



**Inequalities in Infant Mortality Project Evidence Map Report 1**

# **The effectiveness of interventions targeting infant mortality: a user's guide to the systematic review evidence**

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# Overview of the evidence map

This document provides a systematic description of the published systematic reviews assessing primary research on the effectiveness of interventions to reduce:

- infant mortality

and its three major causes:

- preterm birth
- major congenital anomalies
- sudden infant death syndrome/sudden unexpected deaths in infancy (SIDS/SUDI)

It can be used to rapidly identify the relevant systematic review evidence:

- Results are grouped by intervention and recipient and further sub-classified by intervention type and/or the condition or outcome targeted by the intervention
- Results tables provide hyperlinks to full-text Cochrane reviews or Pubmed abstracts

Because the evidence map has been constructed systematically, it can also be used to identify interventions for which no systematic reviews have been published that report the infant mortality outcomes considered here.

The Inequalities in Infant Mortality Project Evidence Map is made up of four reports and an online searchable database that can be accessed online via a link at:  
<http://www.npeu.ox.ac.uk/infant-mortality>.

## What is an Evidence Map?

- A comprehensive and systematic description of the existing literature on a particular topic.
- Provides an overview of research on a given topic; also highlights gaps in the available literature.
- It does not involve quality appraisal and synthesis of results as undertaken in a systematic review.

## What does the Evidence Map include?

- 331 systematic reviews specifically assessing the effectiveness of interventions to reduce infant mortality, preterm birth, major congenital anomalies and SIDS/SUDI.
- Includes all relevant systematic reviews published in the scientific literature in English, from 1990 to the end of 2008, with Cochrane reviews included from 1990 to early 2009.

## How did we find the information?

- Extensive systematic literature searches of relevant databases (Medline, Embase, Cinahl and The Cochrane Library).
- Full details of the methodology can be found in the 'Technical Guide to the infant mortality evidence map: systematic reviews of interventions targeting infant mortality' available online at: <http://www.npeu.ox.ac.uk/infant-mortality>.

## What did we find?

- 331 systematic reviews.
- The majority were Cochrane reviews (n=227).
- Around half of the reviews related to interventions targeting the neonate or infant; and around half related to interventions targeting pregnant women; a small number of reviews related to interventions targeting other groups (healthcare workers, peri-conceptional women, the fetus , family members).

- The majority of reviews relating to interventions targeting the neonate/infant focused on the treatment of preterm and low birth weight babies in a hospital setting.
- Reviews looking at interventions in pregnant women predominantly related to the prevention of preterm birth.
- None of the reviews related to interventions targeting SIDS/SUDI.

## 1 Structure of the evidence map

The evidence map includes 331 systematic reviews evaluating a wide range of interventions.

- Results are presented under the following broad headings:
- Interventions delivered in the pre- and peri-conceptional period (Section 2)
- Interventions delivered during pregnancy (including interventions directly targeting the fetus and interventions delivered antenatally to improve neonatal outcome) (Section 3)
- Interventions involving the treatment and management of neonates and infants (Section 4)

Within each of these broad headings, results are further grouped by type of intervention, condition (treated or prevented) and/or target recipient eg preterm babies. However, there is no accepted typology of interventions so this framework is provided as a guide to users rather than as a definitive classification.

Some reviews covering a range of interventions or outcomes are listed in multiple sections but in most cases reviews are listed in only one section, based on the reviewer's assessment of their primary focus. Table footnotes are provided to point the user to relevant reviews listed in other sections but users interested in a particular intervention, condition or outcome are encouraged to search the full online database for relevant reviews rather than relying on the presentation in these tables. The online database (available at: <http://www.npeu.ox.ac.uk/infant-mortality>) provides additional searchable information about the reviews, eg which of the four eligible outcomes (infant mortality, preterm birth, major congenital anomalies, SIDS/SUDI) was evaluated in the published review, and whether the intervention targets a specific high risk maternal/infant group.

All tables in this user's guide contain hyperlinks to the full-text Cochrane review, to the abstract in Pubmed (where available) or to some other web link to the article.

## 2 Interventions delivered in the pre- and periconceptional period

There were six systematic reviews of interventions carried out in the periconceptional period. These related to:

- Interventions targeting pre- and periconceptional women (Table 1)
- In vitro fertilization (IVF) (Table 2)

## 3 Interventions targeting pregnant women

The included reviews evaluated a range of interventions and strategies aimed at improving pregnancy outcomes and the health of the infant, the majority of which focused on interventions for the prevention and management of preterm birth.

Results are presented under two main headings:

- interventions for the prevention and management of preterm birth (section 3.1), and
- other interventions targeting pregnant women (section 3.2). Within these sections, included reviews are further grouped under a number of sub-headings.

### **3.1 Interventions for the prevention and management of preterm birth**

The main strategies evaluated for the prevention and management of preterm birth fell under the following three headings:

- Prevention and treatment of infections during pregnancy (Table 3)
  - Treatment of urogenital tract infections prior to the onset of labour/rupture of membranes to prevent preterm birth
  - Prevention and treatment of infections in preterm rupture of membranes
- Other interventions for the prevention and management of preterm labour:
  - Interventions aimed at the early identification of preterm labour (Table 4)
  - Progesterone administration (Table 5)
  - Cervical cerclage (Table 6)
  - Tocolytic drugs (Table 7)
- Prenatal administration of corticosteroids and other drugs to improve neonatal outcome in preterm labour (Table 8)

Reviews evaluating other miscellaneous interventions for the prevention of preterm birth are listed in Table 9.

Reviews evaluating the prevention and management of preeclampsia and hypertension (which may lead to preterm delivery) are considered in section 3.2 below.

### **3.2 Other interventions targeting pregnant women**

Other strategies to improve pregnancy outcome and the health of the infant included:

- Prevention and management of preeclampsia and hypertension (Table 10)
- Other miscellaneous interventions aimed at optimizing pregnancy outcome and the health of the infant (Table 11). Reviews covered the following
  - Strategies to optimize prenatal care including home visiting and other psychosocial interventions/support during pregnancy
  - Nutritional supplementation and other dietary interventions
  - Management of diabetes
  - Prenatal screening/monitoring of high risk pregnancies
    - Ultrasound/other fetal monitoring
    - Diagnosis and management of placental disorders
  - Strategies to optimize the timing and/or mode of delivery in higher risk pregnancies (multiple pregnancies, prior caesarean, etc)
  - Fetal monitoring during labour
  - Interventions to reduce mother-to baby transmission of infections
  - Fetal reduction in multiple pregnancies
  - Interventions directly targeting the fetus e.g. management of twin-twin transfusion syndrome
  - Interventions to reduce smoking and other maternal risk factors associated with fetal growth restriction or other adverse outcomes
  - Other miscellaneous interventions (mode of delivery of baby with abdominal wall defect; antibiotics from prelabour rupture of membranes at term)

## **4      Interventions targeting the neonate/infant**

The included reviews covered a diverse range of interventions. Reviews are grouped under the following headings:

- Interventions to prevent, treat and manage lung disease of prematurity (section 4.1)
- Interventions to prevent and treat infections of the neonate/infant (section 4.2)
- Interventions to prevent and treat necrotizing enterocolitis (section 4.3)
- Interventions relating to neonatal resuscitation (section 4.4)
- Use of nutritional supplements, predominantly in preterm/low birthweight (LBW) infants receiving parenteral feeding (section 4.5)
- Interventions for the prevention and treatment of other neonatal conditions (section 4.6)
- Interventions to prevent neurodevelopmental and other adverse neonatal/infant outcomes (section 4.7)
- Other miscellaneous interventions, including general aspects of neonatal care (section 4.8)

### **4.1      Interventions to prevent, treat and manage lung disease of prematurity**

The included reviews (Table 12) cover the following interventions:

- Ventilation/extracorporeal membrane oxygenation (ECMO)
- Surfactants
- Postnatal corticosteroids
- Diuretics
- Other miscellaneous interventions, including drug therapies, nutrition and positioning

Antenatal corticosteroids are covered in an earlier section (see Table 8).

