

PROGRAMME FOR THE IRISH PERINATAL SOCIETY
ANNUAL MEETING
SHERATON HOTELHOTEL
FOTA ISLAND, CORK
11TH AND 12TH APRIL 2008

President: Dr. John Jenkins
Hon. Secretary: Prof. Fionnuala McAuliffe
Treasurer: Dr. Margaret Sheridan - Pereira

FRIDAY 11TH APRIL 2008

11.00-12.30 **VISIT TO CORK UNIVERSITY MATERNITY HOSPITAL, WILTON, CORK**
“LESSONS LEARNED FROM THE MOVE”
PROFESSOR JOHN HIGGINS, CORK UNIVERSITY MATERNITY HOSPITAL

12.30 **TRAVEL TO FOTA SHERATON (OWN TRAVEL ARRANGEMENTS NEED TO BE MADE)**

12.45 – 13.50 **REGISTRATION – TEA/COFFEE AND SANDWICHES**

13.50 – 14.00 **PRESIDENT’S WELCOME**

SESSION 1: CHAIRPERSON: TBA

14.00-14.30 ***“SHOULD LABOUR BE INDUCED FOR FETAL MACROSOMIA?”***
Professor Michael Turner, Coombe Women and Infant’s University Hospital, Dublin

14.30-15.30 **SPLIT SESSIONS – OBSTETRICS/ SESSION AND NEONATOLOGY SESSION**

OBSTETRIC SESSION:

14.30 **FETAL TROPONIN-T AND PRO-BNP IN FETUSES OF TYPE 1 DIABETIC MOTHERS.**

N Russell, M Higgins, M Amaruso, M Foley, R Firth, F McAuliffe.
UCD Obstetrics & Gynaecology, University College Dublin, National Maternity Hospital, Dublin, Ireland.

14.37 **PREGNANCY IN WOMEN WITH TYPE 1 AND TYPE 2 DIABETES IN DUBLIN**
M Higgins¹, D Galvin¹, S Daly², E Coleman², S Coulter Smith³, M Geary³, M Byrne⁴, B Kinsley⁴, M Coffey¹, M Foley¹, R Firth⁴, F Mc Auliffe¹
¹National Maternity Hospital, Dublin ²Coombe Womens and Infants University Hospital, Dublin, ³Rotunda Hospital, Dublin, ⁴Mater Misericordiae Hospital, Dublin

14.44 PHARMOKINETICS OF LOW MOLECULAR WEIGHT HEPARINS IN THE POSTPARTUM PERIOD

O'Riordan MN¹, Horgan R¹, Arya A¹, Quinn S³ Gaolebale PA¹, Sarkar RK¹, O'Sullivan K², Cahill M³, Higgins JR¹, Dept of Obstetrics and Gynaecology¹, Dept of Statistics² University College Cork . Department of Haematology, Cork University Hospital³

14.51 WITHDRAWN

14.58 MASSIVE POSTPARTUM HAEMORRHAGE: A COMPARISON OF INCIDENCE, CAUSES AND OUTCOME BETWEEN A DEVELOPING AND A DEVELOPED COUNTRY.

D. O'Brien¹, S Sivasundaram², J.G Feeney², G Agnew¹, C O'Herlihy¹
¹National Maternity Hospital, Dublin, ²Penang Maternity Hospital, Malaysia

15.05 ACCURATE DETECTION OF TERM AND PRETERM RUPTURE OF MEMBRANES: STERILE SPECULUM EXAMINATION VERSUS AMNISURE. IS THERE ANYTHING TO BE GAINED BY AMNISURE® TESTING?

Dr. Biza Akbar, Dr. Sharon Cooley, Dr. Hassan Rajab, Dr. Micheal Geary. Department of Obstetrics & Gynaecology. The Rotunda Hospital, Dublin.

15.12 INDUCTION OF LABOUR: ANALYSED BY INDICATION AND PARITY

OF Adelasoye, SM Cooley, MJ Turner, UCD School of Medicine and Medical Science, Coombe Women's Hospital, Dublin 8, Ireland

15.19 MAGNESIUM SULPHATE THERAPY IN THE MANAGEMENT OF ECLAMPSIA AND PRE-ECLAMPSIA

M Abdullah, M Masri, U Fahy., Institution: Midwestern Regional Maternity Hospital, Limerick.

NEONATAL SESSION

14.30 OXYGEN SATURATION TARGETING

B.Walsh, P.Gallagher, S.Tabassum, J.Heslin, A.Foran, D.Corcoran, T.Clarke
Department of Paediatrics, Rotunda Hospital, Dublin 1.

14.37 DAY ONE LACTATE VALUES PREDICT ADVERSE OUTCOME IN PRETERM INFANTS LESS THAN 32 WEEKS GESTATION

A. Clarke, M. Nadeem, EM Dempsey, Neonatal Intensive Care Unit, Cork University Maternity Hospital

14.44 IMPROVING STANDARDS IN NEONATAL PHLEBOTOMY.

K.Tanney¹, J.Davis¹, E.McCall², S.Murray³, J.Craig^{1,2}, C.Mayes¹.

1 Royal Jubilee Maternity Service, Belfast HSC Trust.

2 NICORE, Institute of Child Health, Grosvenor Road, Belfast.

3 NI Blood Transfusion Service, Belfast City Hospital, Lisburn Road, Belfast.

14.51 EVIDENCE BASED MANAGEMENT OF NEONATAL RESPIRATORY DISTRESS SYNDROME IN INFANTS UNDER 30 WEEKS OF GESTATION

- T Bourke, A Rizwan, D Millar, Royal Jubilee Maternity Hospital. Grosvenor Road, Belfast,
- 14.58 **PERINATAL AUTOPSY – WHY IS THIS TOOL UNDERUSED?**
JM Gluck, T Falconer and AH Bell. CEMACH (NI), Health Promotion Agency for Northern Ireland, Belfast.
- 15.05 **MISTAKES WE MAKE IN A REGIONAL NICU**
A Whelan, S Hackett, SM Gormally. Our Lady of Lourdes Hospital, Drogheda
- 15.12 **SERUM SODIUM PROFILES AND NEURODEVELOPMENTAL OUTCOMES IN EXTREMELY LOW BIRTHWEIGHT INFANTS**
White M, M Slevin, EJ Molloy, JFM Murphy, Department of Neonatology, National Maternity Hospital, Holles Street, Dublin
- 15.19 **UPTAKE OF PRENATAL SERVICES AND CASCADE CARRIER TESTING FOR CYSTIC FIBROSIS IN IRELAND**
Deborah M. Lambert^{1,2}, Mary Morgan¹, Sally Ann Lynch². ¹Children's University Hospital, Temple Street, Dublin and ²National Centre for Medical Genetics, Dublin.
- 15.30-16.00 **TEA/COFFEE AND POSTERS**
- 16.00-16.45 **ORAL POSTER SESSION**
- 16.00 **VITAMIN K PROPHYLAXIS OF NEWBORN : POLICY CHANGE IN CUMH**
Ranjana Dhar, P Filan, B Murphy, Department of Pediatrics, Cork University Maternity Hospital
- 16.05 **HOW DO IRISH OBSTETRICIANS MANAGE REDUCED FETAL MOVEMENTS IN AN UNCOMPLICATED PREGNANCY AT TERM? – RESULTS FROM AN ANONYMOUS ONLINE SURVEY.**
J Unterscheider, R Horgan, R A Greene, J R Higgins, Cork University Maternity Hospital, Wilton, Cork, Ireland
- 16.10 **WITHDRAWN**
- 16.15 **WITHDRAWN**
- 16.20 **CLASSIFICATION OF STILLBIRTHS AT MIDLAND GENERAL HOSPITAL IN 2007 USING RELEVANT CONDITION AT DEATH (RECODE) CLASSIFICATION SYSTEM**
C.Fattah , MC De Tavernier, S.Thomas, Midland General Hospital, Mullingar
- 16.25 **POST-NATAL RE-ADMISSIONS –THE INCIDENCE,CAUSES AND LENGTH OF STAY IN A LARGE ANTENATAL POPULATION**
Geisler M, Murphy C, Brophy C, McAuliffe F., NMH, Holles Street, Dublin
- 16.30 **ROYAL JUBILEE MATERNITY SERVICE DOMESTIC VIOLENCE SCREENING AUDIT**
J Gomersall, M Kennedy, A Zawislak, Royal Jubilee Maternity Service, Belfast

16.35 PATTERNS OF BREAST MILK EXPRESSION IN NEONATAL INTENSIVE CARE

B Rao, J Davis, C Mayes., Royal Jubilee Maternity Service, Belfast HSC Trust.

16.40 LIVER RUPTURE AND PREGNANCY; A CASE REPORT

M. Kamath, Mr Sim., Daisy Hill Hospital, Newry

16.45 REVIEW OF ACTIVITY AT HIGH DEPENDENCY UNIT AT COOMBE WOMEN'S HOSPITAL IN 2006

MC De Tavernier, C Fitzpatrick, Coombe Women's Hospital, Dublin

16.50 DEBATE – “THAT EVERY MATERNITY UNIT SHOULD HAVE NEONATOLOGISTS”

**FOR: Richard Tubman
Consultant Neonatologist
Cork**

**AGAINST: Prof Tony Ryan
Consultant Neonatologist,
Belfast**

17.30 IPS AGM

**19.30 'TIL LATE: SOCIETY DINNER – SHERATON HOTEL
ENTERTAINMENT: “FINAL TOUCH” BAND**

SATURDAY, 12th APRIL, 2008

SESSION I – CHAIRPERSON: TBA

09.00 -09.20 ***“DEVELOPMENT AND COLLECTION OF A MINIMUM NATIONAL PERINATAL DATA- SET”***

Professor Richard Greene, Consultant Obstetrician, Cork

09.20 - 09.40 ***“UPDATE ON NICORE”***

Dr Brendan Murphy, Consultant Neonatologist, Cork

09.40 – 10.00 ***“EUROPEAN GUIDELINES FOR THE MANAGEMENT OF RESPIRATORY DISTRESS SYNDROME”***

Dr David Sweet, Consultant Neonatologist, Royal Maternity Hospital, Belfast

10.00 – 10.30 ***“OPTIMAL MANAGEMENT OF PRETERM DELIVERY”***

Dr Keelin O’Donoghue, Consultant Obstetrician, Cork

10.30-11.00 **TEA/COFFEE AND POSTERS**

11.00 **CAESAREAN SECTION FOR VERY LOW BIRTH WEIGHT (VLBW) BABIES**

Khalifeh A., Turner MJ., UCD School of Medicine and Medical Science, Coombe Women & Infants Hospital, Dublin

11.08 **OUTCOME DATA FOR INFANTS BORN AT THE BORDERS OF VIABILITY**

C.Vavasseur, T. Carroll, A.Twomey, National Maternity Hospital, Dublin

11.16 **OUTCOME OF INFANTS BORN AT <28 WEEKS GESTATION IN CORK MATERNITY SERVICES 2004-2007**

K.R.Armstrong, B.P.Murphy, C.A.Ryan, E.M.Dempsey, P.M.Filan. Department of Neonatology, Cork University Maternity Hospital.Wilton.Cork

11.24 **OUTCOME OF EXTREMELY LOW BIRTH WEIGHT INFANTS: A 15 YEAR COMPARISON**

JW Davis¹, E McCall², JS Craig^{1,2}, 1 Royal Jubilee Maternity Service, Grosvenor Road, Belfast, BT12 6BB, 2 NICORE, Department of Child Health, Institute of Clinical Science, Grosvenor Road, Belfast BT12 6BB

11.32 **ANTENATAL MANAGEMENT OF THE EXTREME PRETERM NEWBORN –TO INTERVENE OR NOT**

Rizwan Khan, MRCPI¹, Michael O’Connell, FRCOG² and Eugene M Dempsey³. ¹Paediatrics and Newborn Medicine, Coombe Womens Hospital, Dublin, Ireland; ²Obstetrics and Gynaecology, Coombe Womens Hospital, Dublin, Ireland and ³Neonatology, Cork University Maternity Hospital, Cork, Ireland

- 11.40 **EXTREME PREMATURITY: TRANSPORT ISSUES**
P. Gallagher, T. Clarke, A. Bowden, A. Foran.
Department of Paediatrics, Rotunda Hospital and National Neonatal
Transport Programme
- 11.48 **AN AUDIT OF INFANTS ≤ 28 WEEKS DELIVERING IN THE NATIONAL
MATERNITY HOSPITAL IN 2007**
Shah Afridi Z, Mahony R, O’Carroll T, Foley M, Twomey A., National
Maternity Hospital, Holles Street, Dublin 2
- 11.56 **DO WE HAVE ENOUGH NICU BEDS IN IRELAND?**
Khalifeh A., Robson M., Twomey A., Molloy E.J., National Maternity
Hospital, Holles, Street, Dublin
- 12.07 **TRENDS IN NEONATAL MORTALITY OVER A 30 YEAR PERIOD –
WHAT ARE THE REMAINING CHALLENGES?**
A McMorrow¹, A Bell², S Craig¹, T Falconer², G McClure¹ · ¹Neonatal
Intensive Care Unit, Royal Jubilee Maternity Service, Belfast,
²Confidential Inquiry into Maternal and Child Health (CEMACH), N Ireland
- 12.15-12.55 **GUEST LECTURE**
**“EVOLVING OUTCOMES FOLLOWING EXTREMELY PRETERM
BIRTH: MAKING DECISIONS MORE DIFFICULT?”**
**PROFESSOR NEIL MARLOW, PROFESSOR OF NEONATAL
MEDICINE, ACADEMIC DIVISION OF CHILD HEALTH, QUEEN’S
MEDICAL CENTRE, NOTTINGHAM**
- 13.00-14.00 **LUNCH**
- 14.00-14.40 **GUEST LECTURE**
**“MORBIDITY AND ECONOMICS OF DIFFERENT METHODS OF
DELIVERY”**
**PROFESSOR THOMAS BASKETT, CONSULTANT OBSTETRICIAN,
HALIFAX, NOVA SCOTIA, CANADA**
- 14.40 **NEONATAL AND 18-MONTH NEURODEVELOPMENTAL OUTCOMES
OF VLBW INFANTS WITH HISTOPATHOLOGIC CHORIOAMNIONITIS**
Abdelazim Abdalla^{1,2}, Leonora Hendson^{1,2,3}, Laurie Russell⁴, Charlene M.
Robertson^{1,3}, Thierry Lacaze-Masmonteil^{1,2} ¹Department of Pediatrics,
²Division of Neonatology, ³Glenrose Rehabilitation Hospital, ⁴Department
of Anatomic Pathology, University of Alberta, Edmonton, Alberta
- 14.48 **ARE GRANDPARENTS IN DANGER OF BECOMING OBSOLETE IN
MODERN IRELAND?**
Mahmood U, Ismail K, Burke G., Mid-Western Regional Maternity
Hospital, Ennis Road Limerick

- 14.56 **A PROSPECTIVE AUDIT OF POTENTIAL PREMATURE DELIVERY AT THE NATIONAL MATERNITY HOSPITAL DUBLIN**
R.Mahony, T..Murphy, , A Twomey , F.McAuliffe C O'Herlihy, M.Foley
Department of Obstetrics and Gynaecology, University College Dublin and National Maternity Hospital, Dublin, Ireland
- 15.04 **IMPACT ON THE TIMING OF DELIVERY?**
NC Hapnes, T O'Carroll, E Molloy, F. McAuliffe, A Twomey, National Maternity Hospital, Holles Street, Dublin 2
- 15.12 **ARE WE GOOD ENOUGH? – A COMPARSION OF ANOMALY SCANNING DETECTION RATES IN ROYAL JUBILEE MATERNITY SERVICE TO RCOG STANDARDS**
Acheson JR, Adams B., Royal Jubilee Maternity Service, Belfast
- 15.20 **SHOULD WE DELIVER MONOCHORIONIC DIAMNIOTIC TWINS EARLY?**
R Mahony, F McAuliffe, S Carroll, M Foley., National Maternity Hospital, Dublin
- 15.28 **THE HIGH RATE OF NEONATAL VENTILATORY SUPPORT IN OBSTETRIC CHOLESTASIS**
Yousif ST, Burke G., Mid-Western Regional Maternity Hospital, Limerick
- 15.36 **UNEXPECTED ADMISSION TO THE NEONATAL UNIT AT 37 WEEKS AND BEYOND**
A.ANBAZHAGAN (SpR); S.ONG (Consultant), Royal Jubilee Maternity Hospital, Belfast
- 15.48 **NEONATAL PRESENTATIONS OF INHERITED METABOLIC DISORDERS IN IRISH TRAVELLERS**
E Low^a, AA Monavari^a, EP Treacy^a, SA Lynch^b, AM Murphy^a
^aThe National Centre for Inherited Metabolic Disorders (NCIMDs). The Children's University Hospital, Temple Street, Dublin. Ireland
^bThe National Centre for Medical Genetics (NCMGs). Our Lady's Hospital for Sick Children, Crumlin, Dublin. Ireland
- 16.15 **CLOSE OF MEETING AND AWARDING OF PRIZES**

(DISPLAY POSTERS WILL BE DISPLAYED DURING THE COFFEE BREAKS THROUGHOUT THE MEETING)

FETAL TROPONIN-T AND PRO-BNP IN FETUSES OF TYPE 1 DIABETIC MOTHERS.

N Russell, M Higgins, M Amarusso, M Foley, R Firth, F McAuliffe.

UCD Obstetrics & Gynaecology, University College Dublin, National Maternity Hospital, Dublin, Ireland.

Background: Cardiomyopathy is noted in up to 40% of infants of diabetic mothers, the exact mechanisms of which are unknown.

Objective: To determine if fetal serum markers of cardiac function differ between normal and type 1 diabetic pregnancy.

Setting: Tertiary level maternal unit

Methods: This is a prospective observational study of 45 type 1 diabetic (T1DM) pregnancies and 39 normal pregnancies with institutional ethics approval and signed parental consent. Cord bloods were taken at the time of delivery, centrifuged immediately and stored at minus 20 degrees until analysis by Electro Chemi Luminescence ImmunoAssay ("ECLIA" Roche).

Results: The cord blood pro-BNP and troponin-T levels were higher in the diabetic cohort than in the normal cohort ($p < 0.005$). Pro-BNP correlates positively with Troponin-T ($p < 0.0001$), birthweight ($p < 0.05$) and birthweight centile ($p < 0.05$). There was no correlation between either fetal troponin-T or fetal pro-BNP and booking or third trimester HbA1c.

	Normal	T1DM	p-value
number	39	45	
Pro-BNP (pmol/L)	108 +/- 71	365 +/- 1066	0.005
Troponin T (ng/mL)	0.01 +/- 0.02	0.04 +/- 0.07	0.004

CONCLUSION

Cord blood pro-BNP and Troponin-T are higher in fetuses of diabetic mothers than in the normal population. These data suggest that maternal type 1 diabetes is associated with significant effects on fetal cardiac function, consistent with findings of studies that show fetuses of type 1 diabetes show thickening of the IVS and cardiomyopathy. Consistently higher values in fetal troponin and pro-BNP in type 1 diabetes suggest that the effects on cardiac function are significant and may contribute to the susceptibility to hypoxia seen in these pregnancies.

PREGNANCY IN WOMEN WITH TYPE 1 AND TYPE 2 DIABETES IN DUBLIN

M Higgins¹, D Galvin¹, S Daly², E Coleman², S Coulter Smith³, M Geary³, M Byrne⁴, B Kinsley⁴, M Coffey¹, M Foley¹, R Firth⁴, F Mc Auliffe¹

¹National Maternity Hospital, Dublin ²Coombe Womens and Infants University Hospital, Dublin, ³Rotunda Hospital, Dublin, ⁴Mater Misericordiae Hospital, Dublin

Introduction

In 2005 the Confidential Enquiry into Maternal and Child Health (CEMACH) published the outcomes of pregnancies in women with Type 1 (T1) and Type 2 (T2) diabetes in the UK (n=3,733). The aim of this study was to compare the outcome of women in Dublin with T1/T2 diabetes with those in the CEMACH report.

Methods

Retrospective chart review of all T1/T2 women delivering in the three large tertiary level maternity units in the city of Dublin in 2006. Clinical information on mother and babies were recorded. Comparison to CEMACH outcomes are shown in underlined brackets.

Results

In 2006, 110 women (0.42%) delivered in Dublin with T1/T2 Diabetes (vs. 0.38%). 42 women (38%) were in their first pregnancy (vs. 40%) and 30 (27%) had T2 diabetes (vs. 27%).

	Dublin (n=110)	CEMACH (n=3733)	p value
Booking HbA1c < 7%	53% (n=59)	38.5%	p <0.05
Miscarriage	17.3% (n=19)	6.8%	p<0.05
Delivery before 37 completed weeks	22% (n=20)	35.8%	p<0.05
Steroids administered	14.3% (n=13)	8.4%	p=0.06
Induction of labour	54% (n=49)	38.9%	p<0.05
LSCS	59.3% (n=54)	67.4%	p>0.05
Macrosomia (>4.5kg)	2.1% (n=2)	5.7%	p>0.05
Admission to SCBU	41% (n=38)	56.4%	p<0.05
Breastfeeding	49% (n=45)	53%	p>0.05
IUD	0.9% (n=1)	2.5%	p>0.05
Maternal deaths	0%	5/3,733	

Conclusion

Women delivering in Dublin in 2006 had better first trimester glycaemic control than women delivering in the UK but were more likely to miscarry. Those who continued in their pregnancies were more likely to deliver after 38 weeks and therefore to undergo induction of labour. Overall Dublin data compared well with CEMACH. However pregnancy in women with diabetes remains high risk and justifies tertiary level multidisciplinary care.

PHARMOKINETICS OF LOW MOLECULAR WEIGHT HEPARINS IN THE POSTPARTUM PERIOD.

O'Riordan MN¹, Horgan R¹, Arya A¹, Quinn S³, Gaolebale PA¹, Sarkar RK¹, O'Sullivan K², Cahill M³, Higgins JR¹

Dept of Obstetrics and Gynaecology¹, Dept of Statistics² University College Cork . Department of Haematology, Cork University Hospital³

Introduction:

Thromboembolic disease remains the leading direct cause of maternal mortality. Pregnancy confers an increased risk of thromboembolism and delivery by caesarean section further increases this risk. There is minimal comparative data on the effects of commonly used LMWHs on the haemostatic system in the puerperium following caesarean section.

Aims:

To investigate the pharmacokinetics of tinzaparin and enoxaparin following caesarean section.

Methods

Twenty women were recruited. The patients were randomised to receive either enoxaparin 40 mg or tinzaparin 4,500 u once daily. The first dose of LMWH was administered 4-6 hours following caesarean section. Venous blood was sampled prior to the first subcutaneous injection and then at 1,2,3,4,6,12 and 24 hour intervals following administration. Sampling was done at three hours post dose until day 3.

