

and Gynaecologists



UK Obstetric Surveillance System

# **NEWSLETTER 31 - October 2012**

# Stroke in Pregnancy: Incidence, Risk Factors, **Management and Outcomes**

The results of a UKOSS study of cases of antenatal stroke conducted between October 2007 and March 2010 have recently been published. Stroke is an important cause of morbidity and mortality, the incidence of which is likely to increase due to an ageing population, however, estimates of the incidence of stroke associated with pregnancy vary widely.

This study was designed to estimate the incidence of antenatal stroke in the UK and to identify risk factors associated with stroke during pregnancy. Information on the clinical features, current management, survival and prognosis of antenatal strokes was also obtained in order to develop guidance and improve the care of women having an antenatal stroke.

Thirty cases of antenatal stroke were reported giving an estimated incidence of 1.5 cases per 100,000 maternities (95% CI 1.0-2.1). The incidences of non-haemorrhagic and haemorrhagic stroke were 0.9 (95% CI 0.5-1.3) and 0.6 (95% CI 0.3-1.0) per 100 000 maternities. Factors associated with increased risk of antenatal stroke were history of migraine (OR 8.5, 95% CI 1.5-62.1), gestational diabetes (OR 26.8, 95% CI 3.2-∞), and preeclampsia or eclampsia (OR 7.7, 95% CI 1.3-55.7).

There was wide variation in the use of pharmacological and surgical management, and organized stroke unit care. There were six stroke-related maternal deaths giving a case fatality rate of 20% of all strokes, and 50% of haemorrhagic strokes, and a mortality rate of 0.3 (95% CI 0.1-0.6) per 100 000 maternities.

This study suggests that the risk of a stroke during pregnancy is low, however the poor outcomes in terms of morbidity and mortality and variations in care highlight the importance of such women receiving specialist stroke care. Clinicians should be aware of the increased risk in women with a history of migraine, gestational diabetes and pre-eclampsia or eclampsia.

Reference: Scott CA, Bewley S, Rudd A, et al. (2012) Incidence, risk factors, management, and outcomes of stroke in pregnancy. Obstet Gynecol 120(2 Pt 1):318-24.



#### **UKOSS Regional Card Return Rates Map** June 2012 – August 2012







#### Thanks to the following hospitals who have returned cards for the last three months:

Aberdeen Maternity Hospital, Aberdeen Airedale General Hospital, Keighley Alexandra Hospital, Redditch Altnagalvin Area Hospital, Londonderry Antrim Hospital, Antrim Arrowe Park Hospital, Wirral Ayrshire Maternity Unit, Kilmarnock Barnet and Chase Farm Hospitals NHS Trust, Enfield Barnsley District General Hospital, Barnsley Basildon Hospital, Basildon Bedford Hospital, Bedford Birmingham City Hospital, Birmingham Birmingham Women's Hospital, Birmingham Borders General Hospital, Borders Bradford Royal Infirmary, Bradford Broomfield Hospital, Chelmsford Caithness General Hospital, Wick Causeway Hospital, Coleraine Chelsea & Westminster Hospital, London Chesterfield & North Derbyshire Royal Hospital, Chesterfield City Hospitals Sunderland NHS Trust, Sunderland Conquest Hospital, St Leonards-on-Sea Countess of Chester Hospital, Chester Craigavon Area Hospital, Portadown Croydon University Hospital, Thornton Heath Daisy Hill Hospital, Newry Darent Valley Hospital, Dartford Derby Hospitals NHS Foundation Trust, Derby Dewsbury and District Hospital, Dewsbury Diana Princess of Wales Hospital, Grimsby Dorset County Hospital, Dorchester Dr Gray's Hospital, Elgin Dumfries & Galloway Royal Infirmary, Dumfries Ealing Hospital, London Eastbourne District General Hospital, Eastbourne Epsom General Hospital, Epsom Erne Hospital, Enniskillen Forth Valley Royal Hospital, Larbert Friarage Hospital, Northallerton Frimley Park Hospital, Camberley George Eliot Hospital, Nuneaton Glan Clwyd District General Hospital, Rhyl Good Hope Hospital, Sutton Coldfield Harrogate District Hospital, Harrogate Hillingdon Hospital, Uxbridge Hinchingbrooke Hospital, Huntingdon Horton Hospital, Banbury Hull Royal Infirmary, Hull Ipswich Hospital, Ipswich James Cook University Hospital, Middlesbrough James Paget Hospital, Great Yarmouth Jersey General Hospital, St Helier John Radcliffe Hospital, Oxford Kettering General Hospital, Kettering King's Mill Hospital, Sutton in Ashfield Lancashire Women and Newborn Centre, Burnley Leighton Hospital, Crewe Lister Hospital, Stevenage Macclesfield District General Hospital, Macclesfield Medway Maritime Hospital, Gillingham Milton Keynes General Hospital, Milton Keynes Nevill Hall Hospital, Abergavenny Newham General Hospital, London Ninewells Hospital & Medical School, Dundee Norfolk & Norwich University Hospital, Norwich North Devon District Hospital, Barnstaple North Hampshire Hospital, Basingstoke Northwick Park Hospital, Harrow Nottingham City Hospital, Nottingham Nottingham University Hospitals NHS Trust, Nottingham