### **4.2      Interventions to prevent and treat infections of the neonate/infant**

The included reviews (Table 13) cover the prevention and treatment of:

- Sepsis
- Respiratory syncytial virus
- Bacterial meningitis
- Fungal infections
- Catheter related infections
- Other miscellaneous infections

### **4.3      Interventions to prevent and treat necrotizing enterocolitis**

The included reviews (Table 14) evaluate a range of interventions, including:

- Antibiotics
- Probiotics and other nutritional supplements
- Feeding regimens

## **4.4 Interventions relating to resuscitation**

The included reviews (Table 15) evaluate a range of interventions, including:

- Air vs. oxygen
- Sodium bicarbonate infusion
- Positive end-expiratory pressure
- Epinephrine

## **4.5 Nutritional supplements**

The included reviews (Table 16) predominantly evaluate nutritional supplements in preterm or low birthweight infants, including:

- Amino acids (glutamine, cysteine, taurine)
- Vitamins/minerals (vitamin E, vitamin A, selenium, iodine)
- Lipids

## **4.6 Treatment and prevention of other neonatal conditions**

The included reviews (Table 17) cover the prevention and treatment of a diverse range of neonatal conditions, including:

- Intraventricular haemorrhage
- Non-oliguric hyperkalaemia
- patent ductus arteriosus
- gastroschisis

Antenatal interventions to prevent intraventricular haemorrhage in the neonate are covered in Table 8.

## **4.7 Interventions to prevent neurodevelopmental disorders and other adverse infant outcomes**

The reviews included in this section (Table 18) focus on effects on neurodevelopmental outcomes, predominantly in neonates who have suffered asphyxia (or other form of hypoxia) or hypothyroxinaemia. The interventions include:

- Cooling
- Thyroid and other hormones
- Allopurinol
- Nitric oxide
- Naloxone
- Adrenaline
- Iodine supplementation

This table does not cover the full range of interventions potentially affecting neurodevelopmental outcomes: neurodevelopmental outcomes are also considered in a number of reviews covered in other sections. In particular, see reviews relating to prevention and treatment of lung disease of prematurity (Table 12); reviews evaluating the use of nutritional supplements in neonates (Table 16); reviews relating to other miscellaneous interventions to improve neonatal outcomes (Table 19); and antenatal interventions to improve neonatal outcome in preterm labour (Table 8).

## **4.8 Other miscellaneous interventions**

The reviews included in this section (Table 19) cover a diverse range of interventions, including:

- Interventions to prevent hypothermia in preterm and LBW infants
- Interventions involving catheter use
- Treatment of hypotension/poor perfusion
- Other miscellaneous interventions (preterm infants)
  - Administration of fluid bolus in preterm infants with metabolic acidosis
  - Albumin infusion in preterm infants with low serum albumin
  - Water intake regulation in preterm infants
  - Transpyloric vs. gastric tube feeding
  - Pre-discharge “car seat challenge”
- Other miscellaneous interventions
  - Thyroid hormone supplementation in infants undergoing cardiac surgery
  - Endotracheal intubation in vigorous meconium-stained infants
  - Clinical decision support systems for neonatal care

## **Acknowledgement**

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## Tables

Note that the tables list the citations as at the time the Evidence Map was constructed. Cochrane reviews are hyperlinked to the **most recent version**. Where the review has been updated, the author, year and/or title may differ between versions.

**Table 1: List of reviews evaluating interventions targeting women in the pre- and peri-conceptional period**

Preconception care (screening and advice/counselling)
<ul style="list-style-type: none"><li>• <i>Preconception care: a systematic review (Korenbrot, 2002)</i></li><li>• <i>Preconception care and the risk of congenital anomalies in the offspring of women with diabetes mellitus: a meta-analysis (Ray, 2001)</i></li><li>• <i>Preconception counselling for women with epilepsy to reduce adverse pregnancy outcome (Winterbottom, 2008)</i></li></ul>
Periconceptional vitamin and folate supplementation
<ul style="list-style-type: none"><li>• <i>Vitamin supplements and the risk for congenital anomalies other than neural tube defects (Botto, 2004)</i></li><li>• <i>Periconceptional supplementation with folate and/or multivitamins for preventing neural tube defects (Lumley, 2001)</i></li></ul>

**Table 2: List of reviews evaluating interventions relating to in vitro fertilization (IVF)**

Single or multiple embryo transfer
<ul style="list-style-type: none"><li>• <i>Single or multiple embryo transfer following in vitro fertilisation for improved neonatal outcome: a systematic review of the literature (Dare, 2004)</i></li></ul>

**Table 3: List of reviews evaluating the prevention and treatment of infections during pregnancy to prevent preterm birth (1)**

Screening/ treatment of bacterial vaginosis and other infections of the urogenitary tract
<ul style="list-style-type: none"><li>• <i>Screening for bacterial vaginosis in pregnancy (Guise, 2001)</i></li><li>• <i>Interventions for trichomoniasis in pregnancy (Gulmezoglu, 2002)</i></li><li>• <i>Indications for therapy and treatment recommendations for bacterial vaginosis in nonpregnant and pregnant women: a synthesis of data (Koumans, 2002)</i></li><li>• <i>Antibiotics for treating bacterial vaginosis in pregnancy (McDonald, 2007)</i></li><li>• <i>Evidence on the benefits and harms of screening and treating pregnant women who are asymptomatic for bacterial vaginosis: an update review for the U.S. Preventive Services Task Force (Nygren, 2008)</i></li><li>• <i>Antibiotics for bacterial vaginosis or Trichomonas vaginalis in pregnancy: a systematic review (Okun, 2005)</i></li><li>• <i>Antibiotics for ureaplasma in the vagina in pregnancy (Raynes-Greenow, 2004)</i></li><li>• <i>Antenatal lower genital tract infection screening and treatment programs for preventing preterm delivery (Sangkomkamhang, 2008)</i></li><li>• <i>Antibiotics for asymptomatic bacteriuria in pregnancy (Smaill, 2007)</i></li><li>• <i>Treatments for symptomatic urinary tract infections during pregnancy (Vazquez, 2003)</i></li><li>• <i>Duration of treatment for asymptomatic bacteriuria during pregnancy (Villar, 2000)</i></li></ul>

## **Prophylactic antibiotics for the prevention of preterm birth (2)**

- *The effect of second-trimester antibiotic therapy on the rate of preterm birth (Morency, 2007)*
- *Prophylactic antibiotics for the prevention of preterm birth in women at risk: a meta-analysis (Simcox, 2007)*
- *Prophylactic antibiotic administration in pregnancy to prevent infectious morbidity and mortality (Thinkhamrop, 2002)*

## **Antibiotics for preterm rupture of membranes (3)(4)(5)**

- *Use of antibiotics for the treatment of preterm parturition and prevention of neonatal morbidity: a metaanalysis (Hutzal, 2008)*
- *Antibiotics for preterm rupture of membranes (Kenyon, 2003)*
- *Antibiotics for preterm rupture of the membranes: a systematic review (Kenyon, 2004)*
- *Concomitant use of glucocorticoids: a comparison of two metaanalyses on antibiotic treatment in preterm premature rupture of membranes (Leitich, 1998)*
- *Antimicrobial therapy in expectant management of preterm premature rupture of the membranes (Mercer, 1995)*

## **Antibiotics in preterm labour with intact membranes**

- *Adjunctive antibiotic treatment in preterm labor and neonatal morbidity: a meta-analysis (Egarter, 1996)*
- *Use of antibiotics for the treatment of preterm parturition and prevention of neonatal morbidity: a metaanalysis (Hutzal, 2008)*
- *Prophylactic antibiotics for inhibiting preterm labour with intact membranes (King, 2002)*
- *Antibiotic therapy for the treatment of preterm labor: a review of the evidence (Thorp, 2002)*

## **Management of intraamniotic infection**

- *Antibiotic regimens for management of intraamniotic infection (Hopkins, 2002)*

Notes:

- (1) See also Table 9 for review relating treatment of periodontal disease (Xiong, 2007).
- (2) These reviews focus predominantly on prophylactic antibiotics but some treatment studies are included.
- (3) For management of prelabour rupture of membranes (PROM) at term see reviews under management of labour and delivery in Table 11 (in particular review by Dare (2006)).
- (4) See also Table 11 under 'Management of labour and delivery' for review relating to intentional delivery in preterm prelabour rupture of membranes (pPROM) (Hartling, 2008).
- (5) See Flenady (2002) (Table 11) for use of antibiotics in PROM at term.

**Table 4: List of reviews evaluating screening/monitoring aimed at early detection of preterm labour (1)**

<b>Fetal fibronectin testing</b>
• <i>Fetal fibronectin testing for reducing the risk of preterm birth (Berghella, 2008)</i>
<b>Uterine monitoring</b>
• <i>A metaanalysis of home uterine activity monitoring (Colton, 1995)</i>

Notes:

- (1) See also social and educational interventions in Table 9, in particular review by Hueston (1995) which evaluates interventions involving patient education regarding the signs and symptoms of preterm labour.

