Intensive Care cots, as staffing permits, to support the neonatal surgery service at BCH, further implementation of Network working and standards of care, the development of a Neonatal Pharmacy service with UHBFT, the introduction for the first time at BWNFT of dietetic, SLT and psychology specialist support, and further planning for relocation in 2010/11.

### Activity

#### Inpatient Activity

During 2008-2009 there were 15,122 cot days generated on the Neonatal Unit and Transitional Care ward at BWNFT. The unit ran at an average of 93% overall capacity during 2008-2009, against the BAPM current recommendation of 80%. Activity by cot type is shown in figure 1.

There were 1137 admissions to the Neonatal Unit. In Figures 2 & 3 there is a breakdown of admissions by birth weight and gestation.

# Neonatology Directorate

## **Outpatient activity**

Babies with ongoing problems or who were delivered at 32 weeks or less are followed locally. There were 1142 attendances to the Neonatal outpatient clinics in 2008-2009. Outpatient clinic activity is shown in figure 4.

## **Community**

Community Neonatal Service are a team of 4 neonatal trained nurses/midwives. They routinely visit babies who live within the hospital's catchment area who were born small or early. In 2008-2009 the team undertook 1625 visits; these are shown in figure 5.

## **Newborn Transport Service**

BWNFT host the Newborn Transport Service which works with the units in South West Midlands (SWMNN) and Staffordshire, Shropshire and Black Country Newborn Networks (SSBCNN) to provide a safe and timely transfer/retrieval service for the babies. Over the year the team transferred 1269 neonates. (see Figure 6)

## **Good performance indicators**

Survival by birthweight and gestation group of babies admitted to the NNU, including babies born elsewhere, is shown in Figures 7 and 8.

Outcomes including mortality and a number of key complications of Neonatal Care are published annually in a Regional Neonatal Report, available from the Perinatal Institute. From 2009/10, with the network wide adoption of a single electronic data collection system (Clevermed), this will be replaced by a Network outcomes report and nationally by the National Neonatal Audit project annual report.

The Management team conducted reviews of the outpatient clinics and the milk bank this year. The first resulted in revision and rationalisation of the follow-up protocol and subsequently a large decrease in the "did not attend" rate in clinic. The second resulted in a major safety improvement with the implementation of an improved tracking process for donated milk.

The most visible area of clinical change during the year has been the adoption of Developmental care principles for babies, led by Cheryl Lewis, with initiatives in baby comfort, pain control, and a quiet hour daily.

## **Clinical Governance**

During this year, a new Clinical Governance structure was set up and implemented in the Directorate. We welcomed the appointment of Amrat Mahal as our first Governance lead. Regular CIG meetings have been held, backed by incident reporting, guidelines, and clinical audit group activity.

Neonatal Network Guidelines have been adopted in parallel with thoroughly evaluated Local Guidelines, teaching held regarding new practices, and guideline availability ensured both electronically through the Group Drive and through limited local had copy.

The audit programme which is reviewed annually reflects National and Network Standards as well as local service clinical priorities and parent priorities and the requirements of NHSLA.

Many areas of quality performance will be much easier to audit in future as the Directorate has adopted the Clevermed ('Badger') Clinical Information system from April 2009. This enables comparative information to be submitted automatically for local and National datasets.

## **Risk management**

There were 576 adverse incidents reported this year (including the Newborn Transport Team). The majority of these were low risk however there were two Serious Untoward Incidents which were investigated using the Trust Root Cause Analysis process. One incident involved the Newborn Transport Service the other was an

# Neonatology Directorate

unexpected death that occurred on the Neonatal Unit. The investigation of these incidents using this process has resulted in major improvements in clinical practice.

The main recurring themes amongst the other incidents include refusals of intrauterine transfers generally due to reduced nurse staffing levels. The Management Team have worked hard to address this throughout the year with skill mix reviews, recruitment initiatives and bids to the Network and Specialist commissioners for extra funding for nursing staff.

We received 12 complaints throughout the year these have all been satisfactorily resolved.

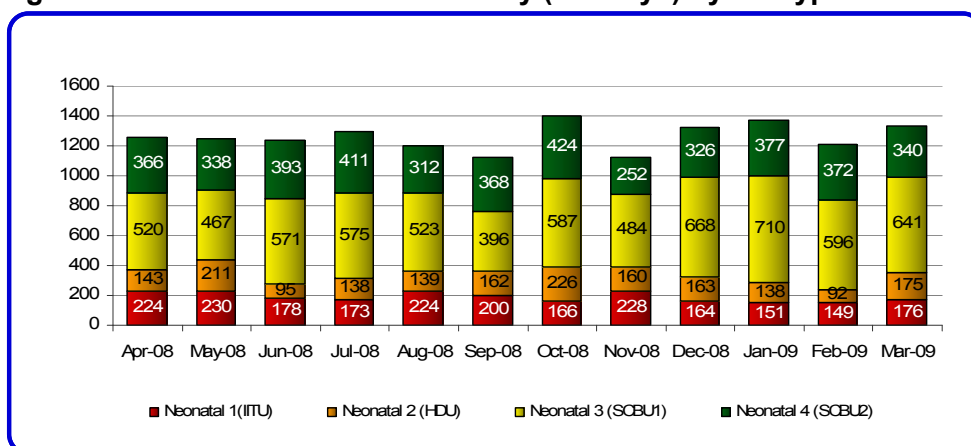
The red risks held on the Trust register from the Directorate all concern the deficiencies in fabric and staffing levels of the NNU. These risks are actively being addressed with the NNU rebuild and enhanced recruitment.

## Infection Control

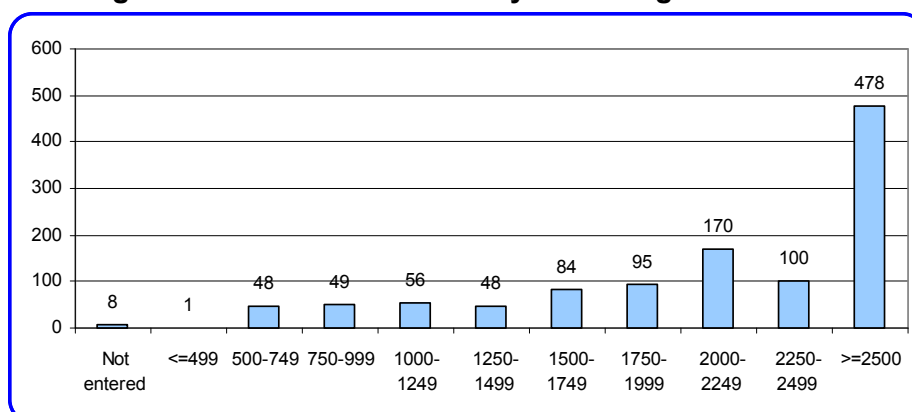
The Directorate maintained its achievement of zero incidence invasive MRSA during 2008/9. Regular hand hygiene audits have been carried out. Audit of the state of furniture and mattresses have resulted in the replacement of many armchairs, and cot and bed mattresses across the Directorate, The decant site offers new challenges due to natural air control (windows!) with accompanying increased dust etc.

## Graphs/Tables

**Figure 1 BWNFT Neonatal Unit activity (cot days) by cot type 2008-2009**

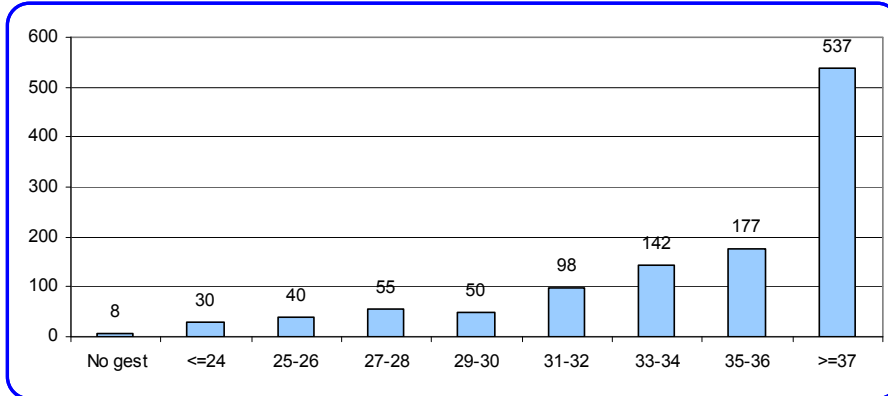


**Figure 2 BWNFT admissions by birth weight 2008-2009**

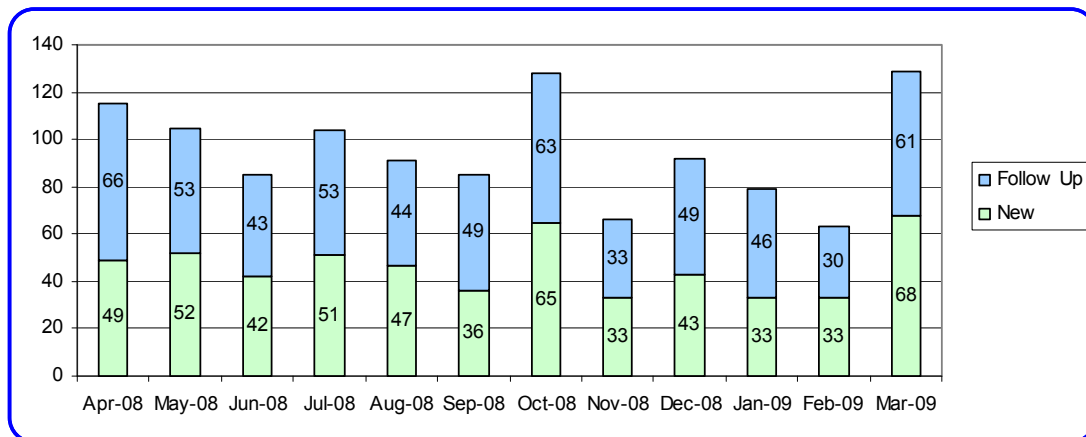


# Neonatology Directorate

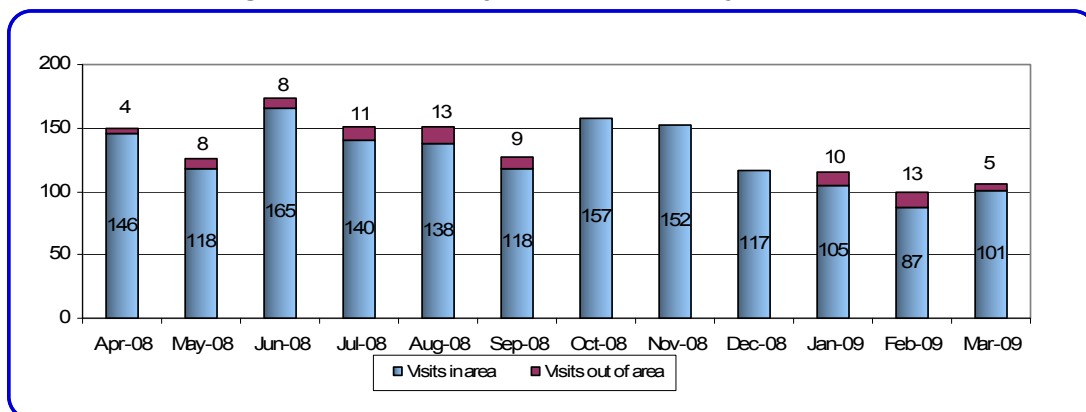
**Figure 3 BWNFT Neonatal admissions by gestation 2008-2009**



**Figure 4 BWNFT Neonatal outpatient activity**



**Figure 5 Community Neonatal activity 2008-2009**



# Neonatology Directorate

Figure 6. Neonatal Transport Team activity 2008-2009

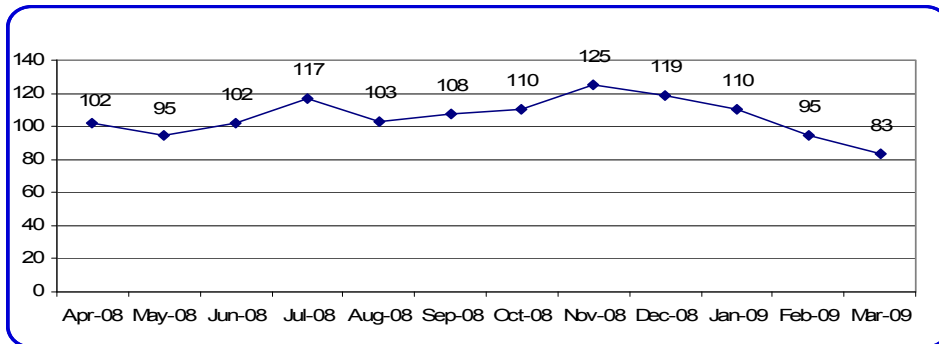


Figure 7 Outcomes for babies admitted to NNU by Gestational and Birthweight Groups

Year F	Gestation	Total	Still Births	Live Births	Early Deaths	Late Deaths	Infant Deaths	Total Deaths	Survived
2008/2009	No gestation	8	0	8	0	0	0	0	8
2008/2009	<= 24	30	0	30	9	5	2	16	14
2008/2009	25:26	40	0	40	4	2	3	9	31
2008/2009	27:28	55	0	55	1	1	0	2	53
2008/2009	29:30	50	0	50	2	1	0	3	47
2008/2009	31:32	98	0	98	1	1	0	2	96
2008/2009	33:34	142	0	142	2	1	0	3	139
2008/2009	35:36	177	0	177	1	0	0	1	176
2008/2009	>=37	537	0	537	12	0	0	12	525
2008/2009	<b>Total</b>	<b>1137</b>	<b>0</b>	<b>1137</b>	<b>32</b>	<b>11</b>	<b>5</b>	<b>48</b>	<b>1089</b>

Year F	Birthweight	Total	Still Births	Live Births	Early Deaths	Late Deaths	Infant Deaths	Total Deaths	Survived
2008/2009	Not Entered	8	0	8	0	0	0	0	8
2008/2009	<=499	1	0	1	0	0	1	1	0
2008/2009	500:749	48	0	48	13	5	2	20	28
2008/2009	750:999	49	0	49	1	4	2	7	42
2008/2009	1000:1249	56	0	56	1	0	0	1	55
2008/2009	1250:1499	48	0	48	2	1	0	3	45
2008/2009	1500:1749	84	0	84	1	0	0	1	83
2008/2009	1750:1999	95	0	95	1	1	0	2	93
2008/2009	2000:2249	170	0	170	0	0	0	0	170
2008/2009	2250:2499	100	0	100	1	0	0	1	99
2008/2009	2500+	478	0	478	12	0	0	12	466
	<b>Total</b>	<b>1137</b>	<b>0</b>	<b>1137</b>	<b>32</b>	<b>11</b>	<b>5</b>	<b>48</b>	<b>1089</b>

# Neonatology Directorate

## Causes of Neonatal Deaths

Dr AK Ewer, Consultant Neonatologist

Inborn neonatal deaths - died in BWNFT	41
Inborn neonatal deaths - died elsewhere	10
Outborn neonatal deaths	15
<b>Total Inborn neonatal deaths</b>	<b>51</b>

Causes of inborn neonatal deaths have been divided into the following categories:

<b>Immaturity:</b>	Non-viable, no resuscitation offered	8
	Extreme prematurity - resuscitation unsuccessful ∴ not admitted to NNU	4
	Complications of prematurity:	
	Infection (including NEC)	6
	Cardio-respiratory complications	3
	Abnormal cranial USS	1
<b>Lethal congenital anatomical malformation (including pulmonary hypoplasia/hydrops)</b>	TOP	0
	TLC	15
	Unsuccessful treatment	4
<b>Infection</b>		0
<b>SIDS</b>		2
<b>Lethal chromosomal/genetic abnormality</b>		2
<b>Lethal inherited metabolic abnormality</b>		0
<b>Birth asphyxia</b>		2
<b>Birth Trauma</b>		1
<b>Twin to twin transfusion syndrome</b>		2
<b>Other/Not known</b>		1
<b>Total</b>		<b>51</b>

## Extreme prematurity

Gestation of babies not offered resuscitation because of non-viability

Gestation	17	18	19	20	21	22	23	24	Total
Number	1	0	2	2	2	0	1	0	8

# Clinical Support Directorate

**Cathy Garlick, Acting Associate Director**

## Overview

Clinical Support Directorate has had another busy year supporting the other clinical directorates across the trust. The directorate is responsive to the needs of the clinical areas and has changed its practices to support developments elsewhere in the trust. We have also supported many external organisations nationally with contracts to provide services.

Clinical Support directorate provides diverse services including, Theatres, Radiology, Laboratories (Cellular Pathology, Microbiology, Haematology and Clinical Chemistry), Physiotherapy and Medical Physics.

There have been changes in the management structure to support the clinical practice during the year. Histopathology, Perinatal Pathology, Andrology, Cytology and Cytology Training School have been grouped together as Cellular Pathology. Clinical leadership is provided by Dr Raji Ganesan and Operational Management by Linda Bentley.

All the laboratories have gained their Clinical Pathology Accreditation (CPA) status. In line with The Human Tissue Authority standards the trust is seeking to refurbish the mortuary facilities. The work will commence in late 2009 with completion due in May 2010.

Managing the clinical workload in radiology has been challenging this year. For a variety of reasons it has been necessary to out source some ultrasound work. This has resulted in reduction of the backlog of gynaecology scans enabling the department to consider changes in care pathways to improve the patient experience of the service. Major changes to maternity appointment structures are also planned to improve patient satisfaction.

The activity in gynaecology theatres continues to change as new procedures and practice developments come on stream. Maternity activity has increased as Fetal Medicine techniques develop and our maternity case mix changes.

The directorate continues to enhance its Clinical Governance structures. Nigel Coles, Quality Manager, was appointed this year to support the directorate with the required external inspections/standards and the internal Risk Register and Incident Reporting System.

Infection Control standards have been raised within the directorate. Gael Peters, Infection Control lead for the directorate has worked with staff to ensure that Hand Hygiene Audits and Work Place inspections have been taking place.

The activity levels in each area are demonstrated in the individual sections.

# Clinical Support Directorate

## Anaesthetics

**Dr A Wilkey. Consultant Anaesthetist**

### Overview

Our clinical work includes preoperative evaluation, intraoperative care, provision of regional analgesia for labour and obstetric high dependency care and acute pain management plus anaesthesia for gynaecology and IVF. All obstetric patients who receive spinal, epidural or general anaesthesia are reviewed on a ward round the following day and questioned about satisfaction with and problems arising from the procedure. Follow-up in gynaecology is performed by the individual anaesthetist.

The epidural rate during labour (22.8%) shows a small increase from recent years but is still below the national average. Audit has not suggested any problem in access to the epidural service for mothers. 78% of mothers are satisfied with their regional analgesia during labour although the normal delivery rate with an epidural or CSE has reduced. The dural tap rate has remained just above the target of 1% and we continue to monitor this take remedial action when appropriate. The post dural puncture headache rate after deliberate spinal anaesthesia remains below 0.5%. The regional rate for elective and emergency caesarean section has been consistent for some years. Rates for conversion of spinal to GA are in line with national recommendations. Satisfaction rates for spinal and general anaesthesia are very high. There were no cases of failed intubation, awareness or aspiration during general anaesthesia and no major sequelae from regional anaesthesia.

Dr Griselda Cooper has retired this year after a long and distinguished career both at local and national levels. Dr Yasmin Poonwala has commenced as consultant anaesthetist as a replacement for Dr Margo Lewis

**Table 1.** Epidural and Combined spinal epidural (CSE) during labour

	2006-7	2007-8	2008-9
<b>Total epidurals</b>	1048	1294	1373
<b>Total CSEs</b>	179	122	149
<b>Total spinals</b>	1432	1439	1421
<b>Total GAs</b>	290	309	318
<b>Regional uptake rate in labour</b>	19.2%	20.0%	22.8%

**Table 2.** Satisfaction rates with epidural and CSE analgesia for pain relief during labour.

	2006-7	2007-8	2008-9
<b>Satisfied</b>	76.7%	76.7%	78.4%
<b>Helped</b>	11.1%	9.5%	7.7%
<b>Late</b>	2.9%	5.1%	2.4%
<b>Failed</b>	3.2%	2.2%	4.9%
<b>Unknown</b>	6.1%	6.6%	6.6%

**Table 3.** Mode of delivery with epidural and CSE analgesia. Last year's figures in brackets.

Mode of delivery	All mothers - nos	%	Nulliparous %
<b>Spontaneous</b>	461(507)	32.1(38.4)	24(30)
<b>Straight Forceps</b>	305(232)	21.2(17.6)	25.6(21.1)
<b>Rotational forceps</b>	39(33)	2.7(2.5)	2.9(3)
<b>Ventouse</b>	191(172)	13.3(13)	14.4(14.1)
<b>Breech</b>	5(2)	0.3(0.2)	0.2(0)
<b>Total C/S</b>	436(375)	30.3(28.4)	32.8(31.8)

# Clinical Support Directorate

**Table 4.** Postdural puncture headache

	2006/7	2007-8	2008-9
<b>Inadvertent dural taps</b>	6 (0.5%)	19 (1.32%)	16 (1.06%)
<b>Blood patches</b>	2 (0.2%)	15 (1.04%)	12 (0.8%)
<b>Post spinal headaches</b>	11 (0.7%)	11 (0.75%)	11 (0.75%)
<b>Blood patches</b>	8 (0.5%)	4 (0.27%)	7 (0.48%)

**Table 5.** Mode of anaesthesia for caesarean section

Category	Spinal	Epi / CSE	General Anaesthesia	Total	% Regional			RCA target
					06-07	07-08	08-09	
<b>Elective</b>	527	32	27	586	95.6	94.3	95.4	>95%
<b>Emergency</b>	529	309	223	1061	81.0	79.4	79.0	>85%

**Table 6.** Failures of regional anaesthesia for caesarean section

Category	2006/7	2007/8	2008/9	RCA Recommended
<b>Epidural</b>	14.5%	9.2%	4.4%	<3%
<b>Spinals</b>				
<b>Elective</b>	2.1%	0.72%	0.73%	<1%
<b>Emerg</b>	2.2%	3.75%	3.5%	<3%

## Radiology and Ultrasound

### *Dr Josephine McHugo, Consultant Radiologist*

#### Overview

The department provides a diagnostic imaging service to all patients groups within the Trust – obstetric, gynaecology and neonatology. In addition it provides a direct access gynaecological ultrasound service to GPs.