Pilgrim Hospital, Boston Poole Hospital, Poole Prince Charles Hospital, Methyr Tydfil Princess Alexandra Hospital, Harlow Princess Anne Hospital, Southampton Princess Elizabeth Hospital, St Martins Princess Royal Hospital, Haywards Heath Princess Royal Maternity Hospital, Glasgow Princess Royal University Hospital, Orpington Queen Elizabeth Hospital, Gateshead Queen Elizabeth Hospital, Kings Lynn Queen Elizabeth the Queen Mother Hospital, Margate Queen's Hospital, Burton upon Trent Rotherham District General Hospital, Rotherham Royal Albert Edward Infirmary, Wigan Royal Alexandra Hospital, Paisley Royal Berkshire Hospital, Reading Royal Bolton Hospital, Bolton Royal Devon & Exeter Hospital, Exeter Royal Free Hospital, London Royal Glamorgan Hospital, Llantrisant Royal Hampshire County Hospital, Winchester Royal Preston Hospital, Preston Royal Shrewsbury Hospital, Shrewsbury Royal Surrey County Hospital, Guildford Royal United Hospital, Bath Russells Hall Hospital, Dudley Salisbury District Hospital, Salisbury Scarborough Hospital, Scarborough Scunthorpe General Hospital, Scunthorpe Simpson Centre for Reproductive Health, Edinburah Singleton Hospital, Swansea South Tyneside District Hospital, South Shields Southend Hospital, Westcliff-on-Sea Southern General Hospital, Glasgow Southmead Hospital, Bristol Southport & Ormskirk Hospital NHS Trust, Ormskirk St George's Hospital, London St Helier Hospital, Carshalton St John's Unit at Howden, Livingston St Mary's Hospital, London St Mary's Hospital, Manchester St Michael's Hospital, Bristol St Peter's Hospital, Chertsey St Richard's Hospital, Chichester Staffordshire General Hospital, Stafford Stepping Hill Hospital, Stockport Stoke Mandeville Hospital, Aylesbury Tameside General Hospital, Ashton-under-Lyne Taunton and Somerset Hospital. Taunton The Great Western Hospital, Swindon The Jessop Wing, Sheffield The Portland Hospital, London The Tunbridge Wells Hospital, Tunbridge Wells Torbay Hospital, Torquay Ulster Hospital, Belfast University College Hospital, London University Hospital Lewisham, London University Hospital of Coventry & Warwickshire, Coventry University Hospital of North Staffordshire, Stoke on Trent University Hospital of North Tees, Stockton-on-Tees Victoria Hospital, Blackpool Victoria Hospital, Kirkcaldy Wansbeck General Hospital, Ashington Warwick Hospital, Warwick