**Table 5: List of reviews evaluating the use of progesterone to prevent preterm birth**

<b>Progesterone</b>
• <i>Progesterone for the prevention of preterm birth: a critical evaluation of evidence (Coomarasamy, 2006)</i>
• <i>Progesterone supplementation for preventing preterm birth: a systematic review and meta-analysis (Dodd, 2005)</i>
• <i>Prenatal administration of progesterone for preventing preterm birth in women considered to be at risk of preterm birth (Dodd, 2006)</i>
• <i>Progesterone for the prevention of preterm birth: a systematic review (Dodd, 2008)</i>
• <i>Progesterone for the prevention of preterm birth among women at increased risk: a systematic review and meta-analysis of randomized controlled trials (MacKenzie, 2006)</i>
• <i>Progestational agents to prevent preterm birth: a meta-analysis of randomized controlled trials (Sanchez-Ramos, 2005)</i>

**Table 6: List of reviews evaluating cervical cerclage**

<b>Cervical cerclage</b>
• <i>Elective cervical cerclage for prevention of preterm birth: a systematic review (Bachmann, 2003)</i>
• <i>Effectiveness of cervical cerclage for a sonographically shortened cervix: a systematic review and meta-analysis (Belej-Rak, 2003)</i>
• <i>Cerclage for short cervix on ultrasonography: meta-analysis of trials using individual patient-level data (Berghella, 2005)</i>
• <i>Cervical stitch (cerclage) for preventing pregnancy loss in women (Drakeley, 2003)</i>
• <i>Cervical stitch (cerclage) for preventing pregnancy loss: individual patient data meta-analysis (Jorgensen, 2007)</i>
• <i>Prevention of preterm birth by cervical cerclage compared with expectant management: a systematic review (Odibo, 2003)</i>
• <i>Abdominal versus vaginal cerclage after a failed transvaginal cerclage: a systematic review (Zaveri, 2002)</i>

**Table 7: List of reviews evaluating the use of tocolytic agents**

<b>Tocolytic agents (reviews covering multiple agents)</b> <ul style="list-style-type: none"><li>• <i>Tocolytic treatment for the management of preterm labor: a review of the evidence</i> (Berkman, 2003)</li><li>• <i>Value of maintenance therapy with oral tocolytics: a systematic review</i> (Meirowitz, 1999)</li><li>• <i>Efficacy of maintenance therapy after acute tocolysis: a meta-analysis</i> (Sanchez-Ramos, 1999)</li><li>• <i>Tocolytic treatment for the management of preterm labour: a systematic review</i> (Tan, 2006)</li></ul>
<b>Indomethacin</b> <ul style="list-style-type: none"><li>• <i>Assessing the neonatal safety of indomethacin tocolysis: a systematic review with meta-analysis</i> (Loe, 2005)</li><li>• <i>Short cervix on ultrasound: does indomethacin prevent preterm birth?</i> (Berghella, 2006)</li><li>• <i>Metaanalysis of the effect of antenatal indomethacin on neonatal outcomes</i> (Amin, 2007)</li></ul>
<b>Betamimetics (ritodrine, salbutamol, fenoterol, terbutaline)</b> <ul style="list-style-type: none"><li>• <i>Betamimetics for inhibiting preterm labour</i> (Anotayanonth, 2004)</li><li>• <i>Oral betamimetics for maintenance therapy after threatened preterm labour</i> (Dodd, 2006)</li><li>• <i>Ritodrine in the treatment of preterm labour: a meta-analysis</i> (Li, 2005)</li><li>• <i>Efficacy of oral beta-agonist maintenance therapy in preterm labor: a meta-analysis</i> (Macones, 1995)</li><li>• <i>Terbutaline pump maintenance therapy after threatened preterm labor for preventing preterm birth</i> (Nanda, 2002)</li><li>• <i>Tocolysis with nifedipine or beta-adrenergic agonists: a meta-analysis</i> (Tsatsaris, 2001)</li><li>• <i>Nifedipine versus ritodrine for suppression of preterm labor; a meta-analysis</i> (Oei, 1999)</li><li>• <i>Prophylactic oral betamimetics for preventing preterm labour in singleton pregnancies</i> (Whitworth, 2008)</li><li>• <i>Effectiveness and safety of ritodrine hydrochloride for the treatment of preterm labour: a systematic review</i> (Yaju, 2006)</li><li>• <i>Prophylactic oral betamimetics for reducing preterm birth in women with a twin pregnancy</i> (Yamasmit, 2005)</li></ul>
<b>Oxytocin receptor antagonists</b> <ul style="list-style-type: none"><li>• <i>Oxytocin receptor antagonists for inhibiting preterm labour</i> (Papatsonis, 2005)</li><li>• <i>Maintenance therapy with oxytocin antagonists for inhibiting preterm birth after threatened preterm labour</i> (Papatsonis, 2009)</li></ul>
<b>Cyclo-oxygenase (COX) inhibitors</b> <ul style="list-style-type: none"><li>• <i>Cyclo-oxygenase (COX) inhibitors for treating preterm labour</i> (King, 2005)</li></ul>

## **Calcium channel blockers**

- Maintenance therapy with calcium channel blockers for preventing preterm birth after threatened preterm labour (Gaunekar, 2004)
- Calcium channel blockers for inhibiting preterm labour (King, 2003)
- Nifedipine versus ritodrine for suppression of preterm labor; a meta-analysis (Oei, 1999)
- Tocolysis with nifedipine or beta-adrenergic agonists: a meta-analysis (Tsatsaris, 2001)

## **Magnesium sulphate (1)**

- Magnesium sulphate for preventing preterm birth in threatened preterm labour (Crowther, 2002)
- Magnesium maintenance therapy for preventing preterm birth after threatened preterm labour (Crowther, 1998)
- Evidence for magnesium sulfate as a tocolytic agent (Macones, 1997)

## **Nitric oxide/nitroglycerin**

- Nitric oxide donors for the treatment of preterm labour (Duckitt, 2002)
- Nitroglycerin as a uterine relaxant: a systematic review (Morgan, 2002)

Notes:

(1) See also Table 8 for review evaluating use of magnesium sulphate for neuroprotection of the fetus (Doyle, 2009).

**Table 8: List of reviews evaluating prenatal administration of corticosteroids and other drugs to improve neonatal outcome in preterm labour (1)**

## **Corticosteroids (2)**

- Multiple courses of antenatal corticosteroids: a systematic review and meta-analysis (Aghajafari, 2001)
- Different corticosteroids and regimens for accelerating fetal lung maturation for women at risk of preterm birth (Brownfoot, 2008)
- The effects of corticosteroid administration before preterm delivery: an overview of the evidence from controlled trials (Crowley, 1990)
- Repeat doses of prenatal corticosteroids for women at risk of preterm birth for preventing neonatal respiratory disease (Crowther, 2007)
- Do antenatal corticosteroids help in the setting of preterm rupture of membranes? (Harding, 2001)
- Effects of a single course of corticosteroids given more than 7 days before birth: a systematic review (McLaughlin, 2003)
- Antenatal corticosteroids for accelerating fetal lung maturation for women at risk of preterm birth (Roberts, 2006)

## **Thyrotropin-releasing hormone in addition to prenatal corticosteroids**

- Thyrotropin-releasing hormone added to corticosteroids for women at risk of preterm birth for preventing neonatal respiratory disease (Crowther, 2004)

## **Magnesium sulphate for neuroprotection of the fetus**

- Magnesium sulphate for women at risk of preterm birth for neuroprotection of the fetus (Doyle, 2009)

### Vitamin K and phenobarbitol to prevent neonatal periventricular haemorrhage (3)

- *Vitamin K prior to preterm birth for preventing neonatal periventricular haemorrhage (Crowther, 2001)*
- *Phenobarbital prior to preterm birth for preventing neonatal periventricular haemorrhage (Crowther, 2003)*

Notes:

- (1) Some reviews relating to antibiotic administration in pPROM and preterm labour (listed in Table 3) also consider neonatal outcomes.
- (2) See also Leitich (1998) (Table 3) for a review of the potential adverse effects of concomitant use of antibiotics and corticosteroids.
- (3) See also Table 17 for postnatal interventions to prevent periventricular hemorrhage.