Results

APTT, Factor Xa, Factor II, vWF, platelet count, volume and granularity were tested. There was no significant difference in characteristics (including BMI) between the two groups. There was a significant difference between Factor Xa levels with enoxaparin having higher levels than tinzaparin at six different time points (Mann Whitney test) Day 1 1hr post dose ($p=0.023$), Day 1 2hrs ($p=0.007$), Day 1 3hrs ($p=0.028$), Day 1 4hrs ($p=0.015$), Day 2 3hrs ($p=0.002$) and Day 3 3hrs ($p=0.008$). The significant differences occur at the peak of activity. There was no significant difference between the two drugs in any other parameters except platelet volume. There were no significant differences between Factor II activities between the drugs.

Conclusions

There are differences between the pharmacokinetics of enoxaparin and tinzaparin in the postnatal period. The differences were in the peak factor Xa levels but not in Factor II levels. The peak factor Xa levels for both were below the levels reported for nonpregnant volunteers.

MASSIVE POSTPARTUM HAEMORRHAGE: A COMPARISON OF INCIDENCE, CAUSES AND OUTCOME BETWEEN A DEVELOPING AND A DEVELOPED COUNTRY.

D. O'Brien¹, S Sivasundaram², J.G Feeney², G Agnew¹, C O'Herlihy¹

¹National Maternity Hospital, Dublin , ²Penang Maternity Hospital, Malaysia

Aims: Massive postpartum haemorrhage (PPH) is the most serious complication of childbirth and the most common cause of maternal death worldwide, predominantly in developing countries. Our aim was to compare the incidence, causes and outcomes of cases of massive PPH in hospital populations in Malaysia and in Ireland.

Methods: Massive PPH (estimated blood loss greater than 1500mls) was retrospectively analysed for seven years, 2000-2006, among women delivering at Penang Maternity Hospital and the National Maternity Hospital, Dublin in respect of incidence, maternal age, parity, mode of delivery, associated clinical factors and management.

Results: During the seven years studied 24,263 women delivered in Penang and 55,773 in Dublin and the massive PPH rate was identical (2/1000) in both institutions. In both hospitals the majority of cases were multiparous, >30 years of age and over 70% occurred in association with caesarean delivery. Average blood loss and blood transfusion volumes were similar but peripartum hysterectomy was performed more often in Penang. There was only one maternal death (in Dublin) among the 144 cases and other instances of maternal morbidity were infrequent.

Conclusion: Despite the very different location and populations served, incidence, management and maternal outcome were similar in both Malaysian and Irish institutions, with the vast majority of cases associated with caesarean section. These results indicate that appropriately trained obstetric personnel constitute the most important resource in minimising maternal morbidity associated with massive PPH.

ACCURATE DETECTION OF TERM AND PRETERM RUPTURE OF MEMBRANES: STERILE SPECULUM EXAMINATION VERSUS AMNISURE. IS THERE ANYTHING TO BE GAINED BY AMNISURE® TESTING?

Dr. Biza Akbar, Dr. Sharon Cooley, Dr. Hassan Rajab, Dr. Micheal Geary,
Department of Obstetrics & Gynaecology, The Rotunda Hospital, Dublin 1.

Objective: To assess the sensitivity, specificity and impact of AmniSure® testing on maternal and fetal outcome.

Materials & Methods: A prospective analysis of all women attending the emergency room in the Rotunda Hospital, Dublin 1 between January 1st and February 28th 2007.

All women presented with a history suggestive or spontaneous rupture of membranes (SROM). Sterile speculum examination (SSE) and AmniSure® testing were undertaken in each case.

The AmniSure® immunoassay is a bedside test that detects the presence of placental alpha-microglobulin-1 (PAMG-1) in the vagina. This microglobulin is specific to the placenta and is not produced by other body tissues. The minimum PAMG-1 required to produce a positive AmniSure® test is 5 ng/mL, which has a reported 99% sensitivity.

All women were admitted where indicated and followed prospectively. Antibiotic prophylaxis and steroids were also administered where appropriate.

Data was collected from the hospital case notes and delivery notes for each patient. Maternal details reviewed included age, parity, gestation at the diagnosis, fetal wellbeing, SSE result and AmniSure® test result.

Fetal outcome parameters reviewed included mode of delivery, fetal weight, Apgar Scores, resuscitation, neonatal sepsis and Neonatal Intensive Care Unit (NICU) admission.

Results: The study group comprised 37 patients. The maternal age ranged between 21 and 44 years. Parity ranged between 0 and 5. Five women had a history of previous miscarriage, however there was no previous history of second trimester loss. The mean gestational age was 38.4 weeks with a range between 22 and 41 weeks.

There were 22 cases of SROM identified in the study group (59.4%). However SSE was positive in only 18 of these cases, with a detection rate of 81%. Four additional cases of SROM were identified by concurrent use of the AmniSure® test. In all cases where AmniSure® confirmed SROM with a negative speculum the interval between diagnosis and delivery was less than 7 days. The mean gestation in this subset of patients was 32.2 weeks.

Conclusion: AmniSure® is a valuable test when PPRM is suspected. Its sensitivity is superior to SSE. Its use as an additional test in cases with a history suggestive of SROM, where SSE is negative must be considered.

Keywords: PPRM, AmniSure®, Sterile speculum examination

INDUCTION OF LABOUR: ANALYSED BY INDICATION AND PARITY

OF Adelasoye, SM Cooley, MJ Turner, UCD School of Medicine and Medical Science
Coombe Women's Hospital, Dublin 8, Ireland

Aim: To determine the maternal and fetal parameters that influence delivery outcome.

Methods: A review of all inductions in 2006. Details in relation to parity, gestation, and indication for induction, induction method, mode of delivery and fetal wellbeing at birth were recorded. Indication for induction was divided into postdates, maternal problem, fetal problem, social indication and miscellaneous.

Results: 7937 women delivered 8040 babies weighing 500g or more during the study. 1992 women required induction of labour, giving an induction rate of 25%.

443 Primigravidas were induced between 37 and 39 completed weeks. Primigravidas induction between 37 and 39 completed weeks was associated with a spontaneous vaginal delivery rate of 38.8%, an instrumental rate of 30.5% and an emergency caesarean section rate of 24.8%.

Primiparous induction after 40 weeks was associated with an instrumental rate of 34.6% and an emergency caesarean section rate of 26.4%.

When multigravidas were induced before 39 completed weeks (n=653), the instrumental delivery rate was 9.5% and the emergency caesarean section rate was 6.4%. When induced after 40 weeks the operative delivery rate was 11.2% and an emergency caesarean section rate of 8.5%. Table 1 shows the overall mode of delivery analysed by indication for induction.

	Instrumental	Emergency section	Apgar</+7@5 mins
Postdates (n=795)	25.6%	16.8%	1%
Maternal problem (n=580)	20%	17.4%	1.9%
Fetal problem (n=532)	17.7%	16.7%	2.2%
Social indication (n=47)	12.7%	2.1%	0%
Miscellaneous (n=38)	18.4%	7.9%	0%

While similar intervention rates are observed in both groups with maternal and fetal problems the subgroup with fetal problems were more likely to require intervention for suspected fetal distress ($p=0.0001$).

Conclusion: 25% of all patients attending the hospital during the study period had induction of labour

The study shows that the caesarean section rate following induction of labour for social reason is low, which probably reflects careful selection of women with favourable cervix.

The caesarean section rate following induction is lower in multigravidas compared with primigravidas.

Not surprisingly, there was a higher number of caesarean section for those women whose labour were induced for fetal and maternal reasons.

After 37 weeks, timing of induction may not be critical if cervix is favourable.

Information should be available in relation to outcome when advising a woman in relation to induction.

MAGNESIUM SULPHATE THERAPY IN THE MANAGEMENT OF ECLAMPSIA AND PRE-ECLAMPSIA

Authors: M Abdullah, M Masri, U Fahy.

Institution: Midwestern Regional Maternity Hospital, Limerick.

Aims: To assess the use of magnesium sulphate therapy in the management of eclampsia and pre-eclampsia, with special emphasis on serum magnesium levels.

Methods: This was a retrospective case note review. Patients included were those who received magnesium sulphate therapy between January 2003 and December 2006 inclusive. The loading dose of magnesium sulphate was 4grams followed by 1g per hour maintenance dose. Magnesium levels were checked every 4 hours as per guideline.

Results: 62 patients received magnesium sulphate therapy, aged between 17 and 39 years, of which 8(13%) had eclampsia, 50(81%) had fulminating or severe pre-eclampsia, and 4(6%) had HELLP syndrome. 40 %(25/62) had therapy prior to delivery. Therapeutic magnesium levels (2-4mmol/L) were achieved in 19 %(12/62). Toxic levels (>4mmol/L) were recorded in 5 patients while 81% had sub-therapeutic levels. The magnesium sulphate infusion rate was adjusted appropriately in 19 patients but no changes were made in the majority. No eclamptic fits occurred during therapy. 1 patient had therapy stopped at 1 hour because of respiratory depression although her magnesium level was in fact sub therapeutic. 4 patients were transferred out of our stand alone maternity facility; 3 to high dependency and 1 to intensive care unit.

Conclusion: Over the 4 year study period, magnesium sulphate therapy was used on 62 occasions. Therapeutic levels were achieved in less than one fifth of the patients and in those with sub therapeutic levels appropriate adjustment of the drug infusion rate was not always performed. Further education and experience of magnesium sulphate therapy is required.

OXYGEN SATURATION TARGETING

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Aim Our unit protocol for lower alarm settings is 87% and upper is 93% saturation. We audited compliance with these and how frequently spot saturation observations were within these values.

Background The BOOST trial (1) showed that lower oxygen saturation targets of 91-94% versus 95-98%, significantly decreased the numbers with BPD, with number needed to treat being 5. Similarly other papers (2,3,4) showed significant reductions in BPD at lower oxygen saturations.

Method The study was conducted over a 2 week period. Twice daily recordings were taken on infants of gestational age 32weeks or less, with a birth weight less than 1500gm, on supplemental oxygen. Among the recorded measurements were spot oxygen saturations, oxygen saturation alarm settings, mode of ventilation, and fraction of oxygen administered.

Results 16 infants were studied and 165 recordings were taken. The average gestational age was 28weeks(+/-4wk), and the average CGA was 33weeks(+/-8wk). The upper limit alarms were correct in 27%, and the lower in 83.6%. The upper was set at 100% in 38%. The saturations were within the "gold standard" range 44% of the time, and were too high 49%. There were 63 recordings in the subgroup with a CGA less than 34 weeks. The upper limit was correct in 46%, and high in 54%, the lower was correct in 84%. The upper was set at 100% in 30%. The saturations were within the gold standard range in 74%, and too high in 18%.

Conclusion The audit showed our compliance with the upper alarm settings is similar to that published in 2007 by Clucas (23.3%)(5). Our time within the "gold standard" range was in keeping with the range described in the multicentre AVIOx study(6)

References

- 1 *Oxygen-saturation targets and outcomes in extremely preterm infants. N Engl J Med 2003;349:953–61. Askie et al.*
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- 4 *Relation of target SpO2 levels and clinical outcome in ELBW infants on supplemental oxygen. Pediatr Res 2002;51:A350.*
- 5 *Compliance with alarm limits for pulse oximetry in very preterm infants. Pediatrics. 2007 Jun;119(6):1056-60*
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DAY ONE LACTATE VALUES PREDICT ADVERSE OUTCOME IN PRETERM INFANTS LESS THAN 32 WEEKS GESTATION

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Introduction: Combination of clinical and biochemical parameters may provide a more reliable assessment of end organ perfusion. Base deficit and blood lactate concentrations may be important prognostic indicators in ill neonates.

Objective: To determine whether abnormal lactate values during the first 24 hours of life are associated with adverse outcome (death, intraventricular haemorrhage or periventricular leukomalacia) in preterm infants <32 weeks.

Methods: A retrospective study of day one lactate values obtained from a cohort of preterm infants less than 32 weeks gestation admitted to neonatal intensive care unit over 6 month period. All blood gases were collected and analysed during the first 24 hours post delivery. Adverse outcome was defined as death or abnormal cranial U/S. Patients were excluded if there was a known lethal abnormality.

Results: 36 infants have been recruited to date. There was a total of 350 lactate levels. The mean number of lactate values obtained per patient was 7 in first 24 hours. Mean (SD) gestational age was 30 (2.3) weeks, mean (SD) birth weight 1.27(0.42) Kg, Mean lactate value was 2.52 (2.47) mmol/l. There was a strong negative correlation between lactate values and base deficit values (R value -0.75, p value,0.01).

5 patients had abnormal cranial imaging. One infant had bilateral ventricular haemorrhage and dilatation, one had unilateral ventricular haemorrhage and dilatation, and also one had bilateral haemorrhage. Unilateral haemorrhage was recorded in two infants. A single lactate value greater than 5 on day one had a sensitivity of 80%and specificity of 84% of identifying a severe IVH. The positive predictive value was only 50%. The negative predictive value was 87%.

Conclusion: There is a strong negative correlation between lactate values and base deficit on day one of life. In preterm infants less than 32 weeks a highest lactate value less than 5 on day one of life is strongly predictive of good outcome.

IMPROVING STANDARDS IN NEONATAL PHLEBOTOMY

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Background and aims: We aimed to determine whether education on neonatal phlebotomy and laboratory requirements reduces sampling overdraw, a primary factor leading to anaemia in critically ill infants. Blood sample volume in excess of laboratory requirements is a key factor leading to increased packed red cell transfusion and its associated risks. In the regional neonatal intensive care unit in Northern Ireland phlebotomy is undertaken by junior medical staff, with no targeted training or education.

Methods: We delivered a neonatal phlebotomy educational package to all junior doctors in NICU, detailing lab volume requirements. This education took the form of a teaching session, written information, and a unit poster reinforcing the phlebotomy guidelines. Early morning blood sampling was assessed before and after an educational intervention. We recorded sample source (venous, arterial or capillary) and infant's weight, gestation and day of life. Samples were weighed at laboratory level and classified as sufficient, insufficient, clotted or overdrawn. The volume was calculated using the specific gravity of blood and converted to percentage of requested laboratory volume. All phlebotomists were blinded to the audit process.

Results:

	Mean Weight (kg)	Mean % (SD) sample volume	% insuff.	% overdrawn (>120%)
Pre (n=206)	1.525	86.6(27.4)	1.4	11.8
Post (n=211)	1.719	90.0(23.1)	1.5	7.8
	p = 0.027			(χ^2) p = 0.162

Conclusion: We can conclude that staff are achieving high standards in sample utilisation, with only 1-2% of samples being insufficient. The infants following the educational intervention were heavier, which may partly explain why significant change in overdraw was not achieved. We are currently modifying the education package and aim to continue to audit our phlebotomy practice.

EVIDENCE BASED MANAGEMENT OF NEONATAL RESPIRATORY DISTRESS SYNDROME IN INFANTS UNDER 30 WEEKS OF GESTATION

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Aims

Respiratory distress syndrome (RDS) is a common cause of morbidity among the preterm population. We wished to establish if this condition is being managed in accordance with best available evidence.

Methods

All infants under 30 weeks gestation admitted to NICU during a six month period were identified from admission records. Recently published consensus guidelines for the management of RDS were identified from the literature ¹. A retrospective chart audit was carried out.

Results

201 babies were admitted during the study period of whom 35 were less than 30 weeks gestation. 31 charts were located and analysed. All infants were resuscitated with 100% O₂, contrary to current guidelines. 15 (100%) infants under 27 weeks received prophylactic surfactant, 11 (73%) at less than 15min age. 10 (62.5%) infants between 27 and 30 weeks received prophylactic surfactant, 5 (50%) of these at less than 15 minutes age. 4 (40%) were immediately extubated, however 2 of these required subsequent re-intubation. 6 (37.5%) infants did not receive prophylaxis however 4 (66.6%) of these went on to require rescue therapy. All infants were extubated to CPAP, however optimal pressure was documented in only 5 (16%) medical notes.

Conclusions

Air/oxygen mixers are currently being installed in all areas to allow resuscitation with the lowest possible concentration of oxygen. We intend to continue administering early prophylactic surfactant to all infants under 27 weeks and to high risk infants under 30 weeks gestation. This policy and the importance of adequate CPAP pressure and good documentation will be emphasised to all junior staff at induction.

1. Sweet D and colleagues. European consensus guidelines on the management of neonatal respiratory distress syndrome. J Perinat Med 2007 (35) 175-86

PERINATAL AUTOPSY – WHY IS THIS TOOL UNDERUSED?

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Aims

Autopsy is a valuable tool in assessing cause of death and auditing care after a perinatal death. Despite this, perinatal autopsy rates in Northern Ireland are well below the recommended standard. The aims of this study were to review the perinatal autopsy rate in Northern Ireland and study the factors contributing to poor utilisation of autopsy.

Methods

Autopsy rates were studied in Northern Ireland from 2000 to 2006 and the reasons for not performing an autopsy. Factors studied included maturity, birth weight and time and day of death. Data were obtained from anonymised CEMACH records.

Results

Autopsy rate fell markedly in 2002 but improved by 2006 particularly for stillbirths.

Year	2000	2001	2002	2003	2004	2005	2006
Autopsy Rate	46.4%	40.1%	16.3%	25.3%	35.3%	42.7%	40.8%

There was no difference in refusal rates between 2000 and 2005 (26.2 vs 26.5% resp). Autopsy rates were lowest in 2002 due to failure to request an autopsy in 56% cases, refusal by parents in 14.7% and in 8% of cases the service was unavailable.

There was no difference in autopsy uptake in 2005 in weekdays compared to weekends but autopsy rates were higher with deaths that occurred between 08.00 and 16.00 hrs and lowest when death occurred between 24.00 and 08.00 hrs.

In stillbirths autopsy rate was lowest at term with more cases where autopsy was not requested compared to immature stillbirths.

Autopsy rate was greatest in term babies (53.3%) and lowest in immature babies with paediatricians failing to request an autopsy in 50% of babies < 24 weeks gestation.

Conclusion

Low perinatal autopsy rates are due to failure to request an autopsy as well as parents refusing. It is an important area that needs addressed through education of midwives and doctors, appropriate use of staff and provision of perinatal pathology services.

MISTAKES WE MAKE IN A REGIONAL NICU

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Background: Learning from errors is an integral part of delivering a high quality of care in a Neonatal Intensive Care Unit (NICU). As part of this philosophy, medical and nursing staff working within our unit are encouraged to formally document potentially serious errors in a 'Clinical Incident' book. This is reviewed at a weekly audit meeting. Yearly reports are provided by the hospital Clinical Risk Managers (CRM).

Aims: The purpose of this study was to:

1. examine information regarding incidents, near misses and hazards reported in a regional NICU setting
2. compare the Risk Matrix scores assigned to more clinically appropriate categories assigned by medical NICU staff.

Patients and methods 'NICU Incident Forms' completed in 2007 were retrospectively examined by a doctor uninvolved in any of the cases. The incidents were grouped into low, medium and high risk per the CRM categories. The incidents were also divided into fifteen more clinically meaningful categories including accidents, phlebotomy, cannulation, communication, drug/intravenous fluids/TPN, equipment, procedures, security and staff. An extended incident analysis table was created to examine the location of the incidents, the personnel involved, the party most likely to be affected, what treatment was required, the time of the day the incident and other factors that may have contributed to the error. A further table was constructed to look at risk impact, likelihood of reoccurrence and the risk evaluation using the risk matrix table provided by the Clinical Risk Management team.

Results: Ninety-three 'Clinical incident' forms over a 12 month period were evaluated. Adverse incidents reported involved procedures (40%), staffing levels (22%), phlebotomy /cannulation (6%), drugs and infusions (10%), equipment (4%) and communication (1%), Time of the incident was documented in 53% of cases. It was found that 34% of incidents took place between 8am and 8pm and 19% between 8pm and 8am. Sixty-nine percent of incidents affected the patient with 29% affecting the nursing and medical staff. Sixty nine percent took place specifically within the NICU department. Three percent of incidents were deemed high risk and 49% low risk by the CRM. This compares to 17% and 34% respectively by an unbiased NICU doctor not involved in any of the cases.

Conclusions: A culture of open reporting of clinical incidents is to be lauded. However, such reports are assessed by a hospital clinical risk manager who is unqualified in neonatology. Often a compilation of the information gleaned by the CRM is provided only at the end of a year. This results in a delay in disseminating the information back to the unit involved. At present there is no method by which clinical risk information is shared with other units in Ireland. We propose that information documented in Clinical Incidents should be reviewed on a regular basis by a designated consultant Neonatologist within each unit and the information communicated to the unit as a whole. More importantly, consideration should be given to devising methods by which lessons can be shared between all units to minimise a similar adverse incident occurring elsewhere.

SERUM SODIUM PROFILES AND NEURODEVELOPMENTAL OUTCOMES IN EXTREMELY LOW BIRTHWEIGHT INFANTS

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Background:

Sodium and water homeostasis is a particular problem with ELBW infants. It has been suggested that isolated hyponatremia¹ or hypernatremia² are independent markers of neurodevelopmental delay. Fluctuation of serum sodium values is known to be associated with neurological impairment in the paediatric population, but studies in neonatal populations are lacking.

Aim

The aim of this retrospective study is to determine whether early abnormalities in sodium are associated with adverse outcomes in the ELBW population.

Methods

This was a retrospective review of all children born in the NMH between 2001 and 2004 at <28 weeks gestation and weighing ≤ 1 kg, with follow-up developmental data at two years. Laboratory sodium values were documented and recorded according to day of life. Neurodevelopmental data was assessed according to Bayley Developmental scores, MDI and PDI. Sodium values were assessed according to minimum and maximum values for each baby from Day1-Day 31, and were compared using the Students t-test in the overall group. The percentage number of values outside the normal range was documented. The cohort was further subdivided into those with the 6 highest (groupA) and lowest (groupB) scores.

Results

Bayley scores were available in 18 infants at 2 years. There was no statistical difference in gestational age when we divided the groups into those with scores <80(n=9) and >80(n=9) or birthweight. There was a significant difference in average minimum sodium values ($p=0.0056$) and the average median values ($p=0.009$) on day 2 of life between groups A&B. Infants with better outcomes had a wider variation in sodium values week 1 of life, and lower median sodium values.

Conclusion

Infants with better outcomes had a wider variation but lower levels of sodium week 1 of life. Lower minimum and median values day 2 is associated with higher Bayley scores.

UPTAKE OF PRENATAL SERVICES AND CASCADE CARRIER TESTING FOR CYSTIC FIBROSIS IN IRELAND

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Aims: Cystic fibrosis (CF) is a common recessive condition in Ireland with 1 in 19 carriers and 1 in 1440 affected. We wished to assess the uptake of prenatal diagnostic services and cascade testing for this common referral reason to genetics.

Methods: Retrospective chart review of patients seen for the indication 'cystic fibrosis' in the genetics clinics of Children's University Hospital, Temple Street and University College Hospital Galway.

Results: From January 2004 to July 2007, 76 patients were sent appointments for genetic counseling for CF: 23 (30%) were routine referrals from the CF clinic for a new CF family; and 53 (70%) were GP referrals for positive family history.

For GP referrals the risk of being a CF carrier was: CF affected (3.7%), known carrier (20.7%), 2/3 risk (22.6%), 1/2 risk (41.5%), 1/4 risk (7.5%), population risk (1.9%). 66% had a partner while 34% wanted to discuss carrier status before finding a partner. Those at higher risk of being a carrier were more likely to wait until they had a partner before being referred. Five of 35 couples (14%) were found to be at a 1 in 4 risk of CF.

