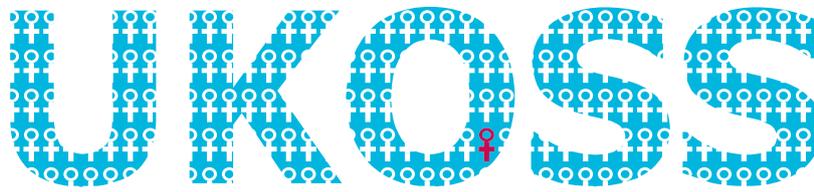




Royal College of
Obstetricians
and Gynaecologists



UK Obstetric Surveillance System



NEWSLETTER 60 - January 2020

Amniotic Fluid Embolism Multicountry Study Published

Amniotic fluid embolism (AFE) remains one of the principal reported causes of direct maternal mortality in high-income countries. However, obtaining robust information about the condition is challenging because of its rarity and its difficulty to diagnose. This study aimed to pool data from multiple countries in order to describe risk factors, management, and outcomes of AFE and to explore the impact on the findings of considering United Kingdom, international, and United States AFE case definitions.

Depending on the definition of AFE used, AFE was found to affect between 1 in every 125,000 to 1 in every 55,000 women giving birth, and between 30%–41% of women with the condition died or had permanent neurological injury. Applying different case definitions resulted in similar findings regarding factors associated with the occurrence of AFE and factors associated with poor maternal outcomes amongst women with AFE. Using the most liberal case definition (UK) and adjusting for the severity of presentation when appropriate, women who died were more likely than those who survived to present with cardiac arrest (89% versus 40%, adjusted odds ratio [aOR] 10.58, 95% confidence interval [CI] 3.93–28.48, $p < 0.001$) and less likely to have a source of concentrated fibrinogen (40% versus 56%, aOR 0.44, 95% CI 0.21–0.92, $p = 0.029$) or platelets given (24% versus 49%, aOR 0.23, 95% CI 0.10–0.52, $p < 0.001$). They also had a lower dose of tranexamic acid (median dose 0.7 g versus 2 g, $p = 0.035$) and were less likely to have had an obstetrician and/or anaesthetist present at the time of the AFE (61% versus 75%, aOR 0.38, 95% CI 0.16–0.90, $p = 0.027$).



The findings of our study suggest that when an AFE is suspected, initial supportive obstetric care is important, but having an obstetrician and/or anaesthetist present at the time of the AFE event and use of interventions to correct coagulopathy, including the administration of an adequate dose of tranexamic acid, may be important to improve maternal outcome.

Reference: Fitzpatrick KE, van den Akker T, Bloemenkamp KWM, Deneux-Tharaux C, Kristufkova A, Li Z, et al. Risk factors, management, and outcomes of amniotic fluid embolism: A multicountry, population-based cohort and nested case-control study. *PLoS Med.* 2019;16(11):e1002962. <https://doi.org/10.1371/journal.pmed.1002962>

THIS MONTH

- Two new studies starting this month
- Meet a new member of the UKOSS team



Thanks to the following hospitals who have returned reports for September, October and November 2019:

Aberdeen Maternity Hospital
Antrim Hospital
Arrowe Park Hospital
Basildon Hospital
Bedford Hospital
Birmingham Heartlands Hospital
Birmingham Women's Hospital
Borders General Hospital
Bradford Royal Infirmary
Bronglais Hospital
Broomfield Hospital
Calderdale Royal Hospital
Causeway Hospital
Chesterfield & North Derbyshire Royal Hospital
Countess of Chester Hospital
Croydon University Hospital
Cumberland Infirmary
Daisy Hill Hospital
Darent Valley Hospital
Derby Hospitals NHS Foundation Trust
Derriford Hospital
Diana Princess of Wales Hospital
Doncaster Royal Infirmary
Dorset County Hospital
Dumfries & Galloway Royal Infirmary
East Surrey Hospital
Epsom General Hospital
Forth Valley Royal Hospital
Furness General Hospital
George Eliot Hospital
Glan Clwyd District General Hospital
Harrogate District Hospital
Hinchingbrooke Hospital NHS Trust
Homerton University Hospital
Hull University Teaching Hospitals NHS Trust
Ipswich Hospital
James Paget University Hospitals Trust
Kettering General Hospital
King's College Hospital
King's Mill Hospital
Kingston Hospital
Lancashire Teaching Hospitals
Lancashire Women and Newborn Centre
Leeds General Infirmary
Leicester Royal Infirmary
Leighton Hospital
Lincoln County Hospital
Lister Hospital
Liverpool Women's Hospital
Macclesfield District General Hospital
Manor Hospital
Medway Maritime Hospital
Nevill Hall Hospital
New Cross Hospital
Ninewells Hospital & Medical School
Nobles Hospital
North Devon District Hospital
North Middlesex University Hospital
Northumbria Specialist Emergency Hospital
Nottingham City Hospital
Poole Hospital
Prince Charles Hospital
Princess Alexandra Hospital
Princess Elizabeth Hospital
Princess of Wales Hospital
Princess Royal Hospital
Princess Royal Maternity Hospital
Princess Royal University Hospital
Queen Alexandra Hospital
Queen Charlotte's and Chelsea Hospital
Queen Elizabeth Hospital
Queen Elizabeth the Queen Mother Hospital
Queen's Hospital, Burton-on-Trent
Queen's Hospital, Romford
Queen's Medical Centre
Raigmore Hospital
Rosie Maternity Hospital
Royal Alexandra Hospital
Royal Berkshire Hospital
Royal Cornwall Hospital
Royal Free Hospital
Royal Free London NHS Foundation Trust
Royal Jubilee Maternity Service
Royal Sussex County Hospital
Royal Victoria Infirmary
Sandwell & West Birmingham NHS Trust
Scarborough Hospital
Scunthorpe General Hospital
Simpson Centre for Reproductive Health
Singleton Hospital
South Tyneside and Sunderland NHS Foundation Trust
South West Acute Hospital
Southend University Hospital NHS FT
St George's Hospital
St Helier Hospital
St James's University Hospital
St John's Hospital
St Mary's Hospital, Manchester
St Mary's Hospital, Newport
St Peter's Hospital
St Richard's Hospital
Stoke Mandeville Hospital
The Great Western Hospitals NHS Foundation Trust
The Jessop Wing
The Portland Hospital
The Tunbridge Wells Hospital
Torbay Hospital
Ulster Hospital
University Hospital Lewisham
University Hospital of North Midlands
University Hospital of Wales
Victoria Hospital, Kirkcaldy
Warrington and Halton Hospitals NHS FT
West Cumberland Hospital
West Middlesex University Hospital
West Suffolk Hospital
West Wales General Hospital
Western Isles Hospital
Whipps Cross University Trust Hospital
Whiston Hospital
Whittington Hospital
William Harvey Hospital
Worthing Hospital
Wrexham Maelor Hospital
Yeovil Women's Hospital
York Hospital
Ysbyty Gwynedd District General Hospital
Altnagelvin Area Hospital
Ayrshire Maternity Unit
Colchester General Hospital
Craigavon Area Hospital
Good Hope Hospital
James Cook University Hospital
Jersey General Hospital
Luton & Dunstable Hospital
Milton Keynes Hospital NHS Foundation Trust
Musgrove Park Hospital
Norfolk & Norwich University Hospital
Northampton General Hospital
Northwick Park Hospital
Peterborough City Hospital
Princess Anne Hospital
Princess Royal Hospital
Queen Elizabeth Hospital, Gateshead
Queen Elizabeth Hospital, Woolwich
Rotherham District General Hospital
Royal Albert Edward Infirmary
Royal Devon & Exeter Hospital
Royal Gwent Hospital
Royal Lancaster Infirmary
Royal Oldham Hospital
Royal Surrey County Hospital
Royal United Hospital
Russells Hall Hospital
St Michael's Hospital
University Hospital of Coventry & Warwickshire
University Hospital of North Durham
Victoria Hospital, Blackpool
Warwick Hospital
Wexham Park Hospital
Wishaw General Hospital
Wythenshawe Hospital
Airedale General Hospital
Barnsley Hospital NHS Foundation Trust
Bassetlaw District General Hospital
Darlington Memorial Hospital
Guy's and St Thomas' Hospital
Hereford County Hospital
John Radcliffe Hospital
Leicester General Hospital
Newham General Hospital
North Manchester General Hospital
Royal Hampshire County Hospital
Royal London Hospital
Stepping Hill Hospital
Tameside General Hospital
Worcestershire Royal Hospital
Chelsea & Westminster Hospital
East Sussex Healthcare NHS Trust
Frimley Park Hospital
Gloucestershire Royal Hospital
North Hampshire Hospital
Pilgrim Hospital
Pinderfields General Hospital
Royal Bolton Hospital
Salisbury District Hospital
Southern General Hospital
Southmead Hospital
Southport & Ormskirk Hospital NHS Trust
St Mary's Hospital, London
The Hillingdon Hospitals NHS Foundation Trust
University College Hospital
University Hospital of North Tees
Watford General Hospital

Returned all three reports. Returned two reports. Returned one report. No reports returned.



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New studies starting this month!

New Therapies for Influenza

Background: Pregnant women are recognised as a group at increased risk of influenza-related morbidity and mortality and higher rates of influenza-related morbidity requiring hospitalisation during seasonal epidemics. Due to limited treatment options, antiviral drug resistance remains a public health concern, and alternative treatments are needed in case of widespread resistance. Approval for the use of intravenous Zanamivir has recently been granted in the EU. The proposed indication is for the treatment of complicated influenza virus A and B infection in adults and children aged from six months, with progress and possibly life-threatening influenza infections, where there are limited therapeutic options. Given that pregnant women are a group at high risk exposure to intravenous Zanamivir in pregnancy is likely. This study, which will run alongside a newly-developed Pharmacovigilance in Pregnancy (PVIP) system, will aim to evaluate the safety of the new approved drug, intravenous Zanamivir, in pregnant women with complicated influenza.