MRI and CT continue to be provided by our Consultant Radiologist at ROH and UHBFT

This department now provides 51,469 episodes of care - an increase of approx 8% from 2007-8

#### Activity

There has been an increase in the work load particularly in obstetrics early pregnancy and MRI.

The replacement of the screening x ray equipment with the room being out of commission for over 2 months explains the reduction in screening x rays (hysterosalpinograms)

The challenges of service provision remains; the specialist nature of the Trust work and the National shortage of sonographers have increased the difficulties in recruitment

The limited availability of agency staff required a new model of working to maintain services. This included working with a range of private providers with variable success.

# Clinical Support Directorate

Initiatives for increased training both within the Trust and across the Region have been supported but these will only have benefit after at least 18 months.

Increased midwifery community scanning particularly for booking is expected to have a benefit in 2009-10

This was a very challenging year both within for the Consultant Radiologists and the Sonographers

## Good performance indicators

- 2 week cancer waits achieved
- Integrated PACs and RIS with image sharing from UHBFT ROH BCH
- Teleconferencing for the cancer MDT with City Hospital

## Clinical Governance

- PACs allows standards to be monitored
- Outcomes and accuracy of diagnosis monitored by cancer MDT and correlation with pathology reports in gynaecology
- Accuracy of diagnosis monitored by outcome with BCH for hip screening

## Infection Control

Procedures in place

## Risk Management

- The issues around staff shortage and service provision are considered red risk .
- 2 ultrasound machines are beyond the date for planned replacement and no capital was made available for replacement .This increases the risk of a missed or wrong diagnosis.
- However the implementation of the PACs for all gynaecological and neonatal investigations increases the possibility of audit of image and reporting quality.

## Future Developments

- Implement the imaging strategy
- Recruit to establishment
- Implement 20 minute scan appointments in obstetrics
- Implement scanning by trained gynaecologist in outpatients
- Increase community scanning
- Introduce Video Urodynamics on site

## Summary

The department has had considerable challenges in service delivery.

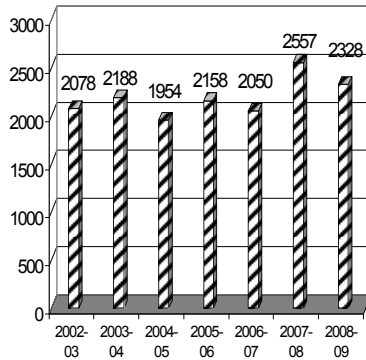
The activity has however increased both in numbers and complexity.

In order to achieve the 18 week wait target from GP referral to first episode of treatment we will need to provide diagnostics in the first 2 weeks from referral.

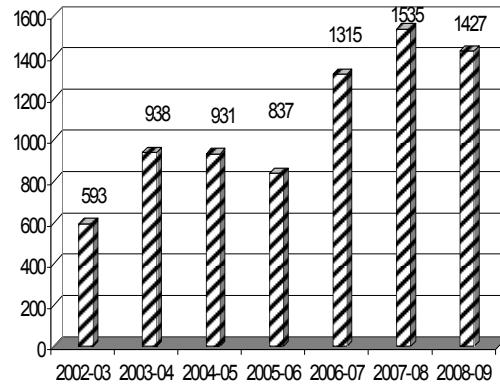
This will be very challenging given the staff shortages but the benefits to patients will be outstanding. This will require new ways of working and managing these changes given the staff shortages will be a major challenge for all.

# Clinical Support Directorate

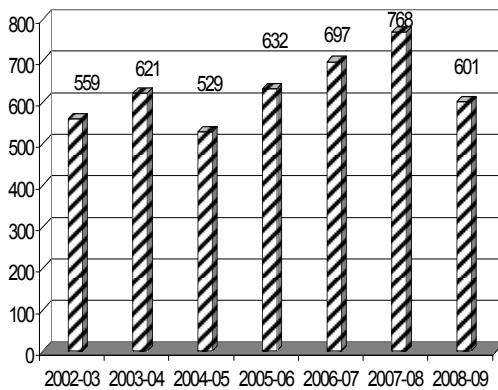
**Paediatric ultrasound exams**



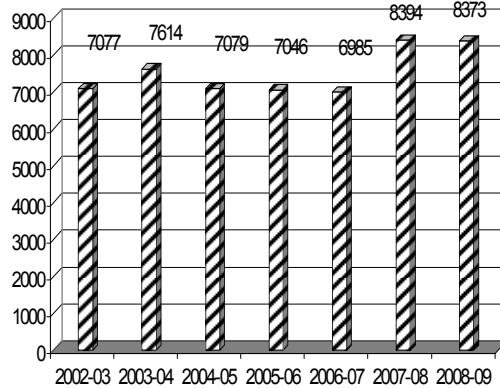
**Paediatric x-rays**



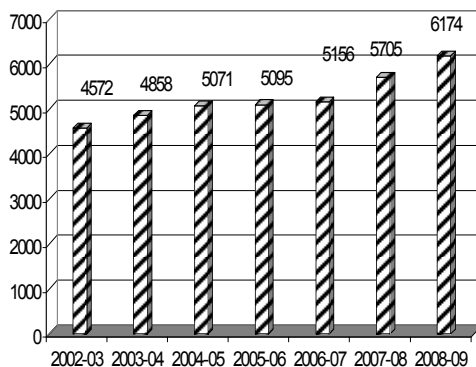
**Hystero-salpingograms- HSG's**



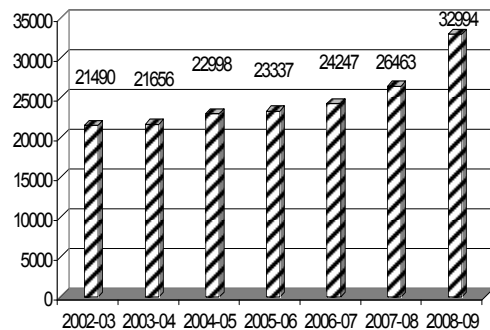
**Gynaecology ultrasound**



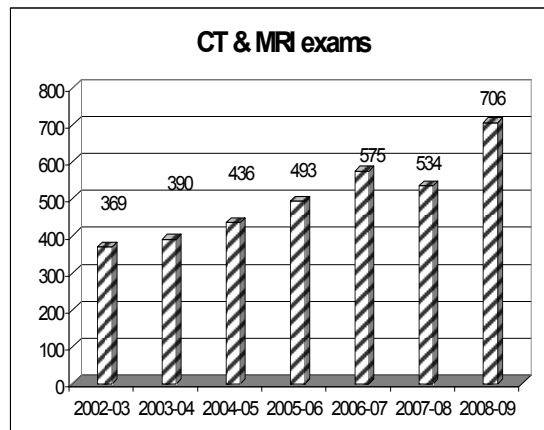
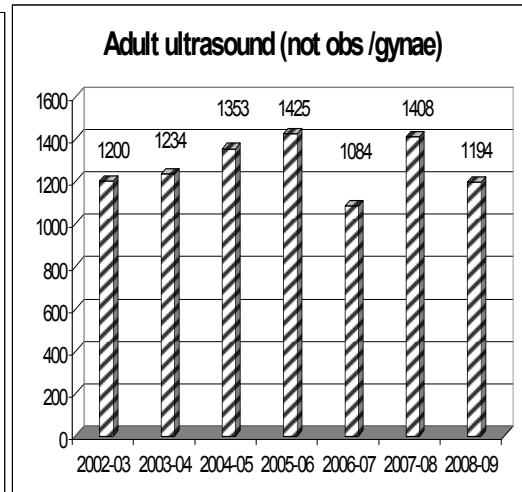
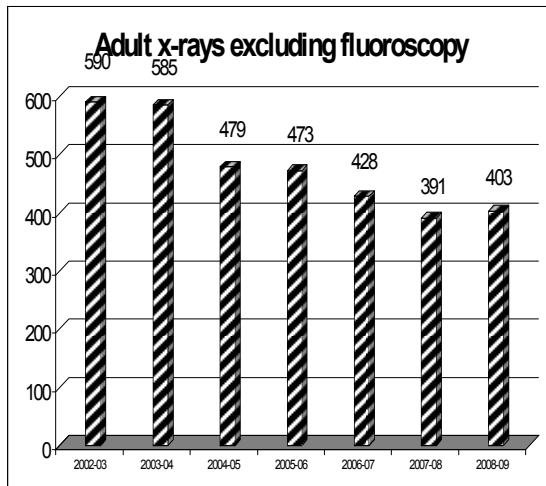
**Early pregnancy ultrasound**



**Obstetric ultrasound**



# Clinical Support Directorate

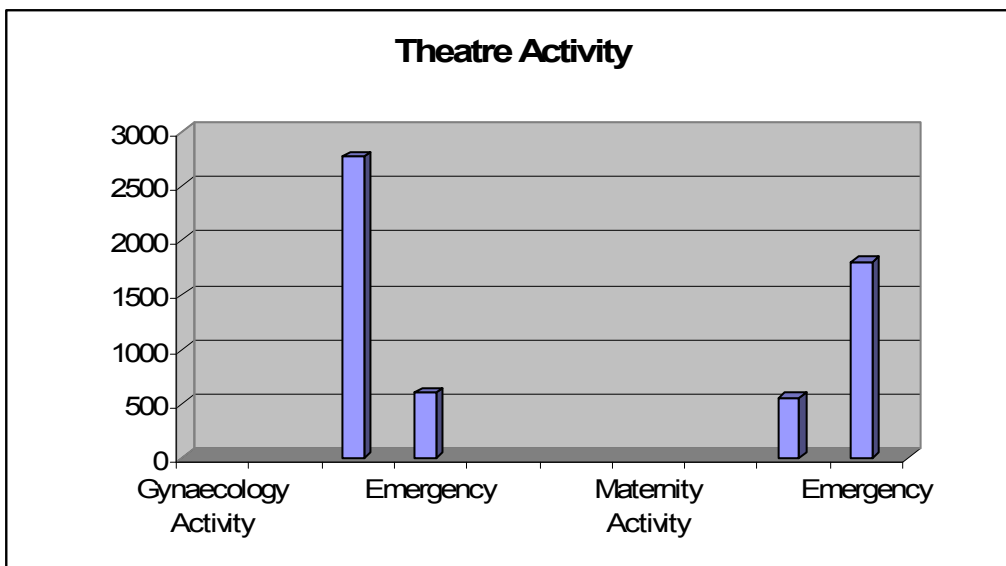


## Operating Theatres

**Gael Peters, Theatre Manager**

### Activity

The department consists of 2 Gynaecological and 2 Obstetric theatres that accommodate both elective and emergency surgery with annual activity as follows:-



Total operations for both specialties 5720

Total procedures for both specialties 7837

### Good practice Indicators

- The department met the 18 week target and a 50% reduction in non-medical patient cancellations on the day of surgery was achieved within the year.
- All unplanned returns to theatre have been discussed and actions agreed by the Theatre Users Group.
- In order to comply with European and national standards for decontamination of surgical instruments the trust services transferred to B Braun in November as part of the Pan Birmingham decontamination project.
- This has had a positive effect on all areas of the trust with the turnaround time reduced from 24 to 8 hours and the ability to track and trace our instrument sets with the introduction of IMS (Instrument Management System).
- We participate in the ongoing work of the collaboration and have a clinical representative on the service review committee.
- Development of Essence of Care Indicators is ongoing and is expanding to include a variety of areas within the directorate.
- The theatre users group is working towards moving more patients into an ambulatory setting and is currently leading on the introduction of the surgical safety checklist.

# Clinical Support Directorate

## Infection Control

- Hand Hygiene compliance is audited on a regular basis to ensure consistently high standards and cleaning regimes has all been revamped.
- The department has also introduced auditing several High impact interventions.

The ORMIS information system continues to be expanded and developed.

## Clinical Chemistry

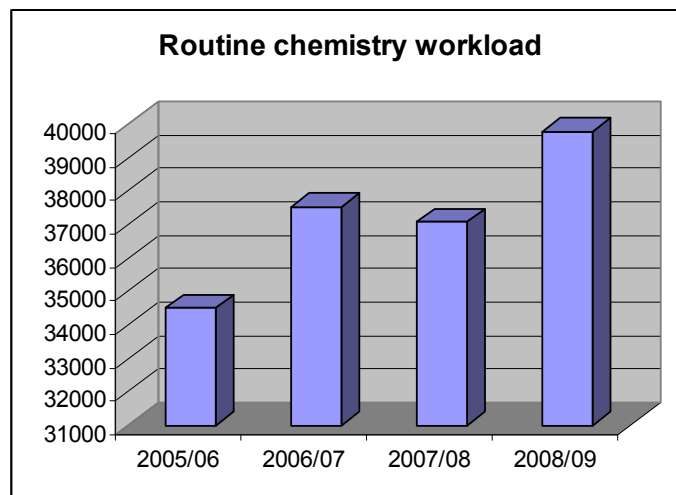
### Selton Smith, Head Biomedical Scientist

#### Overview

The department provides a general analytical service for Gynaecology, Obstetrics and the Neonatal unit to the trust as well as being a regional and extra-regional centre for the Antenatal screening programme.

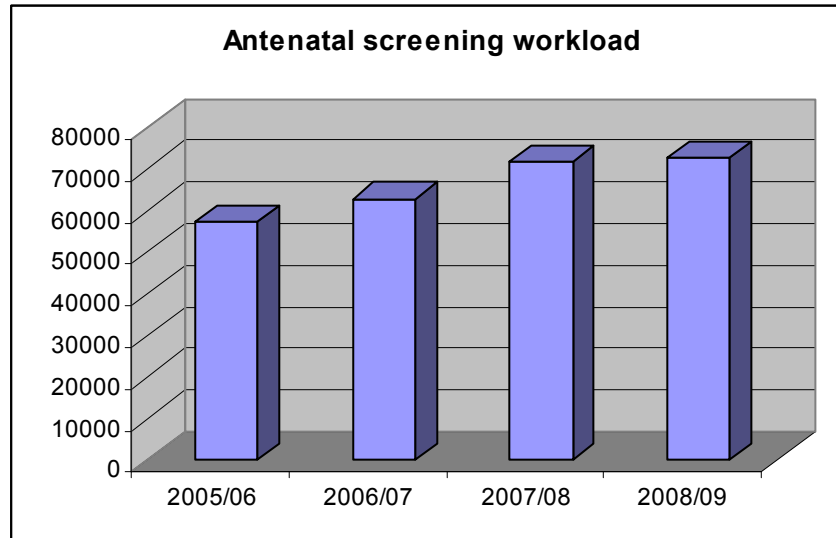
#### Activity

There has been an increase in routine clinical chemistry work largely due to an increase in the infertility services workload within Gynaecology (7.3%)



We have also seen an increase in the antenatal screening workload (1.4%), a continuation of the upward trend during the last 7 years.

# Clinical Support Directorate



## Improving Quality

The department has maintained the high standard and quality of services it provides by the addition of new members of staff to key roles. The implementation of new equipment has also provided a more robust service with the opportunity to increase the repertoire of tests we can offer in-house. A new GTT pathway is now in place and areas for further improvement of the service being identified.

## Future Plans

- To continue to actively take part in improving point of care services through upgrading equipment and ward based training sessions.
- The addition of the Inhibin A assay to our antenatal screen repertoire.
- Continue to review staffing levels and structure.

## Summary

The department has retained its Clinical Pathology Accreditation (CPA) status, and is actively implementing all the recommendations from the inspectors. The department is also currently improving the quality management system and staff training programmes.

## Haematology/Blood Transfusion

**Ray George, Head Biomedical Scientist and Dr. W. Lester, Consultant**

### Overview

In August 2009, the Haematology laboratory at Birmingham Women's Hospital received full CPA approval. Considerable efforts were made during 2008/2009 by laboratory, clinical and management staff at BWNFTCT to develop a safe, high quality service with the appropriate resources to provide 24 hour haematology and blood banking on site. Compliance with the Blood Safety and Quality Regulations/GMP standards as monitored by MHRA were also achieved in 2008/2009. Traceability of blood products is 99.6% for the year and blood wastage has been reduced by 34% from the previous year. We have participated in national transfusion audits and continue to run blood training sessions to comply with NPSA recommendations.

Since 2008 we have made strategic investments in new automated laboratory hardware:

- Commissioning of ABX Pentra 60C FBC analyser as secondary device - to replace old technology and reduce reagent costs

# Clinical Support Directorate

- A new ACL 500 Top haemostasis analyser –enhanced automated technology to improve turnaround time for previous labour intensive complex manual tests. We plan to make financial savings and cut test turnaround times for thrombophilia tests from 6 weeks to 2 weeks in 2009/2010 by developing in house testing rather than referring to UHBFT labs
- A new blood bank fridge to comply with CPA/MHRA standards
- An automated sample loader for antenatal haemoglobinopathy screening - increasing efficiency of sample throughput and reducing turnaround time.

As we move towards 2010, we prepare for significant and exciting challenges including changes in shift pattern, exploring the possibility of a combined Haematology/Biochemistry on call and negotiations with the NBS over provision of a regional antenatal screening service.

## Microbiology

***Dr J Gray, Consultant and Christine Roycroft, Head Biomedical Scientist***

### Overview

The Microbiology Department is a small department focused on providing a high quality state of the art service for the Trust. Our commitment to quality was recognised during our interim Clinical Pathology Accreditation (CPA) inspection in January 2009, where we performed exceptionally well. Performance in all relevant National External Quality Assurance Schemes was again satisfactory, and the Department continues to operate extensive internal quality assurance and audit programmes.

Specimen totals - in house- 48,321  
Specimen totals – work referred 7,100

This represents an overall 5.5% increase in the amount of work processed in-house but a 16.2% increase in the work referred to other Trusts. This equates to an overall increase in work of 6.7% for this period. The increased work referred to other trusts has primarily been from Gynaecology and in house from routine MRSA screening.

The department continues to meet the required turnaround times for all specimens received. No adverse clinical incidents were reported during this period.

There were two important innovations in the laboratory during the year. MRSA screening of elective and 'high-risk' emergency admissions was introduced across the Trust. To facilitate more rapid detection of carriers chromogenic culture media were introduced that allow provisional detection of MRSA within 24 hours, compared with 48 to 72 hours with the old method. The Department has been involved in developing efficient systems for all stages of MRSA screening, from test requesting through to transmission of results. This has not only allowed the laboratory to absorb the extra work from MRSA screening without additional staff, but has also helped to minimise the extra workload for clinical teams having to request MRSA screens and respond to positive results. New automated laboratory equipment was installed and commissioned during the latter part of the year. This will improve the speed and accuracy of microbial identification and antibiotic sensitivity testing, something that is especially important in the current climate of increasing concern about antibiotic resistance.

# Clinical Support Directorate

## Histology & Perinatal Pathology

**Raji Ganesan, Head of Department of Cellular Pathology & Linda Bentley, Operations Manager**

### Overview

The department is the Regional Centre for Perinatal Pathology and provides perinatal autopsy and associated services to the Trust and the region as well as diagnostic services in gynaecological pathology for the Pan Birmingham Regional Cancer Centre, Birmingham Women's NHS Foundation Trust.

### Activity

#### Surgical Histology

The Department provides surgical histopathology services to the BWNFT Trust, regional Cancer Centre and a review and referral service for the region and beyond. In 2008-9, there was a further increase in the surgical pathology workload. There is a steady increase in the complexity of the work received and new techniques add to the demands on the laboratory and pathologists.

	Gynae & Obstetric Cases
Total requests received	8,047
Total number of specimens received	10,430
Total number of patient tissue blocks generated	37,666

#### Perinatal Pathology

The Department provides a tertiary referral service for fetal and perinatal autopsies to the hospitals of the former West Midlands Region. The workload has shown a resurgence in the workload. Perinatal PM is highly specialised and we work closely in collaboration with the Regional Genetic Centre.

	Post Mortem Cases
Total requests received	716
Total number of specimens received	1,982
Total number of patient tissue blocks generated	17,108

#### Developments for 2009/2010

- To continue on the teamwork to succeed as the new Department of Cellular Pathology.
- Refurbish the mortuary to meet HTA standards
- To collaborate with NHS Service Improvement Team and use the opportunities to improve turnaround times and continue to review staffing levels and structure.

#### Summary

The department has now successfully amalgamated to form the new department of Cellular Pathology. The department has retained its Clinical Pathology Accreditation (CPA) status, and is actively implementing all the recommendations from the HTA inspectors including refurbishment. The department has won a national bid for Service Improvement and collaboration with the NHS Service Improvement Team will allow improvement of service.