**Table 9: List of reviews evaluating other miscellaneous interventions for the prevention of preterm birth**

<b>Bed rest</b>
<ul style="list-style-type: none"><li>• <i>Hospitalisation and bed rest for multiple pregnancy (Crowther, 2001)</i></li><li>• <i>Bed rest in singleton pregnancies for preventing preterm birth (Sosa, 2004)</i></li></ul>
<b>Social and educational interventions</b>
<ul style="list-style-type: none"><li>• <i>Support during pregnancy for women at increased risk of low birthweight babies (Hodnett, 2003)</i></li><li>• <i>A systematic review of telephone support for women during pregnancy and the early postpartum period (Dennis, 2008)</i></li><li>• <i>The effectiveness of preterm-birth prevention educational programs for high-risk women: a meta-analysis (Hueston, 1995)</i></li></ul>
<b>Hydration</b>
<ul style="list-style-type: none"><li>• <i>Hydration for treatment of preterm labour (Stan, 2002)</i></li></ul>
<b>Probiotics</b>
<ul style="list-style-type: none"><li>• <i>Probiotics for preventing preterm labour (Othman, 2007)</i></li></ul>
<b>Prophylaxis and treatment of periodontal disease</b>
<ul style="list-style-type: none"><li>• <i>Periodontal disease and pregnancy outcomes: state-of-the-science (Xiong, 2007)</i></li></ul>

**Table 10: List of reviews evaluating interventions to prevent and manage pre-eclampsia and hypertension (1)**

<b>Progesterone</b>
<ul style="list-style-type: none"><li>• <i>Progesterone for preventing pre-eclampsia and its complications (Meher, 2006)</i></li></ul>
<b>Antioxidants</b>
<ul style="list-style-type: none"><li>• <i>Antioxidants for preventing pre-eclampsia (Rumbold, 2008)</i></li></ul>
<b>Calcium supplementation</b>
<ul style="list-style-type: none"><li>• <i>Calcium supplementation during pregnancy for preventing hypertensive disorders and related problems (Hofmeyr, 2006)</i></li><li>• <i>Dietary calcium supplementation for prevention of pre-eclampsia and related problems: a systematic review and commentary (Hofmeyr, 2007)</i></li></ul>

## **Antiplatelet agents**

- *Aspirin for prevention of preeclampsia in women with historical risk factors: a systematic review (Coomarasamy, 2003)*
- *Antiplatelet agents for preventing pre-eclampsia and its complications (Duley, 2007)*
- *A meta-analysis of low-dose aspirin for the prevention of pregnancy-induced hypertensive disease (Imperiale, 1991)*

## **Magnesium sulphate**

- *Magnesium sulphate and other anticonvulsants for women with pre-eclampsia (Duley, 2003)*

## **Diuretics**

- *Diuretics for preventing pre-eclampsia (Churchill, 2007)*

## **Dopamine**

- *Low-dose dopamine for women with severe pre-eclampsia (Steyn, 2007)*

## **Nitric oxide**

- *Nitric oxide for preventing pre-eclampsia and its complications (Meher, 2007)*

## **Beta-blockers and other antihypertensive drugs**

- *Antihypertensive drug therapy for mild to moderate hypertension during pregnancy (Abalos, 2007)*
- *Drugs for treatment of very high blood pressure during pregnancy (Duley, 2006)*
- *Management of mild chronic hypertension during pregnancy: a review (Ferrer, 2000)*
- *Oral beta-blockers for mild to moderate hypertension during pregnancy (Magee, 2003)*
- *Risks and benefits of beta-receptor blockers for pregnancy hypertension: overview of the randomized trials (Magee, 2000)*

## **Early elective delivery**

- *Interventionist versus expectant care for severe pre-eclampsia before term (Churchill, 2002)*

## **Other non-pharmacological interventions**

- *Bed rest with or without hospitalisation for hypertension during pregnancy (Meher, 2005)*
- *Rest during pregnancy for preventing pre-eclampsia and its complications in women with normal blood pressure (Meher, 2006)*
- *Garlic for preventing pre-eclampsia and its complications (Meher, 2006)*
- *Exercise or other physical activity for preventing pre-eclampsia and its complications (Meher, 2006)*
- *Combined vitamin C and E supplementation during pregnancy for preeclampsia prevention: a systematic review (Polyzos, 2007)*

Notes:

- (1) See also reviews relating to nutritional supplements (listed in Table 11).

**Table 11: List of reviews evaluating other miscellaneous interventions aimed at optimizing pregnancy outcomes**

<b>Prenatal programs/support/home visits</b>
<ul style="list-style-type: none"> <li>• <i>Home visits during pregnancy: consequences on pregnancy outcome, use of health services, and women's situations (Blondel, 1995)</i></li> <li>• <i>Specialised antenatal clinics for women with a multiple pregnancy for improving maternal and infant outcomes (Dodd, 2007)</i></li> <li>• <i>Home visits during pregnancy and after birth for women with an alcohol or drug problem (Doggett, 2005)</i></li> <li>• <i>Prenatal programs: what the literature reveals (Fink, 1992)</i></li> <li>• <i>Support during pregnancy for women at increased risk of low birthweight babies (Hodnett, 2003)</i></li> <li>• <i>Who should provide routine antenatal care for low-risk women, and how often? A systematic review of randomised controlled trials. WHO Antenatal Care Trial Research Group (Khan-Neelofur, 1998)</i></li> <li>• <i>A review of the impact of antenatal care for Australian Indigenous women and attempts to strengthen these services (Rumbold, 2008)</i></li> <li>• <i>Patterns of routine antenatal care for low-risk pregnancy (Villar, 2001)</i></li> <li>• <i>A systematic review comparing continuity of midwifery care with standard maternity services (Waldenstrom, 1998)</i></li> </ul>
<b>Nutritional supplements (1)</b>
<ul style="list-style-type: none"> <li>• <i>Prenatal multivitamin supplementation and rates of congenital anomalies: a meta-analysis (Goh, 2006)</i></li> <li>• <i>Multiple-micronutrient supplementation for women during pregnancy (Haider, 2006)</i></li> <li>• <i>Effect of supplementation of women in high-risk pregnancies with long-chain polyunsaturated fatty acids on pregnancy outcomes and growth measures at birth: a meta-analysis (Horvath, 2007)</i></li> <li>• <i>Energy and protein intake in pregnancy (Kramer, 2003)</i></li> <li>• <i>Magnesium supplementation in pregnancy (Makrides, 2001)</i></li> <li>• <i>Marine oil, and other prostaglandin precursor, supplementation for pregnancy uncomplicated by pre-eclampsia or intrauterine growth restriction (Makrides, 2006)</i></li> <li>• <i>Zinc supplementation for improving pregnancy and infant outcome (Mahomed, 2007)</i></li> <li>• <i>Micronutrients and pregnancy outcome: A review of the literature (Ramakrishnan, 1999)</i></li> <li>• <i>Vitamin C supplementation in pregnancy (Rumbold, 2005)</i></li> <li>• <i>Vitamin E supplementation in pregnancy (Rumbold, 2005)</i></li> <li>• <i>Effect of n-3 long-chain polyunsaturated fatty acid supplementation of women with low-risk pregnancies on pregnancy outcomes and growth measures at birth: a meta-analysis of randomized controlled trials (Szajewska, 2006)</i></li> <li>• <i>Pyridoxine (vitamin B6) supplementation in pregnancy (Thaver, 2006)</i></li> </ul>

## **Management of diabetes**

- *Exercise for diabetic pregnant women (Ceysens, 2006)*
- *Continuous subcutaneous insulin infusion versus multiple daily injections of insulin for pregnant women with diabetes (Farrar, 2007)*
- *Screening for gestational diabetes mellitus: a systematic review for the U.S. Preventive Services Task Force (Hillier, 2008)*
- *Dietary advice in pregnancy for preventing gestational diabetes mellitus (Tieu, 2008)*

## **Ultrasound/other fetal monitoring during pregnancy**

- *Doppler ultrasonography in high-risk pregnancies: systematic review with meta-analysis (Alfirevic, 1995)*
- *Routine ultrasound in late pregnancy (after 24 weeks' gestation) (Bricker, 2008)*
- *Regimens of fetal surveillance for impaired fetal growth (Grivell, 2009)*
- *Ultrasound for fetal assessment in early pregnancy (Neilson, 1998)*
- *Fetal movement counting for assessment of fetal wellbeing (Mangesi, 2007)*

## **Diagnosis and management of placental disorders**

- *Heparin therapy for complications of placental dysfunction: a systematic review of the literature (Dodd, 2008)*
- *Biochemical tests of placental function for assessment in pregnancy (Neilson, 2003)*
- *Interventions for suspected placenta praevia (Neilson, 2003)*