Surveillance period:

1st January 2020 – 30th April 2021

Case Definition: Any pregnant woman admitted to hospital with influenza who receives at least one dose of intravenous Zanamivir.

Please note: UKOSS will be used to merely identify cases and reporters will only be required to complete a very short questionnaire. Detailed data collection will be undertaken, with consent, using the separate PVIP system.

Investigators: Nawab Qizilibash, OXON Epidemiology; Marian Knight, NPEU.

Pregnancy following Bone Marrow Transplant

Background: With improved survival rates and assisted reproductive techniques, such as IVF, an increasing number of women are conceiving who had cancer treatment as a child or young adult. Childhood and young adult cancer survivors are at increased risk of adverse pregnancy outcomes, including preterm birth (particularly if they have had pelvic or abdominal radiation). The importance of late effects of cancer treatment on reproductive outcomes is increasingly recognised, however data on pregnancy complications and outcomes following bone marrow transplant is sparse. It is thought that having had a bone marrow transplant will cause a particularly high risk of a) problems with the immune system and b) radiation damage to the uterus. It is hoped this study will inform future guidance and recommendations on preventing adverse pregnancy outcomes in women who have conceived following bone marrow transplant.

Surveillance period:

1st January 2020 – 31st December 2021

Case definition: Any woman who has a pregnancy following bone marrow transplantation, with or without total body irradiation. Please report all women with a pregnancy, irrespective of the pregnancy outcome (miscarriage, termination, stillbirth or live birth).

Lead investigators: Melanie Griffin & Kate Birchenall, University Hospitals Bristol NHS Foundation Trust.

All reporters have been emailed the relevant study information but please contact the team at ukoss@npeu.ox.ac.uk if you did not receive the email or if you have any queries.



Chocolate Box

Chocolates this month go to **Jenny Alderman, St. Helier Hospital** for being the first to complete a monthly report in 2020 and **Julie Goddard, Calderdale Royal Hospital** for prompt return of data collection forms.

Many thanks to you both!

GMC Revalidation and NMC Continuing Professional Development

We are aware that as part of your GMC revalidation or NMC Continual Professional Development, you are required to provide evidence of participation in national audit and research. If any UKOSS reporters would like to receive a certificate confirming their contribution to UKOSS, please email us at ukoss@npeu.ox.ac.uk and we will get one posted out to you.

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*Search your app store for 'qrcode'



Case report summary for current studies up until the end of November 2019

Disorder	Actual number of reported cases	Data collection forms returned (%)	Expected number of confirmed cases
Amniotic Fluid Embolism	296	281 (95)	178
Antithrombin / Protein C deficiency	17	9 (53)	52
Cirrhosis in Pregnancy	60	52 (87)	126
DKA	67	45 (67)	53
DKA Controls	-	163 (46)	358 Requested
EPPROM	132	60 (45)	93
Fontan and Pregnancy	9	5 (56)	18
High Neuraxial Block	126	112 (89)	199
Hyponatraemia in Pregnancy	54	34 (63)	107
Impacted Fetal Head	691	547 (79)	500



Meet Alan Downs who has recently joined the UKOSS team to assist with programming data input forms

What is your current role within the UKOSS team?

Currently, I am providing programming support to generate data input forms for OpenClinica.

Can you give a brief overview of your career to date?

I have had quite a varied career(s). After graduating with a degree in Geology and Physics I was employed for 5 years as a geological consultant for a small geophysical company. Then I moved into software development with Logica for 11 years. Next, taking a career break I spent the next 11 years raising our boy/girl twins, managing to squeeze in a part time degree in Astronomy whilst they were at school. Returning to work part time, I was a dog walker for 11 months and since October 2018 I have been working part time within NPEU Clinical Trial Unit (CTU) as a trials data assistant. Since mid-November 2019 I have been working one day a week on UKOSS.

How have you found your first few months working with UKOSS?

I have found it interesting and challenging working within the UKOSS team. Interesting, in that I am seeing another side of NPEU outside of the CTU, also the work I am doing is different. Within the CTU I am primarily responsible for data entry into OpenClinica on UKOSS I am reviving old programming skills which provides the challenge and the interest. The UKOSS team are a fun and welcoming to work with, it feels like I have been part of their team longer than a few months.

What do you look forward to most in your new role?

There are a couple for things. Firstly, helping, in a small way, to improve outcomes for mothers and their babies. Secondly, having the chance to use and refresh my programming skills.

What do you anticipate will be the biggest challenge in your new role?

The biggest challenge at the moment is understanding the internal processes and software used. Going forwards, as well as keeping up with the creating of data input forms for OpenClinica, I would like to work on improving processes and software used.

What are your interests/hobbies outside of your working life?

My primary interest is walking with the family and our two dogs (Bailey, a Westie and Smudge a Poodle/Schnauzer cross, both are utter numpties!). The best walks usually have a pub in the middle, at the end or ideally both! I also enjoy astronomy and I have promised myself a telescope upon retirement as I can then stay up all night without having to worry about the following day at work.



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