Of 25 families with a child with CF referred from the CF clinic, 21 of the 23 attended the genetics appointment. Of the 30 families at 1 in 4 risk of CF, 15 (50%) have remained childless since. For 26 of 30 couples a molecular prenatal diagnosis was available, with 12 having a pregnancy and 5 (42%) a prenatal test. 4 indicated interest in pre-implantation genetic diagnosis (PGD). Only 6 families (20%) had members seen for cascade screening although the offer was made to all.

Conclusion: The uptake for prenatal diagnosis and screening of family members is lower than other European countries.

VITAMIN K PROPHYLAXIS OF NEWBORN : POLICY CHANGE IN CUMH

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Background

Newborns are relatively Vit K deficient, Vit K is required for the formation and activation of coagulation factors II (prothrombin), VII, IX, X. Administration of Vit K in the immediate newborn period protects the infants from Vitamin K Deficiency Bleeding of Newborn.

AIM

To survey the parental compliance of oral vitamin K regime in breast fed infants born in CUMH.

METHODS

All babies born between 5th and the 20th of April 2007 were selected.

Information was collected by telephone questionnaire and medical records were referred to confirm data.

RESULTS

320 babies were born during this period, 182 telephone numbers were available and phoned, only 81 responded.

Of the 81, 74 received oral vitamin K, 5 received intravenous vitamin K, no data was available for 2 babies.

Of the 74 babies, 39 babies were breastfed, 32 bottle fed and 3 received both.

Of the 39 exclusively breast fed babies, all received the first 2 doses of oral vitamin K, at birth and at 3 to 4 days of life respectively. Of the 32 babies still exclusively breastfed at one month, only 29 babies received oral vitamin K prophylaxis.

CONCLUSION

For the 3 dose (2mg each) oral vitamin K prophylaxis administered at birth, at 3 to 4 days of life and at one month respectively, 10% non-compliance was noted in the exclusively breast fed infants. This led to change of policy regarding route of administration of Vitamin K and a single 1mg intramuscular dose prophylaxis was introduced from 3rd December 2007 in CUMH.

HOW DO IRISH OBSTETRICIANS MANAGE REDUCED FETAL MOVEMENTS IN AN UNCOMPLICATED PREGNANCY AT TERM? – RESULTS FROM AN ANONYMOUS ONLINE SURVEY.

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Aim

A reduction of fetal movements causes concern and anxiety and is a common reason for referral to the maternity hospital. It may result in poor pregnancy outcome. The evidence is conflicting regarding how best reduced fetal movements should be managed.

We wished to investigate how this problem is managed in an Irish setting and formulated a structured questionnaire in which a scenario is given of a primigravida with unremarkable antenatal course who presents at 39⁺³ weeks gestation complaining of reduced fetal movements. We also wanted to investigate what might influence the clinician's management.

Methods

This was an anonymous web-based questionnaire. The questionnaire was emailed to 200 members of the Royal College of Physicians of Ireland and to Non-Consultant Hospital Doctors (NCHDs) in all maternity hospitals in the Republic of Ireland.

Results

70 responses (35%) have been received to date. 26 (37%) of responses came from Consultant Obstetricians and 44 (63%) from NCHDs. 49% and 34% of respondents stated the hospital in which they work does not have and has, respectively, a clinical practice guideline regarding the management of reduced fetal movements. 91% of doctors would perform a CTG, 50% an ultrasound to measure amniotic fluid index (AFI) and 47% a biophysical profile. 12% stated they would perform a growth scan and 15% an umbilical artery Doppler. 66% of respondents believe in kickcharts.

Management is most likely to be influenced by a history of previous stillbirth, if the pregnancy is 9 days over the due date or if the pregnant woman is over 40 years of age.

Conclusion

Our results show that there is no consensus on how to manage women presenting with reduced fetal movements. Further research is required to try to ascertain optimum management and to provide evidence based guidance on this very common problem.

CLASSIFICATION OF STILLBIRTHS AT MIDLAND GENERAL HOSPITAL IN 2007 USING RELEVANT CONDITION AT DEATH (RECODE) CLASSIFICATION SYSTEM

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Aim:

Stillbirths are the largest contributor to perinatal mortality. We reviewed the stillbirths using the new ReCoDe classification (1), which is proven to reduce the preponderance of fetal death previously classified as unexplained.

Methods:

Retrospective chart review of all the stillbirths that occurred in 2007 at the Midland Regional Hospital in Mullingar.

Results:

Overall 17 stillbirths and 2516 births occurred in 2007, representing an overall stillbirth rate of 6.8/1000 and a corrected stillbirth rate of 5.5/1000.

By using the new ReCoDe classification system, a relevant condition at death was identified in 12/17 stillbirths. The conditions are listed below:

<u>Group A: Fetus</u>		
Lethal Congenital anomaly	3	
Non-Immune Hydrops	1	
Feto-maternal Haemorrhage		1
Fetal Growth Restriction <P10	2	
<u>Group B: Umbilical Cord</u>		
Constricting Knot	1	
<u>Group C: Placenta</u>		
Abruption		1
<u>Group D: Amniotic Fluid</u>		
Polyhyamnios	1	
Other: Extensive Meconium Aspiration		1
<u>Group E: Intrapartum</u>		
Intrapartum Asphyxia	1	

Results:

The New ReCoDe Classification System helps to reveal underlying causes related to stillbirths and assists in the counselling of families after a stillbirth.

(1) Gardosi J et al. Classification of stillbirth by relevant condition at death (ReCoDe): Population based cohort study. BMJ 2005; 331;1113-1117.

POST-NATAL RE-ADMISSIONS –THE INCIDENCE,CAUSES AND LENGTH OF STAY IN A LARGE ANTENATAL POPULATION

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Objective To ascertain the incidence, causes and length of stay for maternal re-admissions in the puerperium.

Methods A retrospective and prospective study of readmissions over a six month period in the National Maternity Hospital. A retrospective chart review was performed over 3 months and continued for 3 consecutive months prospectively. The study group included all women who delivered a singleton infant >37 weeks and who subsequently required readmission for at least 1 night.

Results There were 4,270 deliveries during that time. We identified 69 readmissions with two patients readmitted twice. (16/1000) The main reason for re-admission was mastitis 15/67 then secondary post partum haemorrhage n=12 followed by endometritis n= 8 and wound infections or haematoma n=10 and hypertension n=4. The mean length of stay was 3.4 days (R 2-6) . Of those readmitted: 44 patients were discharged routinely and 14 were discharged with the Early Transfer Home (ETH) scheme. There was no difference between primiparous (n=44) and multiparous (n= 23) patients. 22/67 of patients had been delivered by emergency caesarean section and 33/67 by svd p< 0.01. Mean BMI was 26 and 6 patients had BMI >30 4/6 had wound infections. The commonest intervention was intravenous antibiotics. The majority of re-admissions were public patients 43/67(64%) with a minority 24/67 (35%) fee-paying patients. The expected proportions were 52.2% and 47.7% respectively.

Conclusion

The rate of readmission after caesarean delivery is 27/1000 (22/807). Sepsis was the commonest cause of readmission. Admission rates appear higher among public rather than private patients. The reasons for this deserve further study

ROYAL JUBILEE MATERNITY SERVICE DOMESTIC VIOLENCE SCREENING AUDIT

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Background

Domestic violence is an important cause of morbidity and mortality in maternity patients. In the CEMACH 2000-2002 triennial report, 14% of mothers who died reported domestic violence and 3.3% died as a direct result. The importance of routine screening was highlighted and introduction recommended in units where it was not practiced. Screening was introduced in Royal Jubilee Maternity Service (RJMS) in April 2005

Aims

A standard that 100% of women should be screened routinely at the booking appointment and on the postnatal ward was chosen. If screened positive for domestic violence we ascertained how many experienced it in the current relationship, and/or in a previous relationship, if they were referred to Social worker or to other services and whether review was planned.

Methods

The NIMATS system was searched to identify women who screened 'yes' to enquiry about experience of domestic violence from women booking for antenatal care in RJMS in 2006 and the postnatal questions of women delivered in RJMS in 2006.

Results

5386 women booked and 63% were screened at booking. Of these women screened 3% disclosed domestic violence. Of those who had experienced domestic violence 23% experienced it in their current relationship and 77% in a previous relationship. No patients disclosed experience of Domestic violence in current and previous relationship.

5191 mothers were delivered and 57% of these postnatal mothers were screened. 0.95% of the women screened disclosed domestic violence. Of these 46% experienced domestic violence in their current relationship and 54% in a previous relationship. Again no mother reported experiencing domestic violence in both current and previous relationships.

Conclusions

Our results showed that over a third of women were not screened at booking and even less were screened post-natally despite the introduction of mandatory screening. Only around half of patients who screened positive were referred to social services or other agencies.

PATTERNS OF BREAST MILK EXPRESSION IN NEONATAL INTENSIVE CARE

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Background

The first choice of enteral feeding within neonatal intensive care (NICU) is the use of expressed breast milk. This is partly based on evidence for a reduction in necrotising enterocolitis even with donor milk¹. Within this context expression of breast milk is encouraged by means of a guideline in the regional neonatal unit in Belfast. Our aim was to audit the adherence to this practice guideline. It is recommended that mothers should be approached in the first 12 hours to discuss expression of human milk and should express 8 – 10 times per day for the first 2 weeks.

Methods

Data were collected on infants of all gestations admitted to the NICU using a tailored proforma and maternal questioning. Mothers were approached as close to day 7 of their infants life as possible. Information was collected on weight, gestation,, time from birth to discussion about breast milk expression, duration of expression and number of times expressed per day. The results were then compared to the unit guideline.

Results

Gestation (weeks)		<26 (n=17)	26-30 (n=18)	30-34 (n=15)	34-37 (n=10)	>37 (n=13)
Expression in previous 24 h (times per day)	6-8 (%)	35.3	27.7	33.3	40	46.1
	>8 (%)	0	5.5	6.6	10	7.7
First approached in hrs	< 12 (%)	0	27.7	60	50	53.8
	12-24 (%)	64.7	61.1	26.6	30	30.7

Conclusions

We can conclude that the mothers of the most preterm infants are not being approached to discuss breast milk expression within the suggested time period. This may be due to concerns about survival. However this group should be a priority as they represent a “nutritional emergency”. We also conclude that breast milk expression frequency is much less than suggested by the guideline across gestations. We plan to involve our breastfeeding co-ordinator especially in the extreme preterm group in an effort to improve nutrition in the most ‘at risk’ infants.

1. Chauhan M, Henderson G, McGuire W. Enteral feeding for very low birth weights: reducing the risk of necrotising enterocolitis. Arch Dis Child Fetal Neonatal Ed 2008; 93 F162-166.

LIVER RUPTURE AND PREGNANCY; A CASE REPORT

M. Kamath, Mr Sim, B Smyth, Daisy Hill Hospital, Newry.

Introduction

Spontaneous liver rupture is a rare but serious complication of pregnancy, which may be associated with preeclampsia. High maternal and fetal mortality rates have been reported. In this report we describe a patient with spontaneous hepatic rupture diagnosed in the post-partum period. The presentation, diagnosis and treatment of this condition are discussed. The related literature is reviewed

Case report:

Mrs SW, a 38 year old primigravida, was seen in the clinic at 38 weeks with raised blood pressure on 15th February 2007 and arrangements were made for induction of labour on 18th February 2007. Her diastolic blood pressure in labour prior to epidural was at 112-116mm. She delivered by vacuum extraction. Following delivery, her blood pressure settled. The following morning she complained of acute lower right sided chest pain with hypertension. The probable diagnosis of pulmonary embolism was made. She subsequently developed right upper quadrant pain with hypotension and was resuscitated and a diagnosis of potential liver rupture made and confirmed on CT scan. At the time, her liver enzymes were hugely elevated and HELLP syndrome was also developing. She was transferred to Mater Hospital where she was surgically managed and then transferred to Edinburgh. She took more than 10 weeks to recover and showed some degree of liver function.

Discussion:

Various disease conditions can be complicated by spontaneous liver rupture such as-

1. Hepatocellular carcinoma.
2. Polyarteritis nodosa.
3. Following a ruptured hydatid disease of the liver
4. Bacterial cholangiohepatitis.
5. Pregnancy induced hypertension

Multiparous patients over the age of 30 years constitute the majority of cases. Henry et al reviewed 75 cases and reported a mean age of 31.7 and 80% were multiparous. Some reports have pointed out that as opposed to the young primigravida who is at a higher risk of developing preeclampsia, the elderly multipara with preeclampsia is at a higher risk of developing both uterine and liver rupture. The role of degenerative changes in the tissues is yet to be proved.

Conclusion:

We conclude that spontaneous liver rupture with pregnancy although rare but are attended by a high maternal and fetal mortality. An early diagnosis is mandatory for a favourable outcome. The diagnosis of liver rupture must be included in the differential diagnosis of acute abdomen both ante-partum and post-partum, especially in patients with severe preeclampsia.

REVIEW OF ACTIVITY AT HIGH DEPENDENCY UNIT AT COOMBE WOMEN'S HOSPITAL IN 2006

MC De Tavernier, C Fitzpatrick, Coombe Women's Hospital, Dublin

Purpose:

Description of experience with 157 peripartum women admitted to the high dependency unit during 2006.

Methods:

Prospective analysis of all admissions to the High Dependency Unit in 2006. The indication, treatments, need for transfusion, length of stay and transfer to Intensive Care Unit were analysed.

Results:

Almost 85% patients had obstetric complications that included pregnancy-associated hypertension and obstetric haemorrhage. Medical disorders were the indications in most remaining cases. 40% of patients with obstetric haemorrhage required a massive transfusion. Five patients were transferred to an Intensive Care Unit.

Conclusion:

A High Dependency Unit allows for the continuation of care of mainly pregnancy-related disorders and complications by obstetricians and results in fewer transfers to medical/surgical Intensive Care Units.

CAESAREAN SECTION FOR VERY LOW BIRTH WEIGHT (VLBW) BABIES

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Objective:

To determine the perioperative complications and short term neonatal outcome associated with caesarean sections for VLBW infants.

Design:

We reviewed the medical records of 89 women who had a caesarean section for VLBW infants (500g or more but <1.5 kg) between January 2006 and December 2007. The intraoperative and postoperative complications were recorded. The study also compared complications between lower transverse uterine incisions versus vertical uterine incisions including classical, De Lee and inverted T incisions.

Results:

Seventy four (83%) had a lower transverse uterine incision; 22(46%) were nulliparous and 25(54%) were multiparous. Twelve of the 74 had a previous uterine scar. Fulminating PET/HELLP was the commonest reason to perform a caesarean section. The only complication was postoperative infection that occurred in 7 cases. Four women in this group had a section in labour (all for breech presentation).

Surprisingly, 15(17%) of the 89 women needed a vertical incision in the uterus; 8 were nulliparous and 7 were multiparous. Four of the 15 had a previous uterine scar. Fulminating PET/HELLP was the commonest indication. Four women had postoperative infection and 1 had a peripartum hysterectomy following hemorrhage due to placenta accreta. No women in this group laboured. Table 1 shows the uterine incision analysed by birth weight. Fetal hypoxia (cord pH<7.1) occurred in 6 cases following a transverse incision. Two neonatal deaths occurred following a vertical incision while 1 neonatal death occurred in the transverse incision group due to anencephaly.

Conclusion:

The mode of delivery for VLBW babies is controversial, especially at the limit of viability. In selected cases, the obstetric need for caesarean section is clear. However, caesarean section for VLBW babies often necessitates a vertical incision which has serious implications for a woman's future pregnancies because of the potential risk of uterine rupture antepartum as well as peripartum. We recommend that all women who have a section preterm be given a copy of their operation note before discharge for future reference.

Table1. Infant weight vs uterine incision.

Weight (grams)	Transverse (n=74)	Vertical (n=15)
500-750	11	1
750-1000	23	4
1000-1250	19	6
1250-1500	21	4

OUTCOME DATA FOR INFANTS BORN AT THE BORDERS OF VIABILITY

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Introduction

The gestational age and birth weight cut off for intact survival in extremely preterm infants is unclear. Uncertainty among obstetricians and neonatologists about when it is inadvisable to institute intensive care. One suggested definition in relation to viability is when mortality does not exceed 50% but the corresponding figure for disability is undetermined. This institution recently published a review of seven international consensus statements on the perinatal management of a newborn infant at the threshold of viability.¹ While each of the consensus statements differed slightly in the issues addressed, a number of points of agreement emerged. All supported the provision of intensive care at 26 weeks gestation and most concurred that it is appropriate not to offer intensive care at 23 weeks gestation or less. The grey area that emerged was the best management of foetuses of 24 and 25 weeks gestation.

Aims: While all developing countries are experiencing difficulties in determining the most appropriate cut off point for the provision of intensive care for preterm infants, Ireland, as a country, has been challenged by the lack of accurate national data on the numbers, management and outcome of this cohort of infants which only accounts for approximately 2 per 1000 livebirths. To address this lack of information, our aim was to report our institution's experience of offering intensive care at the margins of viability.

Methods : Since 2001, all infants born > 401g or whose gestational age is 22 weeks gestation or greater and who show signs of life, are included in a database which is part of ongoing audit in our unit.² Only inborn infants without major congenital anomalies are included in this report. From January 2001 to December 2006, a total of 117 inborn infants ≤ 26 weeks gestation and with a BW of > 401g have been included.

Results

Table 1: Outcome for infants, 22 to 26 weeks gestation or >401g, 2001-2006

Gestational Age	No. of Liveborn Infants	No. of infants offered active resuscitation in the Delivery Room	No. of infants admitted to NICU	No. of Infants who survived to 28 days as a percentage of total liveborn infants	No. of Infants who survived to 28 days as a percentage of the no. of infants offered active resuscitation in the DR
21 wks	2	1 (50%)	1	0 (0%)	0 (0%)
22 wks	10	0 (0%)	0	0 (0%)	0 (0%)
23 wks	8	2 (25%)	2	0 (0%)	0 (0%)
24 wks	21	18 (86%)	17	11 (52%)	11(61%)
25 wks	32	30 (94%)	28	21 (66%)	21 (70%)
26 wks	44	42 (95%)	40	32 (73%)	32 (76%)
Total	117	93 (79%)	88	64 (55%)	64 (70%)

The majority of infants born at 24-25 weeks gestation are offered intensive care with more than half of these infants surviving to 28 days. Survival to 28 days for infants born ≤ 23 wks gestation was 0%.

Conclusion: Our institutional experience would support the non-initiation of intensive care in infants ≤ 23 wks gestation. However, more than 50% of infants born at 24-25 weeks gestation who are offered intensive care survive to 28 days. As survival figures depend on the number of infants who are offered intensive care in the DR, it is important that the number of infants at this gestational age who are actively managed in labour and who are actively resuscitated in the DR is also reported. While overall survival figures are helpful, it is the long term outcome of these infants at the threshold of viability that may determine whether ICU care is offered in the future.³ We need to be aware that the information that we provide to families at this critical time may influence them greatly as to whether intensive care is offered to their infant or not. It is imperative that clinicians have access to accurate and up to date institutional information that is also supported by national and international data.

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OUTCOME OF INFANTS BORN AT <28 WEEKS GESTATION IN CORK MATERNITY SERVICES 2004-2007

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Background

Ethical decision making regarding the care of extremely premature infants is challenging. Counselling of parents should include results from national and local outcome data to facilitate informed decision making for both parents and medical staff.

Aims

- 1) To describe outcome data for extremely premature infants born within Cork Unified Maternity Services in the past four years.
- 2) To compare our results with published national and international data.

Methods

Infant's liveborn at 22⁺⁰ to 27⁺⁶ between 2004 and 2007 and admitted to the NICU were included. Infants with congenital anomalies were excluded. A retrospective review of medical notes and Badger System discharge summaries was undertaken to collate infant demographic details and outcomes.

Results:

93 babies were born, 5 labour ward deaths and 3 infants excluded due to congenital anomalies. 52% were male and 44% of all deliveries were by caesarean section. 33% of babies born at 24⁺⁰ - 24⁺⁶ were delivered by caesarean section. 77% of babies were inborn.

Table

Birth Gestation	22 wks n=2	23wks n=7	24wks N=15	25wks n=21	26wks n=14	27wks n=31
N (%)	2 (2)	7 (8)	15 (17)	21 (23)	14 (16)	31 (34)
Chronic lung disease	0 (0)	1 (14)	1 (7)	5 (24)	2 (14)	4 (13)
Necrotising enterocolitis	0 (0)	0 (0)	8 (53)	6 (29)	2 (14)	4 (13)
Grade 3-4 IVH	0 (0)	2 (29)	6 (40)	3 (14)	4 (29)	2 (6)
Retinopathy (any stage)	0 (0)	0 (0)	0 (0)	3 (14)	0 (0)	2 (6)
Ductus medical therapy	0 (0)	2 (29)	4 (26)	7 (33)	5 (36)	10 (32)
Ductus ligation	0 (0)	1 (14)	2 (13)	6 (28)	1 (7)	2 (6)
Blood culture + ve sepsis	0 (0)	1 (14)	6 (40)	11 (52)	7 (50)	16 (52)
Survival to discharge	0 (0)	2 (25)	5 (33)	14 (67)	9 (64)	24 (77)

Conclusion: The survival data are comparable to published national data. These results allow one to provide informed antenatal counselling to parents presenting with threatened extreme premature delivery. It allows one to identify aspects of both perinatal and neonatal care where improvements can occur. This will result in improved survival and a reduction in morbidity.

OUTCOME OF EXTREMELY LOW BIRTH WEIGHT INFANTS: A 15 YEAR COMPARISON.

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Background. Advances in perinatal medicine have allowed significant improvements in the survival of extremely low birth weight (ELBW) infants over the past 2 decades. However infants less than 1000g still provide considerable clinical challenges. Our aim was to describe the morbidity and mortality of ELBW infants in 2005 and review changes over a 15 year period.

Methods. The Neonatal Intensive Care Outcomes, Research and Evaluation (NICORE) provided data on infants admitted to the regional NICU in Northern Ireland on the first day of life in 2005.¹ Previous published data from 1990-1992 provided a comparison on a similar cohort of infants.²

Results.

	1990/92	2005
Total no. of infants	77	53
Mean (SD) gestation (wks)	26.2 (2.1)	26.1 (2.0)
Mean (SD) weight (g)	781 (32)	768 (46)

Mortality was similar in both groups: 65% (1990-92) vs 64.8% (2005). The mean length of stay was significantly less in 2005; 95 (1990-92) vs 54 (2005) days, $p < 0.001$. Antenatal steroids were administered more frequently in 2005: 72% (1990-92) vs 90% (2005), $p < 0.02$. Oxygen requirements at 28 days of life remained similar between the two time periods: 74% (1990-92) vs 64.8% (2005). The use of steroids for chronic lung disease was significantly less in 2005 compared to 1990-1992: 54% (1990-92) vs 9.3% (2005), $p < 0.01$. There were similar numbers of infants with severe brain injury (grade 3–4 IVH or PVL): 20% (1990-92) vs 13% (2005).