# Clinical Support Directorate

## Cytopathology

**Dr Christine Waddell, Medical Head of Department**

### Overview

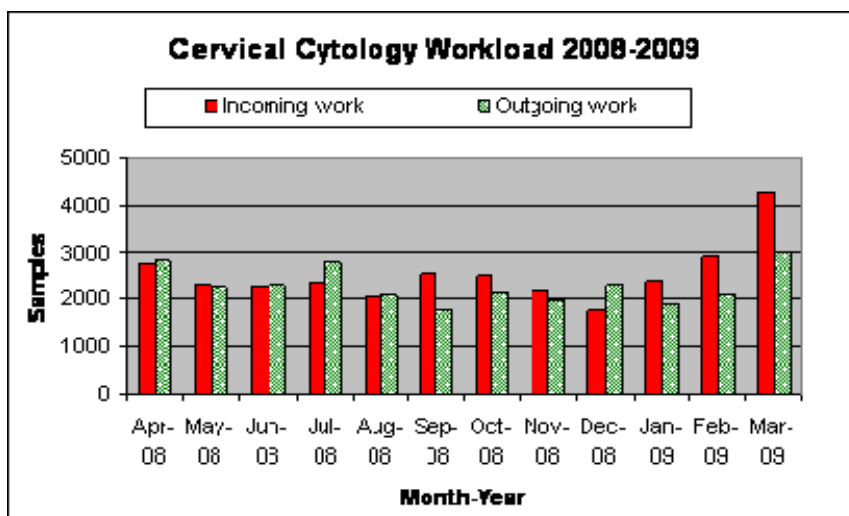
The department provides a cervical cytology screening service for hospital clinics and primary care for South Birmingham Primary Care Trust (PCT) and a proportion of Heart of Birmingham and East Birmingham PCTs. SurePath method liquid based cytology (LBC) is used to process the samples and the laboratory operates a failsafe system for women referred for assessment following abnormal results. The department also processes LBC samples for Good Hope Hospital. In addition, a diagnostic non-cervical cytology service is provided for the Women's Hospital gynaecology and colposcopy services and City Hospital Cancer Centre.

Along with histopathology, the cytopathology laboratory contributes to the multicentre NHS Cervical Screening Programme (NHSCSP) Sentinel Sites enquiry into introduction of HPV testing to the English cervical screening programme.

The department hosts the Cytology Training Centre which provides training for regional and extra-regional pathologists, biomedical scientists and cytoscreeners as well as medical and nursing staff in primary and secondary care involved in the NHS Cervical Screening Programme.

### Activity

During the year, the department received 30,492 cervical cytology requests and 548 non-cervical specimens including samples from City Hospital Gynaecology Cancer Centre. Towards the end of the twelve month period workload in cervical screening throughout the country increased greatly owing to publicity relating to the death of Jade Goody from cervical cancer. The Women's Hospital laboratory workload began to rise from January onwards with incoming work outstripping the capacity of the laboratory with an additional 4,000 requests on the previous year, resulting in a backlog situation. (This continued into 2009/10 although now much improved).



The training centre ran 70 courses for 514 participants including eight off-site courses and eight Distance Learning modules.

# Clinical Support Directorate

## Good performance indicators

The cytology laboratory is CPA accredited and routinely meets target set nationally with sensitivity to high grade disease at 99.5% comparing well with the minimum standard set at >95% and sensitivity for all grades at 97.3% - minimum standard of >90%. All the laboratory screening and reporting staff performed well in the External Quality Assurance rounds as required by the West Midlands Cancer Intelligence Unit. Until the latter part of the year, 99.98% of samples were reported within four weeks and 100% within six weeks although with the Jade Goody effect on turnaround times, this dropped to 76.57% and 99.88% respectively in the last quarter.

## Developments for 2009/2010

- To eliminate the backlog remaining at the end of 2008 -09 by continuation of overtime by established staff and employment of locum screener(s).
- To achieve 14 day turnaround time by April 2010 as required by government targets.
- To maintain the high level of performance as attained in previous years.
- The cytology training centre hopes to retain its high profile nationally, to continue to support extra-regional delegates in both SurePath and ThinPrep LBC systems and to develop its Distance Learning capacity.

## Andrology

**Dr S. Avery**

### Overview

The Andrology laboratory provides a diagnostic semen analysis service for patients referred via the Assisted Conception Unit, from Local Primary Care Trusts and other local hospital fertility clinics.

### Activity

The Andrology department performed seminal fluid analysis on 2,229 patients during 2008/9 and achieved 2 day turnaround for 85% of patients with a 4 day turnaround of 99%. See Table "Andrology Department Workload 2008-9".

Andrology workload for Apr 08-Mar 2009		
Total requests received	2229	
Andrology turnaround	Reported in 2 days	Reported in 4 days
Suggested department target	80%	100%
Turnaround for period	85%	99%
	Normal 100 % Abnormal 69%	Normal 100% Abnormal 98 %

## Good Performance Indicators

- The Andrology department achieved Clinical Pathology Accreditation following an interim CPA assessment visit in February 2009.
- As part of the ongoing modernisation of Pathology and CPA requirements, the Andrology Department has transferred all laboratory documentation to the i-Passport Quality Management System.
- The Andrology Department takes part in a cross-Pathology Audit Calendar, with Andrology staff performing vertical and horizontal audits for other departments and vice versa.
- Performance is continually monitored by participation in the Andrology scheme for UK National External Quality Assessment Scheme and results continue to lie within acceptable limits.

# Clinical Support Directorate

## Infection Control

The Andrology department operates to the highest standard of infection control with continuous monitoring of cleanliness and decontamination in both laboratory and patient areas.

## Risk Management

Risk management is incorporated with that of the Cytology department and risk registers are monitored and updated on a monthly basis.

## Development and Objectives

- Implementation of the 'Telepath' laboratory computer system, which will further improve the efficiency of the service.
- Monitor and reduce non-attendance rates.

## Physiotherapy

### Nina Bridges, Physiotherapy Manager

#### Overview

Establishment remains 2 wte physiotherapist, a technical assistant and a secretary.

Service delivery is broken down into the following key areas:

- Primary focus remains with out patient input into urinary, bowel and prolapse conditions. We receive referrals from in house Consultant, direct GP access, UHBFTT Clinicians and tertiary referrals. Clinics are held daily in the hospital setting, with a maximum of 17 clinic sessions available per week.
- In 2008-09 a total number of 665 new patients were seen and 2140 follow ups. This shows an increase of 11.5 % in new patient referrals on 2007-08 and a 32.5 % increase in follow up appointments. There has been an overall increase of 39.5% in referrals in the last 3 years.
- We continue to provide bi -monthly maternity group sessions for women who have pregnancy related back and pelvic pain; ante natal exercise and advice and use of the TEN's as a means of pain relief in labour.
- During 2008-09 we were referred 98 new patients and 31 follow ups across maternity and gynaecology in patients. Conditions referred were pregnancy related musculoskeletal problems, bladder retraining and post surgical management.
- An out of hours on-call service was available via an SLA with the Nuffield Hospitals, there was 1 call out in 11 months. The service was withdrawn by the providers at the end of February 2009. We are still investigating the viability of the service and the implications if we are unable to find another provider.

#### Clinical Governance

- In August 2008 we audited our out patient service by sending a questionnaire to patients that encompassed a number of standards from Essence of Care, the CSP's professional standards and NICE guidelines for Continence.
- We sent out 50 questionnaires and received back 29. Overall we received extremely positive feedback on the quality of care given, it was described as a "First Class" service.
- A couple of issues were raised by the patients and in response we have made small changes; one being in regard to availability of patient information in the waiting area and patients possible concerns about blinds and privacy in the treatment rooms.

# Genetics Service

**Val Davidson, Director for West Midlands Regional Genetics Service**

## Overview

This was a challenging and rewarding year for both the Clinical and Laboratory Services. The Clinical service was required to achieve compliance with 18 weeks RTT and address the significant waiting time for cancer patients; this was sometimes felt to be at odds with best patient care. Both were achieved due to the exceptional efforts of all staff involved. The Commissioners recognised and supported the increased workload by agreeing to fund a limited number of new posts for 2009-10 but specifically including a Consultant Clinical Geneticist. Funding provided addressed the workload pressures and the need to comply with national targets but no developments were funded. The Specialised commissioners have been working with the directorate to develop a Regional strategy for Genetics that the PCT leads will be instrumental in delivering.

The Service continued to attract considerable external income to fund research and development and also a considerable income generation plan.

Our position as the largest integrated clinical and laboratory genetics service and a leader in developmental techniques was recognised by the BBC Midlands Today News feature filmed in Clinical and Laboratory Genetics to represent the future of the NHS as part of the 60 years celebrations.

Although one of the most progressive leading edge services in the UK, the genetics accommodation is limited and particularly for the clinical service is hardly fit for purpose. As part of plan to address this and also to recognise the need to collaborate with the University of Birmingham there are plans to develop an Institute of Genomic Medicine. This will bring together all aspects of genetics including clinical, laboratory, academic, research and education into a single institution, virtual in the first instance but with the intention of attracting funding to co-locate in the future. This forms part of the academic planning for the Trust and the future development of genetics.

Overall the achievements and developments of the genetics service during 2008-9 reflect our on-going commitment to ensuring that patients and their families continue to benefit from advances in genetics.

## Staffing

As at 31 March 2009 the total Directorate staff numbered 241 and Genetics is now the 2<sup>nd</sup> largest directorate in the Trust.

Post	Laboratory genetics		Clinical genetics	
	No	WTE	No	WTE
4Clinical Director/Consultant Clinical Scientist		1 WTE		
Directorate Manager		1 WTE		
Chief ICT Manager		1 WTE		
Quality Manager	1	0.6		
Consultant Clinical Scientists(8c-9)	3	3		
Principal Clinical Scientists B8a-b	19	20.68		
Clinical Scientists B7	36	32.81		
Training resources manager	1	1.0		
Clinical Scientists B6	1	1.0		
Trainee Clinical Scientists (Supernumery)	35	35.0		

# Genetics Service

Genetic Technologists B7	2	2.0		
Genetic Technologists B4-6	42	41.24		
Genetic Technologists Trainees (Supernumery)	11	11.0		
Administrative support	4	4.0		
Healthcare Assistants	6	5.86		
Consultant Clinical Geneticists			13	12.5
Specialist Registrars			4	3.4
Genetic Counsellors B8a-c			21	17.42*
Genetic Counsellors B7			8	7.0*
Nurse specialists			4	3.33**
Healthcare Support Worker			1	0.7
IT support B6-7			2	1.86
Medical secretary's			11	10.39
WMFACS strategy officers B4-5			6	6
Other admin			7	6.4

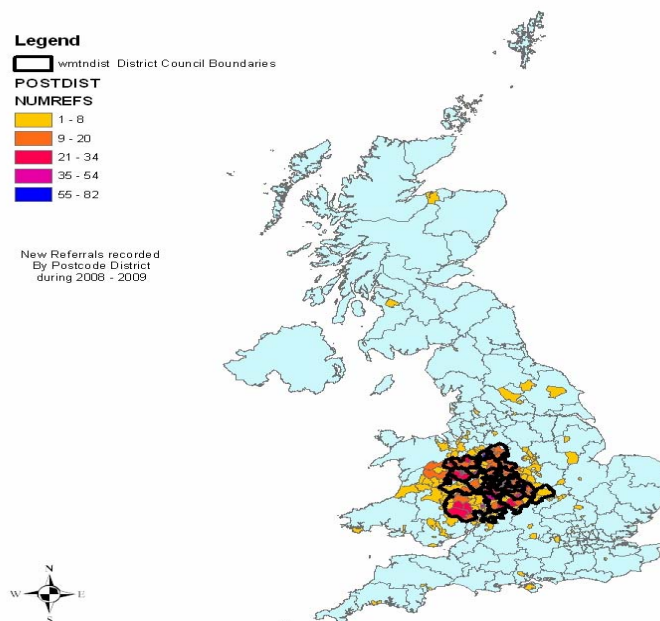
\* 3.5wte funded by local PCT

\*\* all to be funded via UHBFT 09/10

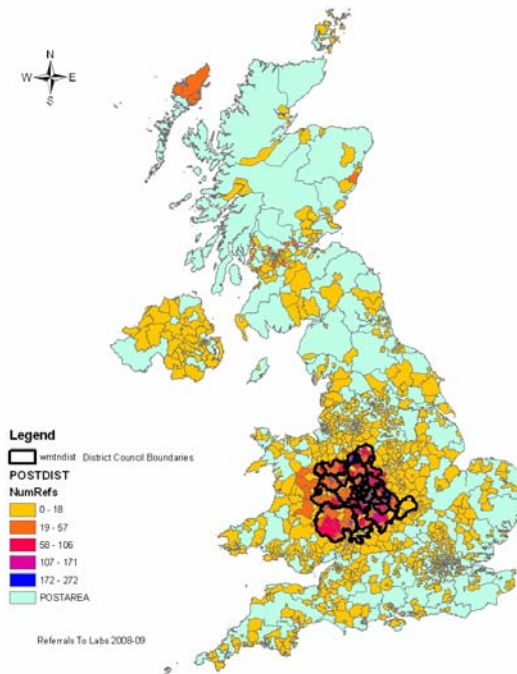
## Referral Patterns

The laboratory receives samples from throughout the West Midlands and via specialist contract with other regions throughout the UK. The following maps show the patterns of referrals and samples received across the UK.

Clinical Genetics - New Referrals By Postcode District



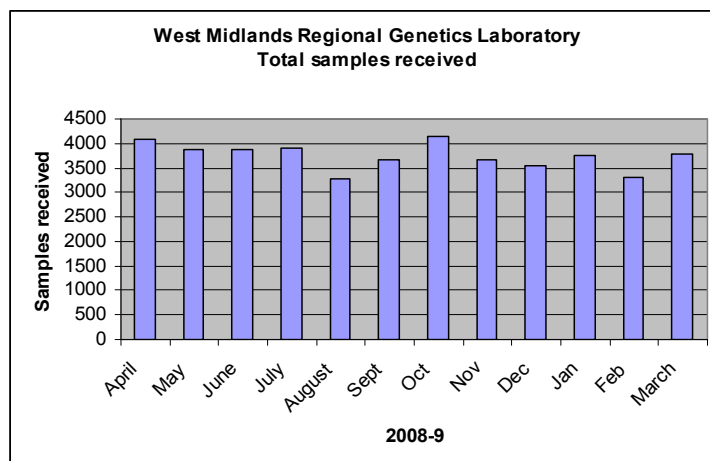
Laboratory Genetics – samples received by postcode



## Regional Genetics Laboratory

### Activity

During 2008-9 44940 samples were received in the laboratory. This shows an increase of almost 6000 over last year. The laboratory service is continually faced with increasing demands from both patients and clinicians to extra and new genetics tests and it is sometimes difficult to balance this increase in demand and maintain quality in all reporting times.



## **Turnaround times for Laboratory Genetics Samples**

There are no formal national standards for turnaround times for these tests that the Trust are monitored against. However as a department we aim to fulfil the suggested reporting times in the professional best practice guidelines and the recommendations from the Department of Health.

## **Paediatric and adult referrals for chromosome analysis**

The laboratory achieved excellent reporting times for chromosome analysis on all urgent peripheral and fetal blood samples although the average reporting time for non urgent samples is currently below the 28 day target. This area is being address in the next financial year through service re-design and the introduction of further automation.

## **Prenatal Diagnosis**

For 2008/9 all the prenatal diagnostic samples were reported for the rapid screen for aneuploidy with the 3 days stated by the DH and for cytogenetic analysis the majority were reported within the 14 day guideline.

## **Haemato – oncology**

This is the most rapidly expanding area of the department as hugely successful new treatment regimes have totally changed the outcome of patients with haematological cancers . The monitoring or residual disease and appropriateness of treatment has significantly increased the demand for this type of testing at both eh molecular and cytogenetic level.

There is an excellent reporting time for urgent cytogenetic samples from patients with a haemato-oncology referral This year also saw an improvement in the reporting time for the majority of routine cases although around 20% of cases fall below the target

Increased staffing levels and improvements in automation are also likely to lead to improved reporting for diagnostic testing for all leukemias. A User Satisfaction Survey in this area has however shown that the majority of users are satisfied with the service.

## **Molecular Genetics**

The molecular genetics section of the laboratory works to reporting recommendations set by Department of Health. These are 3 days for prenatal cases, 40 days to screen genes for unknown mutations and 10 days for the remainder of tests.

We continue to perform close to or above the 95% level for reports issued within 40 days across the two relevant sub sections.

Approximately 70% of reports falling into the 10 day reporting time are issued within guidelines. The department has made the decision to batch the processing of these samples (for scientific, practical and financial reasons) and it is recognised nationally that is appropriate practice. The professional body for molecular genetics is discussing this with DH in order to identify achievable targets but we continue to issue reports to clinicians within a clinically useful timeframe.

## **Achievements**

The laboratory successfully repatriated a number of tests for patients with rare disorders which were previously referred to other laboratories at significant cost. These include

- rare mutation screening for CF
- PMS2 analysis (for HNPCC)

# Genetics Service

New tests which have been developed are:

- HLRCC (Hereditary leiomyomatosis and renal cell cancer – the fumarate hydratase gene)
- MPS (multiple pterygium syndrome – DOK7 and RAPSN genes)
- RUNX1 (familial platelet disorder)
- RQ-PCR for rare variant BCR/ABL CML patients
- Confirmation of suspected hyperdiploidy in new ALLs using microsatellite markers
- High resolution Xexon array scanning for patients with X-linked mental disorders
- Microarray analysis of abnormal ultrasound scan pregnancies

We achieved the income generation target of almost £1M.

A number of external research grants were awarded during the year including:

- The Binding Site (£20,500 pa) and Cure Leukaemia (£5,000 pa), with a matched contribution from our own research trust fund (£5000 to fund a technical post to support the research biobank activity of the department for 2 years.
- Innovex (UK) have agreed to support an IT post for 2 years (£40,000 pa) to implement a region wide CML patient registry and improve the IT infrastructure related to the research biobank activity
- Novartis (European Region) have committed £83,000 to carry out a prospective study of trough Imatinib levels in newly diagnosed Chronic Phase CML patients and its correlation with response. This is a joint project with UHBFT and UHNS
- The University of London has contracted the laboratory to carry out BRCA1 and BRCA2 testing for a pilot project “Genetic cancer prevention through population screening”.

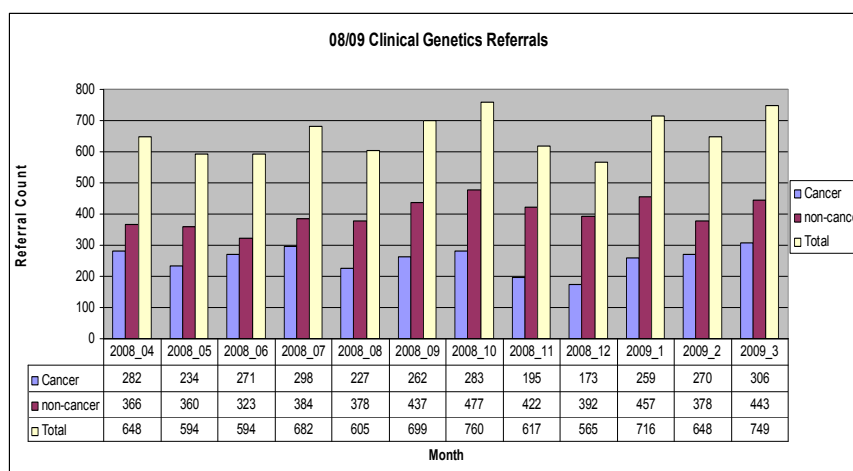
## Education and Training

The laboratory continues to have the largest UK based training programme for genetic technologists and clinical scientists. This year the Department has been successful in becoming a national pilot site for Modernising Scientific Careers and will be engaged in providing the new modernised training programme in genetics for 10 pilot trainees. This is specifically designed to look at the future needs of patients for genetics testing and service provision.

## Clinical Genetics

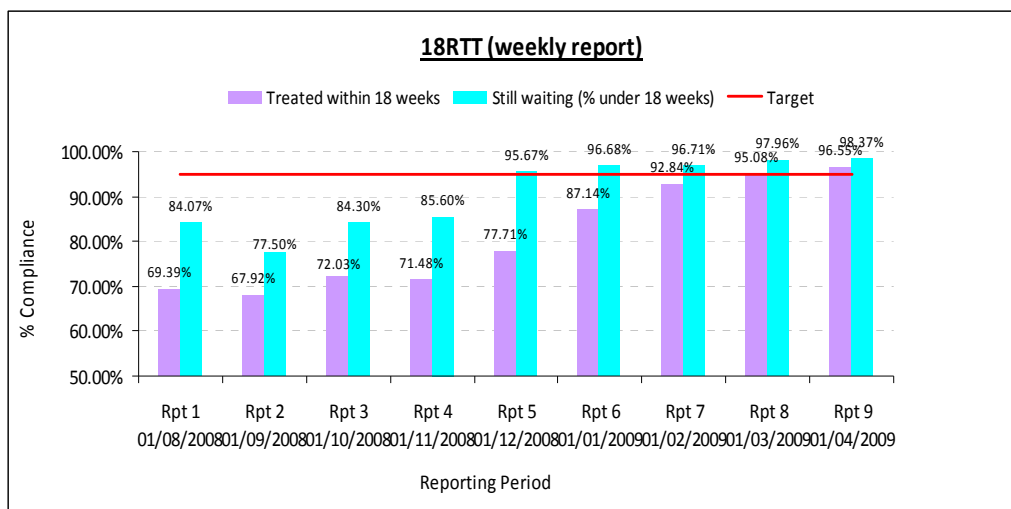
### Activity

7877 patient referrals were received by the Clinical Genetics Unit.



## Compliance with 18 weeks Referral To Treatment (RTT) in Clinical Genetics

After much national debate about whether genetics services were included in the Department of Health's 18 week policy, the Clinical Genetics Unit agreed with the Specialist Commissioners that compliance would be achieved by 31<sup>st</sup> December 2008. The target was achieved by a great deal of work by staff across the Unit including clinical staff offering a significant number of additional clinics and through substantial revisions to the databases used to collect patient information.