Western Isles Hospital, Stornaway Whiston Hospital, Prescot Whittington Hospital, London William Harvey Hospital, Ashford Wishaw General Hospital, Wishaw Withybush Hospital, Haverfordwest Worthing Hospital, Worthing Wrexham Maelor Hospital, Wrexham York Hospital, York Ysbyty Gwynedd District General Hospital, Bangor Barnet General Hospital, Barnet Bassetlaw District General Hospital, Worksop Bronglais Hospital, Aberystwyth Colchester General Hospital, Colchester Darlington Memorial Hospital, Darlington Derriford Hospital, Plymouth Doncaster Royal Infirmary, Doncaster East Surrey Hospital, Redhill Guy's and St Thomas' Hospital, London Homerton University Hospital, London King's College Hospital, London Kingston Hospital, London Leeds General Infirmary, Leeds Leicester Royal Infirmary, Leicester Lincoln County Hospital, Lincoln Liverpool Women's Hospital, Liverpool Mater Infirmorum Hospital, Belfast New Cross Hospital, Wolverhampton Nobles Hospital, Douglas North Manchester General Hospital, Manchester North Middlesex Hospital, London Peterborough City Hospital, Peterborough Princess of Wales Hospital, Bridgend Queen Alexandra Hospital, Portsmouth Queen Charlotte's and Chelsea Hospital, London Queen Elizabeth Hospital, London Queen Elizabeth II Hospital, Welwyn Garden City Queen's Hospital, Romford Raigmore Hospital, Inverness Royal Cornwall Hospital, Truro Royal Lancaster Infirmary, Lancaster Royal Oldham Hospital, Oldham Royal Sussex County Hospital, Brighton St James's University Hospital, Leeds St Mary's Hospital, Newport University Hospital of North Durham, Durham University Hospital of Wales, Cardiff Warrington Hospital, Warrington Watford General Hospital, Watford West Suffolk Hospital, Bury St Edmunds Wexham Park Hospital, Slough Whipps Cross University Trust Hospital, London Worcestershire Royal Hospital, Worcester Yeovil Women's Hospital, Yeovil Birmingham Heartlands Hospital, Birmingham Cumberland Infirmary, Carlisle Furness General Hospital, Barrow-in-Furness Gloucestershire Royal Hospital, Gloucester Hereford County Hospital, Hereford King George Hospital, Ilford Northampton General Hospital, Northampton Pinderfields General Hospital, Wakefield Rosie Maternity Hospital, Cambridge Royal Gwent Hospital, Newport Royal Jubilee Maternity Service, Belfast Royal London Hospital, London Wythenshawe Hospital, Manchester Calderdale Royal Hospital, Halifax Luton and Dunstable Hospital, Luton Manor Hospital, Walsall

Royal Victoria Infirmary, Newcastle upon Tyne

Returned all three cards. Returned two cards. Returned one card. No Cards Returned.

West Cumberland Hospital, Whitehaven

West Middlesex University Hospital, Isleworth West Wales General Hospital, Carmarthen



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### **New Study - Anaphylaxis in Pregnancy**

**Background:** Anaphylaxis during pregnancy can be associated with significant adverse outcomes for both mother and infant and can be fatal. There are published guidelines for the management of anaphylaxis in adults however there is little information about how anaphylactic shock in pregnancy should be managed in order to optimise the outcome for both mother and baby. This study will collect information about the incidence, management and outcomes of anaphylaxis in pregnancy in the UK.

Surveillance period: October 2012 - September 2014

**Case definition:** All pregnant women in the UK identified as having anaphylaxis as identified by the following definition:

Anaphylaxis is defined as a severe, life-threatening generalised or systemic hypersensitivity reaction. The following three criteria must be met for a diagnosis of anaphylaxis to be made:

- 1. A life-threatening airway problem and/or breathing problem and/or circulatory problem
- 2. Sudden onset and rapid progression of symptoms
- 3. Skin and/or mucosal changes

Women should not be reported if a diagnosis of anaphylaxis has been excluded by their senior attending clinician.

**Funding:** This study represents independent research commissioned by the National Institute for Health Research (NIHR) under its Programme Grants for Applied Research Programme (Programme Grant RP-PG-0608-10038).

**Investigators:** Marian Knight, NPEU; Peter Brocklehurst, Institute for Women's Health UCL; Kim Hinshaw, Sunderland Royal Hospital; Nuala Lucus, Northwick Park Hospital; Derek Tuffnell, Bradford Hospitals; Benjamin Stenson, Edinburgh Royal Infirmary; Rhiannon D'Arcy, Oxford University Hospitals

# Case report summary for current studies up until 26 September 2012

Disorder	Actual number of reported cases	Data collection forms returned (%)	Number of confirmed cases (%)	Expected number of confirmed cases
Adrenal Tumours	17	15 (88)	5 (33)	26
Amniotic Fluid Embolism*	161	156 (97)	112 (72)	91
Cardiac Arrest in Pregnancy (CAPS)	59	41 (69)	22 (54)	35
Gastric Banding in Pregnancy	143	106 (74)	69 (65)	110
Massive Transfusion	19	5 (26)	5 (100)	32
Myeloproliferative Disorders	70	60 (86)	39 (65)	133
Pituitary Tumours	94	78 (83)	44 (56)	125
Stage 5 Chronic Kidney Disease	13	6 (46)	3 (50)	27

**Funding:** \*This study represents independent research commissioned by the National Institute for Health Research (NIHR) under its Programme Grants for Applied Research Programme (Grant Reference Number RP-PG-0608-10038). The views expressed are those of the author(s) and not necessarily those of the NHS, the NIHR or the Department of Health.