Conclusions. Considerable mortality remains in infants $< 1000g$. There is a trend towards reduced respiratory and neurological morbidity which may reflect changes in perinatal practice. The overall length of stay has also significantly reduced. Future comparisons will be based on the NICORE database in order to minimise selection bias.^{1,3}

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ANTENATAL MANAGEMENT OF THE EXTREME PRETERM NEWBORN –TO INTERVENE OR NOT

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Background: Attitudes towards antenatal management of the expectant mother at the limits of viability differ across health care provider groups and remains a contentious area.

Objective: To explore the opinions of healthcare providers towards antenatal management of expectant mothers presenting at the limits of viability.

Design/Methods: An anonymous postal questionnaire was sent to various health care providers (obstetricians, neonatologists, paediatricians, SpRs in Paediatrics and Obstetrics, midwives and neonatal nurses) working in maternity units in the Republic of Ireland. Questions related to antenatal and intra partum management of the expectant mother from 22 weeks to 28 weeks gestation.

Results: The response rate was 55% (74% Obstetricians, 70% neonatologists, 70% NICU nurses, 60% general paediatrician). 80% of the respondents were Roman Catholic. 21% of all respondents would advocate administering antenatal corticosteroids at 22 weeks (0% neonatologists, 13% obstetricians, 20% general paediatricians), at 23 weeks 42% of neonatologists advocate antenatal steroids and 100% at 24 weeks. The majority (80%) of respondents felt that a neonatologist should counsel an expectant mother at 24 weeks whilst the majority felt that an obstetrician should counsel solely at 22 weeks. 92% neonatologists would wish an obstetrician to counsel parents at 22 weeks. 50% of all health care providers advocate cardiotocographic monitoring at 24 weeks gestation and above. Neither obstetrician nor neonatologist advocated CTG monitoring at 22 weeks gestation. Only 8% provide written information on survival and longterm outcome, the remainder providing verbal information only to expectant mothers. Neonatologists (50%) were more likely than obstetrician (40%) to advocate caesarean section at 25 weeks for breech presentation. Obstetricians were more willing to perform cesarean section at 25 weeks for fetal distress (60%).

Conclusions: Different professional groups have different views on antenatal management of extremely premature infants. 24 weeks would appear to be the limit at which most would advocate some form of intervention. Greatest variation exists in the grey zone, less than 25 weeks. Establishment and provision of national outcome data may help decision making at the limits of viability.

EXTREME PREMATURE: TRANSPORT ISSUES

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Background: Extremely preterm delivery is rare. There are ethical dilemmas at the edge of viability. However, once a decision is made to actively manage a preterm delivery every effort should be made for delivery to take place in a tertiary neonatal unit. "Out born" premature infants have higher morbidity and mortality rates compared to "inborn" premature infants.

Case Report: Baby C born at 24 + 1 weeks gestation (BW 615grams) was an ex utero transfer at 24 hours from a peripheral paediatric unit to the Rotunda. Mother was a 22-year-old primigravida with PPROM for 1 week. Antenatal steroids and oral erythromycin were given. The local Obstetric team had been unable to secure a tertiary antenatal bed mainly due to the lack of NICU beds. Apgars were 1¹, 1⁵, 8¹⁰; baby was intubated at 5 minutes and given surfactant 200mg/kg.

The Neonatal Transport Team was not available for a further 16 hours as the delivery was just outside transport hours. At the time of arrival of the transport team the baby was ventilated with an FiO₂ 25% and was stable for transfer after 3 hours.

Transfer involved a 150-minute journey by road. Temperature on arrival to the Rotunda was 34.5°C, Na⁺ was 177mmol/l and bilirubin 190µmol/l (40 >exchange). Cranial ultrasound: left grade II and a right grade III IVH. Despite optimising fluid management and maximum vasopressor support, the baby died 5 days after delivery.

Discussion: While preterm delivery is often unexpected, this case highlights a missed 5-day window when optimum management would have been the expedient in utero transfer of this high-risk mother. When a preterm baby is born outside the 9-5 neonatal transport timeframe there is no national system in place to support peripheral hospitals. Currently the National Neonatal Transport Programme (NNTP) website is updated on a daily basis by the 3 Dublin maternity hospitals with regard to NICU bed status. Tertiary neonatal units outside Dublin do not submit their bed status, nor is the antenatal bed status utilised.

Conclusion: Specialised neonatal transport has not removed the advantage of decreased morbidity and mortality resulting from maternal in utero transport. The NNTP will soon extend to 24 hours. This does not negate the need to optimise antenatal transfer. A more centralised structure facilitating transfer may prevent avoidable post-natal transport and more timely tertiary neonatal support if ever this is not possible. If there are no immediately available beds a regional "default" hospital system would help to ensure successful antenatal and postnatal transport.

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AN AUDIT OF INFANTS \leq 28 WEEKS DELIVERING IN THE NATIONAL MATERNITY HOSPITAL IN 2007

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Aims: To audit the numbers of liveborn infants delivering \leq 28 weeks in the National Maternity Hospital and to examine the circumstances surrounding their delivery

Methods: All liveborn infants delivering \leq 28 weeks in National Maternity Hospital were identified from the Obstetric and Neonatal computer information system. Both maternal and infant charts were reviewed.

Results: 81 mothers were delivered of 93 infants between the gestational ages of 20-28 weeks inclusive. Of these 93 infants, 63 (68%) were liveborn (44 singletons and 19 multiples). One of 8 infants at 20 weeks was liveborn, 1 of 5 at 21 weeks and 2 of 7 at 22 wks gestation. Of the liveborn infants, 25 (40%) of the 63 had been transferred *in utero*. Sixteen infants were delivered by primary C/S, 3 by C/S in labour and 44 infants were delivered spontaneously of which 15 were breech. 48 infants (76%) had received a completed course of steroids. If infants $<$ 24 weeks gestation were excluded, the figure increased to 89%. 6 infants did not receive a complete course of steroids and none of these infants received tocolysis. Aetiology of preterm delivery was PTL (40%), PSROM (36%), maternal interest (14%) and foetal interest (10%) Of the 63 liveborn, 34 were males and 29 were females. 49 infants (78%) were admitted to the NICU.

Conclusions: The majority of infants delivering \geq 23 weeks gestation are liveborn and many of these infants survive to admission to the NICU. Rates of antenatal steroid use is high but there are still a number of cases who do not receive a full course of steroids suggesting that tocolysis may have a role in a targeted population. PTL and PSROM accounts for the majority of cases of infants delivering early. Most of these infants are delivered vaginally irrespective of gestational age with C/S mainly being carried out in the maternal interest. To further look at the role of tocolysis and mode of delivery in this extremely vulnerable population, a prospective study of preterm labour is strongly advocated.

DO WE HAVE ENOUGH NICU BEDS IN IRELAND?

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Introduction

Neonatal transfers are related to increased neonatal morbidity and require the involvement of experienced neonatal transport teams. Ideally neonates are transferred in utero but intensive care beds may limit optimal timing of transfer.

Aim

We aimed to study the number and nature of perinatal transfer requests to a tertiary neonatal unit.

Methods

A prospective database was created and staff members completed a proforma detailing the reason for referral and the staff member making and receiving the call. All requests for in utero and ex utero transfers to the National Maternity Hospital between June 2006 to June 2007 were included.

Results

There were 156 requests for perinatal transfer over one year period and 130 calls related to in utero transfers and 26 ex utero. Transfer requests were predominantly made by senior obstetric registrars to both paediatric and obstetric senior registrars in the receiving hospital. The commonest reason for transfer was lack of availability of NICU beds locally (92 cases). 35 calls were received from other Dublin maternity hospitals and 7 from Northern Ireland with 114 from the rest of Ireland. 116 transfers were accepted and 40 rejected predominantly due to the lack of NICU beds availability (36 cases) or in some cases due to lack of antenatal beds.

Conclusion

The high demand for NICU beds is demonstrated by the large number of referrals from other Dublin hospitals and Northern Ireland. In addition lack of available NICU beds is a barrier to optimal perinatal transfer. A centralised NICU bed allocation service may assist in the auditing process and facilitate the rapid transfer of high-risk patients.

TRENDS IN NEONATAL MORTALITY OVER A 30 YEAR PERIOD – WHAT ARE THE REMAINING CHALLENGES?

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Aims: A report on neonatal mortality in N Ireland during 1974 and 1975 showed it was higher than the rest of the United Kingdom. It also highlighted significant deficiencies in perinatal services. Our aim was to review neonatal mortality and the organisation of services in 2004/05 compared with the earlier study.

Methods: All babies who died before 28 days of age between 1st January 2004 and 31st December 2005 were included. Data was collected on neonatal mortality rates, causes of death, place of birth and maternity services. Cause of death was classified using mortality tabulation based on ICD10.

Results: In the 70s there were 44 maternity units and only 1 neonatal intensive care cot with 1 part time neonatologist. There are now 10 obstetric units and 19 intensive care cots, all appropriately staffed. The neonatal mortality rate during 1974/75 and 2004/5 fell from 13.3 to 4.1 per 1,000 live births. Immaturity is now the main cause of death with significantly more being less than 24 weeks (31.2% vs 2.8%). There are notably fewer deaths primarily from RDS.

	1974 - 1975		2004 - 2005	
	Number	%	Number	%
Congenital malformation	219	30.9	50	26.5
Immaturity	153	21.6	77	40.7
Respiratory distress syndrome	144	20.3	12	6.3
Death from intrapartum causes	90	12.7	16	8.5
Pneumonia	28	4.0	7	3.7
Miscellaneous	74	10.5	27	14.3
TOTAL	708	100	189	100

Congenital malformation remains a major cause of death but with a marked reduction in some groups such as congenital heart disease (6% vs 26.5%) and the virtual disappearance of deaths from neural tube defects.

Conclusion: Neonatal death has fallen rapidly in 30 years due to major advances in prenatal diagnosis and neonatal therapy. The problems that remain are with very immature babies and those with sporadic lethal syndromes or other major malformations.

NEONATAL AND 18-MONTH NEURODEVELOPMENTAL OUTCOMES OF VLBW INFANTS WITH HISTOPATHOLOGIC CHORIOAMNIONITIS

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ABSTRACT

BACKGROUND:

Chorioamnionitis (CA) is a risk factor for preterm birth, and is associated with morbidity and brain injury in preterm infants.

OBJECTIVE:

To examine the relationship between histologically diagnosed CA and neurodevelopmental outcomes of VLBW infants at 18-months adjusted age.

METHODS:

Longitudinal cohort study with prospective follow-up conducted at a tertiary care hospital. All inborn infants from April 1997 – December 2003 with a BW < 1250g and GA ≤ 32 weeks were eligible. Infants with major congenital malformations, BW < 3% and monozygotic twins were excluded. Disability at 18-months was defined as one or more of cerebral palsy, visual loss [< 20/60] or blindness [< 20/200], sensorineural hearing loss [> 40dB] and MDI < 70 [-2SD below the mean] – BSID-II.

RESULTS:

Of 526 infants with placental pathology and 18-months outcomes available, 269 (51%) had histologic CA and 257 (49%) had no evidence of CA. Infants with CA were of lower GA [26.1 ± 2.0 vs. 27.6 ± 2.1 weeks; p < 0.01] and BW [900.5 ± 207.5 vs. 967.2 ± 195.8 grams; p < 0.01]. They had higher rates of BPD [42% vs. 31%; p < 0.05], severe IVH [19% vs. 13%; p < 0.05], severe ROP [22% vs. 11%; p < 0.01], and death in the NICU [21% vs. 14%; p < 0.05]. At 18-months, any disability was more common amongst the CA group [36.9% vs. 27.0%; OR 1.6; (1.0, 2.4); p < 0.05]. The mean MDI was lower in the CA group [77.0 ± 17.5 vs. 81.8 ± 17.0; p < 0.05]. Composite outcome, death or disability at 18 months was higher in the CA group, [52% vs. 38%, OR 1.7 (1.2, 2.4); p < 0.05].

CONCLUSION:

Up to half of placentas of VLBW infants showed histologic CA. These infants had lower GAs and BWs, higher rates of neonatal complications and mortality, and were more likely to have a disability at 18-months.

ARE GRANDPARENTS IN DANGER OF BECOMING OBSOLETE IN MODERN IRELAND?

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Aims

Grandparents play many important roles in a small child and adolescent's life, albeit at a fairly modest level. Similarly, contact with grandchildren can benefit the health of the elderly. In modern Ireland, demographic changes - delayed fertility, small family size and immigration – may have a profound effect on the structure of the extended family, with the possible reduction of grandparental involvement. We set out to obtain a profile of grandparental age and geographical residence for babies recently born in Limerick.

Methods

Convenience samples (chosen to include Irish, non-Irish and women over 35) of mothers were interviewed about the ages and place of residence of their newborn's grandparents. We attempted to predict the likelihood of significant grandparental involvement in the child's rearing.

Results

A total of 283 women were interviewed, including 218 Irish (70 over 35 years) and 65 non-Irish. The mean grandparental age was 59.8 years. It was 60.7 for Irish women, 56.9 for non-Irish women and 67.2 for Irish women aged over 35. A total of 16.5% of grandparents were deceased and for 3.2% of newborns, all four grandparents were deceased. For 72.1%, two or more grandparents were living within a 50 Km radius but for 21.9%, all four were living abroad.

Conclusion

A significant number of modern Irish-born children are likely to have relatively little involvement with their grandparents and 3% have no living grandparent. This may have social and health implications.

A PROSPECTIVE AUDIT OF POTENTIAL PREMATURE DELIVERY AT THE NATIONAL MATERNITY HOSPITAL DUBLIN

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Aims : To prospectively audit women presenting before 34 weeks with the potential for premature delivery, in order to determine the incidence of premature delivery and to define our preterm delivery population .

Methods: This prospective study is ongoing at the National Maternity Hospital. Obstetric details were collated on all women presenting before 34 weeks gestation for January through February 2008. In-utero transfers (IUT) and multiple pregnancies were analysed separately.

Results: Among 1424 births at NMH, 84 (5.9%) women, with a singleton pregnancy presented before 34 weeks. The incidence of premature delivery was (1.4%, n=20) and for spontaneous premature labor, 0.3 % (n=4). Premature delivery subdivided by aetiology into: - spontaneous premature labor (n=4, 20%) PROM (n=7, 35 %) and prelabor delivery for fetomaternal indications (n=9,45%). With the exception of 2 patients who presented in advanced labor, all completed a course of betamethasone. Tocolytic agents were not prescribed. Of the 84 women who presented, 64 women (72%) had not delivered within the study period., of whom, 66 % presented with pains and 22 % with antepartum haemorrhage ; 77%(49/64) received betamethasone Thirteen (52%) of 25 intrauterine transfers delivered ; distributed by aetiology :- pains (23 %; 3/13) PROM,(31 %;4/13) and fetomaternal indications (46% ; 6/13) . There were 9 pairs of twins of whom 5 delivered.

Conclusions: The incidence of premature delivery < 34 weeks in our hospital population is low (1.4 %) as is the incidence of premature spontaneous delivery (0.3%) with an identical distribution by aetiology among in-utero transfers. All but 2 women who presented in advanced labor completed a course of betamethasone, suggesting that tocolytics have little place in the management of premature delivery in our population.

IMPACT ON THE TIMING OF DELIVERY?

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Background: Some congenital anomalies require urgent transfer to a tertiary referral centre for definitive treatment/surgery. The transport of critically ill infants is not without significant morbidity and mortality and is all the more challenging in an environment of stand-alone maternity units, staffing shortages and a neonatal transport service which is currently only available 8 hours a day.

Aim: We wished to determine if the antenatal diagnosis of a major congenital anomaly which would require early surgical or cardiac intervention resulted in delivery within the normal working hours when staff numbers are at a maximum (and which were also the hours of availability of a dedicated neonatal transport service)

Methods: A retrospective review of all cases of major congenital anomalies admitted to the intensive care unit in 2006-2007 which required immediate transfer for diagnosis/stabilization purpose were identified. Factors surrounding delivery (spontaneous/induced, parity) were also examined

Results: 25 cases were identified. Of these, 21 were suspected antenatally. There were 7 cases of gastroschisis, all of which were suspected antenatally and 6 cases of CDH, of which 5 were diagnosed antenatally. Of the 12 significant cardiac lesions, 9 were suspected antenatally (4/4 HLHS, 1/2 TGA, 1/2 Coarctation, 1/1 severe AS, 2/2 Critical PS, 0/1 TAPVD). 8 of the 21 infants delivered between 0800-1600 hours and 4 delivered between midnight & 0800 hours. 3 women had planned elective caesarian sections because of the foetal diagnosis of which 1 was a primigravida. All of these were delivered between 13.00 and 16.00 hours. 11 women were induced (of which 6 were primigravidas) and only 2 of these infants delivered between 0800-1600 hours.

Conclusion: 84% of cases requiring urgent transfer to a tertiary paediatric centre are diagnosed antenatally. Despite this high pick-up rate, only 38% delivered during normal working hours and only 14% delivered before 13.00 hours. This has implications for the safe and speedy transfer of critically ill infants and is something that deserves further discussion between obstetric and neonatal staff.

ARE WE GOOD ENOUGH? – A Comparison of Anomaly Scanning Detection Rates in Royal Jubilee Maternity Service to RCOG Standards

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Institution

Royal Jubilee Maternity Service, Belfast, N Ireland BT12 6BB

Aims

To assess the standard of the fetal anomaly service available in Royal Jubilee Maternity Service over a three-year period (Regional Fetomaternal Medicine Service).

Background

An obstetric anomaly scan is currently offered to all pregnant mothers between 18-22 weeks of their pregnancy. The anomaly pick-up rates in this unit were calculated and audited against current RCOG standards.

Materials and Methods

A retrospective analysis of a three-year period, from 2005 to 2007 was completed. Hospital database (NIMATS) and patient notes were used to source information (1 chart reviewer – JA). We included all patients where a fetal anomaly was detected, whatever the gestation and who underwent a structural fetal anomaly scan in our unit. Detection rates were compared with the RCOG standards as set out in the 1997 Working Party Report.

Results

Anomaly	RCOG	RJMS
Spina bifida	90%	96%
Anencephaly	99%	100%
Hydrocephalus	60%	66%
Major cardiac anomaly	25%	80%
Diaphragmatic hernia	60%	80%
Exomphalous/gastroschis	90%	93%
Major kidney problems	85%	84%
Major limb anomalies	90%	87%
Down's syndrome	40%	34%

Total number audited: 297

Overall detection rate for fetal anomalies: 77%

Conclusions

Detection rates for major anomalies are better than recommended standard. These figures are of use when counselling and consenting patients for what has now become a routine antenatal investigation. Diagnosis of Down's syndrome remains difficult to achieve by ultrasound scan alone. Where there is a high level of maternal anxiety or risk, it is wise to discuss these figures at booking in order to facilitate access to other investigations such as nuchal thickness scans, triple tests and amniocentesis.

SHOULD WE DELIVER MONOCHORIONIC DIAMNIOTIC TWINS EARLY?

R Mahony, F McAuliffe, S Carroll, M Foley., National Maternity Hospital, Dublin.

Aims: The risk of intrauterine death (IUD) is greater for monochorionic diamniotic (MCDA) twins compared with dichorionic diamniotic (DCDA) twins, mostly explained by twin-to-twin transfusion syndrome (TTTS) and intrauterine growth restriction (IUGR) related to haemodynamic imbalance caused by placental vascular anastomoses. However, even when these conditions are excluded and despite close fetal surveillance, some authors argue that IUD in MCDA twins is unpredictable, justifying late preterm delivery (34-36 weeks). Our aim was to determine the risk of IUD in MCDA twins \geq 34 weeks gestation

Methods: Retrospective review of perinatal outcome among 897 consecutive twin pregnancies \geq 24 weeks gestation 1997-2003. Chorionicity was determined by placental histopathologic examination. Data were analysed as deaths (one or both) per pregnancy. Three fetal abnormalities were excluded.

Results: Among 670 DCDA and 227 MCDA consecutive twin pairs 87% (577/670) and 75% (173/227) respectively delivered after 34 weeks and 66% (441/670) and 49% (112/227) respectively delivered after 37 weeks gestation. The pregnancy related perinatal death rate calculated for ongoing pregnancies after 34 weeks was significantly less among DCDA twins compared with MCDA twins (0.5%;3/580 vs.2.3% ;4/173) and after 37 weeks (0.45%;2/441 vs. 1.8%;2/112) .Among MCDA twins there two pregnancy losses between 34 and 37 weeks [1 TTTS at 34 weeks and 1 IUGR (1430g) at 36 weeks] and two after 37 weeks :- both caused by placental abruption ,one with discordant growth (2740/3520g) and one with IUGR (1950/2205g). All deaths after 34 weeks among DCDA twins were associated with IUGR.

Conclusion: With the exception of one TTTS which occurred at 34 weeks all deaths among MCDA twins were related to discordant growth or IUGR and were therefore potentially avoidable as were all of the deaths $>$ 34 weeks among DCDA twins. These findings do not support routine late preterm delivery of MCDA twins.

THE HIGH RATE OF NEONATAL VENTILATORY SUPPORT IN OBSTETRIC CHOLESTASIS

Yousif ST, Burke G, Mid-Western Regional Maternity Hospital, Limerick

Aims

To determine the perinatal outcome of cases of obstetric cholestasis (OC).

Methods

A retrospective study was carried out at a large Irish maternity hospital of all cases of OC over a 61-month period. Outcome measures included gestational age at delivery, mode of delivery, admission to the neonatal unit, neonatal ventilatory support and maternal complications. Diagnosis was made on the basis of elevated serum bile acids in patients with pruritus or a past history of OC.

Results

1792 Samples were sent for estimation of serum bile acid levels. 99 Patients had abnormal bile acid levels. 4 patients were excluded (transferred out, left to different country, had other liver disease.) 103 Infants were delivered, including one intrauterine fetal death, one early neonatal death and 101 live births. There were 8 sets of twins. Mean gestation at presentation was 34 weeks. Gestational age at delivery ranged between 31 and 39 weeks. The rate of elective delivery was 84.2% (56.8% were induced and 27.3% had elective caesarean sections). 7.3% Laboured spontaneously before 37 weeks. The rate of admission to neonatal intensive care unit was 26.3% of which 7.9% were ventilated and 6.9% had CPAP. Major malformations included congenital heart disease and tracheo-oesophageal fistula. Postnatal sepsis, postpartum haemorrhage and toxemia of pregnancy were among the maternal complications.

Conclusions

In a large series of consecutive cases, obstetric cholestasis was associated with increased perinatal mortality and with high rates of neonatal unit admission and ventilatory support, possibly the result inappropriately early obstetric intervention or, as has been suggested previously, a poorly understood pathological mechanism. Twins were disproportionately represented.

UNEXPECTED ADMISSION TO THE NEONATAL UNIT AT 37 WEEKS AND BEYOND

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Royal Jubilee Maternity Hospital, Belfast, NI

INTRODUCTION: This study was undertaken because it appeared that there were a disproportionate number of unexpected admissions to the Neonatal unit at 37 weeks and beyond.