2008/09 was an extremely challenging year for the Clinical Genetics Unit. Confirmation that the 18 week RTT rule applied to Clinical Genetics and uncertainty surrounding 13 weeks created an increased workload and the need for significant process changes. The fact that the Unit achieved these targets within a reasonable time frame is a credit to all the staff involved. Our Trust and Commissioners were responsive to the extra demands placed on the Unit in attaining these targets and they were achieved by many members of staff working extra paid hours both to hold extra clinics and to manage the new pathways. In addition to working towards 18 weeks across all referrals the Unit implemented an initiative to reduce cancer waiting lists from over 9 months in some areas to comply with 18 weeks enabling the risk to be removed from the Trust's Risk Register.

## Achievements

Achieving and maintaining compliance with 18 weeks RTT.

The Heart of Birmingham Primary Care Trust has provided the Unit with substantial funding to establish the Enhanced Genetic Services Project. Establishment of this three-year project is now well underway. The project is specifically designed to address the need of our varied populations and aims to improve the access to genetic services by ethnic communities in part to try to address the higher incidence of perinatal mortality. The project involves staff from the PCT, the Clinical Genetics Unit and the National Genetics Education and Development Centre. It is being audited externally.

Three unique Specialist Nursing Roles have been developed since 2005 and, during the past year, each has been successful in securing funding to continue their work in bringing the advances in genetics to families and patients who can benefit from them.

In addition, the British Heart Foundation offered to fund a full time cardiac genetic nurse for a period of 3 years. This has allowed the joint cardiac genetic clinic to offer dedicated clinics for families with a history of sudden unexplained death in a young relative (as recommended by chapter 8 of the National Service Framework for Coronary Heart Disease). Recent reports based on the work of the Public Health Genetic unit identify gaps between need and provision of cardiac genetic service, and addressing these will put cardiac genetic services under growing pressure in the next 5 years.

Staff have also brought the opportunities provided by large research projects to these patients. Examples include plans to recruit to the IMPACT prostate cancer study.

Examples of innovation in the care offered to our patients include the use immunohistochemistry and genetic studies to screen colorectal cancer patient's (<55 years old) samples for HNPCC. This helps to identify those individuals who should have further molecular genetic testing. This clarifies individual management as well as allowing their relatives to get genetic advice and thus more effectively target the high-risk population for screening.

The increase in referrals to the cancer genetics service during the previous two years had resulted in long waiting times for patients needing a clinical appointment. During 2008/9 the backlog of appointments was removed and all patients are managed within an 18 week pathway. Crucial to the success of this project was the much delayed appointment of a further Cancer Consultant Clinical Geneticist.

An Integrated Care Pathway (ICP) has been developed for cancer genetics which will ensure that a comprehensive record is compiled facilitating the information available to the clinician caring for the patient.

Counselling supervision has been introduced for all GCs in line with Association of Genetics Nurses and Counsellors guidelines.

## **National Genetics Education and Development Centre (NGEDC)**

The Trust hosts the NGEDC which is funded directly by the Department of Health.

Staffing at 31<sup>st</sup> March 2009:

- 1 Centre Director (0.6wte)
- 1 Centre Manager
- 2 Education Specialists
- 1 Information Specialist
- 1 Knowledge Manager
- 1 Communications Specialist
- 1 Publications Specialist
- (3 Lead Professional Specialists – part time)
- 4 Education Development Officers
- 1 Administrative Assistant

The NHS National Genetics Education and Development Centre works with practitioners, educators, professional organisations and statutory bodies to integrate genetics into all levels of education and training for NHS health professionals.

## **NGEDC activity during 2008/2009**

The Centre has been working to integrate a continuum of genetics education into health professionals' learning, teaching and practice through awareness raising activities, development of educational resources and courses to support educators.

### **Some of the key achievements include:**

- Obtaining funding to sustain the Centre's work until 2014
- Winning the 'best use of new media' category at the Communicating Health Awards 2009 for the 'Telling Stories' resource
- Hosting the 2<sup>nd</sup> National 'Supporting Genetics Education for Health' conference
- Publication of quarterly 'Genetics Education Centre Update' newsletters
- Provision of 'Teaching Genetics' and 'Using PowerPoint' courses for genetics specialists
- Production of a series of fact sheets on 'The Genomic basis of Therapeutics'

# Genetics Service

- Development of resource sheets on common complex conditions including obesity and diabetes
- Provision of regional 'Genetics in Primary Care' courses for General Practice Trainers
- Increasing the regional coverage of the Genetics Education Facilitator network to support health professional educators
- Collaboration with the Royal College of General Practitioners to develop a 'Genetics in Primary Care' e-learning module for General Practice Trainees

## Future Developments for 2009/2010

- Introduction of a new 'common complex conditions' work stream
- Collaboration with the United Kingdom Genetic Testing Network to develop educational resources about genetic testing
- Liaison with health professionals and managers to support the integration of 'Genetics Activities in Clinical Practice'
- Development of an in-house e-learning unit to develop genetics e-learning initiatives

## Clinical Governance

Clinical quality standards are firmly embedded in our work. We have a dedicated Quality Manager post in the laboratory which has a very beneficial impact on the service we provide to patients.

Across the Service there is:

- a local incident management policy which feeds into the Trust system and constantly reviews best practice
- a full audit programme actively reviewing the work of the department
- Clinical Improvement Group meet monthly to review all relevant aspects of the service including incidents, audit and quality issues
- Patient and User Satisfaction Surveys carried out throughout the year and outcomes fed into service improvement .

## Laboratory

- Has full Clinical Pathology Accreditation
- Takes part in all available NEQAS external review programmes and has gained excellent results in all areas for 2008/9
- Has had no formal complaints during 2008-09
- A highly developed ongoing research and development of all relevant areas and technologies is integral to the functioning and future planning of the of the laboratory allowing the best possible delivery of services to patients

## Clinical Genetics Unit

- Standards of NICE and NSFs are incorporated into practice and adhered to
- Cancer clinic waiting times reduced to comply with external targets and removed from Trust risk register.
- Clinical department had five minor complaints during the period
- Compliant with both 18 week DH targets
- In association with SWOB we engage with other clinical genetic centres in regular peer review
- Securing funding for Specialist Nurse posts thus ensuring close working relationship between clinical genetics and mainstream medicine
- Numerous multi-disciplinary/joint clinics
- Developing the role of the genetic counsellor

## Risk Management

All laboratory procedures have a full risk assessment in place.

The directorate Clinical Improvement group reviews directorate and Trust risks monthly.

## Audits

### Laboratory audits carried out in 2008/9 include

- A review of myeloproliferative disorders
- A review of samples sent to other laboratories for testing
- An audit to determine the frequency of cytogenetic abnormalities among childhood AML patients(0-14y)
- An audit of the monitoring intervals for CML patients
- Audit QF-PCR stand alone prenatal diagnosis and Nuchal Translucency Refinement of karyotyping criteria
- An Audit of Fetal Blood Reporting Times at West Midlands Regional Genetics Laboratory and How They Compare to Best Practice Guidelines with Detail on Cases That Exceed Target Times
- An Audit Investigating the Levels of Presumed Maternal Cell Contamination of Amniotic Fluid Samples at the West Midlands Regional Genetics Laboratory between December 2002 and December 2007.

### Clinical Audits 2008-9

- Retrospective audit of investigations for all families referred in the past with X-linked MR to see if current molecular testing appropriate and whether at risk women have been offered counselling and testing
- Review of all 22q11 cases against recommendations for investigation
- To contribute to annual national data collection on molecular testing in HD and any variance from best practice guidelines
- Prospective evaluation of use in clinical practice
- Audit of compliance with BSHG guidelines for pedigree taking
- To compare mutation rates in West Midlands with published data and assess value of retrospective case ascertainment
- Audit of the use of tissue studies in investigations of familial bowel cancer against best practice guidelines
- Audit of compliance with guidance on case notes

### Poster Presentations

Larkins S, Higgins L, Ghosh A, Miller C, Ostojic N, Martin WL, Kilby MD, Luharia A., 'Prenatal diagnosis and imaging of a 46,X,der(Y)t(X;Y)(p22.13;q11.23)dn leading to functional disomy for distal Xp in a phenotypic male fetus with posteria fossa anomalies' *BSHG Conference* (2008)

Larkins S, McMullen DJ, Slater ML, Walker JM, Davison EV., 'A case of an inherited subtle add(13(q34) detected prenatally which was resolved using microarrays' *BSHG Conference* (2008)

MacDonald F., 'An audit of the outcomes of send-away samples' *CMGS Spring Conference* (2008)

Helen Cox, Celia Moss, Helen Grindulis, Peter Farndon. 'A novel connective tissue disorder caused by mutations of the lysyl hydroxylase 3 gene (PLOD3)' *Manchester Birth defects conference* (2008)

*Jim Gray, Consultant Microbiologist & Julie Suviste, Infection Control Nurse*

## Overview

Birmingham Women's Hospital has long given priority to the prevention and control of infection. Nevertheless, we recognise that there are always opportunities to develop the service in response to national guidance and directives, as well as to local needs. Nationally, there were two key developments relating to infection control during 2008/09.

- 1) All acute Trusts in England were subject to an unannounced inspection by the Healthcare Commission during 2008/09 to assess compliance with the Health Act 2006 (the 'Hygiene Code'). Although we already complied with the eleven provisions of the Act many of the Infection control developments during 2008/09 were around consolidating our compliance.
- 2) MRSA screening of elective admissions had to be introduced by the end of March 2009. Although a small number of patient groups were exempted from the requirement for screening, including some obstetric and paediatric cases, the guidance does require that women undergoing elective Caesarean sections, high risk obstetric cases (high risk of complications in the mother and/or baby) and high risk paediatric cases be screened.

Locally, the Infection Control Team produces an Annual Programme of Work. Progress against this is monitored quarterly by both the Infection Control Committee and the Clinical Governance Committee. At the end of the year the Director of Infection Prevention & Control produces an Annual Report on the state of Infection Prevention & Control within the Trust. This is presented to the Board of Directors, and once approved in that forum is placed in the public domain. The Infection Control Annual Programme for 2008/09 focused on assurance of compliance with the Hygiene Code: key elements were an increase in infection control nurse hours; delegation of greater responsibility for infection prevention and control to clinical teams and Directorates, and an enhanced programme of audit against infection control policies, cleaning standards and compliance with high impact interventions.

## Activity

### Infection surveillance

#### MRSA

For the sixth consecutive year there were no cases of MRSA bacteraemia and the total number of new cases of colonisation or infection with MRSA remains low (Table 1). As in previous years most cases were detected through routine screening of Gynaecology patients. However, despite the fact that routine screening of all Gynaecology elective admissions commenced in September 2008 the number of cases of MRSA amongst Gynaecology patients was lower than in previous years. A greater number of mother and baby pairs were found to have MRSA than in recent years. MRSA screening of high-risk obstetric cases was introduced in April 2009: one possible benefit of this might be to protect babies from acquiring MRSA from their mothers.

**Table 1: Occurrence of colonisation/infection with MRSA according to patient category during the past three years**

Patient group	No. of cases considered to have originated:									Total no. of cases		
	In this hospital			Outside this hospital			Uncertain					
	08/09	07/08	06/07	08/09	07/08	06/07	08/09	07/08	06/07	08/09	07/08	06/07
Neonatal Unit	-	-	-	5	1	3	1	2	-	6	3	3
Obstetric (mothers)	1	-	1	6	2	3	1	3	2	8	5	6
Obstetric (babies)	2	-	-	4	1	2	1	-	1	7	1	3
Gynaecology	-	-	1	13	16	18	-	2	3	13	18	22
<b>Total</b>	<b>3</b>	<b>-</b>	<b>2</b>	<b>28</b>	<b>20</b>	<b>26</b>	<b>3</b>	<b>7</b>	<b>6</b>	<b>34</b>	<b>27</b>	<b>34</b>

## Staphylococcus aureus

The number of patients colonised or infected with all types of *S. aureus* is monitored (Table 2), because this bacterium is the most common pathogen in all categories of patient at Birmingham Women's Hospital. There has been a decrease in the numbers of isolates of *S. aureus* in most patient groups, other than on the Neonatal Unit: one likely contributory factor was the large number of babies transferred to us from other units, and who were noted to be colonised on arrival.

**Table 1: Occurrence of colonisation/infection with *Staphylococcus aureus* according to patient category during the past three years**

	No. of cases of colonisation or infection with <i>S. aureus</i> in:			
	NNU	Other babies	Obstetric mothers	Gynaecology
2008/09	123	57	50	36
2007/08	106	83	74	46
2006/07	68	68	100	46
2005/06	105	85	114	54

## Other bacteria

Numbers of cases of a number of Gram-negative bacteria are also monitored in at-risk patients groups. However, none of these bacteria are seen commonly, and the numbers of isolates during 2008/09 gave no cause for concern. A full report is included in the Annual Report of the Director of Infection Prevention & Control.

## Training & Education

Provision of a regular training and education programme is central to the effective prevention and control of infections. Attendance at training sessions is good, and we were able to demonstrate compliance with the Trust Infection Control Training Policy and Training Needs Analysis at the time of the Healthcare Commission visit.

## Information provided to the public

We have a longstanding commitment to providing information on healthcare-associated infections to the people we serve, that predates the recent national prominence given to this. A number of new initiatives were introduced during 2008/09, including:

- Provision of more information on Ward Infection Control Notice Boards
- Production of an abbreviated version of the previous year's Annual Report, highlighting the key points from the full report that would be of interest to our staff and our public. This initiative was identified by the Healthcare Commission as an example of good practice.
- Updating of the patient information leaflet, *What we are doing to prevent and control healthcare associated infections*
- Production of new patient information on MRSA and MRSA screening.
- Production of an Infection Control newsletter which is available on the trust intranet site.

## Good Performance Indicators

### National surveillance through mandatory reporting to the Health Protection Agency

For the sixth consecutive year there were no infections in any of the three categories of infection encompassed by this scheme:

- Bacteraemia with meticillin-resistant *Staphylococcus aureus* (MRSA)
- Bacteraemia with glycopeptide-resistant enterococci
- *Clostridium difficile*-associated diarrhoea in over-2 year olds

### Healthcare Commission unannounced visit

During 2008/09 the Healthcare Commission undertook an annual programme of unannounced inspections to assess all NHS acute Trusts' arrangements for the control and prevention of healthcare associated infections against the Hygiene Code [Health & Social Care (Community Health & Standards) Act 2003 as amended by the Health Act 2006]. Birmingham Women's NHS Foundation Trust was visited on December 30 and 31 2008, when compliance was assessed against:

- **Duty 2:** to have in place appropriate management systems for infection prevention and control
- **Duty 4:** to provide and maintain a clean and appropriate environment for healthcare
- **Duty 8:** to provide adequate isolation facilities
- **Duty 10j:** to have in place an appropriate policy in relation to antimicrobial prescribing

The Healthcare Commission found no breaches of the hygiene code, and highlighted as an example of good practice our processes for publicising our Annual Report of the Director of Infection Prevention & Control, including the production and distribution of a smaller 'user friendly version'.

## Clinical Governance

### Audit

The Trust has a statutory duty to have an infection control audit programme that addresses compliance with infection control policies and or the provisions of the Health Act. During 2008/09 the following audits were undertaken:

- Environment
- Hand hygiene compliance
- Safe Handling and Disposal of Sharps
- Standard precautions
- Hand hygiene facilities
- High impact interventions
- Antibiotic prescribing

None of these audits gave findings that were a cause for concern. The most important example of good practice that was noted was a marked improvement in hand hygiene compliance. A full report of audit performance is included in the Annual Report of the Director of Infection prevention & Control.

## **Infection control policies**

The Trust Infection Control Policies cover all subjects required by the Hygiene Code, as well as addressing areas of high risk specific to the Trust.

During the year 12 existing policies were reviewed and updated and 5 new policies were produced.

## **Risk Management**

A separate infection control risk register was established in September 2008, and was later successfully transferred onto the Trust's new Datix Risk Register. The Risk register is maintained as a live document that reflects the current risks with respect to HCAI.

All infection control risks are reviewed on a quarterly basis by the Infection Control Committee, which reports to the Clinical Governance Committee. Risks with a score of 15 or above would be reported to the Board of Directors at least bimonthly. However, during the year the highest risk score was 9.

# Research and Development

**Professor Khalid Khan, Research & Development Director, Ms Katie Roebuck, R&D Manager (to August 2008), Mrs Kelly Hard, R&D Manager (from January 2009)**

## Overview

The R&D department went through a significant period of change during 2008, not only in accordance with national R&D changes implemented by the Department of Health, but also in terms of local staffing with the appointment of a new R&D manager, R&D Administrator, and Research Fellow. The new R&D team has been implementing changes across the department to ensure continuation of high quality research across the trust. The team has been working to further improve and increase the relationship with the Comprehensive Local Research Network.

During 2008/2009 the department has received a number of national and international grants, and have been selected to host three of the regional CLRN priority area networks. Reproductive Health and Childbirth is led by Prof K Khan, Clinical Genetics is led by Prof Eamonn Maher and Radiology and Imaging Network led by Dr M Balogun. Each of these networks is striving to increase the number of patients recruited into studies within the Birmingham and Black Country Region and also developing their own research projects for the future. In addition these networks aim to raise the profile of research, its translation into practice and continue the ongoing high quality research within the respective fields in our region, but especially within this trust.

## UKCRN

In line with the Department of Health Best Research for Best Health Strategy 2008/9 saw the last year of funding for R&D directly from the Department of Health. Instead income is now based on NIHR portfolio projects and grants. In order to receive income for NIHR portfolio studies the BBC CLRN request funding submissions twice per year based upon the previous 12 months recruitment figures into NIHR portfolio studies, per hospital site.

This year the department has continued to improve and strengthen the relationship with the BBC CLRN in order to secure and maximise potential portfolio income and Research Management and Governance support costs. The Women's hospital has been one of the biggest recruiters into portfolio studies within the region.

## Activity

At the end of the March 2009 there were 139 research studies being undertaken (or in the start up phase) across the Trust.

These are summarised below:

Area	Active	In set up	Total
Gynaecology	32	6	38
Obstetrics	21	5	26
Genetics	26	5	31
Fetal Medicine	14	1	15
Other	21	8	29
Total	114	25	139

## R&D Output

In 2008/09 research activity across the Trust was disseminated via National and International peer reviewed scientific Journals (in excess of 140)

# Research and Development

## Publications

Abbott J, Sivaraj RR, Ng A, Cole TR, Macpherson LK, Ragge NK. (2008) 'Neurofibromatosis type 2 in twins' *J Pediatr Ophthalmol Strabismus*. Vol.45(3);190-1.

Afnan M. (2009) 'Identifying real differences in live birth rates between HMG and rFSH in IVF' *Reprod Biomed Online* 18 Suppl 2 pp 25-30

Allen C, Bowdin S, Harrison RF, Sutcliffe AG, Brueton L, Kirby G, Kirkman-Brown J, Barrett C, Reardon W, Maher E. (2008). 'Pregnancy and perinatal outcomes after assisted reproduction'. *IR J Med Sci*.Sep:177:(3):233-41.

Broeze KA, Opmeer BC, Bachmann LM, Broekmans FJ, Bossuyt PM, Coppus SF, Johnson NP, Khan KS, ter Riet G, van der Veen F, van Wely M, Mol BW. (2009). 'Individual patient data meta-analysis of diagnostic and prognostic studies in obstetrics, gynaecology and reproductive medicine'. *BMC Med Res Methodol* 9:22

Buckley S, Coleman J, Davison I, Khan KS, Zamora J, Malick S, Morley D, Pollard D, Ashcroft T, Popovic C, Sayers J. (2009 Apr) 'The educational effects of portfolios on undergraduate student learning: a Best Evidence Medical Education (BEME) systematic review'. *BEME Guide No 11 Med Teach* 31 (4) pp 340-55

Burn J, Bishop DT, Mecklin JP, Macrae F, Möslin G, Olschwang S, Bisgaard ML, Ramesar R, Eccles D, Maher ER, Bertario L, Jarvinen HJ, Lindblom A, Evans DG, Lubinski J, Morrison PJ, Ho JW, Vasen HF, Side L, Thomas HJ, Scott RJ, Dunlop M, Barker G, Elliott F, Jass Jr, Fodde R, Lynch HT, Mathers JC (2008). 'Effect of aspirin or resistant starch on colorectal neoplasia in the Lynch syndrome'. *N Engl J Med*. Dec 11;359;(24); 2567-78.

Burton C, Latthe P, Toozs-Hobson P (2009). 'TVT-O vs TVT : a randomized trial in patients with different degrees of urinary stress incontinence'. *Int Urogynecol J Pelvic Floor Dysfunct*. Mar;20;(3):369:371-2 .

Byrd LM, Shenton A, Maher ER, Woodward E, Belk R, Lim C, Laloo F, Howell A, Jayson GC, Evans GD (2008). 'Better life expectancy in women with BRCA2 compared with BRCA1 mutations is attributable to lower frequency and later onset of ovarian cancer'. *Cancer Epidemiol Biomarkers Prev*. Jun;17:(6):1535-42.

Cerrato F, Sparago A, Verde G, De Crescenzo, Citro V, Cubellis MV, Rinaldi MM, Boccuto L, Neri G, Magnani C, D'Angelo P, Collini P, Perotti D, Sebastio G, Maher ER, Riccio A. (2008 May 15) 'Different mechanisms cause imprinting defects at the IGF2/H19 locus in Beckwith-Wiedemann syndrome and Wilms' tumour' *Hum Mol Genet* 17 (10) pp 1427-35

Chan SY, Vasilopoulou E, Kilby MD (2009). 'The role of the placenta in thyroid hormone delivery to the fetus'. *Nat Clin Pract Endocrinol Metab*. Jan;5:(1);45-54.