## **Management of labour and delivery (2)**

- *Interventionist versus expectant care for severe pre-eclampsia before term (Churchill, 2002)*
- *Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more) (Dare, 2006)*
- *Elective repeat caesarean section versus induction of labour for women with a previous caesarean birth (Dodd, 2006)*
- *Elective caesarean section versus expectant management for delivery of the small baby (Grant, 2001)*
- *Induction of labour for improving birth outcomes for women at or beyond term (Gulmezoglu, 2006)*
- *A systematic review of intentional delivery in women with preterm prelabor rupture of membranes (Hartling, 2006)*
- *Planned caesarean section for term breech delivery (Hofmeyr, 2003)*
- *Abdominal decompression in normal pregnancy (Hofmeyr, 1998)*
- *Cesarean delivery for twins: a systematic review and meta-analysis (Hogle, 2003)*
- *External cephalic version for breech presentation before term (Hutton, 2006)*
- *Elective repeat cesarean delivery versus trial of labor: a meta-analysis of the literature from 1989 to 1999 (Mozurkewich, 2000)*

## **Fetal monitoring during labour**

- *Continuous cardiotocography (CTG) as a form of electronic fetal monitoring (EFM) for fetal assessment during labour (Alfirevic, 2006)*
- *Fetal pulse oximetry for fetal assessment in labour (East, 2007)*
- *Near-infrared spectroscopy for fetal assessment during labour (Mozurkewich, 2000)*

## **Interventions to reduce mother-to-baby transmission of infections**

- *Intrapartum antibiotics for Group B streptococcal colonisation (Smaill, 1996)*
- *Vaginal chlorhexidine during labour to prevent early-onset neonatal group B streptococcal infection (Stade, 2004)*
- *Antiretrovirals for reducing the risk of mother-to-child transmission of HIV infection (Volmink, 2007)*

## **Fetal reduction in multiple pregnancy**

- *Reduction of the number of fetuses for women with triplet and higher order multiple pregnancies (Dodd, 2003)*
- *Multifetal pregnancy reduction of triplet and higher-order multiple pregnancies to twins (Dodd, 2004)*
- *Risks of miscarriage and early preterm birth in trichorionic triplet pregnancies with embryo reduction versus expectant management: new data and systematic review (Papageorghiou, 2006)*

## **Interventions directly targeting the fetus**

- *Prenatal bladder drainage in the management of fetal lower urinary tract obstruction: a systematic review and meta-analysis (Clark, 2003)*
- *Monochorionic and dichorionic twin pregnancies discordant for fetal anencephaly: a systematic review of prenatal management options (Lust, 2008)*
- *Interventions for twin-twin transfusion syndrome: a Cochrane review (Roberts, 2008)*
- *Interventions for the treatment of twin-twin transfusion syndrome (Roberts, 2008)*
- *Laser therapy and serial amnioreduction as treatment for twin-twin transfusion syndrome: a metaanalysis and review of literature (Rossi, 2008)*

## **Smoking cessation programmes**

- *Interventions for promoting smoking cessation during pregnancy (Lumley, 2004)*

## **Treatment strategies for opiate dependent women**

- *Maintenance agonist treatments for opiate dependent pregnant women (Minozzi, 2008)*

## **Antibiotics for prelabour rupture of membranes (3)**

- *Antibiotics for prelabour rupture of membranes at or near term (Flenady, 2002)*

## **Mode of delivery of women carrying fetus with abdominal wall defect**

- *Fetal abdominal wall defects and mode of delivery: a systematic review (Segel, 2001)*

Notes:

- (1) All reviews evaluating nutritional supplements during pregnancy (except Kramer (2003)) consider gestational hypertension and/or pre-eclampsia as an outcome.
- (2) See also Table 10 under 'Early elective delivery' for review relating to early elective delivery in women with pre-eclampsia (Churchill 2002).
- (3) Reviews covering the use of antibiotics in pPROM are covered in Table 3.

**Table 12: List of reviews evaluating interventions to prevent, treat and manage lung disease of prematurity**

**Ventilation/extracorporeal membrane oxygenation (ECMO) (1)**

- *Early versus late discontinuation of oxygen in preterm or low birth weight infants (Askie, 2001)*
- *Gradual versus abrupt discontinuation of oxygen in preterm or low birth weight infants (Askie, 2001)*
- *Restricted versus liberal oxygen exposure for preventing morbidity and mortality in preterm or low birth weight infants (Askie, 2009)*
- *Elective high frequency jet ventilation versus conventional ventilation for respiratory distress syndrome in preterm infants (Bhuta, 1998)*
- *Rescue high frequency oscillatory ventilation versus conventional ventilation for pulmonary dysfunction in preterm infants (Bhuta, 1998)*
- *Tracheal gas insufflation for the prevention of morbidity and mortality in mechanically ventilated newborn infants (Davies, 2002)*
- *Synchronized mechanical ventilation for respiratory support in newborn infants (Greenough, 2009)*
- *Continuous positive airway pressure versus theophylline for apnea in preterm infants (Henderson-Smart, 2001)*
- *Mechanical ventilation for newborn infants with respiratory failure due to pulmonary disease (Henderson-Smart, 2002)*
- *Elective high frequency oscillatory ventilation versus conventional ventilation for acute pulmonary dysfunction in preterm infants (Henderson-Smart, 2007) (2)*
- *Early versus delayed initiation of continuous distending pressure for respiratory distress syndrome in preterm infants (Ho, 2002)*
- *Continuous distending pressure for respiratory distress in preterm infants (Ho, 2002)*
- *Rescue high frequency jet ventilation versus conventional ventilation for severe pulmonary dysfunction in preterm infants (Joshi, 2006)*
- *Long versus short inspiratory times in neonates receiving mechanical ventilation (Kamlin, 2003)*
- *Volume-targeted versus pressure-limited ventilation in the neonate (McCallion, 2005)*
- *Extracorporeal membrane oxygenation for severe respiratory failure in newborn infants (Mugford, 2008)*
- *Prophylactic nasal continuous positive airways pressure for preventing morbidity and mortality in very preterm infants (Subramaniam, 2005)*
- *Permissive hypercapnia for the prevention of morbidity and mortality in mechanically ventilated newborn infants (Woodgate, 2001)*

## **Surfactant**

- *Surfactant for pulmonary hemorrhage in neonates (Aziz, 2008)*
- *Natural vs synthetic surfactants in neonatal respiratory distress syndrome (Halliday, 1996)*
- *Exogenous surfactant use in neonates (Ishisaka, 1996)*
- *Meta-analyses of surfactant replacement therapy of infants with birth weights less than 2000 grams (Kresch, 1998)*
- *Protein containing synthetic surfactant versus animal derived surfactant extract for the prevention and treatment of respiratory distress syndrome (Pfister, 2007)*
- *Animal derived surfactant extract for treatment of respiratory distress syndrome (Seger, 2009)*
- *Developmental outcome of preterm infants after surfactant therapy: systematic review of randomized controlled trials (Sinn, 2002)*
- *Prophylactic synthetic surfactant for preventing morbidity and mortality in preterm infants (Soll, 1998)*
- *Synthetic surfactant for respiratory distress syndrome in preterm infant (Soll, 1998)*
- *Natural surfactant extract versus synthetic surfactant for neonatal respiratory distress syndrome (Soll, 2001)*
- *Prophylactic versus selective use of surfactant in preventing morbidity and mortality in preterm infants (Soll, 2001)*
- *Multiple versus single doses of exogenous surfactant for the prevention or treatment of neonatal respiratory distress syndrome (Soll, 2009)*
- *Early surfactant administration with brief ventilation vs. selective surfactant and continued mechanical ventilation for preterm infants with or at risk for respiratory distress syndrome (Stevens, 2007)*

### Corticosteroid treatment (3)

- Early neonatal dexamethasone treatment for prevention of bronchopulmonary dysplasia. Randomised trial and meta-analysis evaluating the duration of dexamethasone therapy (Anttila, 2005)
- Meta-analysis of dexamethasone therapy started in the first 15 days of life for prevention of chronic lung disease in premature infants (Arias-Cameron, 1999)
- Systematic review and meta-analysis of early postnatal dexamethasone for prevention of chronic lung disease (Bhuta, 1998)
- Postnatal corticosteroids in preterm infants: systematic review of effects on mortality and motor function (Doyle, 2000)
- Impact of postnatal systemic corticosteroids on mortality and cerebral palsy in preterm infants: effect modification by risk for chronic lung disease (Doyle, 2005)
- Clinical trials of postnatal corticosteroids: inhaled and systemic (Halliday, 1999)
- Moderately early (7-14 days) postnatal corticosteroids for preventing chronic lung disease in preterm infants (Halliday, 2003)
- Early (< 8 days) postnatal corticosteroids for preventing chronic lung disease in preterm infants (Halliday, 2009)
- Late (>7 days) postnatal corticosteroids for preventing chronic lung disease in preterm infants (Halliday, 2009)
- Effects of higher versus lower dexamethasone doses on pulmonary and neurodevelopmental sequelae in preterm infants at risk for chronic lung disease: a meta-analysis (Onland, 2008)
- Early administration of inhaled corticosteroids for preventing chronic lung disease in ventilated very low birth weight preterm neonates (Shah, 2007)
- Inhaled versus systemic corticosteroids for the treatment of chronic lung disease in ventilated very low birth weight preterm infants (Shah, 2007)
- Steroid therapy for meconium aspiration syndrome in newborn infants (Ward, 2003)