AIMS: To analyze the characteristics and indication of babies at or more than 37 weeks admitted to the Regional Neonatal Intensive care unit at RJMH, Belfast.

METHOD: A retrospective survey of babies at or more than 37 weeks admitted to the neonatal unit in the year 2006 was conducted. Maternal and neonatal data was collected and analyzed.

RESULTS: A total of 195 term babies at or greater than 37 weeks were admitted to the neonatal unit. Majority of these were born to parous women of the age group 30-39 years. More than half of the mothers neither had significant obstetric history nor did they have any problems during delivery. One fourth of the babies were of the gestational age between 39 and 39+6 weeks. About 50% were delivered by caesarean, were male infants and weighed more than 3000 grams. Most of the babies needed care for one to three days.

The commonest reason for admission was respiratory morbidity (29%) of which TTN (50%) was the commonest. The other major causes were anomalies (15%) followed by hypoglycemia (10%). Cardiac (45%) followed by gastrointestinal (39%) were the most frequently encountered abnormalities in these babies. 3.5% of the babies of this gestational age died.

CONCLUSION: Respiratory morbidity accounted for the majority of babies at and beyond 37 weeks that were admitted to the neonatal unit. This study highlights the not insignificant problem of transient tachypnoea of newborn for babies that were expected to do well.

NEONATAL PRESENTATIONS OF INHERITED METABOLIC DISORDERS IN IRISH TRAVELLERS

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^bThe National Centre for Medical Genetics (NMGs). Our Lady's Hospital for Sick Children, Crumlin, Dublin. Ireland

Background and aims

Irish Travellers are a nomadic people in whom early marriage, frequent child bearing and consanguinity are cultural norms. They number 22,445, less than 0.6% of the total Irish population but constitute more than 10% of the total patient group attending the NCIMDs. There are estimated to be between 650 and 700 Irish Traveller births in the Republic of Ireland per year. Autosomal recessive neurometabolic diseases are a major cause of morbidity and mortality. Our aim was to review the neonatal presentations of inherited metabolic disorders (IEMs) to estimate the prevalence, disease spectrum and impact of these debilitating diseases on this community.

Methods

Case records of patients attending the NCIMDs and identified as members of the Irish Traveller community were reviewed. The diagnosis, genotype and phenotype of those with neonatal presentations were recorded. The study included all living patients with an established diagnosis of an IEM on 1st March 2008 who had presented during the first 28 days of life and deceased patients with a similar profile from the preceding 5 years.

Results

We found 26 IEMs, 15 of which had neonatal presentations. Galactosaemia, mucopolysaccharidosis type 1, mitochondrial cytopathies, mucopolysaccharidosis type 11 and glutaric aciduria type 1 are the diseases seen most frequently. There were 161 living patients, 126 of whom had presented neonatally, 17 deceased, 10 of which were in the neonatal period. The majority of neonatal patients were identified on targeted newborn screening (54/126, 43%), 20% patients were identified by the routine newborn screening. Liver dysfunction (28/126, 22%) and neurological dysfunction (14/126, 11%) were the commonest clinical presentations.

Conclusion

Knowledge of the specific recessive conditions prevalent in this ethnic group likely to present in the newborn period facilitates rapid diagnosis, targeted screening, appropriate therapy and genetic counseling.

DISPLAY POSTER PRESENTATIONS ABSTRACTS

RSV SYNAGIS VACCINE-ITS EFFICACY IN REDUCING INFANT ADMISSIONS WITH RSV +VE BRONCHIOLITIS IN PREMATURE BABIES(30WEEKS OR LESS). SHOULD WE VACCINATE MORE BABIES?

Kutty,Moosa,Barsoum,Z,Sheridan,M-Our lady's Hospital for Sick Children-Crumlin-Ireland

Background:All babies born in Ireland at 30weeks or less are vaccinated with Synagis against bronchiolitis.Bronchiolitis can be severe and be associated with respiratory morbidity. There may be a need to use Synagis beyond this age group should Synagis be effective.

Objectives: To determine the efficacy of Synagis in reducing admissions with RSV+ve bronchiolitis in infants given the vaccine and to address the need to vaccinate babies beyond 30 weeks if Synagis proves effective.

Method: Retrospective chart review of all RSV +ve bronchiolitis babies born at 36weeks or less between 1999 and 2006 who were admitted to Our Lady's hospital for Sick Children-Crumlin-Ireland.

Results: 49babies were admitted.30 were male.81% were admitted in Winter.49% were less than 6 months on admission.17(35%) were 30 weeks or less,49% were moderately premature(30-34 weeks).Severe bronchiolitis was seen in 18patients(36%),9 were 30weeks or less. 18 infants required O2. Six infants (12%) were admitted to ICU;2(4%) were 30weeks or less.3 infants(6%)(30-34weeks) were ventilated. Among a variety of co-morbidities , respiratory co-morbidity was the commonest and was seen in 34 infants(69%).BPD was seen in 8 infants(16%).Neurological morbidity was seen in 7 infants(14%).Only 17 infants(30weeks or less) (35% of the sample size) were admitted with RSV+ve bronchiolitis despite Synagis vaccine.9 were severe. Most of the admissions (24 infants)(49%) were moderately premature babies(30-34 weeks).

Conclusion:Synagis is effective in reducing infant admissions with RSV+ve bronchiolitis,however it does not seem to reduce severity.Moderately premature babies wrepresented the majority of admissions in this study, however, the need to vaccinate babies born beyond 30 weeks with Synagis against bronchiolitis requires further studies.

CHANGING THE ESTIMATED DUE DATE AT THE TIME OF ROUTINE ULTRASOUND: WHY, HOW OFTEN AND WHEN

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Introduction

The "routine" scan is performed in most women to confirm the estimated due day and assess fetal anatomy. The aim of this study was to investigate how often the EDD is changed and the indication for changing in women attending our unit in January 2007.

Methods

Retrospective review of 200 women presenting for a routine ultrasound assessment between 18-23 weeks gestation in the National Maternity Hospital, Dublin. Clinical information at the time of ultrasound assessment (LMP, criteria for Nagles rule) was recorded.

Results

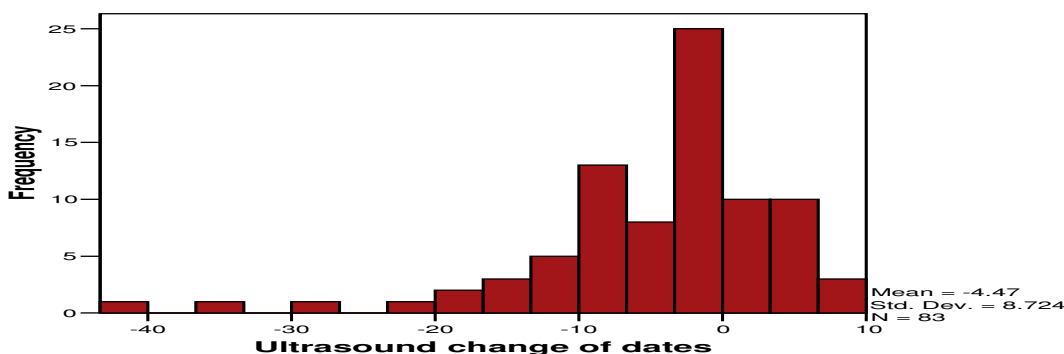
Data from 200 women presenting for a routine ultrasound assessment between 18 and 23 weeks gestation was obtained. 46% of women were in their first pregnancy. Of the 200 women, 99 (46.5%) had their original estimated due date changed following ultrasound assessment: 74 of these had their dates moved back (i.e. gestational age was less) and in 25 their dates were moved forward (gestational age higher). In the 83 women who had an indication to change dates (44 due to an irregular cycle, 14 as they conceived less than 3 months following pregnancy, 20 as they conceived less than 3 months of stopping the oral contraceptive pill and 2 as they were breastfeeding when they conceived this pregnancy), all had their dates changed (100%). Of the remaining 115 women who met the requirements for Nagles rule, 16 had dates changed (14%). Dates were changed by less than a week in the majority of women (87 women, 88%) with only 12 women having dates changed ≥ 7 days (3 moving the days forward and 9 moving the date back).

Conclusion

Care should be taken in assigning an ultrasound EDD without good reason as this may mask early onset growth restriction or cause difficulty later on in pregnancy regarding induction of labour.

Ultrasound change in dates

(Minus is dates pushed back; Plus is dates brought forward)



AUDIT OF EMERGENCY CAESAREAN SECTIONS – INDICATIONS AND OUTCOMES

KM Johnston, Altnagelvin Hospital, Glenshane Road, Derry, N Ireland

AIM

To look at the rates of emergency caesarean section in our units compared to Northern Ireland as a province. To look at the indication for decision for caesarean section, time delay, follow up, maternal and neonatal outcomes. We also looked at the use of scalp pH in decision making.

METHOD

This was a retrospective study of 36 patients over a 3 month time period. Cases were identified from the birth register to include any patient delivered by emergency caesarean section. A proforma questionnaire was completed for each case.

RESULTS

The majority of patients were primiparous and the majority had their labour induced.

12 of 36 patients had caesarean section for abnormal CTG, only 5 of these patients had scalp pH taken, and at delivery 67% had normal pH. 5 caesarean sections took longer than 75 minutes from decision time to delivery

3 admissions to NNU, which is comparable to rate as noted with elective caesarean. 91% had 5 minute apgars >9. 89% were not reviewed by operator, and 84% did not have a documented plan for next delivery.

CONCLUSION

We suggested that the NICE criteria for classification of urgency be adopted to aid communication of urgency between staff, and that decision time to delivery of greater than 75 minutes should have a clinical incident report. We aim to improve the numbers of patients with abnormal CTG having scalp pH. As such high proportion had labour induced we recommended that our unit policy of IOL at T+10 be adhered to unless there was proper clinical indication. We recommended that operators should see their patient postoperatively, and the operation note should state the mode of delivery next time.

WHY ARE WE SEEING MORE MOLAR PREGNANCIES?

N. Purandare, F. Tahir, K. Bates, H. McMillan, J. Gillan, M. Geary

AIMS: To evaluate retrospectively the trends in complete and partial molar pregnancies at the Rotunda Hospital over the last 10 years and to compare it with a previous audit.

METHODS: Data was obtained from the Pathology Department regarding all the molar pregnancies from 1/1/1996-31/12/2006. The yearly incidence of molar pregnancies was estimated as well as that of complete and partial moles.

RESULTS: The incidence of Molar pregnancies from 1996-2006 at the Rotunda Hospital is 1:240 live births. The incidence of a partial molar pregnancy is 1:328 and that of a complete molar pregnancy is 1:1105 live births.

CONCLUSION: As detection of partial molar pregnancies on an ultrasound is difficult all products of conception after pregnancy loss should go for histopathology. The number of molar pregnancies diagnosed each year at the rotunda hospital has increased since 1993. Has the incidence of molar pregnancies in Ireland increased or are we overdiagnosing them?

USE OF ORAL METHOTREXATE TO TREAT ECTOPIC PREGNANCY

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Midland Regional Hospital, Mullingar

Aim: The purpose of this study was to evaluate the use of oral methotrexate in the treatment of ectopic pregnancy.

Methods: Patients with a diagnosis of ectopic pregnancy were given 100 mg of oral methotrexate. Patients were followed up by serial β HcG. Patients with β HcG, failing to fall appropriately, were considered as treatment failures and treated with surgery.

Results: Nine patients received oral methotrexate. The mean initial β HcG at the time of treatment was 476 IU/L (range 71-2196 IU/L). Six patients (66%) were treated successfully. The treatment failed in 3 patients (33%) and those were treated with partial salpingectomy. The mean initial β HcG in these patients was 886 IU/L (range 133-2196 IU/L). All but one of the successfully treated patients had outpatient treatment. The mean time for β HcG titers of successfully treated patient to fall below 15iu/ml was 10,2 days.

Conclusion: Oral methotrexate can be used to treat ectopic pregnancy successfully.

DO WE STILL NEED INTRAPARTUM ZDV?

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^bDepartment of Genitourinary Medicine, Mater Misericordiae Hospital, Dublin 1, Republic of Ireland

Aims

ACTG-076 showed antepartum, intrapartum, newborn zidovudine and no breastfeeding reduced risk of MTCT. BHIVA Guidelines 2005 IV zidovudine is NOT indicated if not on ZDV or for mothers with <50 HIV RNA on HAART. French Perinatal Cohort no additional benefit of intrapartum IV zidovudine if viral load less than 1000 HIV RNA copies/ml plasma.

Methods

Between January 1998 to July 2006, 230 pregnancies in 194 HIV positive pregnant women booked or presented to the Rotunda Hospital. A specific group of patient have been on HAART for at least 4 weeks or a viral load of less than 1000 and not on IV AZT or on peripartum IV AZT less than four hours prior to delivery.

Results

There were 66 pregnancies including 1 set of twins that fulfil above criteria. All infants were HIV negative at 6 month and a total of 3 HIV positive infant in total of 230 pregnancies.

Conclusion

Late access to obstetrics service, viral load >1000, short duration use of antenatal HAART seems to be the strongest predictor for MTCT. Neonatal triple therapy did not seem to reduce MTCT if above risk factors present. Intrapartum IV AZT of less than 4 hours does not seem to increase risk of MTCT if viral load is less than 1000 and the patient is on HAART. Intrapartum IV AZT more than 4 hours did not seem to reduce MTCT if viral load more than 1000 and if the patient was only on short duration of HAART.

REACTIVE THROMBOCYTOSIS IN PREGNANCY

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Aims

Platelets are acute-phase reactants: they increase in response to various stimuli, including systemic infections, inflammatory conditions, bleeding, and tumours. This is called reactive or secondary thrombocytosis, which is a benign condition. While the management of essential thrombocytosis in pregnancy (platelet count $>600 \times 10^9 \text{ L}^{-1}$, persisting more than three months) is established, the management of persistent reactive thrombocytosis with a moderate increase in the platelet count ($>400 \times 10^9 \text{ L}^{-1}$ and $<600 \times 10^9 \text{ L}^{-1}$) is unclear. Pregnancy is a hypercoagulable state and therefore reactive thrombocytosis carries theoretical risks of venous thromboembolism (VTE and intrauterine growth restriction (IUGR)). The aim of this study was to document the obstetric outcome of patients with thrombocytosis.

Methods

A retrospective chart review of patients with a platelet count $>400 \times 10^9 \text{ L}^{-1}$ at booking and persisting for at least three months.

Results

Seventeen patients were identified, none of who fulfilled the diagnostic criteria for essential thrombocytosis. Their platelet count fluctuated between $400 \times 10^9 \text{ L}^{-1}$ and $707 \times 10^9 \text{ L}^{-1}$. No patient had a count $>600 \times 10^9 \text{ L}^{-1}$ at delivery or 4 months after delivery. Three patients had a normal platelet count at the third measurement and their thrombocytosis was probably reactive to urinary tract infection. Two patients had a persistent high platelet count which had returned to normal at delivery. Seven patients, who had persistently high platelets after delivery and had more than three moderate risk factors for VTE, were treated with low-dose aspirin and prophylactic low-molecular weight heparin. Five patients had a persistently high platelet count at delivery but had no other risk factors and these did not receive any treatment. There was no instance of IUGR, miscarriage, VTE, or poor perinatal outcome.

Conclusion

In this cohort of patients with persistent moderate thrombocytosis, there was no adverse pregnancy outcome.

TRENDS IN PERINATAL MORTALITY OVER 6 YEARS

Hassan T, Milner M

Department of Obstetrics & Gynaecology. Our Lady of Lourdes hospital, Drogheda

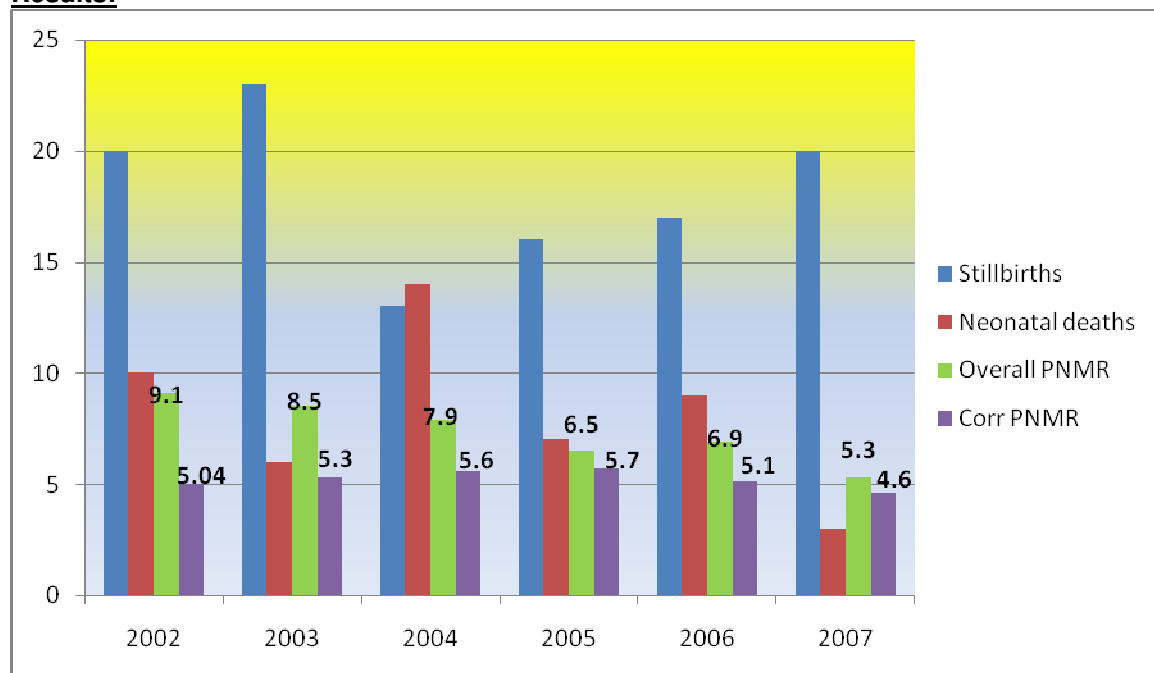
Introduction: In 2001 acute maternity services at Monaghan General & Louth County Hospitals were suspended. The majority of women booking at these hospitals in the past now deliver at Our Lady of Lourdes Hospital (OLLH). OLLH has become the "level 3" obstetrics unit for the HSE North-East area and is also the site of the regional NICU.

Perinatal mortality rate (PNMR) is the most widely used index of quality of care in maternity units. Year-to-year fluctuations are a particular feature of PNMR, especially of smaller maternity units. We herein present PNMR statistics over a 6 year period.

Objective: To examine the PNMR at OLLH & trends in same over 2002-2007 inclusive.

Methods and Materials: Information was collected from published Annual Reports (2002, 3, & 4) and annual departmental Obstetric/ Paediatric perinatal meetings. We present overall PNMR - Stillbirths and Neonatal deaths and further break the data down into congenital anomalies and booking status (corrected PNMR).

Results:



Mean overall PNMR over the period is x per 1000 (y-z). Mean overall PNMR is 7.38 per 1000 (5.3 – 9.1) and corrected for congenital abnormalities and unbooked women over the period is 5.24 per 1000 (4.6 – 5.7). The main contributing factors for stillbirths have been unexplained deaths whereas prematurity and congenital abnormalities mainly accounted for early neonatal deaths. However the mean autopsy rate for both stillborn infants & those dying in the neonatal period was 7.16% (4% - 10%) which is well below national rates.

Conclusions: Post-mortem examination should be encouraged in the parents by health care workers, & ways of addressing this must be explored. Perinatal mortality rates at OLLH have been consistent over the period studied, and are comparable to those in other Irish hospitals whose rates are in the public domain.

THROMBOPROPHYLAXIS AFTER VAGINAL DELIVERY: ARE WE GIVING IT?

U Mahmood, F Nawaze , U Fahy., Midwestern Regional Maternity Hospital, Limerick.

Aims: To assess women, who had vaginal births, for risk factors for venous thromboembolism (VTE) and audit whether thromboprophylaxis was appropriately used.

Methods: A retrospective case note review was conducted on patients who delivered vaginally in July and August 2006. Assessment was made for VTE risk factors such as obesity, age, varicose veins, parity, immobilisation and family history. The drug prescription card was reviewed regarding prescription of thromboprophylaxis.

Results: 521 patients charts were reviewed. 66 patients (13%) had at least 2 risk factors for VTE. 15 of these patients (22.7%) had 3 risk factors while 1 had 5 risk factors. 8/66 (12%) patients had thromboembolic deterrent stockings (TEDS) prescribed, 4 of whom had 3 risk factors. Low molecular weight heparin (LMWH) was prescribed for one woman who had 3 risk factors. Low dose aspirin was prescribed for one woman who had a family history of VTE.

Conclusion: A substantial proportion of women who delivered vaginally were at increased risk of VTE. Of these, less than 15% were prescribed any form of thromboprophylaxis. All pregnant women should be regularly assessed for VTE risk factors. Additional early postnatal VTE risk assessment is recommended to determine need for thromboprophylaxis in women who achieve vaginal births.

NEONATAL MENINGOCOCCAL MENINGITIS: CASE REPORT

#Ahmareen O., #O'Donnell S., #Satas S., +Cafferkey M., #Gormally S. + Rotunda Hospital, Dublin;
Our Lady of Lourdes Hospital, Drogheda.

Neonatal meningococcal meningitis and meningococcal septicaemia is a rare condition. Surveillance in the USA has described an annual incidence of 9 per 100,000. The rate on invasive meningococcal disease in neonates in the UK has not been defined. Following an extensive literature review there is no reported case in an Irish Neonatal Intensive Care Unit.

The patient was a twin, born at 35 weeks gestation by emergency LSCS under general anaesthetic. On day 12 of life she developed temperature instability, poor feeding, vomiting and fleeting bradycardias. A full septic work up revealed a blood culture positive for *Neisseria meningitidis* serogroup B. Blood PCR was positive for meningococci. Cerebrospinal fluid (CSF) microscopy revealed a white cell count of 7,700, with 30,000 red blood cells, glucose 0.5mmol/l and protein 3100 mg/l. The CSF was positive for Gram negative meningococci. Cranial ultrasound scan was normal.

The patient received a 21 day course of IV Cefotaxime and Gentamicin. Recovery has been uneventful to date.

Extensive screening for carrier state was performed of 29 medical personnel and 2 close relatives to the infant. All were negative. No secondary cases of meningococcaemia occurred among the other infants in the NICU.

This case report presents an uncommon aetiology of neonatal meningitis. It represents the first case of meningococcaemia in Ireland occurring in neonatal unit.

HYPOTHYROID DISORDER IN PREGNANCY OUTCOME AND DOSE REQUIREMENT DURING PREGNANCY

Dr Lathavinayakarao SpR , Dr. Suresh Tharma Consultant, Royal jubilee maternity Hospital, Belfast Northern Ireland.

AIM: To study the outcome of pregnancies complicated by hypothyroid disorder and the dose requirement during pregnancy.

Background:

Thyroid disease is the second most common endocrine disorder in pregnancy. Frequency ranging from 0.3% to 2.5%. Hypothyroidism can complicate pregnancy by causing gestational hypertension, placental abruption, miscarriage, preterm delivery and prenatal death.