Crossen JS, Vollebregt KC, de Vrieze N, ter Riet G, Mol BW, Franx A, Khan DS, van der Post JA. (2008) 'Accuracy of mean arterial pressure and blood pressure measurements in predicting pre-eclampsia: systematic review and meta-analysis' *BMJ* 336 (7653) pp 1117-20.

Crossen JS, Ter Riet G, Mol BW, van der Post JA, Leeflang MM, Meads CA, Hyde C, Khan KS. (2009 June 1) 'Are tests for predicting pre-eclampsia good enough to make screening viable? A review of reviews and critical appraisal'. *Acta Obstet Gynecol Scand* pp 1-8.

Cullinane AR, Straatman-Iwanowska A, Seo JK, Ko JS, Song KS, Gizewska M, Gruszfeld D, Gliwicz D, Tuysuz B, Erdemir G, Sougrat R, Wakabayashi Y, Hinds R, Barnicoat A, Mandel H, Chitayat D, Fischler B,

Garcia-Cazorla A, Knisely AS, Kelly DA, Maher ER, Gissen P. (2009). 'Molecular investigations to improve diagnostic accuracy in patients with ARC syndrome'. *Hum Mutat*.Feb;30:(2):330-7.

Dalosso AR, Dolwani S, Jones N, Jones S, Colley J, Maynard J, Idziaszczyk S, Humphreys V, Arnold J, Donaldson A, Eccles D, Ellis A, Evans DG, Frayling IM, Hes FJ, Houlston RS, Maher ER, Mielsen M, Parry S, Tyler E, Moskvina V, Cheadle JP, Sampson JR. (2008 Sep) 'Inherited predisposition to colorectal adenomas caused by multiple rare alleles of MUTYH but not OGG1, NUDT1, NTH1 or NEIL 1, 2 or 3' *Gut* 57 (9) pp 1252-5

# Research and Development

Das K, Malick S, Khan KS. (2008 Oct) 'Tips for teaching evidence-based medicine in a clinical setting: lessons from adult learning theory. Part one'. *J R Soc Med* 101 (10) pp 493-500

De Lacy Costello B, Ewen R, Ewer AK, Garner CE, Probert CS, Ratcliffe NM, Smith S. (2008). 'An analysis of volatiles in the headspace of the faeces of neonates'. *Journal of Breath Research*. 2:037023 (online pub).

Denny E, Mann C, (2008). 'Endometriosis and the Primary Care consultant'. *European Journal of Obstetrics & Gynaecology and Reproductive Biology*. 139;111-115.

Evans DG, Shenton A, Woodward E, Laloo F, Howell A, Maher ER. (2008 May 30) 'Prevalence estimates for BRCA1 and BRCA2 based on genetic testing in a Clinical Cancer Genetics service setting : risks of breast/ovarian cancer quoted should reflect the cancer burden in the family' *BMC Cancer* 8 pp 155.

Foon R, Toozs-Hobson P, Latthe PM (2008). 'Adjuvant materials in anterior vaginal wall prolapse surgery: a systematic review of effectiveness and complications'. *Int Urogynecol J Pelvic Floor Dysfunct*. Dec:19;(12);1697-706.

Geoghegan J, Daniels JP, Moore PA, Thompson PJ, Khan KS, Gälmezoglu AM. (2009 May) 'Cell salvage at caesarean section: the need for an evidence-based approach' *BJOG* 116 (6) pp 743-7.

Ghosh A, Higglins L, Larkins SA, Miller C, Ostojic N, Martin WL, Kilby MD (2008) 'Prenatal diagnosis and prenatal imaging of a de novo 46,X,der(Y)t(X;Y)(p22.13;q11.23) leading to functional disomy for the distal end of the X chromosome short arm from Xp22.13 in a phenotypically male fetus with posterior fossa abnormalities'. *Prenat Diagn*. Nov:28:(11);1068-71

Gupta JK. (2008). 'Health Promotion: from clinic to classroom'. *BMJ*. 336:210;26 January.

Hadley J, Hassan I, Khan KS. (2008 Jul 23) 'Knowledge and beliefs concerning evidence-based practice amongst complementary and alternative medicine health care practitioners and allied health care professionals: a questionnaire survey' *BMC Complement Altern Med* 8:45

Henderson A, Douglas F, Perros P, Morgan C, Maher ER (2009). 'SDHB-associated renal oncocytoma suggests a broadening of the renal phenotype in hereditary paragangliomatosis'. *Fam Cancer* Jan 29.

James SR, Franklyn JA, Reaves BJ, Smith VE, Chan SY, Barrett TG, Kilby MD, McCabe CJ. (2009 Apr) 'Monocarboxylate transporter 8 in neuronal cell growth' *Endocrinology* 150 (4) pp1961-9

Jha S, Freeman R, Toozs-Hobson P, Richmond D (2009). 'Urogynaecology training in the UK : past, present and future'. *Int J Urogynaecology*.20:(4):377-380.

Jha S, Toozs-Hobson P, Parsons M. (2008). 'Does Preoperative urodynamics alter the management of prolapse surgery?'. *Journal of Obstetrics and Gynaecology*.Vol.28;3.

Johnatty SE, Couch FJ, Fredericksen Z, Tarrell R, Spurdle AB, Beesley J, Chen X; kConFab Investigators; AOCS Group; the Swedish BRCA1 and BRCA2 Study Collaborators, Gschwantler, Kaulich D, Singer CF, Fuerhauser C, Fink-Rettter A, Domchek SM, Nathanson KL, Pankratz VS, Lindor NM, Godwin AK, Caligo MA, Hooper J, Southey MC, Giles GG, Justenhoven C, Brauch H, Hamann U, Ko YD, Heikkinen T, Aaltonen K, Aittomäki K, Blomqvist C, Nevanlinna H, Hall P, Czene K, Liu J, Peock S, Cook M, Platte R, Gareth Evans D, Laloo F, Eeles R, Pichert G, Eccles D, Davidson R, Cole T, Cook J, Douglas F, Chu C, Hodgson S, Paterson J, Hogervorst FB, Rookus MA, Seynaeve C, Wijnen J, Vreeswijk M, Ligtenberg M, van der Luijt RB, van Os TA, Gille HJ, Blok MJ; HEBON, Issacs C, Humphreys MK, McGuffog L, Healey S, Sinilnikova O, Antonious AC, Easton DF, Chenevix-Trench G, on behalf of the Breast Cancer Association Consortium and the Consortium of Investigators of Modifiers of BRCA 1/2. (2009). 'No evidence that GATA3 rs570613 SNP modifies breast cancer risk' *Breast Cancer Res Treat*. Sep;117(2):371-9.

Johnson NP, Khan KS. (2009) 'Gynaecologists blaze the trail in primary studies and systematic reviews of diagnostic test accuracy' *Aust N Z J Obstet Gynaecol* 49 (1) pp 71-6.

# Research and Development

Johnson NP, Selman T, Zamora J, Khan KS. (2008) 'Gynaecologic surgery from uncertainty to science: evidence-based surgery is no passing fad' *Hum Reprod.* 832-9.

Kent L, Bowdin S, Kirby GA, Cooper WN, Maher ER. (2008 Oct 5) 'Beckwith Weidemann syndrome a behavioural phenotype-genotype study' *Am J Med Genet B Neuropsychiatr Genet* 147B (7) pp1295-7

Kidney E, Winter HR, Khan KS, Gálmezoglu AM, Meads CA, Keeks JJ, Macarthur C (2009 Jan 20) 'Systematic review of effect of community-level interventions to reduce maternal mortality'. *BMC Pregnancy Childbirth* 9:2

Kirkman-Brown J, Björndahl L. (2009 Feb) 'Evaluation of a disposable plastic Neubauer counting chamber for semen analysis' *Fertil Steril* 91 (2) pp 627-31

Knox EM, Thangaratnam S, Kilby MD, Khan KS. (2009 June 8) 'A review of the methodological features of systematic reviews in fetal medicine' *Eur J Obstet Gynecol Reprod Biol*

Kulier R, Coppus SF, Zamora J, Hadley J, Malick S, Das K, Weinbreener S, Meyerrose B, Decsi T, Horatch AR, Nagy E, Emparanza JI, Arvanitis TN, Bulrs A, Cabello JB, Kaczor M, Zanrei G, Pierer K, stawiarz K, Kunz R, Mol BW, Khan KS. (2009 May 12) 'The effectiveness of a clinically integrated e-learning course in evidence-based medicine : a cluster randomised controlled trial' *BMC Med Educ* 9 : 21.

Kulier R, Gee H, Khan KS. (2008 September) 'Five steps from evidence to effect: exercising clinical freedom to implement research findings'. *BJOG* 115 (10) pp 1197-202

Kulier R, Hadley J, Weinbrenner S, Meyerrose B, Decsi T, Horvath AR, Nagy E, Emparanza JI, Coppus SF, Arvanitis TN, Burls A, Cabello JB, Kaczor M, Zanrei G, Pierer K, Stawiarz K, Kunz R, Mol BW, Khan KS. (2008) 'Harmonising evidence-based medicine teaching: a study of the outcomes of e-learning in five European countries' *BMC Med Educ.* 8:27

Kurian MA, Morgan NV, Macpherson L, Foster K, Peake D, Gupta R, Philip SG, Hendriksz C, Morton JE, Kingston HM, Rosser EM, Wassmer E, Gissen P, Maher ER. (2008 Apr 29) 'Phenotypic spectrum of neurodegeneration associated with mutations in the PLA2G6 gene (Plan)' *Neurology* 70 (18) pp 1623-9

Latthe PM, Toozs-Hobson P, Gray J (2008). 'Mycoplasma and ureaplasma colonisation in women with lower urinary tract symptoms'. *Journal of Obstetrics and Gynaecology.* Vol.28;5;519-521.

Latthe P (2009). 'Some evidence shows that pelvic floor muscle training reduces urinary incontinence in pregnant and post partum women at <math>\leq 12</math> months'. *Evid Based Med.* Apr;14;(2):53.

Latthe PM (2008). 'Review of transobturator and retropubic tape procedures for stress urinary incontinence'. *Curr Opin Obstet Gynecol.* Aug;20;(4);331-6.

Liljegren A, Barker G, Elliott F, Bertario L, Bisgaard ML, Eccles D, Evans G, Macrae F, Maher E, Lindblom A, Rotstein S, Nilsson B, Mecklin JP, Möslein G, Jass J, Fodde R, Mathers J, Burn J, Bishop DT (2008). 'Prevalence of adenomas and hyperplastic polyps in mismatch repair mutation carriers among CAPP2 participants'. *J Clin Oncol.* Jul;10:26;(20):4343-9.

Lim D, Bowdin SC, Tee L, Kirby GA, Blair E, Fryer A, Lam W, Oley C, Cole T, Brueton LA, Reik W, Macdonald F, Maher ER.(2009). 'Clinical and molecular genetic features of Beckwith-Wiedemann syndrome associated with reproductive technologies'. *Hum Reprod.* Mar;24;(3);741-7.

Machado-Oliveira G, Lefievre L, Ford C, Herrero MB, Barratt C, Connolly TJ, Nash K, Morales-Garcia A, Kirkman Brown J, Publicover S. (2008) 'Mobilisation of Ca<sup>2+</sup> stores and flagellar regulation in human sperm by S-nitrosylation: a role for NO synthesised in the female reproductive tract' *Development.* 3677-86

# Research and Development

Malick S, Das K, Khan KS. (2008 Nov) 'Tips for teaching evidence-based medicine in a clinical setting : lessons from adult learning theory. Part two'. *J R Soc Med* 101 (11) pp 536-43

Margetts CD, Morris M, Astuti D, Gentle DC, Cascon A, McRonald FE, Catchpoole D, Robledo M, Neumann HP, Latif F, Maher ER. (2008 Sep) 'Evaluation of a function epigenetic approach to identify promoter region methylation in pheochromocytoma and neuroblastoma' *Endocr Relat Cancer* 15 (3) pp 777-86

Martin L, Gorman M, Thomas H, Peto J, Bishop T, Gray R, Maher ER, Lucassen A, Kerr D, Evans GR; CORGI Consortium, van Wezel T, Morreau H, Wijnen JT, Hooper JL, Southey MC, Giles GG, Severi G, Castellví-Bel S, Ruiz-Ponte C, Carracedo A, Casatells A; EPICOLON Consortium, Försti A, Hemminki K, Vodicka P, Naccarati A, Lipton L, Ho JW, Cheng KK, Sham PC, Luk J, Agúndez JA, Ladero JM, de la Hoya M, Caldés T, Niittymäki I, Tuupanen S, Karhu A, Aaltonen LA, Cazier JB, Tomlinson IP, Houlston RS. (2008 Dec 1) 'Refinement of the basis and impact of common 11q 23.1 variation to the risk of developing colorectal cancer' *Hum Mol Genet.* Vol. 17(23);3720-7.

Mayne C, Cutner A, Toozs-Hobson P (2008). 'Subspecialty training in Urogynaecology'. *The Obstetrician and Gynaecologist*.10:263-266.

Meads CA, Cnossen JS, Meher S, Juarez-Garcia A, ter Riet G, duley L, Roberts TE, Mol BW, van der Post JA, Leeflang MM, Barton PM, Hyde CJ, Gupta JK, Khan KS. (2008). 'Methods of prediction and prevention of pre-eclampsia: systematic reviews of accuracy and effectiveness literature with economic modelling'. *Health Technol Assess.* 12(6):iii-iv, 1-270.

Meyer E, Lim D, Pasha S, Tee LJ, Rahman F, Yates JR, Woods CG, Reik W, Maher ER. (2009) 'Germline mutation in NLRP2 (NALP2) in a familial imprinting disorder (Beckwith-Wiedemann Syndrome)' *PLoS Genet.* e1000423.

Morris RK, Cnossen JS, Langejans M, Robson SC, Kleijnen J, Ter Riet G, Mol BW, van der Post JA, Khan KS. (2008 Aug 4) 'Serum screening with Down's syndrome markers to predict pre-eclampsia and small for gestational age: systematic review and meta-analysis' *BMC Pregnancy Childbirth* 8:33

Morris RK, Kilby MD (2009). 'An overview of the literature on congenital lower urinary tract obstruction and introduction to the PLUTO trial: percutaneous shunting in lower urinary tract obstruction'. *Aust N Z J Obstet Gynaecol.* Feb;49 (1);6-10.

Morris R, Malin G, Khan K, Kilby M. (2009 May 8) 'Antenatal ultrasound to predict postnatal renal function in congenital lower urinary tract obstruction: systematic review of test accuracy' *BJOG*

Nawathe A, Patwardhan S, Yates D, Harrison GR, Khan KS. (2008) 'Systematic review of the effects of aromatase inhibitors on pain associated with endometriosis' *BJOG* 115 (7) pp 818-22

O'Brien S, Gupta JK, Najia S, Yehia M. (2008). Update on female sterilisation: report from an international symposium on considerations for assessing long term failure rates'. *J Fam Plann Reprod Health Care.* 34:13-8.

Oyesanya OA, Olufowobi O, Ross W, Sharif K, Afnan M. (2009) 'Prognosis of oocyte donation cycles : a prospective comparison of the in vitro fertilization embryo transfer cycles of recipients who use shared oocytes versus those who used altruistic donors' *Fertil Steril.* Sep;92(3):930-6.

Papadias A, Miller C, Martin WL, Kilby MD, Sgouros S. (2008). 'Comparison of prenatal and postnatal MRI findings in the evaluation of intrauterine CNS anomalies requiring postnatal neurosurgical treatment' Feb;24(2):185-92.

Papaemmanuil E, Carvajal-Carmona L, Sellick GS, Kemp Z, Webb E, Spain S, Sullivan K, Barclay E, Lubbe S, Jaeger E, Vijayakrishnan J, Broderick P, Gorman M, Martin L, Lucassen A, Bishop DT, Evans DG, Maher ER, Steinke V, Rahner N, Schackert HK, Goetze TO, Holinski-Feder E, Propping P, Van Wezel T, Wijnen J, Cazier JB, Thomas H, Houlston RS, Tomlinson:CORGI Consortium. (2008). 'Deciphering the genetics of hereditary non-syndromic colorectal cancer'. *Eur J Hum Genet.* Dec;16(12):1477-86.

Pappas G, Adha A, Rafique G, Khan Ks, Badruddin SH, Peermohamed H. (2008) 'Community-based approaches to combating malnutrition and poor education among girls in resource-poor settings: report of large scale intervention in Pakistan' *Rural Remote Health* 8 (3) pp 820

# Research and Development

Pittman AM, Webb E, Carvajal-Carmona L, Howarth K, Di Bernardo MC, Broderick P, Spain S, Walther A, Price A, Sullivan K, Twiss P, Fielding S, Rowan A, Jaeger E, Vijayakrishnan J, Chandler I, Penegar S, Qureshi M, Lubbe S, Domingo E, Kemp Z, Barclay E, Wood W, Martin L, Gorman M, Thomas H, Peto J, Bishop T, Gray R, Maher ER, Lucassen A, Kerr D, Evans GR; CORGI Consortium, van Wezel T, Morreau H, Wignen JT, Hopper JL, Southey MC, Giles GG, Severi G, Castellví-Bel S, Ruiz-Ponte C, Carracedo A, Castells A; Epicolon Consortium, Försti A, Hemminki K, Vodicka P, Naccarati A, Lipton L, Ho JW, Cheng KK, Sham PC, Luk J, Agúndez JA, Ladero JM, de la Hoya M, Caldés T, Niittymäki, Tuupanen S, Karhu A, Aaltonen LA, Cazier JB, Tomlinson IP, Houlston RS. (2008). 'Refinement of the basis and impact of common 11q23.1 variation to the risk of developing colorectal cancer'. *Hum Mol Genet.* Dec 1:17:(23):3720-17.

Pretlove SJ, Thompson PJ, Toozs-Hobson PM, Radley S, Khan KS (2008). 'Does the mode of delivery predispose women to anal incontinence in the first year postpartum'. *BJOG.*115:4;421-434.

Prileszky G, Kai J, Gupta J. (2008). 'Mirena coil for heavy menstrual bleeding'. *Br J Gen Pract.* 58:886.

Rasiah SV, Ewer AK, Miller P, Wright JG, Tonks A, Kilby MD. (2008). 'Outcome following prenatal diagnosis of complete atrioventricular septal defect'. *Prenatal Diagnosis.* 28:95-101.

Rasiah SV, Ewer AK, Miller P, Wright JG, Barron DJ, Brawn WJ, Kilby MD (2008). 'Antenatal perspective of hypoplastic left heart syndrome : 5 years on'. *Arch Dis Child Fetal Neonatal ED.* May;93;(3):192-7.

Raza A, Coomarasamy A, Khan KS. (2009 June 3) 'Best evidence continuous medical education' *Arch Gynecol Obstet*

Raza A, Chien PF, Khan KS. (2009 Jul) 'Multi-centre randomised controlled trials in obstetrics and gynaecology : an analysis of trends over three decades' *BJOG* 116 (8) pp 1130-4

Reitsma JB, Rutjes AW, Khan KS, Coomarasamy A, Bossuyt PM. (2009 May 15) 'A review of solutions for diagnostic accuracy studies with an imperfect or missing reference standard' *J Clin Epidemiol*

Ricketts C, Woodward ER, Killick P, Morris MR, Astuti D, Latif F, Maher ER (2008). 'Germline SDHB mutations and familial renal cell carcinoma'. *J Natl Cancer Inst.* Sept 3;100:(17):1260-2.

Roberts D, Gates S, Kilby M, Neilson JP (2008). 'Interventions for twin-twin transfusion syndrome : a Cochrane review'. *Ultrasound Obstet Gynecol.* Jun;31;(6); 701-711.

Scott RH, Douglas J, Baskcomb L, Huxter N, Barker K, Hanks S, Craft A, Gerrard M, Kohler JA, Levitt GA, Picton S, Pizer B, Ronghe MD, Williams D, Factors Associated with Childhood Tumours (FACT) Collaboration, Cook JA, Pujol P, Maher ER, Birch JM, Stiller CA, Pritchard-Jones K, Rahman N. (2008) 'Constitutional 11p15 abnormalities, including heritable imprinting center mutations, cause nonsyndromic Wilms tumor'. *Nat Genet.* Nov;40:(11);1329-34.

Selman TJ, Mann CH, Zamora J, Khan KS. (2008) 'A systematic review of tests for lymph node status in primary endometrial cancer' *BMC Womens Health.* 8:8 Review

Selman TJ, Johnson NP, Zamora J, Khan KS. (2008) 'Gynaecologic surgery from uncertainty to science: evolution of randomized control trials'. *Hum Reprod.* 827-31.

Srirangalingam U, Walker L, Khoo B, MacDonald F, Gardner D, Wilkin TJ, SkellyRH, George E, Spooner D, Monson JP, Grossman AB, Akker SA, Pollard PJ, Plowman N, Avril N, Berney DM, Burrin JM, Reznek RH, Kumar VK, Maher Er, Chew SL. (2008 Oct) 'Clinical manifestations of familiar paraganglioma and pheochromocytomas in succinate dehydrogenase B (SDH-B) gene mutation carriers' *Clin Endocrinol (Oxf)* 69 (4) pp 587-96

# Research and Development

Srirangalingam U, Khoo B, Walker L, MacDonald F, Skelly RH, George E, Spooner D, Johnston LB, Monson JP, Grossman AB, Drake WM, Akker SA, Pollard PJ, Plowman N, Avril N, Berney DM, Burrin JM, Reznik RH, Kumar VK, Maher ER, Chew SL. (2009) 'Contrasting clinical manifestations of SDHB and VHL associated chromaffin tumours' *Endocr Relat Cancer*. 16(2) 515-525.