### Diuretics

- Diuretics for respiratory distress syndrome in preterm infants (Brion, 2008)
- Diuretics acting on the distal renal tubule for preterm infants with (or developing) chronic lung disease (Brion, 2002)
- Aerosolized diuretics for preterm infants with (or developing) chronic lung disease (Brion, 2006)

## **Other**

- *Inhaled nitric oxide for respiratory failure in preterm infants (Barrington, 2007) (4)*
- *Antithrombin for respiratory distress syndrome in preterm infants (Bassler, 2006)*
- *Opioids for neonates receiving mechanical ventilation (Bellu, 2008)*
- *Prophylactic doxapram for the prevention of morbidity and mortality in preterm infants undergoing endotracheal extubation (Henderson-Smart, 2000)*
- *Meta-analysis of inhaled nitric oxide in premature infants: an update (Hoehn, 2006)*
- *Inositol for respiratory distress syndrome in preterm infants (Howlett, 2003)*
- *Increased energy intake for preterm infants with (or developing) bronchopulmonary dysplasia/chronic lung disease (Lai, 2006)*
- *Bronchodilators for the prevention and treatment of chronic lung disease in preterm infants (Ng, 2001)*
- *Cromolyn sodium for the prevention of chronic lung disease in preterm infants (Ng, 2001)*
- *Postnatal thyroid hormones for respiratory distress syndrome in preterm infants (Osborn, 2007)*
- *Sildenafil for pulmonary hypertension in neonates (Shah, 2007)*
- *Digoxin for preventing or treating neonatal respiratory distress syndrome (Soll, 1998)*
- *Superoxide dismutase for preventing chronic lung disease in mechanically ventilated preterm infants (Suresh, 2001)*
- *Positioning for acute respiratory distress in hospitalised infants and children (Wells, 2005)*

### Notes:

- (1) See 'other' section at foot of table for review relating to pain relief in neonates receiving mechanical ventilation (Bellu, 2008).
- (2) Updated in 2009, now Cools (2009).
- (3) Antenatal corticosteroids are covered in Table 8.
- (4) See also Table 18 for review relating to inhaled nitric oxide in term infants by (Finer, 2006).

**Table 13: List of reviews evaluating interventions to prevent and treat infection in the neonate/infant**

<b>Sepsis (treatment)</b>
<ul style="list-style-type: none"> <li>• <i>G-CSF and GM-CSF for treating or preventing neonatal infections (Carr, 2003)</i></li> <li>• <i>Vancomycin for prophylaxis against sepsis in preterm neonates (Craft, 2000)</i></li> <li>• <i>Pentoxifylline for treatment of sepsis and necrotizing enterocolitis in neonates (Haque, 2003)</i></li> <li>• <i>Recombinant human activated protein C for severe sepsis in neonates (Kylat, 2006)</i></li> <li>• <i>Administration of intravenous immunoglobulins for prophylaxis or treatment of infection in preterm infants: meta-analyses (Lacy, 1995)</i></li> <li>• <i>Granulocyte transfusions for neonates with confirmed or suspected sepsis and neutropaenia (Mohan, 2003)</i></li> <li>• <i>Oral lactoferrin for the treatment of sepsis and necrotizing enterocolitis in neonates (Mohan, 2009)</i></li> <li>• <i>Antibiotic regimens for suspected early neonatal sepsis (Mtitimila, 2004)</i></li> <li>• <i>Intravenous immunoglobulin for preventing infection in preterm and/or low birth weight infants (Ohlsson, 2004)</i></li> <li>• <i>Intravenous immunoglobulin for suspected or subsequently proven infection in neonates (Ohlsson, 2004)</i></li> <li>• <i>Intramuscular penicillin for the prevention of early onset group B streptococcal infection in newborn infants (Woodgate, 2004)</i></li> </ul>
<b>Bacterial meningitis</b>
<ul style="list-style-type: none"> <li>• <i>Intraventricular antibiotics for bacterial meningitis in neonates (Shah, 2004)</i></li> </ul>
<b>Fungal infection (1)</b>
<ul style="list-style-type: none"> <li>• <i>Prophylactic oral/topical non-absorbed antifungal agents to prevent invasive fungal infection in very low birth weight infants (Austin, 2003)</i></li> <li>• <i>Systemic antifungal drugs for invasive fungal infection in preterm infants (Clerihew, 2004)</i></li> <li>• <i>Prophylactic systemic antifungal agents to prevent mortality and morbidity in very low birth weight infants (Clerihew, 2007)</i></li> </ul>
<b>Respiratory syncytial virus</b>
<ul style="list-style-type: none"> <li>• <i>Immunoglobulin treatment for respiratory syncytial virus infection (Fuller, 2006)</i></li> <li>• <i>Ribavirin for respiratory syncytial virus infection of the lower respiratory tract in infants and young children (Ventre, 2007)</i></li> </ul>

## **Other (prophylaxis)**

- *Topical ointment for preventing infection in preterm infants (Conner, 2004)*
- *Prophylactic antibiotics to reduce morbidity and mortality in ventilated newborn infants (Inglis, 2007)*
- *Prophylactic antibiotics to reduce morbidity and mortality in neonates with umbilical artery catheters (Inglis, 2007)*
- *Prophylactic systemic antibiotics to reduce morbidity and mortality in neonates with central venous catheters (Jardine, 2008)*
- *Prophylactic antibiotics in the prevention of catheter-associated bloodstream bacterial infection in preterm neonates: a systematic review (Lodha, 2008)*
- *Prophylactic versus selective antibiotics for term newborn infants of mothers with risk factors for neonatal infection (Ungerer, 2004)*
- *Gowning by attendants and visitors in newborn nurseries for prevention of neonatal morbidity and mortality (Webster, 2003)*
- *Topical umbilical cord care at birth (Zupan, 2004)*

Notes:

- (1) See also review on topical ointments for preventing infection in preterm infants (Conner, 2004) listed under 'Other (prophylaxis)' at foot of table.

**Table 14: List of reviews evaluating interventions to prevent and treat necrotizing enterocolitis**

### **Prevention of necrotizing enterocolitis**

- *Probiotics for prevention of necrotizing enterocolitis in preterm infants (Alfaleh, 2008)*
- *Probiotics for necrotizing enterocolitis: a systematic review (Barclay, 2007)*
- *Delayed introduction of progressive enteral feeds to prevent necrotising enterocolitis in very low birth weight infants (Bombell, 2008)*
- *Enteral antibiotics for preventing necrotizing enterocolitis in low birthweight or preterm infants (Bury, 2001)*
- *Probiotics for prevention of necrotising enterocolitis in preterm neonates with very low birthweight: a systematic review of randomised controlled trials (Deshpande, 2007)*
- *Oral immunoglobulin for preventing necrotizing enterocolitis in preterm and low birth weight neonates (Foster, 2004)*
- *Slow advancement of enteral feed volumes to prevent necrotising enterocolitis in very low birth weight infants (McGuire, 2008)*
- *Arginine supplementation for prevention of necrotising enterocolitis in preterm infants (Shah, 2007)*

### **Treatment of necrotizing enterocolitis**

- *Pentoxifylline for treatment of sepsis and necrotizing enterocolitis in neonates (Haque, 2003)*
- *Oral lactoferrin for the treatment of sepsis and necrotizing enterocolitis in neonates (Mohan, 2009)*

**Table 15: List of reviews evaluating interventions relating to resuscitation of newborn infants**

**Resuscitation**

- *Resuscitation of newborn infants with 100% oxygen or air: a systematic review and meta-analysis (Davis, 2004)*
- *Sodium bicarbonate infusion during resuscitation of infants at birth (Beveridge, 2006)*
- *Positive end-expiratory pressure for resuscitation of newborn infants at birth (O'Donnell, 2003)*
- *Room air resuscitation of the depressed newborn: a systematic review and meta-analysis (Rabi, 2007)*
- *Resuscitation of depressed newborn infants with ambient air or pure oxygen: a meta-analysis (Saugstad, 2005)*
- *Resuscitation of newborn infants with 21% or 100% oxygen: an updated systematic review and meta-analysis (Saugstad, 2008)*
- *Air versus oxygen for resuscitation of infants at birth (Tan, 2005)*
- *Epinephrine for the resuscitation of apparently stillborn or extremely bradycardic newborn infants (Ziino, 2002)*