Incorrect or inadequate treatment of maternal hypothyroidism can result in perinatal mortality and congenital and developmental anomalies. There has been much debate in management of pregnant women with maternal hypothyroidism. Some physicians have recommended routinely increasing the dose of thyroxin in treated hypothyroid women by 25% to 50% when pregnancy is confirmed. Others suggest some increase or no increase in the requirement of T4 in pregnant hypothyroid patients. In addition to this, physiological changes in pregnancy need to be considered before adjusting the dose as pregnancy produces hyper and hypo thyroid status because of the placenta.

Study design

It is a retrospective cohort study of all hypothyroid women who received antenatal care in the joint Antenatal endocrine clinic for 18 months.

41 patients were included in this study. An appropriate form was designed for data collection.

Data includes thyroid status pre-pregnancy, each trimester and post delivery.

7 patients had secondary hypothyroidism due to post iodine therapy and total thyroidectomy. 34 patients had primary hypothyroidism.

Conclusion

21 patients needed their dose to be incremented based on thyroid profile status mainly during the second trimester.

In 9 patients thyroxine was incremented by 50%. And 7 patients the dose was incremented by 25%. Pregnancy outcomes were generally good in all patients.

Postnatal follow-up was done by their general practitioner at 6 weeks. Majority of patients were reverted back to pre-pregnancy dose after 6 weeks postnatal check-up.

In this study 50% of the patients needed their dose to be adjusted during pregnancy. Though it is a small study group but certainly it provokes a thought, whether a standard protocol needs to be initiated in order to increase good maternal outcomes.

A CASE REPORT OF POST PARTUM HAEMORRHAGE AND HELLP-SYNDROME IN MAYO: DOES THE ABSENCE OF A NEARBY SUPPLY OF PLATELETS CONSTITUTE A SERIOUS AND AVOIDABLE RISK FACTOR?

G von Büнау, D Corcoran, Department of Womens Health, Mayo General Hospital, Castlebar, Co. Mayo

Case Report: In Mayo General Hospital we encountered a severe case of HELLP Syndrome with Post Partum Haemorrhage (PPH) on New Years Eve of 2007. The Patient was bleeding after an emergency caesarean section for cord prolapse. We were dependent on platelet pools, which all had to be ordered from Dublin except for 1 unit, which we were able to retrieve from University College Hospital Galway (UCHG).

During the next 24 hours we had to order 9 pools of platelets requiring four transport incidents. All pools of platelets as well as 9 units of red blood cells, 4 units of octoplas and 2 units of cryoprecipitate had to be transfused to stabilise the patient.

Discussion: HELLP, a syndrome characterized by haemolysis, elevated liver enzyme levels and a low platelet count syndrome is a variant of pre-eclampsia and was first described by Weinstein in 1982. The maternal mortality rate is up to 1%. Severe complications have been described; for example, liver rupture, renal failure and intracranial haemorrhage.

In a case of HELLP and PPH platelets are a vital option to stop the bleeding. Transporting supplies from Dublin to Mayo takes between 3 to 5 hours. The consultant in charge has to predict the course of events, e.g. the raise or fall of the platelets level in the patient. Luckily there were no additional complications.

We were thankful to be able to obtain one unit of pooled platelets from the nearby UCHG. This has not always been possible in previous times with similar cases. Without this we would have been in severe trouble as the platelets were dropping rapidly. It is hard to predict the outcome, but without the platelets from Galway it might have been disastrous.

Conclusion: As HELLP Syndrome is a very severe and unpredictable pregnancy complication it would be safer to maintain platelet stocks in a more proximal location, e.g. UCHG. This would ensure more safety for the patient, as one would be able to react quicker to sudden and unforeseeable changes in the patient.

PLACENTA HISTOLOGY AUDIT

N DOHERTY, K JOHNSTON.

ALTNAGELVIN HOSPITAL, GLENSHANE ROAD, DERRY, N.IRELAND, BT47 6SB

AIM:

A regional audit in November 2005 found that 81% of placenta sent for histopathological examination had positive findings. We aimed to identify cases in our unit that were sent for histopathology, to see if these were appropriate cases and to identify incidence and types of pathology. We also deemed to discover length of time taken for results to be returned and filed in the notes.

METHOD:

Prospective chart gathering of all placentas sent to Region Histopathological centre for examination during a 3 month period. A proforma was filled out to collate information. The appropriateness of cases was determined using the Northern Ireland Regional Paediatric Pathology Service list of maternal and fetal conditions in which placental examination may produce useful information.

RESULTS:

Out of 705 deliveries in this time period 38 charts were flagged. Of these cases only 18 pathology reports could be located in the department, 2 of which were filed in notes. One of the placentas sent for examination did not meet the criteria. 50% of the located reports had positive findings - (Villitis, Chorioamnionitis, Accelerated maturity). Time for results to be returned ranged from 6 – 69 days, average 21 days.

CONCLUSION:

We identified the need to improve method of placing reports with notes and to designate a responsible person for this. We hope to achieve better accuracy in identifying appropriate placentas to send for examination.

RESPIRATORY DISTRESS IN A TERM BABY CAUSED BY ABCA3 TRANSPORTER DEFICIENCY – FIRST REPORTED CASE IN NORTHERN IRELAND

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Introduction:

Respiratory Distress Syndrome is due to deficiency of surfactant and commonly occurs in preterm babies. However, the condition can also occur in term babies and may be due to abnormalities of surfactant production. . We report the first confirmed case of ABCA3 transporter deficiency which may be a significant cause of RDS in term babies in Northern Ireland.

Case presentation:

A 38 week gestation female child developed respiratory distress at four hours of age. Chest X ray Findings were consistent with Respiratory Distress syndrome. Child required repeated doses of surfactant and there were brief periods of decreased ventilatory requirements and improvement in blood gases following each does of surfactant, but the effects wore off 18 to 24 hours after each treatment.

DNA sequencing showed that there was mutation in coding exon 8 on one allele of the child's ABCA3 gene which resulted in substitution of arginine for glycine (G378R) where G refers to Glycine and R refers to Arginine. There was also a mutation in the last base coding exon 18 that would result in substitution of arginine for glycine in codon 1002 (G1002R). Both were non-conservative substitutions.

The baby, having been a compound heterozygote for the two different ABCA3 mutations both of which were thought to be functionally significant, developed RDS.

Conclusions:

ABCA3 transporter deficiency is a genetic disorder that is being increasingly recognized as a cause of RDS in term babies in whom congenital deficiency of surfactant B and abnormalities of surfactant protein C have been excluded. The mutations affect all major races and ethnic groups.

CONGENITAL HYPERINSULINISM – CASE REPORT

Dr.Mugilan Anandarajan, Paediatric Specialist Registrar, Dr.Rachna Verma, ST4 – Paediatrics, Craigavon Area Hospital, Dr Sanjeev Bali, Consultant Neonatologist, Antrim Area Hospital.

Introduction:

Congenital hyperinsulinism (CHI), characterized by profound hypoglycemia related to inappropriate insulin secretion, may be associated histologically with either diffuse insulin hypersecretion or focal adenomatous hyperplasia, which share a similar clinical presentation, but result from different molecular mechanisms. Whereas diffuse CHI is of autosomal recessive, or less frequently of autosomal dominant, inheritance, focal CHI is sporadic. HI with focal lesions can revert by selective surgical resection in contrast to the diffuse form, which requires subtotal pancreatectomy when resistant to medical treatment. This case report describes the diagnostic and therapeutic challenges in a Patient with CHI.

Case presentation:

A 37 week infant male infant, twin 1 presented at 24 hours of birth with lethargy, poor perfusion and hypoglycemia. The persistence of hypoglycemia despite commencement of IV fluids led to the diagnosis of congenital hyperinsulinism. A calcium stimulation test showed a focal lesion at the junction of the body and tail of the pancreas.

An 18F-DOPA-PET scan showed a focal lesion in the head of the pancreas. The baby underwent resection of the head of the pancreas. Postoperatively hyperinsulinemic hypoglycemia persisted. A repeat PET scan showed a focal lesion in the tail of the pancreas located posteriorly. The focal lesion was resected which was confirmed histologically to be a focal lesion.

Postoperatively normoglycemia has been achieved and maintained with no clinical evidence of stool fat malabsorption.

Conclusions:

Differentiation between focal and diffuse forms of CHI can be achieved by [18F] fluoro-L-DOPA PET or by laparoscopy with pancreatic biopsies. Somatostatin analogues, such as octreotide can be used as long-term treatment in patients with persistent hyperinsulinism despite therapeutic pancreatectomy. Management of CHI requires medical intensive care, modern imaging and surgical expertise combined in designated specialist centres.

ECV FOR BREECH PRESENTATION, HOW SUCCESSFUL IS IT AND WHY? EXPERIENCE OF A DISTRICT GENERAL HOSPITAL

Ayman Morsy, Rachel Collins and Waleed AS Ahmed, Craigavon Area Hospital, Northern Ireland

Objectives:

To assess the success rate of external cephalic version (ECV) performed for breech presentation in a general district hospital. To identify ways of improving the service with the ultimate goal of reducing cesarean section rate.

Audit standards:

ECV success rate is between 30-80% and is increased by the use of Tocolysis. ECV should be offered after 36 weeks gestation and can be performed up to 42 weeks. Factors increasing the success rate as well as contraindications –absolute and relative- should be taken into consideration before contemplating ECV (RCOG guidelines 2006).

Design:

Retrospective analysis of maternal notes.

Settings:

Craigavon Area Hospital, Northern Ireland, January 2004 to December 2007

Results:

108 women who underwent ECV were identified. 28 (25.9%) were successful and 23 of those (82.1%) had successful vaginal delivery. Only 5 women (4.6%) had the procedure before 36 weeks. Primigravid women who had the baby in breech presentation throughout pregnancy were much less likely to have successful ECV (7% success rate). Tocolysis is not used in the procedure.

Conclusion:

The success rate in our hospital is not as high as that in the literature. Dedicated ECV clinic, more training of the staff performing the procedure, better patient selection as well as the use of tocolysis would improve the success rate. Better documentation throughout the process is an area that needs improvement.

AUDIT OF MANAGEMENT OF VAGINAL BLEEDING AFTER 24 WEEKS GESTATIONAL AGE

Ayman Morsy, Waleed AS Ahmed and Alyson Hunter, Royal Jubilee Maternity Service, Belfast – Northern Ireland

Introduction

Women presenting with vaginal bleeding after 24 weeks may represent diagnostic and management dilemma. Not all women will have easily diagnosed and managed clinical condition such as placenta previa or placental abruption. A higher proportion will have less well defined diagnoses

Objectives:

To study the management of women presenting with vaginal bleeding after 24 weeks of gestation and to identify area that need improvement in diagnosis and management.

Design:

Prospective analysis of maternal antenatal notes.

Settings:

Royal Jubilee Maternity Hospital, Northern Ireland. February – May 2007

Results:

Seventy one patients were identified in the time period. Parity ranged between P0 to P5 with a mean maternal age of 32 years. No specific cause was found in 40.8% of cases and marginal placental abruption was the main cause of bleeding in 28.2% of cases basically identified by excluding other potential causes. Other causes were cervical erosion (12.7%), shaw (11.3%) and placenta previa (7%). 53.5% of those women were discharged home and the rest (46.5%) were admitted for further management. 79% of those discharged home achieved vaginal birth while 39% of those admitted delivered by cesarean section. Only 9 women delivered before 37 weeks gestation; 6 of which were by cesarean section. The final diagnosis agreed with the initial one in 65 cases (91.6%).

Conclusion:

Although the final diagnoses agreed with the initial ones, no consistency in the management was noted especially when the clinical diagnosis is not clear cut. This highlighted the importance of implementing a clear guideline for management of cases with bleeding after 24 weeks.

POST-PARTUM ASCITIES WITH RAISED CA125-AN UNUSUAL CASE

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High serum cancer antigen (CA) 125 levels have been shown to be present in patients with ovarian carcinoma, non-gynaecological carcinomas and some benign diseases. Tuberculosis peritonitis is another cause for raised CA 125.

C. O., a 37year old African female, presented 8 weeks post caesarean-section with a distended abdomen, otherwise asymptomatic, with an undisclosed history of tuberculosis. Examination showed decreased air entry in the right lung base and a fluid thrill in the abdomen. Gross ascities was noted on ultrasound with a raised CA125. CT of the abdomen and thorax showed a large volume of ascities in the abdominal cavity with poor visualisation of the ovaries but otherwise normal abdominal organs with a right hemi-thorax and a huge soft tissue mass with scattered pleural origin in the thorax. At this point she was seen by a respiratory physician, diagnosed with peritoneal tuberculosis and started on anti-tuberculosis medication. Bronchial washings showed normal cytology and no acid fast bacilli. 10 litres of peritoneal fluid was drained also showing normal cytology and no AFB. She is currently improving.

This lady was admitted under the gynaecological services due to the symptoms she had being suggestive of ovarian carcinoma. However on further investigation this diagnosis was found to be incorrect and she was given a diagnosis of peritoneal tuberculosis based on clinical and background information.

-

Peritoneal tuberculosis can mimic advanced stage ovarian carcinoma. It should be considered in any patient who presents with ascities and an elevated CA125. Correct diagnosis may prevent unnecessary surgery.

MATERNAL INTUITION – CAN IT PREDICT FETAL GENDER?

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Introduction: The newly opened Cork University Maternity Hospital was the setting for an observational study conducted from May until August 2007. The aim was to determine if there is any correlation between maternal (and paternal) intuition and fetal gender. A structured questionnaire was completed by 376 women and their partners attending antenatal clinic with singleton pregnancies at 36 weeks gestation. We specifically asked if mothers and their partners believed to intuitively know the sex of their unborn baby. We also explored the reasons underlying this belief.

Results: 457 women took part in the study. 81 women knew the sex of their baby and were therefore excluded. 258 patients (68.6%) and 117 partners (59.7%) in the sample indicated a strong belief about the sex of their fetuses. 50.8% of mothers predicted a male and 49.2% predicted a female. 56.4% of fathers predicted a male and 43.6% predicted a female. The accuracy of maternal intuition was 56.2%. Among partners who predicted 53% were right. Parity did not significantly affect accuracy; 46.9% of primiparous women accurately predicted the fetal gender compared with 55.5% of multiparous patients ($p=0.78$). Interestingly when both mothers and fathers predicted (94 couples), mothers appeared to be significantly worse than their partners ($p=0.007$). The majority of women (82.9%) and men (80.6%) did not express a preference for one sex over the other. The sex of the previous child appeared to significantly influence both the maternal ($p=0.005$) and the paternal wish ($p=0.000$) regarding the sex of the current pregnancy. When asking for the reason of prediction there was a significant difference found in “same pregnancy” ($p=0.025$). No significant correlation was found for “different pregnancy”, “feeling” and “shape of bump”. Our favourite reasons for prediction were “I eat oranges with girls and apples with boys”, “overdue=stubborn=girl”, “girls bring out the beauty, boys make you ugly”, “my mum told me and she’s always right”.

Conclusion: Maternal intuition is not a valid predictor of fetal gender. When both mothers and fathers predicted, men were surprisingly significantly better. When exploring the underlying reason for their belief a significant difference was found for “same pregnancy”.

EXTERNAL CEPHALIC VERSION AT TERM: PATIENT ACCEPTABILITY AND PREGNANCY OUTCOME

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3 Registrar, 4. Master & Consultant Obstetrics & Gynaecology, ^{1,2,3,4} Department of Obstetrics & Gynaecology, The Rotunda Hospital, Parnell Square West,

Objective: To assess the uptake and success rates of External Cephalic Version (ECV) at term and to determine its effect on maternal and fetal outcome.

Materials & Methods: A retrospective analysis of all women attending the Breech Clinic at the Rotunda Hospital, Dublin 1 between January 1st and December 31st 2007. Data was collected from the hospital case notes and delivery notes for each patient. Maternal details reviewed included age, parity, gestation at the diagnosis, ultrasonographic findings (type of presentation, liquor volume, fetal weight, and placental localization), ECV undertaken and mode of delivery. Fetal weight, Apgar Scores, resuscitation and NICU admission were also assessed.

Results: The study group comprised 61 patients. The mean maternal age was 30+/- 5.8 years, with parity ranging from 0-5. The mean gestational age was 39.4 weeks with a mean fetal weight of 3.2 Kgs.

At the dedicated ECV clinic 23 patients were deemed unsuitable for ECV. The commonest reason ECV was not undertaken was conversion to cephalic presentation (18%). Other reasons included oligohydramnios (4.9%) and the deeply engaged breech (4.9%).

Thirty eight women were suitable and offered ECV. Fourteen women (23%) refused ECV following counseling. A uterine muscle relaxant was given between 10 and 15 minutes pre-ECV. Only one woman complained of abdominal pain during the procedure. Overall ECV was performed on 24 patients and 11 had successful outcome (46%). There were no complications during the procedure. Of the 11 women who had successful ECV the vaginal delivery rate was 64%. No differences were seen in maternal and fetal outcome between the patients with ECV and the general hospital population.

Conclusion: External Cephalic Version at term is associated with a 64% vaginal delivery rate and in our study had no additional maternal or neonatal morbidity. However, one third of all women offered ECV refuse the procedure following counselling.

Keywords: External Cephalic Version (ECV), breech, lower segment cesarean sections (LSCS)

RUPTURED UTERUS AT 20 WEEKS GESTATION AND MASSIVE OBSTETRIC HAEMORRHAGE. A CASE REPORT.

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Mrs SA, 38y.o, G6 P4+1 (4 previous LSCS and 1 miscarriage requiring ERPC) presented to the ER of CUMH with sudden onset of lower abdominal pain and vomiting . She became hypotensive and was immediately resuscitated and had an ultrasound which revealed a heterogenous mass anterior to the uterus and fluid in the pelvis and around her liver and fetal demise. Clinical diagnosis of uterine rupture was made.

At laparotomy, 2.5 L of haemoperitoneum and dehiscence of the uterus was noted at 2 sites anteriorly with the placenta protruding through one. Fetus and placenta was delivered through the defect and a subtotal hysterectomy was performed. Patient developed intra-operative coagulopathy and abdominal pack and pressure was applied till coagulopathy was corrected with blood, fresh frozen plasma (FFP), platelets and cryoprecipitate. Estimated blood loss was 3.5 L.

The patient made a good recovery. In total she received 4 units of O neg blood, 8 units group specific blood, 4 units FFP and 1 unit of platelets and cryoprecipitate each. Her Hb% rose to 9.3g/dl from 6.4g/dl, on discharge 7 days later. Histology revealed anterior placenta accreta.

Discussion:

Spontaneous uterine rupture at 20 weeks gestation is rare. Most cases reported of uterine rupture at this gestation were as a result of 2nd trimester termination and inappropriate use of oxytocin or PGE. During 1976-2005, 19 peer reviewed publications described the incidence of uterine rupture as 1:1514 (0.07%). It is important to carry out the least extensive surgery compatible with the patient's immediate health and future welfare.

FETAL SUPRAVENTRICULAR TACHYCARDIA (SVT): A CASE SERIES & LITERATURE REVIEW

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Aims: To review the management & outcome of foetal supraventricular tachycardia (SVT) over 3 cases at Our Lady of Lourdes Hospital, Drogheda in 2007

Method: In this case series we had three cases of fetal tachycardia diagnosed and treated in a multidisciplinary teams involving the obstetric, paediatric teams in our lady of Lourdes Hospital, Drogheda, together with consultation and cooperation of the Crumlin Hospital in Dublin.

Results: A fetal tachycardia was defined as a heart rate of 160-200 bts/min.

- Baby A was diagnosed parentally when ultrasound detected hydrops and fetal tachycardia (SVT) at 32 weeks. Immediate maternal antiarrhythmic therapy was started (flecainide), the hydrops resolved, & the baby converted to sinus rhythm. Spontaneous delivery ensued at 34 weeks.
- The second infant presented at 34 weeks with decreased fetal movement & CTG showing foetal tachycardia. Following emergency LSCS a postnatal diagnosis of SVT was made. Baby commenced on Flicainide & is doing well.
- The third presented at Term+11 for induction of labour, when foetal tachycardia of 180/min was noted in an otherwise reassuring CTG Instrumental delivery was done. Postnatally SVT was detected, referred to Dublin and started on Flicainide & doing well.

Conclusions

- No deaths or morbidity occurred in our cases
- The safe delivery of a full-term, non-hydropic infant with sinus rhythm is the desired outcome of a pregnancy complicated by SVT
- Early management of non-hydrops cases decreases infant morbidity and mortality
- Flecainide is an effective therapy, especially in the foetal hydrops

PREGNANCY AND SICKLE CELL TRAIT; A CASE REPORT

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Introduction: Sickle cell trait is a condition where the individual has only one sickle gene, generally has no symptoms, lives a normal life and can pass the sickle cell gene on to her children. This is a case report of a pregnant woman with confirmed sickle cell trait who showed signs and symptoms of sickle cell disease.

Case Report: Mrs TC, a 32 year old Portuguese woman was booked in July 2007 at 8 weeks of gestation

She had two children both delivered in Portugal in 1996 and 1998, respectively. She had normal deliveries and both her children are healthy.

She gave history of sickle cell trait and recurrent DVTs: she had her first episode at age of 18 years and had DVTs in both of her pregnancies. She had repeated admission in Portugal with sickle cell crisis. She had history of Myocardial Infarction and CVA. She was hypertensive and smoker.

In view of her risk factors she was to have Consultant led antenatal care in conjunction with Haematologist. She was advised to continue with therapeutic dose of LMWH throughout pregnancy with monitoring of factor Xa levels.

At 34 weeks gestation she was started on Heparin infusion due to suspected left leg DVT. The decision to induce her at 39+ weeks was made after discussion with Haematologist. She had to have emergency caesarean section following collapse after prostaglandin gel and was suspected to have a pontine infarct. She needed intensive care but recovered slowly.

Discussion: As sickle cell trait generally has no symptoms, it was very strange for this woman to have so many complications of the sickle cell disease. The haematologists from our hospital are still investigating her. They have presently come to a conclusion that either it is a variant form of sickle cell trait or associated thrombophilia problems. As the patient was pregnant and is on anticoagulant for so long, many of the tests are inconclusive.

Conclusion: Therefore we conclude that this woman will need a very long follow-up with the haematologists and will need to be investigated further to find the real cause of her medical problem.

DELAYED VILLOUS MATURATION OF THE PLACENTA: ASSOCIATION WITH PERINATAL MORTALITY AND DIABETES; A CASE CONTROL STUDY

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Aims

Delayed Villous Maturation is defined as a spectrum of disease varying from mild to severe in relation to vascular syncytial membranes with decreased tertiary villi and increased large bullous villi in the more severe grades. There is little data on its significance, but in some series it is associated with an increased risk of stillbirth in the late third trimester. The aim of this study was to assess perinatal factors associated with, and the clinical significance of, the finding of DVM on placental histology.