Thangaratinam S, Coomarasamy A, O'Mahony F, Sharp S, Zamora J, Khan KS, Ismail KM. (2009 Mar 24) 'Estimation of proteinuria as a predictor of complications of pre-eclampsia: a systematic review'. *BMC Med* 7: 10

Thangaratinam S, Coomarasamy A, Sharp S, O'Mahony F, O'Brien S, Ismail KM, Khan DS. (2008 Aug 11) 'Tests for predicting complications of pre-eclampsia: a protocol for systematic reviews' *BMC Pregnancy Childbirth* 8 (1) pp 38

Tomlinson IP, Webb E, Carvajal-Carmona L, Broderick P, Howarth K, Pittman AM, Spain S, Lubbe S, Walther A, Sullivan K, Jaeger E, Fielding S, Rowan A, Vijayakrishnan J, Domingo E, Chandler I, Kemp Z, Qureshi M, Farrington SM, Tenesa A, Prendergast JG, Barnetson RA, Penegar S, Barclay E, Wood W, Martin L, Gorman M, Thomas H, Peto J, Bishop DT, Gray R, Maher ER, Lucassen A, Kerr D, Evans DG, CORGI Consortium, Schafmayer C, Buch S, Völzke H, Hampe J, Schreiber S, John U, Koessler T, Pharoah P, van Wezel T, Morreau H, Wijnen JT, Hopper JL, Sothey Mc, Giles GG, Severi G, Castellví-Bel S, Ruiz-Ponte C, Carracedo A, Castells A; EPICOLOR Consortium, Försti A, Hemminki K, Vodicka P, Naccarati A, Lipton L, Ho JW, Cheng KK, Sham PC, Luk J, Agúndez JA, Ladero JM, de la Hoya M, Caldés T, Houlston RS. (2008 Oct) 'A genome-wide association study identifies colorectal cancer susceptibility loci on chromosomes 10p14 and 8q23.3' *Nat Genet* 40 (5) pp 623-30

Toozs-Hobson P, Balmforth J, Cardozo L, Khullar V, Athanasiou S (2008). 'The effect of mode of delivery on pelvic floor functional anatomy'. *International Urogynecology Journal*.Vol.19;407-16.

Toozs-Hobson P, Cardozo L. (2008 Jun) 'Retrospective multi-centre study of the new minimally invasive mesh repair devices for pelvic organ prolapse' *BJOG* 115 (7) pp 919-20

Tower CL, Ong SS, Ewer AK, Khan K, Kilby MD (2008). 'Prognosis on isolated gastroschisis with bowel dilation : a systematic review'. *Arch Dis Child Fetal Neonatal Ed*. Nov;10;Epub ahead of print.

Varma R, Gupta J. (2009). 'Tubal ectopic pregnancy. *Clin Evid (online)*. 20:pil:1406.

Varma R, Soneja H, Clark TJ, Gupta JK. (2009 Feb) 'Hysteroscopic myomectomy for menorrhagia using Versascope bipolar system: efficacy and prognostic factors at a minimum of one year follow up' *Eur J Obstet Gynecol Reprod Biol* 142(2) pp 154-9

Varma R, Soneja H, Bhatia K, Ganesan R, Rollason T, Clark TJ, Gupta JK. (2008 Aug) 'The effectiveness of a levonorgestrel-releasing intrauterine system (LNG-IUS) in the treatment of endometrial hyperplasia – a long-term follow up study' *EUR J Obstet Gynecol Reprod Biol* 139 (2) pp 169-75

Varma R, Soneja H, Samuel N, Sangha E, Clark TJ, Gupta JK. (2008 Sep) 'Hospital recovery following Thermachoice ablation is not dependant on setting (outpatient or day case) or rescue analgesia : unexpected result' *Eur J Obstet Gynecol Reprod Biol* 140 (1) pp 76-81

Varma R, Gupta JK. (2008 Dec) 'Laparoscopic entry techniques: clinical guideline, national survey and medico-legal ramifications' *Surg Endosc* 22 (12) pp 2686-97  
Woodward ER, Ricketts C, Killick P, Gad S, Morris MR, Kavalier F, Hodgson SV, Giraud S, Bressac-de Paillerets B, Chapman C, Escudier B, Latif F, Richard S, Maher ER. (2008). 'Familial non-VHL clear cell (conventional) renal cell carcinoma: clinical features, segregation analysis, and mutation analysis of FLCN'. *Clin Cancer Res*. Sep;15:14:(18):5925-30.

Vogt J, Morgan NV, Marton T, Maxwell S, Harrison BJ, Beeson D, Maher ER. (2009) 'Germline mutation in DOK7 associated with fetal akinesia deformation sequence' *J Med Genet* 46(5) 338-40.

# Research and Development

## Genetics Publications

An Q, Wright SL, Konn ZJ, Matheson E, Minto L, Moorman AV, Parker H, Griffiths M, Ross FM, Davies T, Hall AG, Harrison CJ, Irving JA, Strefford JC. 'Variable breakpoints target PAX5 in patients with dicentric chromosomes: a model for the basis of unbalanced translocations in cancer.' *Proc Natl Acad Sci USA*. (2008); 105(44):17050-4.

Armstrong R, Greenhalgh KL, Rattenberry E, Judd B, Shukla R, Losty PD, Maher ER. 'Succinate dehydrogenase subunit B (SDHB) gene deletion associated with a composite paraganglioma/neuroblastoma.' *J Med Genet*. (2009); 46(3):215-6

Ghosh A, Higgins L, Larkins SA, Miller C, Ostojic N, Martin WL, Kilby MD. 'Prenatal diagnosis and prenatal imaging of a de novo 46,X,der(Y)t(X;Y)(p22.13;q11.23) leading to functional disomy for the distal end of the X chromosome short arm from Xp22.13 in a phenotypically male fetus with posterior fossa abnormalities.' *Prenat Diagn*. (2008); 28(11): 1068-71

Gilbert FJ, Warren RM, Kwan-Lim G, Thompson DJ, Eeles RA, Evans DG, Leach MO; United Kingdom Magnetic Resonance Imaging in Breast Screening (MARIBS) Study Group. Cancers in BRCA1 and BRCA2 carriers and in women at high risk for breast cancer: MR imaging and mammographic features. *Radiology*. 2009 Aug;252(2):358-68

Khanim FL, Bradbury CA, Arrazi J, Hayden RE, Rye A, Basu S, MacWhannell A, Sawers A, Griffiths M, Cook M, Freeman S, Nightingale KP, Grimwade D, Falciani F, Turner BM, Bunce CM, Craddock C. 'Elevated FOSB-expression; a potential marker of valproate sensitivity in AML.' *Br J Haematol*. (2009); 144(3): 332-41.

Lim D, Bowdin SC, Tee L, Kirby GA, Blair E, Fryer A, Lam W, Oley C, Cole T, Brueton LA, Reik W, Macdonald F, Maher ER. 'Clinical and molecular genetic features of Beckwith-Wiedemann syndrome associated with assisted reproductive technologies.' *Hum Reprod*. (2009); 24(3): 741-7.

Lok CY, Merryweather-Clarke AT, Viprakasit V, Chinthammitr Y, Srichairatanakool S, Limwongse C, Oleesky D, Robins AJ, Hudson J, Wai P, Premawardhana A, de Silva HJ, Dassanayake A, McKeown C, Jackson M, Gama R, Khan N, Newman W, Banait G, Chilton A, Wilson-Morkeh I, Weatherall DJ, Robson KJ. Iron overload in the Asian community. *Blood*. 2009 Jul 2;114(1):20-5. Epub 2009 Apr 2.

Parker H, An Q, Barber K, Case M, Davies T, Konn Z, Stewart A, Wright S, Griffiths M, Ross FM, Moorman AV, Hall AG, Irving JA, Harrison CJ, Strefford JC. 'The complex genomic profile of ETV6-RUNX1 positive acute lymphoblastic leukemia highlights a recurrent deletion of TBL1XR1.' *Genes Chromosomes Cancer*. 2008; 47(12): 1118-25.

Patel C, Hardy G, Cox P, Bowdin S, McKeown C, Russell AB. Mosaic trisomy 1q: The longest surviving case. *Am J Med Genet A*. 2009 Aug;149A(8):1795-800.

Paulsson K, An Q, Moorman AV, Parker H, Molloy G, Davies T, Griffiths M, Ross FM, Irving J, Harrison CJ, Young BD, Strefford JC. Methylation of tumour suppressor gene promoters in the presence and absence of transcriptional silencing in high hyperdiploid acute lymphoblastic leukaemia. *Br J Haematol*. (2009);144(6): 838-47.

Prattichizzo C, Macca M, Novelli V, Giorgio G, Barra A, Franco B; Oral-Facial-Digital Type I (OFDI) Collaborative Group. 'Mutational spectrum of the oral-facial-digital type I syndrome: a study on a large collection of patients.' *Hum Mutat*. (2008); 29(10): 1237-46.

Ricketts, C., Woodward, E.R., Killick, P., Morris, M., Astuti, D., Farida Latif, F., Maher, E.R. (2008). Germline SDHB Mutations and Familial Renal Cell Carcinoma. *Journal National Cancer Institute*, 100, 1260-2.

Russell LJ, De Castro DG, Griffiths M, Telford N, Bernard O, Panzer-Grümayer R, Heidenreich O, Moorman AV, Harrison CJ. 'A novel translocation, t(14;19)(q32;p13), involving IGH@ and the cytokine receptor for erythropoietin.' *Leukemia*. (2009); 23(3): 614-7.

Sanders DS, Yousef A, Carr RA, Murphy P, Taniere P, Glendinning K, Macdonald F, McKeown C; Gastrointestinal Unit, Warwick Hospital. MSI-H 'medullary type' adenocarcinoma complicating ileal Crohn's disease; further molecular insight into Crohn's-related carcinogenesis. *Histopathology*. 2008 Mar;52(4):519-23. No abstract available.

Woodward, E.R., Ricketts C., Killick, P., Gad, S., Morris, M., Kavalier, F., Hodgson, S.V., Giraud, S., Bressac, B., Chapman, C., Escudier, B., Latif, F., Richard, S. and Maher, E.R. (2008). Familial non-VHL Clear Cell (Conventional) Renal Cell Carcinoma: clinical features, segregation analysis and mutation analysis of FLCN. *Clinical Cancer Research*, 14, 5925-30.

# Research and Development

Schoemaker MJ, Swerdlow AJ, Higgins CD, Wright AF, Jacobs PA; United Kingdom Clinical Cytogenetics Group. 'Mortality in women with turner syndrome in Great Britain: a national cohort study' *J Clin Endocrinol Metab.* (2008); 93(12): 4735-42.

Srirangalingam U, Walker L, Khoo B, MacDonald F, Gardner D, Wilkin TJ, Skelly RH, George E, Spooner D, Monson JP, Grossman AB, Akker SA, Pollard PJ, Plowman N, Avril N, Berney DM, Burrin JM, Reznek RH, Kumar VK, Maher ER, Chew SL. 'Clinical manifestations of familial paraganglioma and pheochromocytomas in succinate dehydrogenase B (SDH-B) gene mutation carriers.' *Clin Endocrinol (Oxf).* (2008); 69(4): 587-96.

Van der Aa N, Rooms L, Vandeweyer G, van den Ende J, Reyniers E, Fichera M, Romano C, Delle Chiaie B, Mortier G, Menten B, Destrée A, Maystadt I, Männik K, Kurg A, Reimand T, McMullan D, Oley C, Brueton L, Bongers EM, van Bon BW, Pfund R, Jacquemont S, Ferrarini A, Martinet D, Schrandt-Stumpel C, Stegmann AP, Frints SG, de Vries BB, Ceulemans B, Kooy RF. 'Fourteen new cases contribute to the characterization of the 7q11.23 microduplication syndrome.' *Eur J Med Genet.* (2009); 52(2-3): 94-100.

[A large-scale mutation search reveals genetic heterogeneity in 3M syndrome.](#)

Huber C, Delezoide AL, Guimiot F, Baumann C, Malan V, Le Merrer M, Da Silva DB, Bonneau D, Chatelain P, Chu C, Clark R, Cox H, Edery P, Edouard T, Fano V, Gibson K, Gillissen-Kaesbach G, Giovannucci-Uzielli ML, Graul-Neumann LM, van Hagen JM, van Hest L, Horovitz D, Melki J, Partsch CJ, Plauchu H, Rajab A, Rossi M, Sillence D, Steichen-Gersdorf E, Stewart H, Unger S, Zenker M, Munnich A, Cormier-Daire V.

*Eur J Hum Genet.* 2009 Mar;17(3):395-400. Epub 2008 Oct 29.

[Two children with subtelomeric 11q deletions: a description and interpretation of their clinical presentations and molecular genetic findings.](#)

Cox H, Lucassen A, Rio M, Browne C, Renforth G, Craven L, Salmon T, Wilson DI. *Clin Dysmorphol.* 2008 Dec 9. [Epub ahead of print]

[A connective tissue disorder caused by mutations of the lysyl hydroxylase 3 gene.](#)

Salo AM, Cox H, Farndon P, Moss C, Grindulis H, Risteli M, Robins SP, Myllylä R. *Am J Hum Genet.* 2008 Oct;83(4):495-503.

Burke S, Martyn M, Stone A, Bennett C, Thomas H & Farndon P (2009). Developing a curriculum statement based on clinical practice: genetics in primary care. *British Journal of General Practice* 59(559): 99-103.

Burke, S, Martyn, M, Thomas, H and Farndon, P. (2009). The development of core learning outcomes relevant to clinical practice: identifying priority areas for genetics education for non-genetics specialist registrars. *Clinical Medicine*, 9: 49-52.

Farndon P & Bennett C (2008). Genetics Education for Health Professionals: Strategies and Outcomes from a National Initiative in the United Kingdom. *Journal of Genetic Counseling* 17(2):161-169.

Metcalfe A, Haydon J, Bennett C & Farndon P (2008). Midwives' views of the importance of genetics and their confidence with genetic activities in clinical practice: implications for the delivery of genetics education. *Journal of Clinical Nursing* 17(4): 519-530.

Yu, J. & Kirk, M. (2009) Evaluation of empathy measurement tools in nursing: systematic review. *Journal of Advanced Nursing*, 65(9), 1790-1806.

Yu, J. & Kirk, M. (2008) Measurement of empathy in nursing research: systematic review. *Journal of Advanced Nursing*, 64(5), 440-454.

Rafi I, Qureshi N, Lucassen A, Modell M, Elmslie F, Kai J, Kirk M, Starey N, Goff S, Brennan P, Hodgson S.(2009) 'Over-the-counter' genetic testing: what does it really mean for primary care? *Br J Gen Pract.* 59(561):283-7.

Morgan R, Tonkin E, Kirk M (2009) A chance to be heard: what motivates people to tell their healthcare stories? *Interconnection Quarterly Journal* 2(5) Online journal available at [www.icwhatnew.com](http://www.icwhatnew.com)

# Research and Development

Kirk M, Tonkin E (2008) Genetic Education of Primary Care Health Professionals in Britain. *Encyclopedia of Life Sciences*, John Wiley and Sons. DOI: 10.1002/9780470015902.a0005874.pub2

Kirk, M, Lea, D and Skirton, H (2008) Genomic healthcare: is the future now? *Nursing and Health Sciences* 10: 85–92.

Tonkin E, Rafi I Genetic factors in heart disease: implications for the practice nurse. *Practice Nursing* 19(4):185-188.

Kirk M, Tonkin E and Burke S (2008) Engaging nurses in genetics: the strategic approach of the NHS National Genetics Education and Development Centre. *Journal of Genetic Counseling* 17(2):180-188.

Farndon, P. (2008). Genetics in primary care practice? *InnovAiT*. 1(8): 540-543.

Simon, C. & Farndon, P. (2008). What causes genetic disorders? *InnovAiT*. 1(8): 544-553.

Farndon, P. (2008). Taking and recording a genetic family history. *InnovAiT*. 1(8): 554-560.

Farndon, P. (2008). Recognizing the common patterns of inheritance in families. *InnovAiT*. 1(8): 561-574.

Cooley, C. (2008). Communicating genetics within primary care practice. *InnovAiT*. 1(8): 575-578.

## **Presentations at National and International Research Conferences**

Bohanna D., 'Immunostimulatory oligonucleotide-induced metaphase cytogenetics for improved detection of chromosomal abnormalities in CLL' *ACC Spring Conference* (2008)

Campbell C., 'Improving diagnosis of Beckwith-Wiedemann syndrome using methylation sensitive MLPA and Pyrosequencing' *CMGS Spring Conference* (2008)

Clavering D., 'The introduction of ABL kinase domain mutation testing in CML patients showing resistance to Imatinib' *CMGS Spring Conference* (2008)

Crosby C., 'Implementation of a new diagnostic service for congenital adrenal hyperplasia' *CMGS Spring Conference* (2008)

McMullan DJ, 'Screening X-linked mental retardation patients using exon resolution arrays (ACC Research Fund award)' *ACC Spring Conference* (2008)

McMullan DJ, 'New microdeletion syndromes' *ACC Spring Conference* (2008)

Perrott E., 'Apparent homozygous deletion identified in Alstrom syndrome patient' *CMGS Spring Conference* (2008)

Sach E., 'Implementation of a new cDNA screening strategy as an adjunct to the West Midlands Regional Genetics Breast Cancer Service' *CMGS Spring Conference* (2008)

Slowther K., 'Microsatellite instability in sporadic colorectal cancer: a retrospective study' *CMGS Spring Conference* (2008)

**Neil Savage, Director of Workforce and Organisational Development**

## Overview

The past year has been both a busy and successful year for the delivery and development of Trust clinical educational activity.

Education, learning and development are core elements of our business activity. We receive over £5 million a year to provide a wide range of clinical educational activity. This funding is allocated for the following categories:

- Learning Beyond Registration
- Library Strategy Funding
- Nursing & Midwifery Salary Replacement
- Clinical Skills Centre
- Practice Placement Managers
- Service Increments for Teaching (SIFT) Medical Placements and Facilities - Birmingham Medical School
- Medical and Dental Education Levy (MADEL) and
- Scientist & Technicians Salary Replacement

This chapter provides a summary of our activity and performance in the delivery of education.

In terms of future clinical education activity, during the first few months of 2009 the Trust was actively involved in a regional working group to help the West Midlands Strategic Health Authority (SHA) develop its Learning and Development Agreement (LDA) for 2009 / 2010. The adoption of the LDA will help to simplify funding, bringing all previous funding streams and contract management under one agreement. This will greatly help to rationalise the future management of education and improve related quality assurance and programme standards.

## Activity

Full details of Trust educational activity is included in the individual sub-specialty areas below.

### Good performance indicators

Details of good performance indicators for Trust educational activity is included where appropriate in the individual sub-specialty areas below.

### **Learning Beyond Registration**

**Anne Marie Gaynor, Senior Nurse Education & Professional Development**

Learning Beyond Registration (LBR) opportunities for Nursing, Midwifery, Allied Health Professionals (AHPs) and Healthcare Scientist (HCS) staff to enhance practice and professional development and provide a workforce fit for purpose, are supported through Non Medical Education and Training (NMET) funding. NMET is an element of the Multi Professional Education and Training (MPET) levy. MPET is a national funding stream from the Department of Health that funds the additional costs to the NHS of supporting the educational practice experience of medical students. This year's LBR funding amounted to £58,000 within the Trust.

The funding is available to all professionally registered staff and is allocated appropriately across the Trust. It is used to support staff to undertake post registration education at a variety of Higher Education Institutions and training providers. Learning and development needs of staff are identified during their PPR and linked to the West Midlands SHA strategies, Trust strategies and service development needs as well as individual Personal Development Plans and Knowledge Skills Framework (KSF) requirements. In the Maternity Directorate development has focused on “Maternity Matters” and NICE guidance on antenatal care and recommendations from the Perinatal Institute. Consequently education, training and development of skills in Obstetric Ultrasound Scanning for midwives has been undertaken to support continuity of care and easy access to services. The effects of the implementation of the European Working Time Directive (EWTD) continues to be felt with the need to develop and expand further with appropriate training nurse-led services such as the Advanced Nurse Practitioner (ANP) role, non-medical prescribing in the Neonatal Unit and nurse-led assessment in Gynaecology. Enhancing specialist roles, the prevention and management of infection also featured heavily in this year’s Continuing Professional Development (CPD) requests and activity. Maintaining professional registration for all staff groups via CPD has been crucial to practice. LBR activities and funding supports and enables this.

Three very successful in-house “Celebration of Practice Study Days” were held again this year. These provided a valuable forum for both newly recruited to specialist posts and established posts, to inform other clinical staff of developments and initiatives in clinical practice and service delivery. Multidisciplinary Evidence Based Practice Workshops were well attended again and provided an opportunity for staff to be able to gain skills and knowledge to take back to the clinical area and assist in the implementation of evidence-based practice.

### **Key LBR objectives that we delivered on during 2008 / 2009 included:**

- The co-ordination of a professional development approach across the Trust to meet corporate educational objectives
- Ensuring that the philosophy of patient-centred care is implicit in all clinical developments and that the highest standards of clinical care are maintained through the appropriate training and development
- Achieving a focus on presenting and sharing good practice through clinical audit, research projects, the introduction of new guidelines and care pathways into practice
- The promotion of evidence based practice through staff development and education, central to continuous quality improvement for patients
- Ensuring that LBR activity provided evidence for PREP requirements, CPD, Lifelong Learning and portfolio evidence for KSF appraisal or Personal Development Reviews

## **Practice Placement**

### ***Katie Joyce - Practice Placement Manager***

Clinical Placements form between 30-60% of each NHS funded undergraduate/pre-registration healthcare training courses. Suitable and effective clinical placements aim to provide students with the opportunity to undertake practical assessment, supervised by an Assessor who has the appropriate knowledge and experience to form a judgement about a Student’s competence/proficiency. The Trust provides clinical placements to undergraduate/pre-registration Midwives, Nurses, Operating Department Practitioners, Physiotherapists, Radiographers and Biomedical Science Students. This process is managed by the Practice Placement Manager (PPM).

