This Month's Headlines

Newborn
- Safe lists for medications in pregnancy: inadequate evidence base and inconsistent guidance from Web-based information (2011)

Birth Defects
- Screening for critical congenital heart disease: advancing detection in the newborn (June 2012)
- Reproductive Technologies and the Risk of Birth Defects (May 2012)

Newborn

Peters SL, Lind JN, Humphrey JR, Friedman JM, Honein MA, Tassinari MS, Moore CA, Mathis LL, Broussard CS. Rollins School of Public Health, Emory University, Atlanta, GA, USA.

Abstract
Purpose:
Medication use during pregnancy is common and increasing. Women are also increasingly getting healthcare information from sources other than their physicians.

Methods:
This report summarizes an environmental scan that identified 25 active Internet sites that list medications reported to be safe for use in pregnancy and highlights the inadequate evidence base and inconsistent guidance provided by these sites.

Results:
These lists included 245 different products, of which 103 unique components had been previously evaluated in terms of fetal risk by the Teratogen Information System (TERIS), a resource that assesses risk of birth defects after exposure under usual conditions by consensus of clinical teratology experts. For 43 (42%) of the 103 components that were listed as 'safe' on one or more of the Internet sites surveyed, the TERIS experts were unable to determine the fetal risk based on published scientific literature. For 40 (93%) of these 43, either no data were available to assess human fetal risk or the available data were limited.

**Conclusions:**
Women who see a medication on one of these 'safe' lists would be led to believe that there is no increased risk of birth defects resulting from exposure. Thus, women are being reassured that fetal exposure to these medications is safe even though a sufficient evidence base to determine the relative safety or risk does not exist.


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**Abstract**
Obesity is a major public health and economic concern. Worldwide, an estimated 1.6 billion adults (aged 15 years and older) were overweight (body mass index [BMI] 25–30, calculated as weight in kilograms divided by height in meters squared), and 400 million were obese (BMI > 30) in 2005. By 2015, it is expected there will be 2.3 billion overweight and more than 700 million obese adults worldwide. In the United States, a third of women aged 15 years and older were obese in 2004. There are significant health implications of prepregnancy maternal obesity for both mother and child. For the mother, these may include gestational diabetes, hypertensive disorders, thromboembolic disorders, increased cesarean delivery rates, and wound infection. Infants of obese mothers are at increased risk of birth difficulties, macrosomia, and perinatal death. Maternal obesity may also be associated with the development of congenital anomalies. Congenital anomalies are a leading cause of stillbirth and infant mortality, accounting for 1 in 5 infant deaths in the United States, and are important contributors to preterm birth and childhood morbidity. We conducted a systematic review and meta-analysis of observational studies to assess and quantify the relationship between maternal overweight and obesity and the risk of congenital anomaly in the offspring.


**Birth Defects**

**Screening for critical congenital heart disease: advancing detection in the newborn (June 2012)**
Bradshaw EA, Martin GR - Children's National Medical Center, George Washington University School of Medicine, Washington, District of Columbia 20010, USA.

**Abstract**

**PURPOSE OF REVIEW:**
Screening for critical congenital heart disease (CCHD) using pulse oximetry was added to the recommended uniform screening panel through an endorsement by the Health and Human Services Secretary in September 2011. As organizations on both the macrolevels and microlevels consider implementation, research efforts and professional endorsements have been completed, providing important guidance moving forward.

**RECENT FINDINGS:**
Screening for CCHD has been endorsed by the American Heart Association, American College of Cardiology, March of Dimes and American Academy of Pediatrics. In addition, strategies for best practice regarding implementation and a screening protocol for well babies are now available. Screening for CCHD as a complement to existing mechanisms has been added without need for additional staff, associated with improved detection, and shown to be cost effective with an incremental cost-effectiveness ratio of £24000. Hospitals in Wisconsin assessed their readiness and reported that all had pulse oximetry equipment onsite and 74.4% had access to same-day
neonatal echocardiography. Infants in neonatal care units need further consideration, as there were reports of CCHD missed.

**SUMMARY:**
CCHD screening is easily implemented in community hospitals, and is cost effective, and some states may be better prepared for implementation than previously hypothesized.


**Reproductive Technologies and the Risk of Birth Defects (May 2012)**


**Abstract**

**BACKGROUND:**
The extent to which birth defects after infertility treatment may be explained by underlying parental factors is uncertain.

Full Text of Background...

**METHODS:**
We linked a census of treatment with assisted reproductive technology in South Australia to a registry of births and terminations with a gestation period of at least 20 weeks or a birth weight of at least 400 g and registries of birth defects (including cerebral palsy and terminations for defects at any gestational period). We compared risks of birth defects (diagnosed before a child's fifth birthday) among pregnancies in women who received treatment with assisted reproductive technology, spontaneous pregnancies (i.e., without assisted conception) in women who had a previous birth with assisted conception, pregnancies in women with a record of infertility but no treatment with assisted reproductive technology, and pregnancies in women with no record of infertility.

Full Text of Methods...

**RESULTS:**
Of the 308,974 births, 6163 resulted from assisted conception. The unadjusted odds ratio for any birth defect in pregnancies involving assisted conception (513 defects, 8.3%) as compared with pregnancies not involving assisted conception (17,546 defects, 5.8%) was 1.47 (95% confidence interval [CI], 1.33 to 1.62); the multivariate-adjusted odds ratio was 1.28 (95% CI, 1.16 to 1.41). The corresponding odds ratios with in vitro fertilization (IVF) (165 birth defects, 7.2%) were 1.26 (95% CI, 1.07 to 1.48) and 1.07 (95% CI, 0.90 to 1.26), and the odds ratios with intracytoplasmic sperm injection (ICSI) (139 defects, 9.9%) were 1.77 (95% CI, 1.47 to 2.12) and 1.57 (95% CI, 1.30 to 1.90). A history of infertility, either with or without assisted conception, was also significantly associated with birth defects. Full Text of Results...

**CONCLUSIONS:**
The increased risk of birth defects associated with IVF was no longer significant after adjustment for parental factors. The risk of birth defects associated with ICSI remained increased after multivariate adjustment, although the possibility of residual confounding cannot be excluded. (Funded by the National Health and Medical Research Council and the Australian Research Council.)


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