South-East Asia Network for Newborn & Birth Defects

Monthly E-blast

WHO Collaborating Centre for Training and Research in Newborn Care
Collaborating Centre for Training in Clinical Laboratory Genetics in Developing Countries Department of Pediatrics
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Media centre

Roadmap to improve and ensure good indoor ventilation in the context of COVID-19

Understanding and controlling building ventilation can improve the quality of the air we breathe and reduce the risk of indoor health concerns including prevent the virus that causes COVID-19 from spreading indoors.

This roadmap aims to define the key questions users should consider to assess indoor ventilation and the major steps needed to reach recommended ventilation levels or simply improve indoor air quality (IAQ) in order to reduce the risk of spread of COVID-19..

Read full information

Birth Defects

Characterization of Risk Factors for Neural Tube Defects: A Case-Control Study in Bogota and Cali, Colombia, 2001-2018

Alexander Salazar-Reviakina, Manuela Sierra-Bretón, Jose Rumbo, Ithzayana Madariaga, Catherin Tovar, Mateo Uribe, Carolina Sequera, Catherin Rodríguez, Jorge Holguín, Karen Sarmiento, Paula Hurtado-Villa, Ignacio Zarante

PubMed: January 2021

Abstract

Worldwide prevalence of neural tube defects is between 1.2 and 124.1 per 10 000 live births. This study analyzes risk factors linked with neural tube defects. The study focused on the Surveillance and Monitoring Programs of Congenital Anomalies databases in Bogota and Cali. Births were monitored between 2001 and 2018. Liveborn or stillborn with neural tube defects were defined as cases, using a case-control ratio of 1:4. Paternal age, folic acid supplementation, birth weight, urban or rural origin, maternal and paternal studies, and socioeconomic levels were analyzed. Across the 215 730 births monitored, 147 cases with a rate of 6.82/10 000 live births were found (6.79-6.85). In isolated cases, lower birth weight had a P <.01. Paternal age >45 years showed an odds ratio (OR) of 4.24 (1.54-11.65), socioeconomic status 1 and 2, OR of 2.49 (1.63-3.82), maternal primary schooling or lower OR 2.61 (1.28-5.31), and housing in urban areas OR 2.4 (1.4-4.09).

Long-term core outcomes of patients with simple gastroschisis

Felix De Bie, Vishal Swaminathan, Gabrielle Johnson, Stylianos Monos, N. Scott Adzick, Pablo Laje.

Science Direct: September 2020

Abstract

PURPOSE

To report the long-term core outcome set of patients with simple gastroschisis.

METHODS

This was a retrospective chart review of all patients with simple gastroschisis managed at our hospital between August 2008 and July 2016. We collected all data included in the core outcome set developed for the standardization of gastroschisis outcomes reporting. We conducted a phone survey of the patients' parents using the PedsQL™ Pediatric Quality of Life Inventory, Cognitive Functioning Scale, and Gastrointestinal Symptoms Scale (GSS). Additionally, parents reported their subjective evaluation of the patients' cosmetic result and overall quality of life.

RESULTS

There were 124 patients included in the study. The majority (76.5%) was born prematurely at a median gestational age of 36 (range 27.6–38) weeks. At neonatal discharge (median 36 days [18–150] days) most patients were below the 10th percentile for height (81.4%) and weight (87%). Their growth, however, normalized during early childhood. Seven patients (5.6%) required at some point an operation for acute abdominal complications. One-third of patients required long-term treatment for constipation and one-third of patients required long-term treatment for gastroesophageal reflux

disease (GERD). Thirty-five parents participated in the phone survey. Mean parent-reported quality of life score was better than healthy controls (87.5% vs. 82.3%, p = 0.049). Cognitive functions and gastrointestinal symptoms scores were similar to healthy controls. All patients are alive.

CONCLUSION

Growth restriction in patients with simple gastroschisis is common at birth and during the neonatal period, but it improves during the first three years of life. Abdominal operations are rarely needed in patients with simple gastroschisis. GERD and constipation, on the other hand, are common and often require long-term medical management. The overall parent-reported quality of life of patients with simple gastroschisis is excellent.

Stillbirth

Stillbirth maternity care measurement and associated factors in population-based surveys: EN-INDEPTH study

R Lydia Di Stefano, Matteo Bottecchia, Judith Yargawa, Joseph Akuze, M. Moinuddin Haider, Edward Galiwango, Francis Dzabeng, Ane B. Fisker, Bisrat Misganaw Geremew, Simon Cousens, Joy E. Lawn, Hannah Blencowe, Peter Waiswa & and the Every Newborn-INDEPTH Study Collaborative Group

BMC: February 2021

Abstract

BACKGROUND

Household surveys remain important sources of maternal and child health data, but until now, standard surveys such as Demographic and Health Surveys (DHS) have not collected information on maternity care for women who have experienced a stillbirth. Thus, nationally representative data are lacking to inform programmes to address the millions of stillbirths which occur annually.