In 2006 the Nursing and Midwifery Council (NMC) published ‘Standards to Support Learning and Assessment in Practice.’ It set out standards for Mentors in the form of a development framework which defined the knowledge and skills Nurses/Midwives need to apply in practice, when they support and assess students. The Trust has subsequently implemented these standards.

By September 2007 the Trust ensured that staff were familiar with these standards and appropriately trained to meet the criteria. Additionally the Trust has developed a fully up-to-date local register of Mentors during 2008 / 2009.

## **Practice Placement developments and objectives we have worked toward in 2008 / 2009 have included:**

- Maintaining a live database of Mentors through regular review and by adding or removing names of registrants as necessary
- Ensuring the appropriate preparation and continuous update of Mentors in accordance with the NMC criteria
- Ensuring appropriate levels of Mentors are available to support the increasing number of Students in training.

## **Summary of Clinical Governance for Practice Placement**

The NMC has agreed mandatory requirements for each part of the register. From September 2007, all new entrants to Mentor preparation programmes have had to meet the requirements of the standards. During 2008 / 2009 the Trust has endeavoured to make certain that all Mentors are prepared, supported and continuously updated in line with the criteria of the standards to ensure students in training are provided with effective clinical placements.

From September 2009 the NMC state that Mentors can no longer be entered onto local registers by virtue of previous qualification or experience. New Mentors must undertake an NMC approved programme of preparation, for e.g. 'SLAiP' (Supporting Learning and Assessment in Practice). Activity in 2009 / 2010 will aim to support this.

## ***The Education Resource Centre***

### ***Diane Carter, Manager, Education Resource Centre***

The Education Resource Centre (ERC) supports the Trust Educational Policy in providing a professional workforce fit for purpose. Access to information and evidence for practice is crucial. The Centre's strategies revolve around electronic access to information when possible and efficient retrieval of information from conventional sources when it is not. The Centre runs high quality educational courses, particularly in the areas of evidence based practice and clinical skills.

In December 2008, Mr Harry Gee, Director of the ERC and Consultant Obstetrician, retired from the Trust after many years of service. Mr Gee, who had previously held the positions of Medical Director and Clinical Tutor, was instrumental in the development and expansion of the Education Resource from its inception to the thriving Centre it is today. Following the reorganisation of Specialist Training into Schools by the West Midlands Deanery, he was appointed as Head of the Postgraduate School of Obstetrics & Gynaecology. The management and administration of the School's work and finance is centred in the ERC and, as such, the Trust is the centre-point for postgraduate specialist training in Obstetrics & Gynaecology for all West Midlands' training.

In early 2009 Professor Khalid Khan, was appointed to the post of Clinical Tutor and Trust Lead for Postgraduate Education. Professor Khan has been an Associate Director of the ERC for many years and is actively involved in raising the profile of the ERC as a major Centre for the provision of training in Evidence Based Medicine.

Centralised training programmes in Basic Training, the Symposia and the Masterclass are all organised and hosted by the ERC. All courses have received excellent evaluation. Further training continues in Basic Practical Skills, Newborn Life Support, Ectopic Pregnancy, Perineal Tear and Advanced Practical Skills training. Following the success of this training, the ERC has now become a leading regional provider of skills training and was highlighted as outstanding in the 2009 Postgraduate Medical Education Training Board (PMETB) Trainees' Survey for 'Access to Educational Resources' and 'Procedural Skills'. In addition to this, the School has been successful in obtaining developmental monies from bids to the SHA which has helped with the provision of mandatory ultrasound training and the funding for attendance on mandatory Advanced Training Skills courses.

Successful bids to the SHA have provided additional funding for the provision of equipment which has contributed to the development of three Clinical Skills Labs and further enhanced multidisciplinary practice. In addition to this a previous initiative by the Clinical Sub-Dean has led to a further appointment of an educational lecturer in order to improve undergraduate teaching and assessment.

The ERC has a policy of expanding its activities and is an income generator. At the end of the last financial year the area met its CIP targets and was a contributor to the Trust financial position.

## *Library & Information Centre*

***Ann Daly, Librarian***

### **Overview of service**

The Library and Information Service is available to all BWNFT employees and students. The service is staffed by a part-time clinical librarian and two fulltime para-professionals. Staff are available between 9am and 5pm Monday - Friday, and out of hours access is available 24 hours a day, seven days a week. We provide a range of traditional library services including print and electronic textbooks and journals, literature searching, interlibrary loans and medical database training. We also provide a more contemporary service that supports a culture of evidence based practice with the clinical librarian attending the delivery suite ward round and managing the O&G Journal Club. This year, the library team were awarded the CILIP Seal of Recognition for being an 'excellent provider of Continuing Professional Development with high standards in the content and delivery of a Clinical Librarian course' (CILIP, 2009). In addition, the Library Administrator, was awarded Certification, a library qualification recognising the contribution to library and information work by para-professionals.

### **Library Service activities during 2008 / 2009 include:**

- Provision of a library induction and library membership card to new staff
- Provision of a literature search and interlibrary loan service to ensure current and best evidence is used in clinical practice and research
- Provision of relevant books and journals, and electronic resources
- Design and delivery of individual and group training programmes on searching medical databases
- Design and delivery of training programmes to support doctors in the principles of evidence based practice and journal club preparation
- Provision of an annual Road Show in order to promote the library service and offer staff training in their workplace
- Provision of a Current Awareness Service
- Maintenance of a bank of Critically Appraised Topics
- Attendance of the delivery suite ward round and provision of a literature search service to provide best evidence to support patient care
- Management of the O&G Journal Club

## Supporting Clinical Governance

The library supports Clinical Governance by ensuring the best research evidence is made available for clinical practice, research projects and to develop local guidelines. This is achieved by providing a quality literature search service whereby library staff use a hierarchical approach to searching that ensures all evidence is located and made available. We also provide a same day service for urgent interlibrary loans to ensure the immediate availability of research to support patient care. In addition, we maintain a bank of Critically Appraised Topics that have transpired from Journal Club presentations. These Topics are available via the library website, enabling all Trust staff to access and share best evidence.

## Library activities supporting Clinical Governance

Activity	2008 - 9	2007 - 8	2006 - 7
Number of BWNFT staff receiving induction	<b>384</b>	<b>484</b>	<b>400</b>
Library staff hours spent on induction	<b>8</b>	<b>11</b>	<b>Not known</b>
Number of BWNFT staff receiving library education	<b>139</b>	<b>144</b>	<b>90</b>
Library staff hours spent on user education	<b>107</b>	<b>87</b>	<b>78</b>
Literature searches completed	<b>104</b>	<b>118</b>	<b>87</b>
Loans from stock (to own users)	<b>1282</b>	<b>1191</b>	<b>*4540</b>
Interlibrary loans (ordered for our users)	<b>682</b>	<b>847</b>	<b>984</b>

\* approximate

## Library Business Plan 2009 – 2010

In summary, the Plan currently being implemented ensures compliance with the National Service Framework (NSF) to meet the knowledge and learning needs of the hospital community by providing helpful and knowledgeable library staff and the appropriate resources identified through customer and stakeholder engagement. In addition, the library will continue to support a culture of evidence-based practice through the availability of journal articles, and a literature search and clinical librarian service to support patient care.

## Undergraduate Education

*Justin Clark, Consultant Gynaecologist*

### Overview

The Birmingham Women's NHS Foundation Trust is the main provider of under-graduate obstetric & gynaecological education for the University of Birmingham medical School. There are over 400 students currently studying at undergraduate level at the University of Birmingham. The teaching is co-ordinated from the Birmingham Women's Hospital. Over the course of a year in the final (5<sup>th</sup>) year, all students attend the Trust for academic in-days (lectures/problem based learning) and also for final examinations.

### Clinical Placement Activity for 2008-2009

The Trust has approximately 160 of the 400 students every year attending for obstetrics and gynaecological clinical placements. In addition to this the re-sit students (normally numbering around 40-50) attend the Birmingham Women's Hospital for remedial teaching and student placements during the course of the year. The current academic year has introduced significant changes in the undergraduate MB ChB programme. Student placements have now been reduced to 5 weeks from 6 weeks, but an additional 20 final year students now undertake student selected activities which involves a 5-week 'apprenticeship' where they are integrated onto a clinical firm and act in the capacity of a 'houseman' (FY1) to enable them to acquire generic, essential skills at FY1 level, hence preparing them for professional life immediately following qualification. In addition, the Trust provides a faculty of 10 trained 'senior clinical examiners' from our Consultant body for the newly

provides a faculty of 10 trained 'senior clinical examiners' from our Consultant body for the newly developed student final examinations.

In addition to final year medical students, we cater for around 45 4<sup>th</sup> year students undertaking 2-week and 4-week "career tasters" which are student selective components of the curriculum. To accommodate these students we offer them experience in obstetrics & gynaecology in specialist fields of maternal medicine, fetal medicine and gynaecological surgery, as well as lab-based medicine (pathology/haematology/microbiology/cytology), genetics and neonatology. We also place around 14 4<sup>th</sup> year oncology medical students for one-week placements in oncology every year.

We also support academic courses for professions allied to medicine. Recently we have been providing two, 3-week clinical placements as part of the newly developed 'physician assistant' programme. This two-year course, open to graduates, has been run from the University of Birmingham Medical School for the last 2 years.

## **Innovations**

The Trust liaises closely with the Medical Education Unit at the University of Birmingham to develop the curriculum and student assessments. We have innovated recently in the appointment of specific Teaching Lecturers in addition to Clinical Lecturers to deliver teaching in an academic setting (tutorials, problem-based learning and lectures) but also in specific teaching clinics in the clinical environment which are restricted to 4 students. We are also piloting the use of gynaecological teaching associates to teach examination with a view to conducting a full scale randomised control trial in 2010 to assess the impact of this intervention against standard teaching methods.

## **Quality Assurance Visit by the University of Birmingham Medical Education Unit 2009**

We recently underwent our 5-yearly quality assurance visit. The formal report is pending, but verbal feedback from the review panel was very positive, highlighting the contributions of clinical staff, the excellent feedback from medical students and the friendly, innovative teaching environment and deeply ingrained teaching culture engendered in our hospital.

## **Future developments**

As part of the new 2014 curriculum review for the MBChB and the delivery of undergraduate teaching, the University of Birmingham Medical School is moving to a system of 'Academies' to deliver clinical teaching within the West Midland Region. The Birmingham Women's Hospital has been asked to become an Academy where we will provide specialist teaching in obstetrics, gynaecology and neonatology. The Academy will consist of a hub of senior clinical teachers, responsible for the development of students core skills and for providing support and feedback on progress. It is envisaged that all clinical and academic staff within the hospital will continue to deliver day to day teaching and provision of clinical material.

## **Undergraduate Midwifery Education**

***Alison Edwards Senior Midwifery Lecturer – placement support & Wendy Burt Practice Development Midwife.***

### **Overview**

The undergraduate programme ensures that students are fit for practice and purpose and meet the requirements for a BSc (Hons) in Midwifery and registration with the Nursing and Midwifery Council (NMC).

### **Activity**

The total number of student midwives supported by the Trust in 2008/2009 was 56 on the 3 year direct entry midwifery programme and 13 on the 18-month midwifery programme.

## **Service Development for 2008/2009**

The partnership between the clinical and academic team continues to develop with clinical midwives increased involvement in OSCE assessments. The NMC requirements relating to 'Essential Skills Clusters' and 'Grading Practice' have been incorporated into practice assessment.

## **Developments and Objectives of Annual Plan for 2008-2009**

Trust midwives and academic staff will be working towards incorporating NMC guidance on case holding practice for student midwives. Students will follow a woman from booking to birth and beyond. This will be a significant challenge. Clinical experience monitoring group meetings are held quarterly with trust student coordinators and link tutors to discuss issues pertaining to student's training.

## **Summary of Clinical Governance**

- Students are made aware of all relevant, existing and new, documents, e.g. from local, national or professional sources, and are encouraged to participate in the development of local standards. All students have access to trust guidelines.
- Annual education audits continue to demonstrate supportive and effective clinical placements for students
- Clinical midwives from the Trust, academic staff and others, comprise a Profession Specific Group (PSG), initiated by the Quality Assurance Agency (QAA), which meets regularly to review quality issues related to the midwifery education programme. Recommendations from this meeting are reported to the Healthcare Quality Group which is a multi professional group with SHA representation.
- All student midwives have the support of a named Supervisor of Midwives especially when untoward clinical incidents occur.

## **Governance**

Currently there are two main fora within the Trust to manage educational activity and quality – the Hospital Education Committee (HEC) and the Training, Education & Development Committee (TED).

TED meets regularly with good cross-directorate and multi-professional attendance. It manages operational training matters.

During the latter part of 2008 / 2009 the Trust identified a need to strengthen the provision of top level management and assurance on multi-professional training, education and development. To this end, it has now put in place improved and more formalised governance by replacing HEC with a Multi-professional Education, Learning and Development Committee (MELD). MELD will hold its first meeting in November 2009, and, as formal sub-committee of the Management Board it will be responsible for the following:-

- Developing education, training and development strategies, objectives, policies and action plans designed to support the achievement of the Trust's strategic and operational objectives, national guidelines and standards
- Ensuring the access to and / or provision of a wide range of learning and development opportunities designed to meet the training requirements of all staff throughout their career and whatever their work patterns
- Monitoring progress and recommending improvements to the Education and Training Strategy, policies, objectives and action plans through the use of appropriate performance indicators, benchmarks and audits
- Developing robust appraisal systems and processes that ensure all staff develop and maintain the knowledge and skills required to perform their role effectively and efficiently
- Recommending and implementing education and training policies, standards and learning opportunities that support the development of excellent leaders, teachers, supervisors and role models within all staff groups and departments

- Ensuring that quality of the clinical learning environment for undergraduate and postgraduate students and the library services meet the standards required by the relevant accrediting organisations/ bodies
- Ensuring optimal access to and use of all external and internal funding streams and resources so that these are used as effectively and efficiently as possible to support the achievement of Trust priorities
- Monitoring and ensuring compliance with the SHA LDA and any other education or training contracts agreed by the Trust
- Monitoring and supporting the development of the Trust's library provision and facilities

One of the first priorities for MELD will be to agree a new organisational plan for education, learning and development to complement and supplement the developing Trust Academic Strategy.

## **Risk Management**

The Trust has robust risk management systems in place. Educational matters which fall into the clinical risk category are managed through the Clinical Governance Committee, chaired by Mr Peter Thompson, Medical Director. Educational matters which fall into the non-clinical risk category are managed through the Organisational Risk and Governance Committee, chaired by Neil Savage, Director of Workforce and Organisational Development. Both committees report directly to the Board of Directors. The Trust implemented DATIX, a new web-based risk management and incident reporting system during 2008 / 2009.

# Patient Experience

*Jane Owen, Director of Nursing, Midwifery, Infection Prevention & Control and Operations*

## **Overview of 2008/2009**

The Corporate Directorate has continued to build on initiatives to improve patient experience and act on feedback received throughout the year. The services provided by the Safeguarding, bereavement and spiritual care teams all strive to improve patient experience. In addition, with the changes to the complaints procedure, patients will be more involved in resolving issues raised to their satisfaction. New processes will be implemented in April 2009 to capture not only complaints but also compliments and suggestions.

Each of the Clinical Directorates has implemented a variety of initiatives to collect patient feedback and the corporate service has invested in handheld patient feedback tools as well as bedside television surveys. Clearly it is important to get a complete overview of patient experience rather than concentrating on what can be seen as the more negative feedback via PALS and complaints.

There is an ongoing need to improve opportunities for feedback from parents who have babies in the Neonatal Unit to ensure a responsive and parent focused service. Feedback from users within Maternity Services has been supported by the Maternity Services Liaison Committee and further enhanced with the Trust volunteers who are now visiting clinical areas and completing patient questionnaires.

The Trust is keen to improve quality and two of the chosen quality targets for 2009/2010 relate to patient experience:

- To maintain being a top performer in the National Inpatient Survey
- To improve the number of neonatal parents who complete the feedback questionnaire.

## **Complaints**

*Christine Yarnold, Complaint Manager*

### **Early Adopter Programme**

During 2007/2008 the Trust took part in the Early Adopter Programme, which was set up in order to develop ways of working that met the Department of Health aims for the complaints reform as outlined in the White Paper 'Our Health, Our Care, Our Say' (January 2006). The purpose of this was to develop a comprehensive single complaints system across health and social care by April 2009 which focused on resolving complaints locally with a more personal and comprehensive approach.

The Trust's Complaints and PALS Department began a pilot of the new process commencing on 11<sup>th</sup> August 2008 and undertook a Triage process for each complaint/contact received to establish that the investigation was proportionate and appropriate to the complaint and the related risks. This new process supported the existing approach of the Complaints Department, which had always promoted a patient-focused approach to the management of complaints, supporting a culture of continuous quality improvement, assisting the Directorates to implement the process to achieve

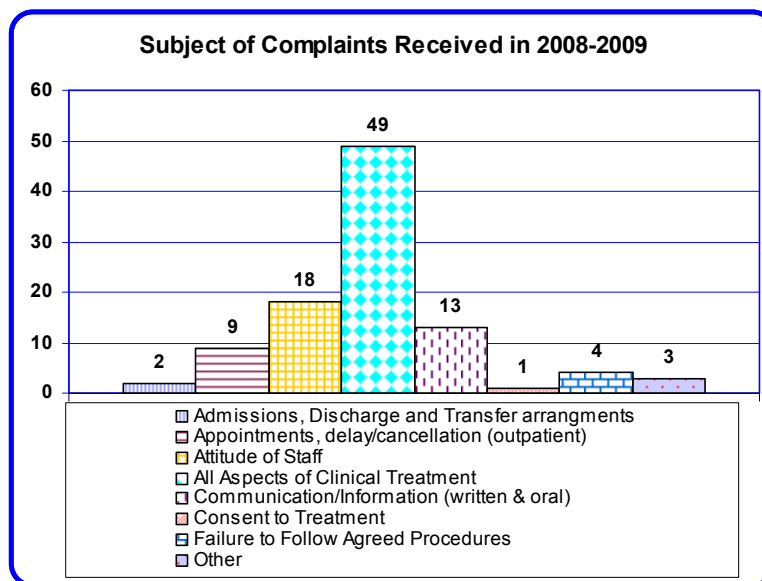
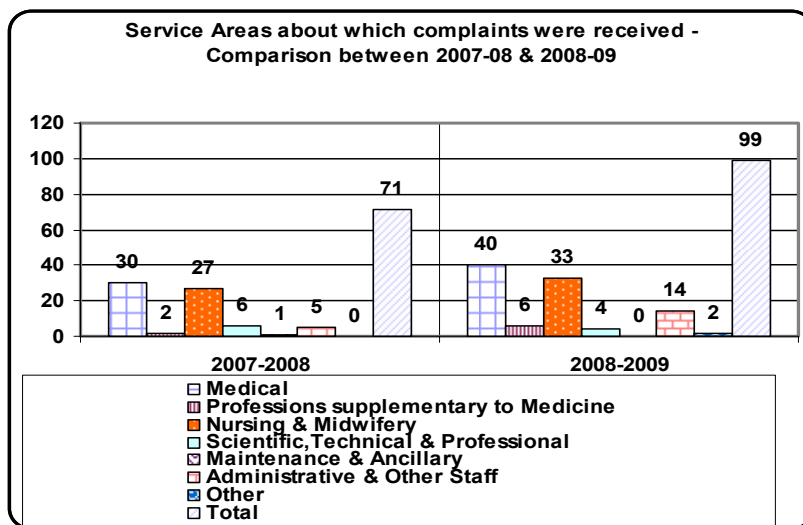
- Satisfactory resolution for the complainant
- National target response times
- Key messages learnt and shared across the Trust

# Patient Experience

## Activity

During 2008-2009 there were 99 formal and 5 informal complaints received (informal complaints are ones not received within 12 months of the incident complained about). This was an increase on the previous year (2007-2008) when 71 formal complaints were received.

Part of the Early Adopter patient-focused approach to the management of the complaint allowed the Trust to negotiate a response time proportionate and acceptable to the complainant rather than adhering to the previous statutory requirement of 25 days. Through this new approach 56% of the formal complaints were responded to within the agreed timescale for response.



## Summary of Clinical Governance

The response time, subject of complaint, profession complained about is monitored by the Department of Health annually.

# Patient Experience

Changes in practice and lessons learnt from the complaint investigation are reported to:

- The Clinical Governance Committee – quarterly
- The Management Board – monthly
- The Board of Directors – monthly.
- Changes in service, protocols and procedures, made as a result of the complaint investigation, are reported back to the complainant.

## ***PALS (Patient Advice & Liaison Services), Linkworker and Interpreting Service***

PALS is a confidential, informal listening and support service for people wishing to comment on any aspect of their care or treatment. This may take the form of raising concerns, praising or challenging any aspect of their interaction with the Trust.

PALS facilitates the exchange of information between Trust staff and service users with a view to resolving problems quickly and effectively and ensuring that lessons are learned.

The service also manages the Linkworker and Telephone Interpreting Services which provides access to a 24 hour translation facility.

Proposed changes in NHS complaints legislation will mean that PALS complaints involvement will change. PALS will only be involved in verbal complaints where the matter can be resolved to the satisfaction of the complainant within one working day.

## ***Spiritual and Pastoral Care Services***

***The Revd Dr. Mojalefa Khechane, Free Church Chaplain, Spiritual & Pastoral Care Services Manager***

The mission of the Spiritual and Pastoral Care Services (SPCS) is to promote spiritual health and initiate timely, competent, compassionate and confidential spiritual and pastoral support to patients, families and staff.

