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**Media centre**

Standards for improving quality of maternal and newborn care in health facilities

The Sustainable Development Goals have set ambitious health-related targets for mothers, newborns, children under the umbrella of Universal Health Coverage by 2030. Addressing quality of care will be fundamental in reducing maternal and newborn mortality and achieving the health-related SDG targets. For mothers and newborns, the period around childbirth is the most critical for saving the maximum number of lives and preventing stillbirths. In this context, WHO has elaborated a global vision where ‘every pregnant woman and newborn receives quality care throughout pregnancy, childbirth and the postnatal period’ under the umbrella of Universal Health Coverage and quality.’ This vision is in alignment with two complementary global action agendas conceptualised by WHO and partners, namely Strategies toward Ending Preventable Maternal Mortality (EPMM)’ and the ‘Every Newborn Action Plan (ENAP)’

More information
Birth Defects

**Congenital unilateral renal agenesis: Prevalence, prenatal diagnosis, associated anomalies. Data from two birth-defect registries.**


Laurichesse Delmas H, Kohler M, Doray B, Lémery D, Francannet C, Quistrebert J, Marie C, Perthis I

Abstract

**BACKGROUND:**
The different mechanisms leading to a solitary kidney should be differentiated because the long-term outcome might be different. The fetal period is the best moment to make a true diagnosis of congenital unilateral renal agenesis (URA). The objective was to determine the prevalence of URA at birth. The secondary objectives were to describe the evolution of sensitivity of prenatal diagnosis over time and the different forms of URA (isolated and associated with other malformations) detected up to 1 year.

**METHODS:**
The cases were retrospectively identified through two French population-based birth defect registries (Auvergne and Bas-Rhin) between 1995 and 2013. Stillbirths and fetuses up to 22 weeks of gestation and infants up to 1 year old with URA were included.

**RESULTS:**
A total of 177 cases of URA were registered. The prevalence at birth was 4.0/10,000. The overall prenatal prevalence was 3.6/10,000 (isolated URA: 2.8/10,000). URA were isolated (59.9%), associated with isolated contralateral congenital anomaly of kidney or urinary tract (CAKUT) (7.3%) and with other extra-renal anomalies (32.8%). The total proportion of contralateral CAKUT was 15%. Only three cases presented an aneuploidy, prenatally detected and conducting to a termination of pregnancy. The sensitivity of prenatal diagnosis improved over time (from 54.2% in 1995 to 1997 to 95.8% in 2010 to 2013; p = 0.002).

**CONCLUSION:**
Our study provides estimates of prevalence of URA at birth. A longitudinal cohort from the antenatal period to puberty should be performed to determine the prognosis of the contralateral kidney among these children with isolated, associated with contralateral CAKUT and URA with extra-renal anomalies.

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**Idiopathic congenital talipes equino varus; not always an isolated anomaly. A review of long-term outcomes.**


Stone P, Martis W, Crawford H.

Abstract

**OBJECTIVE:**
To describe the long-term outcomes of children at school age who were thought to have isolated idiopathic congenital talipes equino varus (ICTEV) at birth

**METHODS:**
A retrospective review of all children attending a regional talipes clinic who had achieved school age.

**RESULTS:**
One hundred sixty-three children were followed up. ICTEV was more common in Maori and other Polynesian children and in males. Additional abnormalities were apparent in 30.1% overall, but higher in New Zealand Europeans (43%) than Maori (21%) or other Polynesians (22%). Of the abnormalities, 41% were associated with the central nervous system or with neurodevelopmental delay. Conventional G-band karyotyping, where performed, was not informative.
CONCLUSIONS:
The rate of additional abnormalities was higher than previous reports. This has implications for prenatal counseling and postnatal follow-up as a prenatal diagnosis of ICTEV may subsequently be found to have longer term implications in addition to orthopedic treatments of the clubfeet.

Newborn Health

Prophylactic Early Erythropoietin for Neuroprotection in Preterm Infants: A Meta-analysis

May 2017, VOLUME 139 / ISSUE 5

Hendrik S. Fischer, Nora J. Reibel, Christoph Bührer, Christof Dame

Abstract:

CONTEXT:
Recombinant human erythropoietin (rhEPO) is a promising pharmacological agent for neuroprotection in neonates.

OBJECTIVE:
To investigate whether prophylactic rhEPO administration in very preterm infants improves neurodevelopmental outcomes in a meta-analysis of randomized controlled trials (RCTs).

DATA SOURCES:
Medline, Embase, and the Cochrane Central Register of Controlled Trials were searched in December 2016 and complemented by other sources.

STUDY SELECTION:
RCTs investigating the use of rhEPO in preterm infants versus a control group were selected if they were published in a peer-reviewed journal and reported neurodevelopmental outcomes at 18 to 24 months’ corrected age.

DATA EXTRACTION:
Data extraction and analysis followed the standard methods of the Cochrane Neonatal Review Group. The primary outcome was the number of infants with a Mental Developmental Index (MDI) less than 70 on the Bayley Scales of Infant Development. Secondary outcomes included a Psychomotor Development Index less than 70, cerebral palsy, visual impairment, and hearing impairment.

RESULTS:
Four RCTs, comprising 1133 infants, were included in the meta-analysis. Prophylactic rhEPO administration reduced the incidence of children with an MDI less than 70, with an odds ratio (95% confidence interval) of 0.51 (0.31–0.81), P less than .005. The number needed to treat was 14. There was no statistically significant effect on any secondary outcome.

CONCLUSIONS:
Prophylactic rhEPO improved the cognitive development of very preterm infants, as assessed by the MDI at a corrected age of 18 to 24 months, without affecting other neurodevelopmental outcomes. Current and future RCTs should investigate optimal dosing and timing of prophylactic rhEPO and plan for long-term neurodevelopmental follow-up.