Methods

This is a retrospective study investigating all pregnancies with DVM diagnosed on placental histology in a tertiary level unit from December 2000 to August 2006. Over 6 years 2,915 placentas were triaged for histopathological assessment, representing 6.1% of all 48,054 deliveries in this time period. 190 (6.3%) of these selected cases showed DVM. Fifteen preterm placentas (<34 weeks) were excluded, leaving 175 remaining for further analysis.

Results

When compared with controls matched for gestation and delivering within the same time period (n=175) DVM was significantly associated with pre-gestational diabetes (8% vs 2.8%, p<0.05), gestational diabetes (8.6% vs 3.4%, p<0.05), and antenatal or intrapartum intrauterine death (8.6% vs 0%, p<0.05).

Conclusion

DVM is associated with diabetes mellitus and perinatal death. The association with diabetes may be mediated by hyperglycaemia. The relationship between diabetes and delayed villous maturation is being further investigated as part of an ongoing prospective study.

RESISTIN IN NON DIABETIC AND TYPE 2 DIABETIC PREGNANCIES

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Aims

Resistin, a hormone secreted from adipose tissue, was postulated to link diabetes to obesity when first discovered in mice in 2001. Since then studies in humans have conflicting results. While some studies to date have investigated resistin in non pregnant humans with type 2 (T2) diabetes, resistin has not been investigated in pregnant women with T2 diabetes and their infants.

Methods

10 women with pre-gestational T2 diabetes consented to take part in the study. Serum samples were obtained in the first, second and third trimesters as well as cord blood. 36 non diabetic controls (12 first trimester, 12 second, 12 third and cord bloods) were matched for BMI. Samples were analysed using ELISA tests for serum resistin (Biovendor, Prague).

Results

There was no difference between first and second trimester samples in both normal and T2 diabetic subjects; there was a rise in serum resistin in both populations in the third trimester though this was not statistically significant ($p=0.08$ (normal), $p=0.09$ diabetic).

	Non diabetic control	Type 2 Diabetes	P value
First Trimester	7.71 (2.5-26.26)	5.7 (2.98-34.3)	0.78
Second Trimester	6.69 (0.31-18.74)	8.3 (2.6-34.23)	0.3
Third Trimester	12.53 (5.3-40.9)	13.52 (1.91-36.53)	0.9
Cord	12.1 (2.9-43.3)	16.1 (0.4-40.49)	0.4

There was no correlation between third trimester maternal resistin and cord resistin (Spearman's correlation coefficient 0.02 (normals) $p=0.9$; 0.1 (T2 diabetic) $p=0.68$).

Conclusion

This is the first study investigating resistin in pregnant women with type 2 pre-gestational diabetes. Similar to other studies outside of pregnancy no difference was found between type 2 diabetic mothers and non diabetic mothers, or in cord serum levels between their offspring. There was no correlation between maternal and cord resistin concentrations, supporting the hypothesis that the placenta and fetus produces resistin independently of the mother.

A CASE REPORT OF AN INFANT BORN WITH APLASIA CUTIS CONGENITA

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Background

Aplasia Cutis Congenita (ACC) is a rare condition in which localised or widespread areas of skin are absent at birth. ACC is most often a benign isolated defect, but can be associated with other physical anomalies or malformation syndromes. Only a few cases have been linked to teratogens. In addition to fetal herpes simplex virus infection, intrauterine exposure to the antithyroid drugs methimazole and carbimazole is considered to be a risk factor. It most commonly (70% - 86%) manifests as a solitary defect on the scalp, but sometimes it may occur as multiple lesions. Lesions are non-inflammatory and well demarcated and may range in size from 0.5 to 10cm.

Case History

A 29-year-old Para 1 with an unremarkable gestation and no risk factors, had an elective caesarean section at 39 weeks. A healthy female infant weighing 3.88kg was born with APGARS of 9¹ and 10⁵. Cutis Aplasia of the scalp was noted and the infant was reviewed by the paediatricians. Regards past obstetric history the patient delivered a child by caesarean section in 2004. The child was born with holoprosencephaly and a small ventricular septal defect. The baby died in infancy with bronchopneumonia. During the current antenatal period, the patient was assessed at the Prenatal Diagnosis Clinic and at the Fetal Cardiology Clinic but no abnormalities were noted. There is no past medical history or family history of note and the patient was on no medications during pregnancy.

Discussion

The lesion measuring 2cm x 2cm belonged to Group 1 and was probably autosomal dominant or sporadic. Cranial scan revealed no abnormality. There was no active management and a referral has been made to Plastic Surgery.

FAVOURABLE OUTCOME IN A CASE OF SEVERE VENTRICULOMEGALY SECONDARY TO AN ARACHNOID CYST

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Case Report

A 27 year old primigravid woman was referred to a Regional Fetal Medicine Centre at 24 weeks following a routine anomaly scan. Ultrasound revealed an intracranial cyst. An elective caesarean section was performed at 38 weeks. The baby boy had an MRI which confirmed a right intraventricular cyst with chronic dilatation of the left ventricle secondary to chronic obstruction of the Foramen of Monroe.

Endoscopic fenestration carried out on day 2 and at 14 months by the neurosurgeons has allowed successful ventricular decompression. To date he is making good progress with only some delay in gross motor skills.

DISCUSSION

Arachnoid cysts are rare and prognosis is good if the lesion is isolated. However severe ventriculomegaly (greater than 15mm) if diagnosed before 24 weeks generally carries a poor prognosis (1). While ventriculomegaly is easily identified by ultrasonography the aetiology is more difficult to elucidate. Magnetic resonance imaging (MRI) is now being adopted antenatally and this symbiotic approach to fetal diagnosis (USS and MRI) has changed diagnosis in up to 40% of cases thus altering counselling given to patients (2).

This case report serves to remind us that severe ventriculomegaly can have a favourable outcome if the underlying diagnosis is an arachnoid cyst and makes the case for adjuvant radiological diagnostic tools in the form of magnetic resonance imaging.

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HOW DOES THE ANTENATAL DIAGNOSIS OF A MAJOR CONGENITAL ANOMALY HOW GOOD ARE WE CURRENTLY AT DIAGNOSING MAJOR CONGENITAL ANOMALIES ANTENATALLY ?

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Aim: To review all cases of major congenital anomalies admitted to a tertiary NICU and to determine what proportion of these cases were suspected antenatally.

Methods: A retrospective chart review was undertaken. Cases were classified into 5 categories: Chromosomal, cardiac abnormalities, gastrointestinal abnormalities which included TOF, CDH, gastroschisis etc, CNS abnormalities and a final category of miscellaneous.

Results:

Table 1 outlines the cases identified. Of the 47 cases which were suspected antenatally, 15 (32%) had been referred from peripheral units. Twenty-five cases needed immediate transfer after birth to tertiary paediatric centres for definitive treatment/surgery (Table 2) of which 21 (84%) had been diagnosed antenatally. All of these 25 cases were in the cardiac and gastrointestinal category.

Table 1

Congenital Malformation	No of cases admitted	No. of cases suspected antenatally
Chromosomal abnormalities	26	4
Cardiac abnormalities	25	14
Gastrointestinal abnormalities	23	14
CNS abnormalities	10	6
Miscellaneous	29	9
Total	113	47

Table 2

Number of cases	Congenital malformation	
13	Abdominal	7 Gastroschisis
		6 Diaphragmatic Hernia
12	Cardiac	4 Hypoplastic left heart syndrome
		2 TGA
		2 Coarctation of aorta
		1 TAPVD
		1 Critical AS
		1 Pulm stenosis/ RV Hypoplasia
		1 Severe RVH, TV regurgitation

Conclusion: The majority of major congenital malformations which require immediate transfer to a tertiary referral centre are suspected antenatally.

CAESAREAN SECTION – VALIDITY OF CONSENT

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Background : Caesarean Section rates are continuing to rise in the UK, with Northern Ireland having one of the highest rates at 23.9% in the National Sentinel Caesarean Section Audit. If patients do not receive appropriate information prior to giving consent it may not be valid.

Aims : To assess the validity of consent obtained in 50 patients undergoing caesarean section in Antrim Hospital.

Methods : A retrospective chart review was performed on 50 patients undergoing caesarean section – 25 elective and 25 emergency. Standards were obtained from the RCOG Consent Advice 7 on Caesarean Section. Documentation on the consent form and grade of doctor obtaining consent were assessed.

Results : 70% of consents were obtained by Senior House Officers(SHO).Registrars did not consent any patients for elective procedures. Consent and surgery were only performed by the same doctor in 6% of cases and 36% of consents were obtained by doctors not capable of performing the procedure.

Complications	Elective Caesarean (% complications documented)		Emergency Section (% complications documented)	
	Career SHO	Non Career SHO	SHO	Registrar
Bladder Injury	100%	100%	100%	100%
Wound Infection	100%	100%	100%	100%
VTE	75%	92%	80%	93%
Blood Transfusion	75%	77%	28%	87%
Hysterectomy	42%	31%	16%	13%
Further Surgery	25%	15%	50%	20%
Fetal Laceration	25%	23%	30%	47%

Two patients undergoing caesarean section for major placenta praevia were not consented for possible hysterectomy. 4 of the 50 patients had either wound or urinary tract infections and 3 had this documented on the consent form. 26 % patients were anaemic post caesarean with one requiring blood transfusion - 6% were not made aware of this on their consent form.

Conclusion : The CEMACH Enquiry 2003-2005 has again shown venous thromboembolism to be the leading direct cause of maternal death yet not all patients were made aware of this, especially with emergency caesareans. Consent was also substandard with respect to further surgery and the risk of blood transfusion. Regular training of all staff, information leaflets and standardised consent forms would enable higher quality of consent documentation.

THE FIRST HEART VALVE DONATION FROM NORTHERN IRELAND TO THE OXFORD HEART VALVE BANK

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Background: Organ and tissue donation is normally dealt with in the context of the intensive care setting with ventilated patients. In the neonatal intensive care unit organ donation is usually not possible due to the immaturity and small size of organs. There is little awareness in Northern Ireland about the option of heart valve tissue donation. Heart valves of small sizes are needed to facilitate repair of congenital heart disease in young infants.

Aims: To promote awareness of the possibility of heart valve donation in babies. To share the experience of organising the first donation from Northern Ireland in an infant with severe chronic lung disease. To inform about the practical procedures involved in heart valve donation.

Case report: KR was born as the first twin at 27 weeks gestation (birth weight 790g) in a district general hospital. His mother had ruptured membranes for two weeks. KR required initial respiratory support and was changed to low flow oxygen on day 29. On day 43 he was transferred to the regional neonatal unit for ongoing care and management of chronic lung disease. He developed severe chronic lung disease refractory to treatment with oral/inhaled corticosteroids and sildenafil. KR deteriorated at a corrected age of eight months (weight 6 kg) and developed severe respiratory failure triggered by a chest infection. His parents decided for palliative care and against re-ventilation. His mother enquired about the possibility of KR as a potential organ donor. After consultation with the regional transplant co-ordinator and the national tissue bank the Oxford Heart Valve Bank was identified to accept heart valve tissue of such a small infant. Both parents agreed to a post-mortem to facilitate the retrieval of the whole heart and consented for tissue donation. KR died peacefully the same evening surrounded by his family. He spent the night with his parents and the post-mortem was performed the following day. It confirmed severe chronic lung disease. The heart was sent to the Oxford Heart Valve Bank, where the pulmonary and aortic valves were retrieved - both of good quality and size. These valves could be used for example for the repair of truncus arteriosus, pulmonary atresia and the Ross procedure in infants.

Conclusion: Heart valve tissue donation in small infants is possible, even if they are not ventilated. Tissue donation can offer some comfort to parents and staff, particularly if the stay in the unit was long. The regional transplant co-ordinator service is exceptionally supportive and offers good feedback to both family and staff. A flow chart on how to organise a tissue donation is now kept in the bereavement resource box of our unit and sessions for the information of staff were organised. A second heart valve donation has since taken place.

RESUSCITATION AT THE LIMITS OF VIABILITY- AN IRISH PERSPECTIVE

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Background: Advances in neonatal care continue to lower the limit of viability. Decision making in this grey zone remains a challenging process. Outcome may be perceived differently and as such may affect the willingness to intervene at each gestation.

Objective: To explore the opinions of healthcare providers on resuscitation and outcome in the less than 28 week preterm newborn.

Design/Methods: An anonymous postal questionnaire was sent to various health care providers (obstetricians, neonatologists, paediatricians, Specialist Registrars(SpR) in Paediatrics and Obstetrics, midwives and neonatal nurses) working in maternity units in the Republic of Ireland. Questions related neonatal management of the extreme preterm infant and estimated survival and long-term outcome.

Results: The response rate was 55% (74% Obstetricians, 70% neonatologists, 70% NICU nurses). 80% of respondents were roman catholic. 40% responders have more than ten years experience in their respective specialities. 50% of respondents work in level three settings. Less than 1% would advocate resuscitation at 22 weeks, 10% of health care providers advocate resuscitation at 23 weeks gestation, 80% of all health care providers would resuscitate at 24 weeks gestation. The duration of resuscitation efforts differed across gestational age groups and between different health care groups. 20% of all health care providers would advocate cessation of resuscitation efforts on 22-25 weeks gestation at 5 minutes of age if there was no response. 65% of Neonatologists and 54% SpR Paediatrics would cease resuscitation at ten minutes of age if no response to resuscitation.

Wide variation in survival and long-term survival estimates was identified between different healthcare provider groups. Neonatal nurses are more optimistic about outcome (survival and long term outcome) than midwives. Obstetricians were more pessimistic about survival and long term outcome in newborns delivered between 24-27 weeks when compared to neonatologists. This difference was also observed trainees in paediatrics and obstetrics.

Conclusions: Neonatologists, trainees in paediatrics and neonatal nurses are generally more optimistic about outcome than their counterparts in obstetrical care. This is reflected in a greater willingness to provide resuscitation efforts in the grey zone (less than 25 weeks).

L1CAM GENE MUTATION: DIAGNOSIS OF X-LINKED HYDROCEPHALUS WITH FEATURES OF HIRSCHSPRUNG'S DISEASE IN AN IRISH NEONATE

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Background:

X-linked hydrocephalus due to mutations in the neural cell adhesion molecule L1CAM results in a wide variety of disorders, commonly known as L1 syndrome. The gene encoding L1 is located near the telomere of the long arm of the X chromosome in Xq28. The spectrum of disorders includes CRASH syndrome (**C**orpus callosum agenesis, **R**etardation, **A**dducted thumbs, **S**pastic paraparesis and **H**ydrocephalus), MASA syndrome (**M**ental retardation, **A**phasia, **S**huffling gait, **A**dducted thumbs), HASA syndrome (**H**ydrocephalus as a result of **S**tenosis of the **A**queduct of **S**ylvius), X-linked **S**pastic **P**araplegia Type 1 (SPG1) and X-linked **A**genesis of the **C**orpus **C**allosum (ACC). Hirschsprung's disease (HSCR) is characterised by the absence of ganglion cells and the presence of hypertrophic nerve trunks in the distal bowel. Defects in neural crest migration can result in intestinal aganglionosis. The L1 protein is expressed in neurons and schwann cells and is essential for nervous system development and function. L1 is also expressed by neural crest cells as they colonise the gut. The association of L1CAM and Hirschsprung's disease has rarely been reported.

Case Report:

We describe the clinical, radiological and genetic characteristics of a male neonate, diagnosed antenatally with hydrocephalus and severe adducted thumbs, who subsequently developed the clinical features of Hirschsprung's disease. The identification of a mutation in this infant means that a prenatal test is now available for subsequent pregnancies. In addition, detection of the carrier status of the mother will allow us to define the risk of recurrence more accurately. We also hypothesise that L1CAM-mediated cell adhesion may be important for the ability of ganglion cell precursors to populate the gut and that L1CAM may modify the effects of a Hirschsprung's disease associated gene to cause intestinal aganglionosis. Genetic testing for L1CAM mutations should be considered in all male patients presenting with hydrocephalus and adducted thumbs especially if associated with evidence of GI obstruction.

THE INFLUENCE OF EARLY EXTRAUTERINE EXPOSURE ON THE ELECTROPHYSIOLOGY OF PRETERM INFANTS

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Introduction

Amplitude integrated EEG(aEEG) is becoming more common in neonatal intensive care for monitoring infants after perinatal asphyxia. Preterm aEEGs are not routinely used in NICU because there is limited data describing normal patterns in this group of neurologically vulnerable infants.

Aim

To assess the influence of early extrauterine exposure on the amplitude integrated EEG across a range of parameters. In addition to compare babies of similar post menstrual ages but different gestational ages.

Methods

51 babies \leq 31 weeks gestation were included in the study .Each of the infants had the amplitude integrated EEG carried out in the first week of life. The apparatus used was the Olympic 6000 CFM, software 2.0. This is a one channel aEEG monitor. Infants included had no intracranial pathology seen on ultrasound. At the time of aEEG recording none of the patients received sedation and all were clinically stable. The aEEG was analysed using chart analyser software programme. A subgroup of infants born \leq 26 weeks gestational age had a follow up recording carried out at 30 weeks corrected gestational age. These recordings were compared to babies born at 30 weeks gestational age.

Results

Table 1: aEEG parameters (median amplitude and % activity $>20\mu\text{V}$) recorded for a group of infants at 24-27 weeks and 28-31 weeks gestation

Parameters	Gestational age	
	24-27w(n=26)	28-31w(n=27)
AMPLITUDE(median) μV		
Median	9.5	12
%ACTIVITY $>20\mu\text{V}$		
Median	15.8	23

Table 2: Comparison of aEEGs from babies of 30 weeks corrected gestational age and infants born at 30 weeks of age

Parameters	Gestational age	
	30wCorrected GA	30wGA
AMPLITUDE(median) μV		
Median	17.6	12.1
%ACTIVITY $>20\mu\text{V}$		
Median	40.7	24.1

Conclusion

Establishing normal parameters for preterm EEG is essential for accurate interpretation. In addition it may identify infants that deviate from normal patterns as those at most neurological risk. In our study we saw that some aspects of amplitude integrated EEG are enhanced rather than inhibited by extremely preterm birth. Thus our data suggests that aEEGs in preterm infants may need to be analysed by comparing with standards of similar post menstrual age and corrected gestational age.

ECTOPIC PREGNANCY IN A PATIENT USING IMPLANON AS A METHOD OF CONTRACEPTION.

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Ectopic pregnancy remains a leading cause of maternal mortality in the first trimester of pregnancy.

In the UK over 10000 ectopic pregnancies are diagnosed annually (Kirk et al 2006).

We report a case of ectopic pregnancy in a patient who is using implanon as a method of contraception.

A 38 year old woman Para 2 was referred to accident and emergency department of Altnagelvin Area Hospital with symptoms of right upper quadrant abdominal pain and rectal pain. Symptoms started 10 hours before admission.

Clinical examination, transvaginal ultrasound, the measurement of B-hCG revealed the diagnosis of ectopic pregnancy.

In this case the management has been described and we reviewed the literature of previous few reported cases of ectopic pregnancy with implanon.

FOETAL HYDROPS : STILL A DIAGNOSTIC DILEMMA

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Background and aims

Foetal Hydrops is defined as a state of excessive fluid collection in the extravascular compartment of the foetus leading to widespread soft tissue oedema and/or accumulation of fluid in the foetal body cavities. The classification of immune and non-immune describes the difference between haemolytic disease of the newborn and other aetiologies leading to foetal hydrops. The aim of the study was to 1) ascertain the number of cases of foetal hydrops 2) diagnostic and therapeutic interventions antenatally 3) aetiology 4) associated morbidity and mortality.

Methods

All ultrasounds of patients who had high risk scans during the period Jan 2001- Dec 2007 were accessed.. Maternal age, gestational age at time of diagnosis, investigations and procedures done antenatally, mode of delivery and co-existing morbidity and mortality were all reviewed.

Results

The 37 cases who met the definition were reviewed. The age range of these women was between 21-42 years and gestational age at diagnosis was 13- 39 weeks. Antenatal procedures were carried out on 21, of which 7 intrauterine transfusions, 6 shunting or drainage procedures, 3 amniocentesis and all 21 had blood tests. Of the 37 patients reviewed 18 had a known cause of which 3 rhesus isoimmunisation, 3 parvovirus, 1 toxoplasmosis, 2 trisomy 21, 1 Turner's syndrome, 3 cystic hygroma, 3 cardiac, 2 primary unilateral chylothorax. 13 of the 37 patients reviewed were referrals from other hospitals and were referred back to their base hospitals. 24 delivered in NMH of which 18 had vaginal deliveries and 6 had caesarean sections. There were 13 were liveborn, 9 intrauterine deaths and 2 spontaneous miscarriages.

Conclusions

Foetal hydrops has a high mortality of 46%. A well structured, targeted investigative approach yielded a prenatal diagnosis in nearly 50% of cases. These results are in keeping with similar international studies.

A CASE REPORT OF AN INFANT WITH IMPERFORATE HYMEN RESULTING IN INFERIOR VENA CAVAL OBSTRUCTION

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Background

Neonatal hydrometrocolpos results from either vaginal atresia or imperforate hymen, which leads to the development of an abdominopelvic mass with regional compression and secondary hydronephrosis. Hydrometrocolpos is sometimes associated with urogenital sinus. It has a prevalence of 2-2.5 in 10,000 births. It can result in obstructive uropathy, lower limb oedema and intestinal obstruction.

Case History

A two day old neonate presented to A&E in severe distress with coffee ground vomitus, grossly distended abdomen and poor perfusion. Abdomen was tense, tender and bowel sounds were scarce. There was a line of demarcation on the lower abdomen. Both legs were cool and mottled with a purple appearance. There was no apparent vaginal opening. The initial impression was venous and bladder obstruction secondary to abdominal mass.

An abdominal ultrasound revealed a large lesion arising from the pelvis, measuring 9cm x 7.3cm x 5.2cm with the bladder displaced anteriorly and severe bilateral hydronephrosis. Urinary catheterisation relieved the venous and bladder obstruction. Subsequent transection of the hymen relieved the haematocolpus. Apart from mild hydronephrosis the baby was asymptomatic after the procedure. A follow-up scan after a few weeks was normal.

Discussion

An imperforate hymen caused the hydrometrocolpos with secondary urinary and venous obstruction. This is a very rare condition and can be recognised clinically. Prompt treatment relieves symptoms dramatically and can prevent long term complications.

LISTERIA INFECTION IN PREGNANCY

LFA Wong, U Fahy, Institution: Midwestern Regional Hospital, Limerick

Case Report

This 28 year old Latvian para1 woman, presented at 36 weeks gestation feeling unwell with pyrexia, malaise, lethargy, headaches and joint pains. There were no gastrointestinal symptoms or history of recent travel abroad. She was treated symptomatically and discharged home a few days later as there was no obvious abnormality. She presented again 3 days later with similar symptoms. Blood cultures, performed because of pyrexia of >38 degrees C, isolated *Listeria Monocytogenes*. She was treated with intravenous gentamicin and high dose amoxicillin for 2 weeks and had close maternal and fetal surveillance. Labour was induced at 39+weeks, with vaginal delivery of a healthy baby girl. Grade 1 meconium was noted on membrane rupture. The baby was observed on NICU and treated with prophylactic antibiotics but had no problems. The mother had no postpartum problems.