**Table 16: List of reviews evaluating the use of nutritional supplements in neonates**

**Amino acids**

- *Glutamine supplementation for young infants with severe gastrointestinal disease (Grover, 2007)*
- *Cysteine, cystine or N-acetylcysteine supplementation in parenterally fed neonates (Soghier, 2006)*
- *Glutamine supplementation to prevent morbidity and mortality in preterm infants (Tubman, 2008)*
- *Effect of taurine supplementation on growth and development in preterm or low birth weight infants (Verner, 2007)*

**Vitamins/minerals**

- *Vitamin E supplementation for prevention of morbidity and mortality in preterm infants (Brion, 2003)*
- *Selenium supplementation to prevent short-term morbidity in preterm neonates (Darlow, 2003)*
- *Vitamin A supplementation to prevent mortality and short and long-term morbidity in very low birthweight infants (Darlow, 2007)*
- *Iodine supplementation for the prevention of mortality and adverse neurodevelopmental outcomes in preterm infants (Ibrahim, 2006)*

**Lipids**

- *Early introduction of lipids to parenterally-fed preterm infants (Simmer, 2005)*

**Table 17: List of reviews evaluating the treatment and prevention of other neonatal conditions**

**Prevention of intraventricular haemorrhage (1)**

- *Postnatal phenobarbital for the prevention of intraventricular hemorrhage in preterm infants (Whitelaw, 2007)*

### **Treatment of intraventricular haemorrhage**

- *Repeated lumbar or ventricular punctures in newborns with intraventricular hemorrhage (Whitelaw, 2001)*
- *Diuretic therapy for newborn infants with posthemorrhagic ventricular dilatation (Whitelaw, 2001)*
- *Intraventricular streptokinase after intraventricular hemorrhage in newborn infants (Whitelaw, 2007)*

### **Surgical interventions for patent ductus arteriosis**

- *Improved interstage mortality with the modified Norwood procedure: a meta-analysis (Cua, 2005)*
- *Surgical versus medical treatment with cyclooxygenase inhibitors for symptomatic patent ductus arteriosus in preterm infants (Malviya, 2008)*
- *Prophylactic surgical ligation of patent ductus arteriosus for prevention of mortality and morbidity in extremely low birth weight infants (Mosalli, 2008)*

### **Medical interventions for patent ductus arteriosis**

- *Dopamine versus no treatment to prevent renal dysfunction in indomethacin-treated preterm newborn infants (Barrington, 2002)*
- *Indomethacin for asymptomatic patent ductus arteriosus in preterm infants (Cooke, 2003)*
- *Prophylactic intravenous indomethacin for preventing mortality and morbidity in preterm infants (Fowlie, 2002)*
- *Continuous infusion versus intermittent bolus doses of indomethacin for patent ductus arteriosus closure in symptomatic preterm infants (Gork, 2008)*
- *Prolonged versus short course of indomethacin for the treatment of patent ductus arteriosus in preterm infants (Herrera, 2007)*
- *Surgical versus medical treatment with cyclooxygenase inhibitors for symptomatic patent ductus arteriosus in preterm infants (Malviya, 2008)*
- *Ibuprofen for the treatment of patent ductus arteriosus in preterm and/or low birth weight infants (Ohlsson, 2008)*
- *A meta-analysis of ibuprofen versus indomethacin for closure of patent ductus arteriosus (Thomas, 2005)*

### **Treatment of non-oliguric hyperkalaemia**

- *Interventions for non-oliguric hyperkalaemia in preterm neonates (Vemgal, 2007)*

### **Surgical treatment of gastroschisis**

- *Ward reduction without general anaesthesia versus reduction and repair under general anaesthesia for gastroschisis in newborn infants (Davies, 2002)*

Notes:

- (1) See also Table 8 for reviews relating to antenatal administration of vitamin K (Crowther, 2001) and phenobarbitol (Crowther, 2003) to prevent intraventricular haemorrhage in the neonate.

**Table 18: List of reviews evaluating interventions to prevent neurodevelopmental disorders and other adverse neonatal/infant outcomes**

<b>Body or head cooling</b>
<ul style="list-style-type: none"> <li>• <i>Cooling for newborns with hypoxic ischaemic encephalopathy (Jacobs, 2007)</i></li> <li>• <i>Hypothermia to treat neonatal hypoxic ischemic encephalopathy: systematic review (Shah, 2007)</i></li> </ul>
<b>Hormones (1)</b>
<ul style="list-style-type: none"> <li>• <i>Replacement of estrogens and progestins to prevent morbidity and mortality in preterm infants (Hunt, 2004)</i></li> <li>• <i>Thyroid hormones for preventing neurodevelopmental impairment in preterm infants (Osborn, 2001)</i></li> <li>• <i>Postnatal thyroid hormones for preterm infants with transient hypothyroxinaemia (Osborn, 2007)</i></li> <li>• <i>Prophylactic postnatal thyroid hormones for prevention of morbidity and mortality in preterm infants (Osborn, 2007)</i></li> </ul>
<b>Allopurinol</b>
<ul style="list-style-type: none"> <li>• <i>Allopurinol for preventing mortality and morbidity in newborn infants with suspected hypoxic-ischaemic encephalopathy (Chaudhari, 2008)</i></li> </ul>
<b>Nitric oxide</b>
<ul style="list-style-type: none"> <li>• <i>Nitric oxide for respiratory failure in infants born at or near term (Finer, 2006) (2)</i></li> </ul>
<b>Naxolone</b>
<ul style="list-style-type: none"> <li>• <i>Naloxone for preventing morbidity and mortality in newborn infants of greater than 34 weeks' gestation with suspected perinatal asphyxia (McGuire, 2004)</i></li> </ul>
<b>Adrenaline</b>
<ul style="list-style-type: none"> <li>• <i>Adrenaline for prevention of morbidity and mortality in preterm infants with cardiovascular compromise (Paradisis, 2004)</i></li> </ul>
<b>Iodine</b>
<ul style="list-style-type: none"> <li>• <i>Iodine supplementation for the prevention of mortality and adverse neurodevelopmental outcomes in preterm infants (Ibrahim, 2006)</i></li> </ul>

Notes:

- (1) See also Table 19 for review relating to thyroid hormone supplementation in infants undergoing cardiac surgery (Dimmick, 2004).
- (2) See also Table 12 for reviews relating to inhaled nitric oxide for the treatment of respiratory failure in preterm infants.

**Table 19: List of reviews evaluating other miscellaneous interventions, including general aspects of neonatal care**

<p><b>Interventions to prevent hypothermia</b></p> <ul style="list-style-type: none"> <li>• Heat loss prevention: a systematic review of occlusive skin wrap for premature neonates (Cramer, 2005)</li> <li>• Double wall versus single wall incubator for reducing heat loss in very low birth weight infants in incubators (Laroia, 2007)</li> <li>• Interventions to prevent hypothermia at birth in preterm and/or low birthweight infants (McCall, 2008)</li> <li>• Servo-control for maintaining abdominal skin temperature at 36C in low birth weight infants (Sinclair, 2002)</li> </ul>
<p><b>Miscellaneous interventions involving catheter use in the neonate</b></p> <ul style="list-style-type: none"> <li>• Umbilical artery catheters in the newborn: effects of heparin (Barrington, 1999)</li> <li>• Intravenous in-line filters for preventing morbidity and mortality in neonates (Foster, 2006)</li> <li>• Prophylactic antibiotics to reduce morbidity and mortality in neonates with umbilical artery catheters (Inglis, 2007)</li> <li>• Prophylactic systemic antibiotics to reduce morbidity and mortality in neonates with central venous catheters (Jardine, 2008)</li> <li>• Multiple versus single lumen umbilical venous catheters for newborn infants (Kabra, 2005)</li> </ul>
<p><b>Treatment of hypotension/ poor perfusion</b></p> <ul style="list-style-type: none"> <li>• Treating hypotension in the preterm infant: when and with what: a critical and systematic review (Dempsey, 2007)</li> <li>• Early volume expansion versus inotrope for prevention of morbidity and mortality in very preterm infants (Osborn, 2001)</li> <li>• Early volume expansion for prevention of morbidity and mortality in very preterm infants (Osborn, 2004)</li> <li>• The effect of inotropes on morbidity and mortality in preterm infants with low systemic or organ blood flow (Osborn, 2007)</li> <li>• Dopamine versus dobutamine for hypotensive preterm infants (Subhedar, 2003)</li> <li>• Corticosteroids for treating hypotension in preterm infants (Subhedar, 2007)</li> </ul>
<p><b>Other miscellaneous interventions (preterm infants)</b></p> <ul style="list-style-type: none"> <li>• Restrictive versus liberal red blood cell transfusion strategies for preterm infants: A systematic review of randomized controlled trials (Bassler, 2008)</li> <li>• Restricted versus liberal water intake for preventing morbidity and mortality in preterm infants (Bell, 2008)</li> <li>• Prophylactic doxapram for the prevention of morbidity and mortality in preterm infants undergoing endotracheal extubation (Henderson-Smart, 2000)</li> <li>• Base administration or fluid bolus for preventing morbidity and mortality in preterm infants with metabolic acidosis (Lawn, 2005)</li> <li>• Albumin infusion for low serum albumin in preterm newborn infants (Jardine, 2004)</li> <li>• Transpyloric versus gastric tube feeding for preterm infants (McGuire, 2007)</li> <li>• Pre-discharge "car seat challenge" for preventing morbidity and mortality in preterm infants (Pilley, 2006)</li> </ul>