The Revd. Mojalefa Khechane was appointed in October 2008 and the service was renamed Spiritual & Pastoral Care Services

### **Activity**

The service was briefly affected by changes in staffing as the new Chaplain was settling in. In particular, the regular weekly services (Sunday ecumenical service and the Monday Roman Catholic Mass). These services have since been restored.

# Patient Experience

## Clinical Governance

- A “Spiritual Pathway Group” has been set up. The group is open for any member of staff irrespective of their religion.
- A “Chaplain Activity Report Database” (CARD) has been developed and implemented. CARD enables electronic recording of work undertaken .

The department continues to take an active role such annual services as: “Still in our Hearts”— a non-religious ceremony of remembrance for people who have experienced pregnancy loss or the death of a baby; it takes place in May and “Celebrating Brief Lives”—a similar, but religious, ceremony held annually in October.

Perinatal loss remains a focus of spiritual and religious care; gynecological funeral services for non viable fetus take place according to need. Services for the ‘Respectful’ Disposal of human remains take place within the hospital intermittently according to need.

The figures below illustrate some services and activities conducted.

<b>Service/Activity</b>	<b>2008-09</b>
• Number of blessings performed	39
• Number of baptisms performed	51
• Number of patients visited	+1000
• Number of funerals conducted	10
• Number of members of staff seen	8
• Number of Protestant worship service conducted	44
• Number of Catholic Mass celebrated	32

## Safeguarding

### *Elaine Giles, Lead Nurse/Midwife for Safeguarding*

#### **Safeguarding Team**

The Safeguarding Team provides specialist advice and support to all Trust staff and outside agencies and professionals on all matters relating to the safeguarding and protection of vulnerable children and adults. The team consists of 5 WTE midwives.

In addition, the team work in collaboration with the hospital based social work team.

#### **Safeguarding Children**

In line with national guidance, the Trust has a Named Nurse/ Midwife and Named Doctor, for safeguarding children, with protected time, who provide advice and expertise for colleagues both within health and other agencies, promoting good practice to safeguard and promote children’s welfare. In line with national guidance, the roles are clearly defined within the job descriptions.

**Named (Lead) Nurse/ Midwife: Elaine Giles**

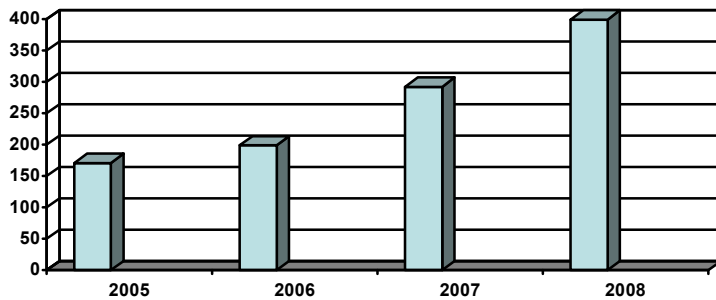
**Named Doctor: Mike Hocking: Consultant Neonatologist**

**Executive Lead: Jane Owen, Director of Nursing, Midwifery & Operations**

Frontline advice and support is also provided by a Specialist Nurse/Midwife for Safeguarding: Eleanor Newbold.

# Patient Experience

**Number of referrals where there have been identified safeguarding children concerns.**



## Perinatal Mental Health Services

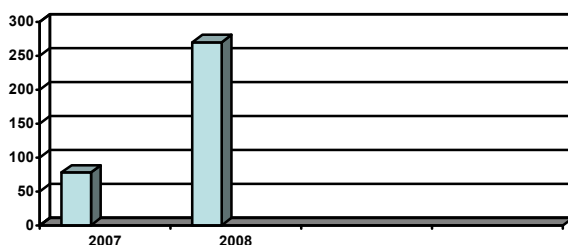
Specialist Midwife Olive Downer-Robinson has been in post since March 2007. She works in partnership with the psychiatric services from the Queen Elizabeth Psychiatric Unit and operates a joint clinic for pregnant women experiencing mental health concerns. The table below shows a predicted steady rise in the number of referrals to this service.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	TOTAL
<b>2007</b>	-	-	-	-	-	-	-	23	25	31	15	18	112
<b>2008</b>	31	28	26	27	30	23	21	10	24	43	14	31	318
<b>2009</b>	27	20	32	16	37	53							185

## Domestic abuse

Specialist Midwife Olive Downer-Robinson provides advice and support to women experiencing domestic abuse. Guidance is given to staff providing care for this group of women. Midwives are encouraged to routinely ask pregnant women about domestic abuse during their pregnancy. This, together with an increased awareness by other agencies has increased the capacity of work for midwives and the safeguarding team. Further developments are proposed over the next 12 months to accommodate the increase in referrals.

**Police reports of domestic abuse incidents received into the Trust by the Safeguarding Team.**

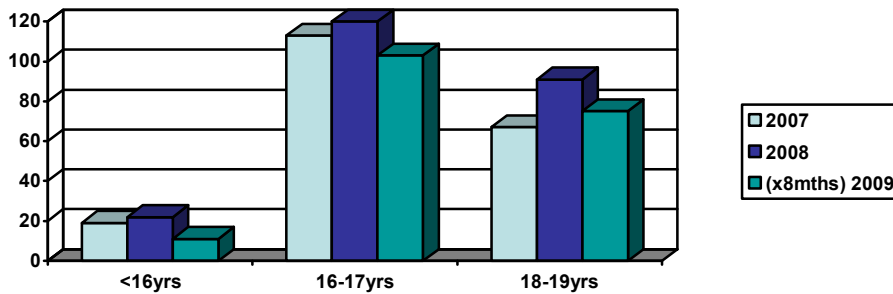


## Teenage pregnancy

The specialist midwife for teenage pregnancy, Joanne Mardell, has been working within the trust to support pregnant teenagers. She had a total of 233 referrals in 2008 compared to 99 referrals in 2007 giving a 17% increase.

# Patient Experience

## Pregnant Teenagers who gave birth at Birmingham Women's Hospital



## Quality Improvement

- Introduction of new teenage pregnancy guidelines
- Birth Centre lower age limit reduced from 17 years down to 16 years.
- Specialist midwife has completed Family Planning and Sexual Health Course.
- Young Parents to be group to include fathers.
- Teenage pregnancy audit.

## Future Plans

- Family Planning outreach clinic provided by BRASH (Birmingham Relationship and Sexual Health) within the antenatal specialist clinic.
- Family planning administration on the postnatal floor prior to transfer home.
- Randomised Control Trial of the Family Nurse Partnership providing intensive support for young Parents.

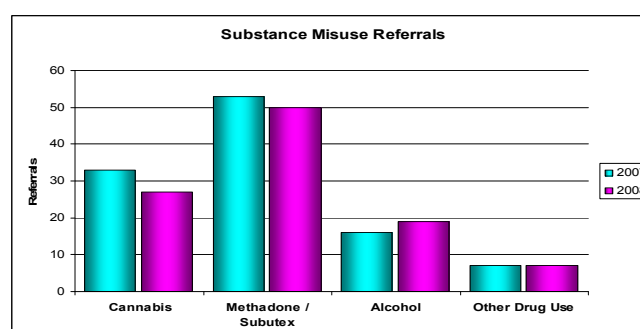
## Substance misuse

Midwife Heather Gray provides services for women affected by drug and alcohol misuse and also leads on smoking cessation.

The number of women referred for substance misuse issues has remained fairly constant. The breakdown of drugs used has also remained very much the same. Although there appears to have only been a very slight increase in alcohol cases there has been a notable increase in severity and complexity of alcohol problems. More women have presented with current or previous alcohol dependence issues requiring input from community alcohol teams and other services plus closer monitoring in pregnancy.

There has also been a notable increase from 11% to 20% in the number of babies who have required treatment for neonatal withdrawal and the number of cases with input from Children's Services has also shown a steady increase from 25% in 2007 to 43% in 2008.

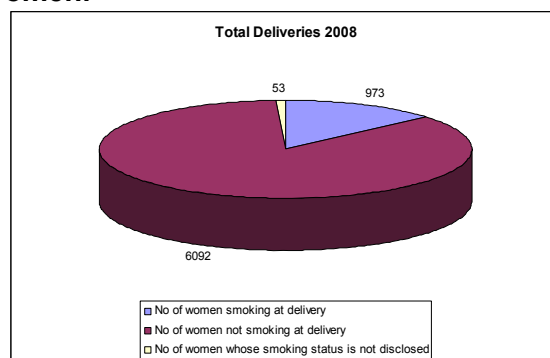
## Referrals for drug and alcohol misuse.



## Smoking

Community midwives are now using CO monitors when booking pregnant women to enhance the message of the risks of carbon monoxide and smoking to unborn babies.

### Smoking figures for pregnant women.



## Risk management

Failure to act in an appropriate and timely manner can have serious implications for children, their families and staff. The following areas have been highlighted as potential areas of risk within the area of safeguarding children in the Trust. Work to reduce the risk has been undertaken and continues to be addressed:

- The removal of babies from their mother's care immediately following birth.
- The increasing level of aggression facing Trust staff when involved in child protection issues.

Actions taken have included:

- The development of a multi-agency policy for the emergency protection of a child at birth which is waiting to be ratified.
- Clear child protection plans in place prior to birth.
- Closer partnership working with customers, health professionals and social care staff.

## Clinical Governance

Following guidance in Working Together to Safeguard Children 2006, Safeguarding Children is firmly embedded within the clinical governance framework and continues to receive regular reports, including findings from Serious Case Reviews, recommendations and action plans to change practice.

## Compliance with Core Standard C2 (SfBH)

Core Standard C2 specifically relates to safeguarding children and young people and states:

'Healthcare organisations must protect children by following national child protection guidelines within their own activities and in their dealings with other organisations'.

The Annual Health Check 2006/2007 demonstrated compliance with this standard and this has been consistent in 2008/2009.

## **Bereavement Services**

***Karen Henson, Bereavement Service Manager, Margarita Bariou & Laura Fleming, Bereavement Specialist Midwives.***

### **Overview**

Focus is on achieving that the highest standard of care and these remain paramount for the Bereavement Service, this is achieved by:

- One to one, emotional and practical support to families and staff
- Follow up service to coincide with specialist post natal investigations
- Close liaison with other departments, including , Mortuary, Histopathology/ Pathology, Funeral Services, Neonatal Unit and Delivery Suite

### **Activity**

During 2008/2009 there were 196 pregnancy losses, the Bereavement Service saw 54 women for postnatal investigations and 56 women with their Consultants, 90 Trust-Contracted Funerals were arranged, to meet the needs of the family.

- The Bereavement Service endeavors to see as many families on Delivery Suite/Wards as possible prior to discharge. An audit was commenced in September 2008 - August 2009, 102 families were seen by a Specialist Midwife from bereavement.

### **Good Performance Indicators**

- Following a site inspection from the Human Tissue Act (HTA) in March 2009, the Bereavement Service was praised for the high level of compliance and examples of good practice were identified by the inspectors, particularly consent standards.
- Bereavement Service Manager, Karen Henson, Specialist Midwives, Margarita Bariou and Laura Fleming are now accredited to obtain consent for post mortem from parents in accordance with the requirements of the HT Act 2004 and as set out in the Code of Practice.
- The Bereavement Service and Pathologists have developed a strong in house Training Programme to ensure medical staff involved in seeking consent, have the essential requirements of taking consent.
- The Bereavement Service and Pathologists have created a good information pack for parents and guardians about the consent process and is provided in a variety of formats.

### **Clinical Governance**

- A new Post Natal Discharge Document has been developed, and is now in use for families. This was reviewed prior to its launch from several user groups and in particular women whom have experienced pregnancy loss.
- An established monthly Education and Information Teaching Programme takes place on Delivery Suite to ensure all staff in clinical areas has a basic knowledge of bereavement management.

### **Infection Control**

- The Bereavement Service endeavours to maintain excellent standards of infection control by attending

## Risk Management

- Bereavement Services report all incidents and unexpected pregnancy losses on Datix.
- All perinatal deaths are reported to Confidential Enquiry into Maternal and Child Health (CEMACH)
- Work has now begun on developing the Stillbirth Integrated Care Pathway (ICP ) and is based on current evidence and best practice
- A Clinical Stillbirth Audit has commenced with the intention of developing a data base, enabling us to bench mark against similar units.
- The Bereavement Service reports all child deaths to the Child Death Overview Panel (CDOP) of the Safeguarding Board
- Details of pregnancy losses and neonatal deaths can be found in relevant chapters.

# Abbreviations

ACU	Assisted Conception Unit	ERPC	Evacuation of Retained Products of Conception
AHP	Allied Health Professional	ES	Embryonic Stem
ALL	Acute Lymphocytic Leukaemia	EWTD	European Working Time Directorate
ANP	Advanced Nurse Practitioner	FET	Frozen Embryo Transfer
ANNP	Advanced Neonatal Nurse Practitioner	GA	General Anaesthesia
APH	Ante-partum haemorrhage	GC	Genetic Counsellor
ARC	Arthrogryposis-Renal dysfunction-cholestasis	GCP	Good Clinical Practice
BAGP	British Association of Gynae Pathologists	GMP	Good Manufacturing Practice
BAPM	British Association of Perinatal Medicine	GOR	Gastro-oesophageal Reflux
BAUS	British Association of Urology Surgeons	GP	General Practitioner
BBC	Birmingham & the Black Country	GTT	Glucose Tolerance Test
BCH	Birmingham Children's Hospital	Hb	Haemoglobin
BFI	Baby Friendly Initiative	HCA	Health Care Assistant
BMFMS	British Maternal Fetal Medicine Society	HCC	Health Care Commission
BMS	Biomedical Scientist	HCG	Human Chorionic Gonadotrophin
BRASH	Birmingham Relationship & Sexual Health	HDU	High Dependency Unit
BRIPPA	British Paediatric Pathology Association	HEC	Hospital Education Committee
BSCCP	British Society for Colposcopy & Cervical Pathology	HEI	Higher Education Institute
BSUG	British Society of Uro-Gynaecologists	HFEA	Human Fertilization and Embryo Authority
BWNFT	Birmingham Women's Hospital	HLA	Hospital Life Support
C/S	Caesarean section	HLRCC	Hereditary Leiomyomatosis and renal cell cancer
CAIG	Clinical Audit & Information Group	HNPCC	Hereditary non polyposis colon cancer
CAT	Critically Appraised Topics	HOB	Heart of Birmingham
CEMACH	Confidential Enquiry into Maternal & Child Health	HPV	Human Papilloma Virus
CEPOD	Confidential Enquiry into Peri-Operative Deaths	HR	Human Resources
CF	Cystic Fibrosis	HRQL	Health Related Quality of Life
CDOP	Clinical Death Overview Panel	HRT	Hormone Replacement Therapy
CGH	Comparative Genomic Hybridisation	H & S	Health & Safety
CGMP	Cyclic guanosine monophosphate	HSG	Hysterosalpingogram
CHD	Coronary Heart Disease	HTA	Human Tissue Act
CNST	Clinical Negligence Scheme for Trusts	IC	Intensive care
CIG	Clinical Improvement Group	ICP	Integrated Care Pathways
CIR	Clinical Incident Reporting	ICSI	Intracytoplasmic sperm injection
CLRN	Comprehensive Local Research Network	IMS	Instrument Management System
COREC	Central Office for Research Ethics Committees	IOL	Induction of Labour
CPA	Clinical Pathology Accreditation (UK) Ltd	IPPA	International Paediatric Pathologists' Association
CPAP	Continuous Positive Airway Pressure	IPPV	Intermittent Positive Pressure Ventilation
CPD	Continuing Professional Development	IR(ME)R	Ionizing Radiation (Medical Exposure) Regulations
CR	Computed Radiography	IT	Information Technology
C/S	Caesarean Section	ITU	Intensive Treatment Unit
CSE	Combined spinal epidural	IUD	Intra Uterine Device
CSP	Chartered Society of Physiotherapy	IUD	Intra-uterine Death
CT	Computerised Tomography	IVF	In-vitro fertilization
CVP	Central venous pressure	IUGR	Intrauterine Growth Restriction
CVS	Chorionic Villus biopsy	IVU	Intravenous Urography
Cx.	Cervix	KPI	Key Performance Indicator
DH or DOH	Department of Health	KSF	Knowledge & Skills Framework
DI	Donor Insemination	LAVH	Laparoscopy Assisted Vaginal Hysterectomy
DNA	Did not attend	LBC	Liquid Based Cytology
DOH	Department of Health	LBR	Learning Beyond Registration
DREEM	Dundee Ready Education Environment Measure	LDA	Learning & Development Agreement
DVT	Deep Vein Thrombosis	LLETZ	Large Loop Excision of the Transformation Zone
EBM	Evidence Based Medicine	LSA	Local Supervising Authority
EBP	Evidence Based Practice	LSCS	Lower Segment Caesarean Section
ECV	External Cephalic Version	LUNA	Laparoscopic Utero Nerve Ablation
ELITE	Evaluation of Laparoscopic Intervention for the Treatment of Endometriosis	MASE	Minimal Access Surgery & Endometriosis
EPAQ	Electronic Patient Questionnaire	MCA	Maternity Care Assistant
EPAU	Early Pregnancy Advisory Unit	MCQ	Multiple Choice Questions
ERC	Education Resource Centre	MDS	Main Delivery Suite
		MDT	Multidisciplinary Team
		MELD	Multi-professional Education, Learning & Development

# Abbreviations

MHRA	Medicines & Healthcare Regulatory Agency	RAAD	Rapid access ambulatory diagnosis
MPET	Multi-professional Education & Training	RCA	Root Cause Analysis
MPS	Multiple pterygium syndrome	RCGP	Royal College of General Practitioners
MRC	Medical Research Council	RCOG	Royal College of Obstetricians & Gynaecologists
MRI	Magnetic resonance imaging	RCT	Randomised Controlled Trial
MROP	Manual removal of placenta	RITA	Record of In-Training Assessment
MRSA	Methicillin resistant staphylococcus aureus	ROH	Royal Orthopedic Hospital
MSLC	Maternity Services Liaison Committee	RPM	Reducing Perinatal Mortality
NBS	National Blood Service	RPOC	Retained Products of Conception
NEC	Necrotising Enterocolitis	RSI	Repetitive Strain Injury
NCEPOD	National Confidential Enquiry into Peri-Operative Disease	RTT	Referral to Treatment
NCRN	National Cancer Research Network	RUNXI	Familial platelet disorder
NCT	National Childbirth Trust	SfBH	Standards for Better Health
NEQAS	National External Quality Service	SBR	Still Birth Ratio
NGEDC	National Genetics Educational & Development Centre	SHA	Strategic Health Authority
NHSLA	National Health Service Legal Association	SHO	Senior House Officer
NHSCSP	NHS Cervical Screening Programme	SIFT	Service Increment from Teaching
NICE	National Institute for Clinical Excellence	SIGN	Scottish Intercollegiate Guidelines Network
NIHR	National Institute for Health Research	SIM MAN	Simulator Mannequin
NLH	National Library for Health	SLA	Service level agreement
NLS	Newborn Life Support	SLAiP	Supporting Learning & Assessment in Practice
NMC	Nursing and Midwifery Council	SMACS	Self Medication after Caesarean section
NMET	Non-Medical Education & Training	SPCS	Spiritual & Pastoral Care Services
NPSA	National Patient Safety Agency	SpR	Specialist Registrar
NRT	Nicotine Replacement Therapy	SSBCNN	Staffordshire, Shropshire and Black Country Newborn Network
NSF	National Service Framework	SST	Sub-Specialty Training
OAA	Obstetric Anaesthetists Association	SWMNN	Southern West Midlands Newborn Network
OASIS	Obstetric Anal Sphincter Injuries	TA	Technical Assistant
O & G	Obstetrics & Gynaecology	TAH	Total Abdominal Hysterectomy
OPD	Out Patient Department	TED	Training & Education
OQME	Ongoing Quality Monitoring Enhancement	TENS	Transcutaneous electrical nerve stimulation
ORMIS	Operating Room Management Information System	TOP	Termination of Pregnancy
OSCE	Objective Structured Clinical Examination	TTO	To Take Out
PACS	Picture Archiving of Communication System	TTTS	Twin to twin transfusion syndrome
PALS	Patient Advice and Liaison Service	TWOC	Trial Without Catheters
PCA	Patient Controlled Epidural Anaesthesia	UCE	University of Central England
PET	Pre-eclamptic toxemia	UHBFTFT	University Hospital Foundation Trust
PCT	Primary Care Trust	UHNS	University Hospital of North Staffordshire
PGDIP	Postgraduate Diploma	UKCRN	United Kingdom Clinical Research Network
PLUTO	Percutaneous Shunting for Lower Urinary Tract Obstruction	UKCS	UK Continence Society
PMB	Post Menopausal Bleeding	UKGTN	UK Genetics Testing Network
PMETB	Postgraduate Medical Education Training Board	VEGF	Vascular endothelial growth factor
PN	Post Natal	VSD	Ventricular septal defect
PNMR	Perinatal Mortality Rate	WHO	World Health Organisation
POW	Pregnancy Outreach Workers	WMFACS	West Midlands Family Cancer Strategy
PPH	Post-partum haemorrhage	WTE	Whole Time Equivalents
PPM	Practice Placement Manager	XLMR	X Linked Mental Retardation
PPR	Professional & Personal Review		
PREP	Post Registration Education & Practice		
PRODIGY	Online Guidance used by Healthcare Professionals and Patients		
PROMPT	Practical Obstetric Multi-Professional Training		
QA	Quality Assurance		
QFPCR	Quantitative Fluorescent Polymerase Chain Reaction		
QIPP	Quality Innovation Performance Prevention		
QQI	Quarterly Quality Indicator		
R & D	Research & Development		