Strategies to reduce infections and antibiotic use and its effects in a neonatal care unit


Urzúa S, Ferrés M, García P, Sánchez A, Luco M.
Abstract

INTRODUCTION:
Late onset sepsis (LOS) remains an important cause of morbidity and mortality in neonatal intensive care units (NICU). The empirical use of vancomycin and other broad spectrum antibiotics is very frequent and is associated with the emergence of resistant agents, infection by gram-negative bacilli (GNB), fungal infections and increased morbidity and mortality.

OBJECTIVE:
To evaluate the impact of 5 intervention protocols designed to reduce infections and promote the rational use of antibiotics (AB) in a single NICU.

PATIENTS AND METHOD:
Retrospective analysis included all hospitalized patients before (year 2012) and after interventions (August 2013 through July 2014). All episodes of positive cultures (blood, urine, tracheal and spinal fluid) were considered as late onset infections.

RESULTS:
After intervention, a significant decrease of late onset infections was observed from 14.3 to 8.5 per 1,000 live births (p less than 0.01); with a decrease in LOS from 5.7 to 2.9 per 1,000 live births, although no significant. There was a decrease in vancomycin and 3rd generation cephalosporin use without Candida spp infections in the intervention period. Mortality rates and length of hospital stay were similar in both study periods.

CONCLUSION:
After interventions, there was an important reduction in overall late onset infections and AB related costs.

Quality Improvement

Quality care during labour and birth: a multi-country analysis of health system bottlenecks and potential solutions
Includes Bangladesh, India & Nepal

BMC Pregnancy and Childbirth
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Gaurav Sharma Email author, Matthews Mathai Email author, Kim E Dickson, Andrew Weeks, G Justus Hofmeyr, Tina Lavender, Louise Tina Day, Jiji Elizabeth Mathews, Sue Fawcus, Aline Simen-Kapeu and Luc de Bernis

Abstract

BACKGROUND:
Good outcomes during pregnancy and childbirth are related to availability, utilisation and effective implementation of essential interventions for labour and childbirth. The majority of the estimated 289,000 maternal deaths, 2.8 million neonatal deaths and 2.6 million stillbirths every year could be prevented by improving access to and scaling up quality care during labour and birth.

METHODS:
The bottleneck analysis tool was applied in 12 countries in Africa and Asia as part of the Every Newborn Action Plan process. Country workshops engaged technical experts to complete the survey tool, which is designed to synthesise and grade health system "bottlenecks", factors that hinder the scale up, of maternal-newborn intervention packages. We used quantitative and qualitative methods to analyse the bottleneck data, combined with literature review, to present priority bottlenecks and actions relevant to different health system building blocks for skilled birth attendance and basic and comprehensive emergency obstetric care.

RESULTS:
Across 12 countries the most critical bottlenecks identified by workshop participants for skilled birth attendance were health financing (10 out of 12 countries) and health workforce (9 out of 12 countries). Health service delivery bottlenecks were found to be the most critical for both basic and comprehensive emergency obstetric care (9 out of 12 countries); health financing was identified as having critical
bottlenecks for comprehensive emergency obstetric care (9 out of 12 countries). Solutions to address health financing bottlenecks included strengthening national financing mechanisms and removing financial barriers to care seeking. For addressing health workforce bottlenecks, improved human resource planning is needed, including task shifting and improving training quality. For health service delivery, proposed solutions included improving quality of care and establishing public private partnerships.

CONCLUSION:
Progress towards the 2030 targets for ending preventable maternal and newborn deaths is dependent on improving quality of care during birth and the immediate postnatal period. Strengthening national health systems to improve maternal and newborn health, as a cornerstone of universal health coverage, will only be possible by addressing specific health system bottlenecks during labour and birth, including those within health workforce, health financing and health service delivery..

A Quality Improvement Project to Increase Breast Milk Use in Very Low Birth Weight Infants

Pediatrics, December 2012, VOLUME 130 / ISSUE 6


Abstract
OBJECTIVE:
To evaluate a multihospital collaborative designed to increase breast milk feeding in premature infants

METHODS:
Eleven NICUs in the California Perinatal Quality of Care Collaborative participated in an Institute for Healthcare Improvement–style collaborative to increase NICU breast milk feeding rates. Multiple interventions were recommended with participating sites implementing a self-selected combination of these interventions. Breast milk feeding rates were compared between baseline (October 2008–September 2009), implementation (October 2009–September 2010), and sustainability periods (October 2010–March 2011). Secondary outcome measures included necrotizing enterocolitis (NEC) rates and lengths of stay. California Perinatal Quality of Care Collaborative hospitals not participating in the project served as a control population.

RESULTS:
The breast milk feeding rate in the intervention sites improved from baseline (54.6%) to intervention period (61.7%; \( P = .005 \)) with sustained improvement over 6 months postintervention (64.0%; \( P = .003 \)). NEC rates decreased from baseline (7.0%) to intervention period (4.3%; \( P = .022 \)) to sustainability period (2.4%; \( P \) less than .0001). Length of stay increased during the intervention but returned to baseline levels in the sustainability period. Control hospitals had higher rates of breast milk feeding at baseline (64.2% control vs 54.6% participants, \( P \) less than .0001), but over the course of the implementation (65.7% vs 61.7%, \( P = .049 \)) and sustainability periods (67.7% vs 64.0%, \( P = .199 \)), participants improved to similar rates as the control group.

CONCLUSION:
Implementation of a breast milk/nutrition change package by an 11-site collaborative resulted in an increase in breast milk feeding and decrease in NEC that was sustained over an 18-month period.

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