The reported local incidence, diagnosis and management of the condition are discussed.

CERVICAL CANCER IN PREGNANCY

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Case Report:

Cervical cancer is the commonest malignancy in pregnancy, making up 1.4% of all cervical cancers. Management is complex and must be individualised. We present two cases of cervical cancer in pregnancy.

The first case is a 38 year old woman, para 1+0, who presented with bleeding in early pregnancy and was noted to have a bulky, friable cervix. Colposcopy at 14/40 revealed a 6cm tumour, clinically stage IIb disease. Cervical biopsy confirmed invasive squamous cell carcinoma. MRI and CT scans showed a bulky 7 x 7.5cm posterior cervical mass with lymphadenopathy and no metastatic disease.

A modified radical hysterectomy was performed at 16/40. The majority of lymph nodes were inoperable. The uterus was opened post-hysterectomy and a male fetus delivered. Histologically, the tumour was stage pT1b2 N1. Treatment was commenced with extended field radiotherapy and brachytherapy.

The second case is of a 28 year old woman, para 0+0 with CIN 3 on a cervical smear. LLETZ biopsy was carried out showing invasive squamous cell carcinoma. However, the patient was 7/40 pregnant when informed of the histology results. She declined treatment during pregnancy. She underwent a radical caesarian hysterectomy at 32/40. Disease involved the full thickness of the cervix with negative pelvic lymph nodes, stage pT1b2N1. She was treated with extended field radiotherapy.

In summary, cervical cancer remains an important but rare condition in pregnancy. Ethically, the concept of double effect is relevant to the patient who accepts the independent moral status of the pre-viable fetus. These two cases highlight that management of cervical cancer, as well as timing of interventions during pregnancy is influenced by gestational age, stage of disease and the patient's desire to maintain her pregnancy. Key to further limitation of morbidity and mortality from this condition is the implementation of a cervical screening programme and HPV vaccination.

EARLY RESPIRATORY MANAGEMENT IN EXTREMELY PRETERM INFANTS. CHANGING PATTERNS OVER 15 YEARS

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Background: Respiratory care in extremely preterm infants has changed significantly in the past fifteen years. New European guidelines advocate targeted surfactant prophylaxis and less invasive respiratory support in this population. We aimed to evaluate the changing practice in respiratory care of preterm infants in Belfast in order to determine compliance with evidence based practice.

Objective. To describe and compare early respiratory care in preterm infants admitted to the regional intensive care unit in 1993, 2003 and 2006.

Methods. This was a retrospective study using data from NICORE (Northern Ireland Neonatal Database). Data was collected on all babies born \leq 30wks gestation in 2006 on surfactant use, timing of first dose, duration of respiratory support, the use of postnatal steroids and respiratory outcome. BPD was defined as O₂ requirement > 36 wks post conceptional age (PCA). Data was compared with previous from similar babies in 1993 and 2006.

Results. Results are shown as % and median (interquartile range).

YEAR	1993	2003	2006
n	87	156	113
Gestational age (wk)	27 (25-28)	27 (25-28)	28 (25-29)
Mortality (%)	34	21	17
Received Surfactant (%)	38	90	84
Timing of first dose (mins)	180 (121-297)	9 (5-15)	11 (7-39)
Ventilator Days	4 (0-9)	6 (1-21)	2.5 (0-7)
CPAP days	2 (0-9)	12 (4-20)	10 (3-29)
O ₂ >36 wk PCA (%)	13	20	24
Post-natal steroids (%)	21	1	4

Conclusions. Extremely preterm babies are receiving more selective and targeted respiratory care with regards to mechanical ventilation and surfactant therapy. Although mortality is reduced, BPD continues to increase despite a small rise in the use of postnatal steroids.

HYPEROSMOLAR NON-KETOTIC COMA: A RARE METABOLIC EMERGENCY IN A PREGNANT PATIENT WITH PREVIOUSLY UNDIAGNOSED DIABETES

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Abstract

We present the case of a young woman, 30 weeks gestation, with no prior history of diabetes, who was admitted with hyperosmolar non-ketotic coma (HONK). This is a condition characteristic of uncontrolled non-insulin dependent diabetes mellitus, usually found in elderly patients and mostly associated with intercurrent illness, and extremely rare in pregnancy. It has a reported mortality of 20-30%. Although fetal demise occurred, maternal outcome was good. We believe this is the first case involving a pregnant patient in Ireland.

NATIONAL SURVEY OF FREQUENCY OF WEIGHT MEASUREMENTS IN NEONATAL UNITS

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Aims To review the current practice regarding frequency of weight measurement in neonatal units in the South of Ireland, and whether is in keeping with best practice as described in the literature.

Background In a 1999 study(1) daily weights were suggested for the first 14 days or until regaining birth weight, and weekly thereafter. More recent proposals(2) advocate daily weights, until full enteral feeds are established. The Vermont Oxford Network's potentially better practices(3) advocates daily measurements until infant stable and growing, then alternate day weights.

Methods A postal survey was conducted nationally. All 26 neonatal departments in Ireland were sent anonymous questionnaires, regarding their policies on measuring weight. Information sought included, unit size and level of care, presence of written guidelines, or an agreed usual practice, and the frequency of weight measurement in general, and specific neonatal subgroups.

Results Of the 26 hospitals contacted, 19(73%) responded. 4(21%) had a written policy, and 14(74%) had an unwritten agreed practice. The policy was based upon weight in 13(68%) units, and gestational age in 4(21%). 7(37%) units weighed infants on alternate days, twice weekly in 6(32%), three times a week in 3(16%), and once a day and once a week in single units. Less than 31% of units had a separate policy for less than 30 weeks, assisted ventilation, TPN, transitioning to enteral feeds, or in the first week of full feeds. There was little difference in the practice for well infants less or greater than 1500gm. Term infants on the postnatal ward were mostly weighed once(62.5%) pre-discharge, and referred to public health nurses(43%) for weight follow-up.

Conclusion Most units have an agreed usual practice, most frequently to weigh infants on alternate days, in keeping with recommended best practice(3). Few units have a separate policy for method of nutrition as is recommended.

References

- 1 Ehrenkranz et al. Longitudinal growth of hospitalized very low birth weight infants. *Pediatrics*. 1999;104:280–289
- 2 California Perinatal Quality Care Collaborative 2008
- 3 Kuzma-O'Reilly et al. Evaluation, development, and implementation of potentially better practices in neonatal intensive care nutrition. *Pediatrics* .2003;. 111:e461-470

	<p>“SELECTIVE FLUCONAZOLE PROPHYLAXIS IN NEONATES – AN AUDIT CYCLE” <i>Tanney K¹, Farren D², McHenry E², Ong G², Sweet D¹</i></p> <p><i>1. Neonatal Intensive Care Unit, Royal Maternity Hospital, Belfast</i> <i>2. Royal Victoria Hospital Microbiology Department</i></p>
<p>Aims:</p> <p>Methods:</p> <p>Results:</p> <p>Conclusion:</p>	<p>A Cochrane review shows that Fluconazole prophylaxis in very low birth weight (VLBW) babies improves survival. Guidelines were introduced in the regional NICU recommending prophylaxis for a specified high-risk subset of babies with additional risk factors for fungal sepsis. Audit in 2004 showed this guideline to be effective¹. Re-audit in 2007 aimed to assess compliance with the gold standard, to exclude development of resistant <i>Candida</i> strains, and to complete this audit cycle.</p> <p>Retrospective chart review was carried out of all VLBW babies admitted to NICU in 2006-07. Information was collected on demographic data and the presence of any pre-specified risk factors for fungal infection, including Cephalosporin use and fungal colonisation with central line in-situ. Data was also collated on Fluconazole prescription and presence of confirmed or suspected fungal sepsis. We compared these results to those of 2003-04.</p> <p>In 2006-07, 75% of the babies eligible for Fluconazole prophylaxis received it. There was 100% compliance with suggested dose and frequency. Only 50% received appropriate duration. The number of eligible babies receiving prophylaxis and those receiving accurate dosing has improved since 2004. Fewer babies were eligible for prophylaxis in 2006-07, following a significant decrease in prolonged antibiotic use. 5.2% VLBW babies developed fungal sepsis, 80% of whom had received prophylaxis at some stage during their course. In only one case was prophylaxis failure suggested. None of the “prophylaxis group” died from <i>Candidaemia</i>. All isolates were Fluconazole-sensitive.</p> <p>We recommend continued use of the guideline for selective Fluconazole prophylaxis, with ongoing assessment of compliance and the need for amending current guidelines in the light of changing clinical practice.</p> <p><i>1. McCrossan BA, McHenry E, O'Neill F, Ong G, Sweet DG (2007). “Selective Fluconazole prophylaxis in high-risk babies to reduce invasive fungal infection”. Arch Dis Child; 000: 1–5.</i></p>

INDICATIONS AND TIMING OF THYROID FUNCTION TESTS IN NEWBORNS

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Background: Thyroid disorders affect approximately 1 per 3000 term infants. The majority are congenital hypothyroidism picked up by newborn screening (Guthrie). Thyroid inhibiting or stimulating antibodies cross the placenta. This may lead to a transient hypothyroidism or thyrotoxicosis in the newborn (Thyrotoxicosis mortality: 12-20%, not detectable by Guthrie).

International guidelines advise checking TFTs in infants born to mothers if there is an autoimmune basis to the maternal thyroid disease or if the cause is unknown. Testing should be deferred until 72 hours after delivery to help avoid false positive results.

Aims:

- To audit TFTs performed on infants in the Rotunda.
- To assess if the test was;
a) indicated, b) done at the right time and c) an adequate sample.
- To assess if NCHDs understand the rationale for ordering these tests.

Methods:

- Retrospective review Jul- Dec 2007.
- Internal laboratory computer system.
- Cross check of infant and maternal charts.
- NCHDs completed a confidential survey .

Results:

- 57 infants had TFTs Jul-Dec '07.
- Total: 89 samples; 15 (17%) were insufficient.
- 52/57 (91%) had normal results.
- 5 with abnormal results: 4 detected by Guthrie and 1 presented with hypoglycaemia.
- 17 infants had TFTs as a result of maternal thyroid disease. Of these: 11/17 (65%) were taken for the wrong reason or at the wrong time. 4 too late (> day 14) and 4 too early. 3/17 (18%) had TFTs performed unnecessarily as the mothers had previous surgery for benign thyroid lesions. None of these samples yielded positive results.

While 11/13 (85%) NCHDs knew the correct maternal indication for screening only 4/13 (31%) identified neonatal thyrotoxicosis as the clinical outcome they were screening for.

Conclusion:

- *The Guthrie remains the gold standard for identifying infants with thyroid disease.*
- *Because only TSH is measured on the Guthrie, infants with hypothyroidism due to congenital TSH/TRH deficiency will be missed. These infants will usually present with either hypoglycaemia, jaundice, midline defects or genital abnormalities so clinicians need to retain a high index of suspicion.*
- This audit highlights the need for a guideline indicating appropriate indications and timing of TFTs for infants born to mothers with thyroid disease.
- In high-risk mothers with known antibodies or no known cause for their thyroid disease then samples must be correctly timed, to avoid repeated phlebotomy and missing potentially life-threatening thyrotoxicosis.

References:

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2. www.british-thyroid-association.org/guidelines.htm

RETINOPATHY OF PREMATURITY IN A NEONATAL INTENSIVE CARE UNIT

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Introduction:

Retinopathy of prematurity (ROP) is a disease which occurs in the retina of preterm infants due to incomplete retinal vascularisation. Surveillance in the USA describes ROP as the second most common cause of childhood blindness with an incidence of 400-600 children being registered as legally blind on a yearly basis. It is related to low birth weight, prematurity, hypoxic injury, oxygen administration, assisted ventilation and other unidentified factors.

The aim of this study was to assess the incidence, investigation, screening programme, management and outcomes of ROP in a regional Neonatal Intensive Care Unit (NICU) in 2006.

Method: A retrospective chart review was undertaken and data abstracted from the charts of all babies born <31 weeks gestation and/or <1,500 grams birth weight in 2006. The initial examination was carried out between the 4th and 7th week after birth and all ophthalmic examinations were carried out by a single ophthalmologist using a standard protocol.

Result: 592 infants were admitted to the NICU in 2006. 24 of the 592 (4%) were eligible for inclusion. 6 of the 24 infants (25%) were found to have ROP of varying degrees. See table below. There were no major side effects (including apnoeas or bradycardias), as a result of the procedures, reported. All infants were followed up until regression of ROP was determined.

Neonate	Right eye	Left eye	Spontaneous Regression	Surgical Management	Side effects of Treatment
1	Stage 1 disease	Stage 2 disease	Yes	No	No
2	Stage 2 disease	Stage 2 disease	Yes	No	No
3	No ROP	Stage 2 disease	Yes	No	No
4	Stage 2 disease	Stage 1 disease	Yes	No	No
5	Stage 2 disease	Stage 3 disease	No	Laser treatment bilaterally	No
6	Stage 2 disease	Stage 1 disease	No	Laser treatment to Right eye only	No

Figure 1: Stage, progression and management of the 6 infants with ROP.

Conclusion: The incidence of ROP was 1% in our population of infants admitted to the NICU in 2006. The National Eye Institute (NEI) in the USA reports an incidence of 0.4% yearly. 25% of at risk infants by our selection criteria developed ROP. Our figures compare favourably with Swedish figures where an incidence of 36.4% in its high risk neonatal population is reported. UK and Irish figures have not yet been clearly defined. Two thirds of our patients showed spontaneous regression or ROP. The US National Institution of Health (NIH) quotes a regression of 90% with only 9-10% requiring intervention. The CRYO-ROP study in the USA suggested that Caucasian race was an independent risk factor for the development of threshold ROP. Interestingly, all of our cases with ROP were Caucasian. Overall our study showed rates commensurate with other centres.

VON WILLEBRANDS DISEASE AS A CAUSE OF IREGULAR VAGINAL BLEEDING IN EARLY PREGNANCY & USE OF HAEMATE P TO PREVENT PPH:

A CASE REPORT:

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INTRODUCTION:

von Willebrand Disease (vWD), is an autosomal dominant disease. Incidence is 0.5% -1%. The Finnish Physician Erik von Willebrand was the first to describe this condition in 1926. The majority of these patients have mild disease that is not diagnosed unless they sustain trauma or undergo surgery. They may present at any age as most of them are heterozygous, and have mild or moderate disease. The authors report a case of von Willebrand disease in pregnancy and discuss the pathogenesis, diagnosis, and therapeutic implications of this condition.

CASE HISTORY:

A 19 years primigravida came in A&E with frequent episodes of bleeding per vaginum at 11 weeks of gestation. On ultrasound scan single intrauterine live pregnancy with no obvious cause of bleeding was noted. Her Hb was 11g/dl; PT, APTT and INR were within normal range. On further investigations vWfactor was 76U/dL (60-150) Factor VIIIc was 118U/dl (60-150) and Ristocetin cofactor was < 10U/dl (58 -166). Electrophoresis showed Type 2 von Willebrand disease. There was no family history of bleeding disorder however she gave history of heavy menstrual loss each month. The pregnancy was jointly managed in liaison with haematologist, obstetrician, anaesthetist and paediatrician. The bleeding stopped after first trimester. Her pregnancy remained uneventful later. She delivered a baby boy 3.9kg by Elective lower segment caesarean section under GA due to breech presentation. She was given Haemate P 50u/kg prior to surgery and daily after operation for next seven days to prevent PPH by keeping RCoF activity nadir >50%. The baby was investigated and also found to be suffering from same type of Von Willebrand disease however there was no evidence of intracranial bleeding on ultrasound scan of baby. Later on one of her sisters is also found to have vWd.

CONCLUSION:

There is progressive increase in FVIII and VWF levels in normal pregnancy but most studies show minimal or no increase in vWF activity levels and persistent abnormal patterns of multimers in Type 2 vWD in pregnancy. APH is uncommon presentation of vWD. However if a woman presents with frequent bleeding episodes antenatally with no detectable cause should be investigated for bleeding disorders like vWD. Multiple studies suggest that these patients are at risk of PPH. In this case report Haemate P (Antihemophilic factor /wVWF complex) was successfully used to keep vWF activity >50IU/dl to prevent any anticipated PPH.

PERINATAL TESTICULAR TORSION – A RECENT EPIDEMIC IN CORK

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Background: Perinatal testicular torsion (PTT) was first reported by Taylor in 1897. The incidence of PTT is difficult to quantify but an incidence of 0.25/1000 livebirths is reported. PTT accounts for 10% of all torsions under the age of 25. We have recently observed a high incidence of PTT in Cork.

Aims: 1) To confirm the number of cases of PTT that have occurred in Cork in the past year.
2) To investigate if any common aetiological factors can be identified in these cases.

Methods: A search for all cases of PTT was undertaken by reviewing the Badger Neonatal Discharge database, theatre operative lists and pathology records from January 2007 to date. We subsequently reviewed the maternal and infant medical charts to collect demographic details and any potential aetiological factors.

Results: Four cases of PTT were identified. For a birth rate of 8500 per year, we report an incidence of 0.5/1000 live births. They were all full term infants delivered vaginally with a mean birthweight of 3540g. Mean apgar scores were 9¹ and 9⁵. Mean age at diagnosis was 19 hours. In all cases the testis was swollen, discoloured, non-tender and did not transilluminate. Each infant underwent emergency ipsilateral orchidectomy and contralateral orchidopexy. There was no significant maternal history except for one mother receiving carbamazepine and no reported alcohol or substance abuse.

Discussion: PTT is treated as an emergency as delay between the onset of symptoms and the time of surgical or manual de-torsion is of utmost importance in achieving a viable testis. However testicular salvage in PTT is rare. We have not identified an explanation for the increased incidence of PTT observed recently in Cork over the last year. Increased awareness and high index of suspicion among neonatal staff is necessary to recognise this rare but important complication.

AUDIT ON THE MANAGEMENT OF PRETERM PRELABOUR RUPTURE OF MEMBRANES IN A DISTRICT GENERAL HOSPITAL

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Background: In the UK approximately 2% of all pregnancies are complicated by premature rupture of membranes.

Aim: To compare management of PPROM within Antrim Area Hospital with that outlined by the RCOG Green-top guidance published in November 2006

Method: All cases from January 2006 to December 2007 with rupture of membranes between 24 weeks and 37 weeks gestation were included. Patients excluded if they showed any signs of labour on admission. Outcome measures included:

- Mode of diagnosis
- Performance of 12hrly observations
- Weekly high vaginal swabs and full blood counts
- Erythromycin given,dosage and duration
- Corticosteroids administered
- Neonatal outcome – Apgars and cord pH

Results:

23 cases were identified in this period. Patient demographics included a mean age of 31 years and mean parity of one.

Diagnosis of PPROM was made by maternal history in 47%, amniostix analysis of fluid per vaginum in 29% and speculum examination in 24%. No patients had ultrasound examination looking at liquor volume to determine diagnosis.

With respect to management only 57% had adequate 12 hourly observations recorded, 78% had a high vaginal swab taken and 74% had their full blood counts taken appropriately.

65% had been commenced on Erythromycin and all patients were on the recommended dosage. Only one patient had antibiotic therapy continued up to and beyond the 10 day period.

The majority went into labour within 2- 4 days. 74% had antenatal corticosteroids. 61% were delivered by emergency c-section, mostly due to non-reassuring fetal heart rate patterns.35% had normal vaginal deliveries.

70% had Apgars of 9 at one minute and 96% had 9 at five minutes. Average cord pH was 7.25.

Conclusion: PPROM is associated with 40% preterm deliveries and can result in significant neonatal morbidity and mortality. Maternal pyrexia greater than 37.8°C and fetal tachycardia indicate clinical choriamnionitis so regular maternal and fetal observations are essential for early diagnosis. The ORACLE trial showed that Erythromycin reduced preterm delivery and neonatal morbidity and should be given to all mothers with PPROM.

IS VAGINAL DELIVERY A SAFE OPTION IN TWIN PREGNANCIES- TRUTHS AND CONTROVERSIES

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Aims: The increasing incidence of twin pregnancies world wide together with the increasing trend to caesarean delivery has resulted in intense scrutiny of the most appropriate method of twin delivery. In Drogheda we aim, where appropriate for a vaginal delivery rather than a Caesarean section (CS) for twins. The aim of this study is to identify the trends in the mode of delivery of twin pregnancy in our unit over a 3 year period and to determine the neonatal outcomes during this period.

Methods: Mode of delivery and neonatal outcome was retrospectively analysed for 3 years, 2005-2007 in OLLH (Our Lady of Lourdes) Drogheda. Neonatal outcome measures were assessed using Apgar scores < 7 @ 5 min, Cord pH < 7.14 and admission to NICU.

Results: 156 sets of twins were identified in 3 years with 42 sets in 2005, 54 in 2006 and 60 in 2007. Vaginal birth rate at 42%, 48% and 29% respectively. The elective CS rates for these years were 28.5%, 38.8% and 45% respectively. The prelabour emergency CS was seen in 14%, 5.5% and 23.5% of these cases. However intrapartum CS rates were fairly consistent over the 3 year period from 15% in 2005, 7.5% in 2006 and 6.7% in 2007 respectively. NICU admission rates for babies born with low apgars at 5 minutes and cord pH < 7.14 for the different years regardless of the mode of delivery were 4.7%, 5.5% and 4.2% respectively.

Conclusions: Vaginal delivery is a safe option for twin pregnancy especially with vertex/vertex presentation. NICU admission of twins with low apgars and cord pH has been fairly consistent in the 3 year period despite the rise in CS rate for 2007. There is no evidence to suggest from our study that rise in CS rate is associated with a decline in the number of babies admitted to NICU with low apgars. We need to audit our elective CS for twins to account for this rise in the rate in the year 2007.

WALL CLOCKS, WRIST WATCHES AND DELIVERY SUITE: LET'S DO THE TIME WARP AGAIN!

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Aims

If Department of Health guidelines are to be implemented, we could be seeing an end to wearing of wristwatches by clinical staff¹. Some of the clinical problems that this policy pose have been highlighted, with staff deprived of wrist watches failing to accurately estimate patients respiratory and pulse rates, leading to the suggestion that trusts may have to provide clocks with second hands in all clinical areas²

We examine the potential impact of relying on wall mounted clocks in Delivery Suite for documentation of event times during emergencies.

Methods

We examined clocks provided by the trust in clinical areas within our labour ward; seven delivery rooms, admission room, two theatres and recovery room.

Results

Only three areas were representative of the actual time of day, with all other areas being unrepresentative. The average deviation from actual time was 3.6 minutes; with the maximum inaccuracy between two clinical areas recorded at an astonishing 11 minutes!

An 11 minute time variation between transfer from delivery room to theatre would represent over 30% of the target 30 minute decision-to-delivery time for category one emergency caesarean section³. Erroneously, it would more almost double the average recorded time for preparation by general anaesthesia³.

In fact, the maximum 11 "lost" minutes on transferring from this delivery room to theatre is almost 20% of the time "lost" crossing an international time zone!

Conclusions

This degree of variation could lead to huge discrepancies in documentation. With accurate documentation the forestay of defence in such a potentially litigious environment as the labour ward, variation between wall clocks is unacceptable.