



Royal College of  
Obstetricians  
and Gynaecologists

# UKOSS

UK Obstetric Surveillance System



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NEWSLETTER 69 - January 2024

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## We are pleased to present the next in our series of infographics - DKA in pregnancy

(also available to view at [www.npeu.ox.ac.uk/ukoss/publications-ukoss/info](http://www.npeu.ox.ac.uk/ukoss/publications-ukoss/info))

# UKOSS

UK Obstetric Surveillance System

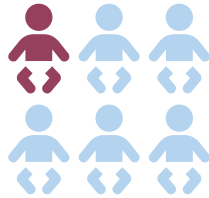
## DKA in Pregnancy

A population-based case-control study conducted using the UKOSS reporting system between **April 2019 - September 2020**.

**Cases** – any pregnant woman managed for DKA (n=82)

**Controls** – pregnant women with Type 1 diabetes who did not suffer from DKA.

**1 in 6**



Babies of women with DKA in pregnancy did not survive

(12/73, 11 stillbirths, 1 neonatal death)

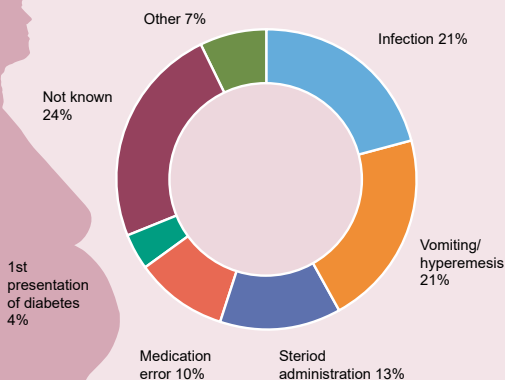
### Incidence of DKA in Pregnancy

- 6.3 per 100 000 pregnancies
- 1.6% of women with type 1 diabetes (1 in 60)
- 0.11% of women with type 2 diabetes (1 in 900)
- 85% of cases occurred in women with type 1 diabetes
- 71% occurred in 3rd trimester
- 51% of cases had euglycaemic DKA
- 15% had >1 DKA episode in their pregnancy

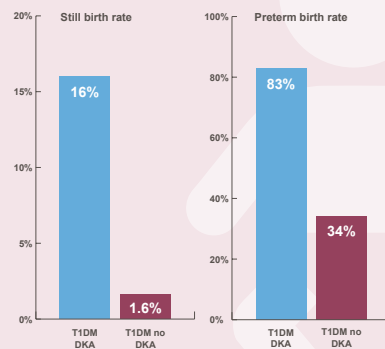
### Maternal Risk Factors for DKA in Pregnancy\*

- Woman and/or partner not in paid employment (low socio-economic status) (37% of cases v 12% of controls)
- At least 1 microvascular diabetes complication before pregnancy (44% of cases v 14% of controls)

### Causes of DKA in Pregnancy



### Infant outcomes



### Implications for clinical practice

- Guidelines needed on management of DKA in pregnancy
- The management of DKA in pregnancy needs to reflect the high rate of recurrence as well as high risk of stillbirth and preterm birth

\*Cases = women with type 1 diabetes who developed DKA in pregnancy. Controls = women with type 1 diabetes who did not develop DKA in pregnancy

Reference: Diguisto C, Strachan MWJ, Churchill D, Ayman G, Knight M. A study of diabetic ketoacidosis in the pregnant population in the United Kingdom: Investigating the incidence, aetiology, management and outcomes. Diabet Med. 2022 Apr; 39(4):e14743. doi: 10.1111/dme.14743. Epub 2021 Nov 28. PMID: 34778994; PMCID: PMC7612514.

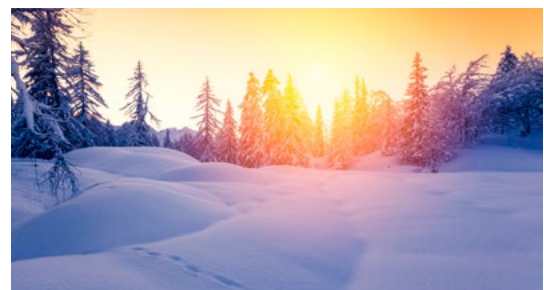


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# Hospital Monthly Reporting Rates: September 2023 – November 2023

3 months reported, 2 months reported, 1 month reported, 0 months reported

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



## Pyelonephritis – final call for data collection forms

The Severe Pyelonephritis in pregnancy study has now ended. We would be very grateful if you could return any outstanding data collection forms or data queries over the next few months.

Please could you also check that no cases have been missed and notify us as soon as possible if any cases are identified.

Here is a reminder of the case definition:

**All pregnant women (delivering on or after 01/10/22 and before 30/09/23) with severe pyelonephritis requiring hospital admission and IV antibiotics for at least 48 hours (pyelonephritis defined as at least 2 of the following: pyrexia / loin pain / positive urine culture)**

### Star Reporters



This newsletter we would like to thank **Eugenia Agyei**, Basildon University Hospital, for being the first to report in 2024, **Christina Rogers**, St Mary's Hospital Manchester, for reporting the first case of 2024 and **Sophie Betts**, Milton Keynes University Hospital, for being the first to return pyelonephritis data queries.

Your edible goodies will be in the post very soon!



Watch this space - EPPROM (Early Preterm Prelabour Rupture of Membranes) paper coming soon!



### Case Report Summary for Studies up until the end of November 2023

Study	Actual number of reported cases	Data collection forms returned	Number of forms returned that were found to be not cases / reported in error	Data Collection forms returned that are confirmed cases	Expected Number of Confirmed Cases
Amniotic Fluid Embolism	398	370	70	300	227
Biologic Agents in Pregnancy	320	248	112	136	501
Longterm non-invasive ventilation in pregnancy	27	18	1	17	38
Pregnancy in Women with Known Cardiomyopathy	335	278	73	205	515
Severe Pyelonephritis in pregnancy	137	119	32	87	751
Severe Respiratory Virus – RECOVERY trial	22	22	21	1	88
Thrombotic Microangiopathy Associated Pregnancy Acute Kidney Injury	32	25	12	13	399

## The UKOSS Team would like to wish you all a very Happy New Year!

There are already a number of new UKOSS studies planned for 2024, the first of which will be **transabdominal cerclage**. Details of all new studies will be announced on our website and we will of course email all reporters with the protocols and case definitions.

UKOSS continues to welcome study applications from all clinical and research staff. If you or your colleagues would like to approach UKOSS with new study ideas or have any questions at all regarding the study application process, then please do not hesitate to get in touch via [ukoss@npeu.ox.ac.uk](mailto:ukoss@npeu.ox.ac.uk).

## Meet Sarah Milosevic who recently joined the UKOSS Steering Committee as a PPI member



Sarah Milosevic lives in mid-Wales and has a 2-year-old son. She has an interest in evidence-based patient information, informed consent and maternity research - particularly under-researched areas. Since becoming a parent she has been involved in several advisory groups related to maternity, genetics and women's health. She is currently a member of the Royal College of Obstetricians and Gynaecologists Women's Network and Scientific Advisory Committee, an advisory group member for the NIHR-funded Obstetric Bleeding Study (OBS-UK) and sits on the Genomics Partnership Wales Sounding Board. She works part-time as a qualitative health researcher at Cardiff University's Centre for Trials Research.

As a new member of the UKOSS Steering Committee, Sarah is looking forward to learning about a diverse range of research studies and having the opportunity to work collaboratively with clinicians and researchers from across the UK.

## 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](mailto:ukoss@npeu.ox.ac.uk) and we will get one posted out to you.