METHODS

The EN-INDEPTH population-based survey of women of reproductive age was undertaken in five Health and Demographic Surveillance System sites in Bangladesh, Ethiopia, Ghana, Guinea-Bissau and Uganda (2017–2018). All women answered a full birth history with additional questions on pregnancy losses (FBH+) or full pregnancy history (FPH). A sub-sample, including all women reporting a recent stillbirth or neonatal death, was asked additional maternity care questions. These were evaluated using descriptive measures. Associations between stillbirth and maternal socio-demographic characteristics, babies' characteristics and maternity care use were assessed using a weighted logistic regression model for women in the FBH+ group.

RESULTS

A total of 15,591 women reporting a birth since 1 January 2012 answered maternity care questions. Completeness was very high (> 99%), with similar proportions of responses for both live and stillbirths. Amongst the 14,991 births in the FBH+ group, poorer wealth status, higher parity, large perceived baby size-at-birth, preterm or post-term birth, birth in a government hospital compared to other locations and vaginal birth were associated with increased risk of stillbirth after adjusting for potential confounding factors. Regarding association with reported postnatal care, women with a stillbirth were more likely to report hospital stays of > 1 day. However, women with a stillbirth were less likely to report having received a postnatal check compared to those with a live birth.

CONCLUSIONS

Women who had experienced stillbirth were able to respond to questions about pregnancy and birth, and we found no reason to omit questions to these women in household surveys. Our analysis identified several potentially modifiable factors associated with stillbirth, adding to the evidence-base for policy and action in low- and middle-income contexts. Including these questions in DHS-8 would lead to increased availability of population-level data to inform action to end preventable stillbirths.

Counting stillbirths and COVID 19—there has never been a more urgent time

Caroline S E Homer, Susannah Hopkins Leisher, Neelam Aggarwal, Joseph Akuze, Delly Babona, Hannah Blencowe, John Bolgna, Richard Chawana, Aliki Christou, Miranda Davies-Tuck, Rakhi Dandona, Sanne Gordijn, Adrienne Gordon, Rafat Jan, Fleurisca Korteweg, Salome Maswime, Margaret M Murphy, Paula Quigley, Claire Storey, Lisa M Vallely, Peter Waiswa, Clare Whitehead, Jennifer Zeitlin, Vicki Flenady

The Lancet: January 2021

Abstract

We welcome the global stillbirth estimates published by UNICEF and WHO in October, 2020. These data indicate that there are at least 1·9 million stillbirths globally each year. The heavy public health burden of stillbirth has long remained invisible, despite more than a decade of sustained effort to raise it on the global health agenda. Ironically, even the recent BMJ collection, highlighting the UN guiding principle “Leave no one behind”, omitted any mention of the 26 million women and families who will experience a stillbirth by 2030. As the first stillbirth estimates to be generated by the UN Inter-Agency Group for Child Mortality Estimation, these data signal a long overdue shift towards global attention on stillbirth prevention.

The new stillbirth report comes at a crucial point in time as we live through the most significant pandemic in over a century. COVID-19 will have a considerable impact on maternal and newborn health globally, directly and indirectly affecting the lives of millions of women and families. The report draws attention to the existing global inequalities, which are likely to be exacerbated by the global pandemic, potentially further increasing the risk of stillbirth.

Read full text

Newborn

Effect of Excessive Body Weight and Emotional Disorders on the Course of Pregnancy and Well-Being of a Newborn before and during COVID-19 Pandemic

Artur Wdowiak, Marta Makara-Studzińska, Dorota Raczkiewicz, Paula Janczyk, Aneta Słabuszewska-Jóźwiak, Anita Wdowiak-Filip and Noemi StudzińskaBMJ: September 2020

Abstract

This study aimed to evaluate whether excessive body weight and the COVID-19 pandemic affect depression, and subsequently whether depression, excessive body weight, and the COVID-19 pandemic affect the course of pregnancy, as well as the well-being of a newborn. The research material included data retrieved from the medical records of 280 pregnant women who were provided with care by medical facilities in Lublin (100 women with normal weight, 100 overweight women, 50 with Class I and 30 with Class II obesity). They completed a Beck depression inventory (BDI) in pregnancy twice, in order to assess the risk of occurrence of postpartum depression. Pre-pregnancy BMI positively correlated with the severity of depression, both at 10–13 weeks of pregnancy ($p < 0.001$), and at 32 weeks of pregnancy ($p < 0.001$). The higher the pre-pregnancy BMI,

on average the higher the severity of depression. The severity of depression was significantly higher during the pandemic than before it in women with normal body weight before pregnancy ($p < 0.001$), as well as in those overweight ($p < 0.001$) and with Class II obesity ($p = 0.015$). Excessive body weight before pregnancy leads to depressive disorders during pregnancy, increases the risk of preterm delivery, and exerts a negative effect on the state of a newborn. Depressive symptoms among pregnant, overweight and obese women intensified during the COVID-19 pandemic.