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### UKOSS Gastric Banding in Pregnancy Study

The Gastric Banding in Pregnancy study will end this month. Please can all UKOSS reporters check that they have reported any cases of gastric banding in pregnancy that have occurred between the 01st November 2011 and the 31st October 2012. Thank you

### Meet a UKOSS Reporter

**Charlotte McClymont**, the UKOSS/UKNeS Programme Manager interviews Kate Harding.

Kate Harding has worked as a consultant obstetrician at Guy's and St Thomas' Hospitals Foundation Trust since September 1997. Since appointment she has fulfilled a number of roles in the department including risk lead, lead for labour ward, Head of Obstetrics and CNST lead.

#### CM: What are the main duties / responsibilities of your job?

**KH**: My main duty is as a consultant obstetrician. I have two busy, high risk antenatal clinics each week specialising in women with renal disease, HIV, hypertension and inflammatory bowel disease. I spend a 13 hour day on labour ward approximately every other week (we have approaching 7,000 deliveries a year) and in this time I will both conduct deliveries and supervise/teach the junior doctors, the midwives and the medical students. I also do two antenatal and a postnatal ward round each week (seeing all the inpatients). I am currently responsible for the antenatal service and take a major role in guideline writing for the department.

#### CM: What do you like best about your current job?

**KH**: The best thing about my current job are my colleagues both midwifery and medical. I share an office with three of the funniest, wisest and most supportive women one could hope to meet. For the last 10 years I have shared my antenatal clinic with a colleague. We have a complimentary approach to patient care, whilst we may not always agree on patient care we will support the other's decisions and thus give the women confidence in our care.

# **CM**: What do you think is particularly good about your maternity unit?

**KH**: I work in a diverse, enthusiastic, forward looking and supportive department. The motto is "how can I help you" and I believe that is sincerely meant.

# **CM**: What aspects of being a UKOSS reporter do you most enjoy?

*KH:* I like to know what is going on. As the UKOSS lead I have an excuse to look at the notes of some of the most challenging cases to go through the unit and learn from their care.

Chocolate Box



Chocolates this month go to **Stephen Hiles** from Northwick Park Hospital and **Marie Parkhill** from Pilgrim Hospital for efficient return of cards and forms.

Many thanks to you both!

## **CM**: Do you have any hobbies / what are your interests outside of work?

*KH*: I have an eight year old son who is teaching me about Karate. I enjoy cooking, gardening, playing tennis and relaxing with my family.

**CM**: How does being a UKOSS reporter add to your role at work?

**KH**: The UKOSS work adds about 1 hour to my work each week (or 4 hours a month). This will be trying to identify potential cases, reviewing the notes to ensure that they fulfil the criteria and identifying the controls.

**CM**: How do you manage / co-ordinate the UKOSS reporting at your hospital?

**KH**: About once a month I will review the high dependency admission book (as most UKOSS cases will go through there) and then review the cases electronically (including their blood results). The "rare" cases I try to identify as they go through (such as myeloproliferative disease, cardiac arrest and pituitary tumours). If I think that they are cases I will request the notes form my secretary. After reviewing the notes I will then identify the 2 controls (request their notes) and identify the "link" consultant.

I keep a record of all the Cases and controls and will complete the UKOSS blue card. Once the forms arrive from UKOSS these (plus the notes) are

sent to the link consultant to complete. With luck that is the last I hear of them. Unfortunately in about 30% a query then comes through from UKOSS which I will try and answer myself if it is to do with results but if the notes are needed I hand it back to the link consultant.



Kate Harding - Guy's and St Thomas' Hospital



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Studies are additionally funded by Wellbeing of Women, the NHSBT Trust Fund, Lauren Page Trust, Guy's and St Thomas' Charity and SPARKS.