SARS-CoV-2 transmission risk through expressed breast milk feeding in newborn infants born to COVID 19 positive mothers: A prospective observational study

Akash Pandey, Alka Shukla, Purushottam Lal

ResearchGate: October 2020

Abstract

INTRODUCTION

Prevention of mother to child transmission of SARS-CoV-2 infection has become most remarkable issue of concern in post-partum wards and neonatal units. With little prior experience of this novel infection, literature has contradictory statements regarding breast feeding of newborn infants born to mothers with COVID-19.

AIMS

To assess the risk of SARS-CoV- 2 transmission in newborn infants who were fed expressed breast milk of COVID 19 positive mothers.

MATERIAL AND METHODS

This prospective study included 16 newborn infants born to COVID 19 positive mothers. Newborn infants were nursed in neonatal unit separate from mother. Expressed breast milk was fed by healthy care givers ensuring proper safety measures. Nasal and throat swabs of newborn infants were tested twice for SARS CoV-2, first, at 48 hours of life and second, before discharge.

RESULTS

Pneumonia was present in 3 (20%) mothers. C- reactive protein was raised in 9 (60 %) mothers. Birth weight was low in 8 (50%) newborn infants. Respiratory distress syndrome and Meconium aspiration syndrome were present in 2 and 1 newborn infant, respectively. Nasal and throat swabs of all sixteen newborns tested negative for SARS-CoV- 2 infection twice, at 48 hours of life and before discharge

CONCLUSION

Expressed breast milk feeding can be considered safe in newborn infants born to COVID 19 positive mothers. Even sick mothers with COVID-19 can continue to express breast milk after ensuring proper safety measures.

Quality Improvement

Quality Improvement Amid a Global Pandemic: A Virtual Curriculum for Medical Students in the Time of COVID-19

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MedEd: February 2021

Abstract

INTRODUCTION

The COVID-19 pandemic in March of 2020 necessitated the removal of medical students from direct patient care activities to prevent disease spread and to conserve personal protective equipment. In order for medical student education to continue, virtual and online electives were designed and implemented expeditiously. We created a virtual curriculum that taught quality improvement (QI) skills within the context of the global pandemic.

METHODS

This 4-week curriculum enrolled 16 students. Students completed the revised QI knowledge application tool (QIKAT-R) before and after the course to assess QI knowledge. Students completed prereading, online modules, and received lectures on QI and incident command systems. Each group designed their own QI project related to our hospital system's response to the pandemic. Finally, groups presented their projects at a peer symposium and completed peer evaluations.

RESULTS

Students' QIKAT-R scores improved throughout the course from a mean of 5.5 (SD = 1.3) to a mean of 7.5 (SD = 1.1; $p < 0.001$). Students reported that the virtual learning experience delivered the material effectively, and all students agreed that they would participate in QI work in the future.

DISCUSSION

Patient safety and QI topics are content areas for multiple medical licensing examinations. Virtual learning is an effective way to deliver QI content to medical students and residents, especially when projects are trainee-led, QI-trained faculty serve as mentors, and the projects harmonize with institutional goals. Our virtual pandemic-focused curriculum has demonstrated efficacy in increasing medical student QI knowledge.

Experiences and attitudes of midwives during the birth of a pregnant woman with COVID-19 infection: a qualitative study

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Science Direct: December 2020

Abstract

BACKGROUND

The COVID-19 pandemic has become one of the most important threats to global health. Midwives are at the core of the response to the pandemic. Women still need midwifery support and care. The work of midwives is acknowledged as emotionally demanding, and their welfare may be compromised by a range of workplace and personal stress factors.

AIM

To investigate the experiences and attitudes of midwives who have provided pregnancy and childbirth care to women with a confirmed or suspected COVID-19 infection.

METHODS

A qualitative phenomenological study was carried out in two Spanish tertiary hospitals. Fourteen midwives were recruited by purposive sampling technique. Data were collected through individual in-depth interviews and analysed using Giorgi's descriptive method.

FINDINGS

Three themes emerged: "challenges and differences when working in a pandemic", "emotional and mental health and wellbeing" and "women's emotional impact perceived by midwives". Midwives pointed to several factors tied to a safe, supportive and empowering work place: support from staff and managers, access to adequate personal protective equipment, and reliable guidelines. They also dealt with professional and personal challenges during the pandemic, showing feelings of fear, anxiety, uncertainty, discomfort, lack of support, and knowledge. Finally, midwives expressed their concerns about the feelings of pregnant women with COVID-19, such as fear, anxiety, and loneliness.

CONCLUSION

The results of this study show some of the challenges for midwives during the course of the COVID-19 pandemic, emphasizing the value of a good communication, emotional support, and stress management, to provide woman-centred care.

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