### **Other miscellaneous interventions**

- *Thyroid hormone supplementation for the prevention of morbidity and mortality in infants undergoing cardiac surgery (Dimmick, 2004)*
- *Endotracheal intubation at birth for preventing morbidity and mortality in vigorous, meconium-stained infants born at term (Halliday, 2001)*
- *Clinical decision support systems for neonatal care (Tan, 2005)*

## References

- Abalos, E., Duley, L., Steyn, D. W. and Henderson-Smart, D. J. (2007). Antihypertensive drug therapy for mild to moderate hypertension during pregnancy. Cochrane Database of Systematic Reviews, (Issue 1), CD002252.
- Aghajafari, F., Murphy, K., Willan, A., Ohlsson, A., Amankwah, K., Matthews, S. and Hannah, M. (2001). Multiple courses of antenatal corticosteroids: A systematic review and meta-analysis. American Journal of Obstetrics and Gynecology 185(5): 1073-1080.
- Alfaleh, K. and Bassler, D. (2008). Probiotics for prevention of necrotizing enterocolitis in preterm infants. Cochrane Database of Systematic Reviews, (Issue 1), CD005496.
- Alfirevic, Z., Devane, D. and Gyte, G. M. (2006). Continuous cardiotocography (CTG) as a form of electronic fetal monitoring (EFM) for fetal assessment during labour. Cochrane Database of Systematic Reviews, (Issue 3), CD006066.
- Alfirevic, Z. and Neilson, J. P. (1995). Doppler ultrasonography in high-risk pregnancies: systematic review with meta-analysis. American Journal of Obstetrics & Gynecology 172(5): 1379-87.
- Amin, S. B., Sinkin, R. A. and Glantz, J. C. (2007). Metaanalysis of the effect of antenatal indomethacin on neonatal outcomes. American Journal of Obstetrics and Gynecology 197(5): 486.e1-486.e10.
- Anotayanonth, S., Subhedar, N. V., Garner, P., Neilson, J. P. and Harigopal, S. (2004). Betamimetics for inhibiting preterm labour. Cochrane Database of Systematic Reviews, (Issue 4), CD004352.
- Anttila, E., Peltoniemi, O., Haumont, D., Herting, E., Ter Horst, H., Heinonen, K., Kero, P., Nykanen, P., Oetomo, S. B. and Hallman, M. (2005). Early neonatal dexamethasone treatment for prevention of bronchopulmonary dysplasia. Randomised trial and meta-analysis evaluating the duration of dexamethasone therapy. European Journal of Pediatrics 164(8): 472-481.
- Arias-Camison, J. M., Lau, J., Cole, C. H. and Frantz III, I. D. (1999). Meta-analysis of dexamethasone therapy started in the first 15 days of life for prevention of chronic lung disease in premature infants. Pediatric Pulmonology 28(3): 167-74.
- Askie, L. M. and Henderson-Smart, D. J. (2001). Early versus late discontinuation of oxygen in preterm or low birth weight infants. Cochrane Database of Systematic Reviews, (Issue 4), CD001076.
- Askie, L. M. and Henderson-Smart, D. J. (2001). Gradual versus abrupt discontinuation of oxygen in preterm or low birth weight infants. Cochrane Database of Systematic Reviews, (Issue 4), CD001075.
- Askie, L. M., Henderson-Smart, D. J. and Ko, H. (2009). Restricted versus liberal oxygen exposure for preventing morbidity and mortality in preterm or low birth weight infants. Cochrane Database of Systematic Reviews, (Issue 1), CD001077.
- Austin, N. C. and Darlow, B. (2004). Prophylactic oral antifungal agents to prevent systemic candida infection in preterm infants. Cochrane Database of Systematic Reviews, (Issue 1), CD003478.
- Aziz, A. and Ohlsson, A. (2008). Surfactant for pulmonary hemorrhage in neonates. Cochrane Database of Systematic Reviews, (Issue 2), CD005254.

- Bachmann, L. M., Coomarasamy, A., Honest, H. and Khan, K. S. (2003). Elective cervical cerclage for prevention of preterm birth: a systematic review. *Acta Obstetricia et Gynecologica Scandinavica* 82(5): 398-404.
- Barclay, A. R., Stenson, B., Simpson, J. H., Weaver, L. T. and Wilson, D. C. (2007). Probiotics for necrotizing enterocolitis: a systematic review. *Journal of Pediatric Gastroenterology & Nutrition* 45(5): 569-76.
- Barrington, K. and Brion, L. P. (2002). Dopamine versus no treatment to prevent renal dysfunction in indomethacin-treated preterm newborn infants. *Cochrane Database of Systematic Reviews*, (Issue 3), CD003213.
- Barrington, K. J. (1999). Umbilical artery catheters in the newborn: effects of heparin. *Cochrane Database of Systematic Reviews*, (Issue 1), CD000507.
- Barrington, K. J. and Finer, N. N. (2007). Inhaled nitric oxide for respiratory failure in preterm infants. *Cochrane Database of Systematic Reviews*, (Issue 3), CD000509.
- Bassler, D., Millar, D. and Schmidt, B. (2006). Antithrombin for respiratory distress syndrome in preterm infants. *Cochrane Database of Systematic Reviews*, (Issue 4), CD005383.
- Bassler, D., Weitz, M., Bialkowski, A. and Poets, C. F. (2008). Restrictive Versus Liberal Red Blood Cell Transfusion Strategies for Preterm Infants: A Systematic Review of Randomized Controlled Trials. *Current Pediatric Reviews* 4: 143-150.
- Belej-Rak, T., Okun, N., Windrim, R., Ross, S. and Hannah, M. E. (2003). Effectiveness of cervical cerclage for a sonographically shortened cervix: a systematic review and meta-analysis. *American Journal of Obstetrics & Gynecology* 189(6): 1679-87.
- Bell, E. F. and Acarregui, M. J. (2008). Restricted versus liberal water intake for preventing morbidity and mortality in preterm infants. *Cochrane Database of Systematic Reviews*, (Issue 1), CD000503.
- Bellu, R., de Waal, K. A. and Zanini, R. (2008). Opioids for neonates receiving mechanical ventilation. *Cochrane Database of Systematic Reviews*, (Issue 1), CD004212.
- Berghella, V., Hayes, E., Visintine, J. and Baxter, J. K. (2008). Fetal fibronectin testing for reducing the risk of preterm birth. *Cochrane Database of Systematic Reviews*, (Issue 4), CD006843.
- Berghella, V., Odibo, A. O., To, M. S., Rust, O. A. and Althuisius, S. M. (2005). Cerclage for short cervix on ultrasonography: meta-analysis of trials using individual patient-level data. *Obstetrics & Gynecology* 106(1): 181-9.
- Berghella, V., Rust, O. A. and Althuisius, S. M. (2006). Short cervix on ultrasound: does indomethacin prevent preterm birth? *American Journal of Obstetrics & Gynecology* 195(3): 809-13.
- Berkman, N. D., Thorp, J. M., Jr., Lohr, K. N., Carey, T. S., Hartmann, K. E., Gavin, N. I., Hasselblad, V. and Idicula, A. E. (2003). Tocolytic treatment for the management of preterm labor: a review of the evidence. *American Journal of Obstetrics & Gynecology* 188(6): 1648-59.
- Beveridge, C. J. E. and Wilkinson, A. R. (2006). Sodium bicarbonate infusion during resuscitation of infants at birth. *Cochrane Database of Systematic Reviews*, (Issue 1), CD004864.

- Bhuta, T. and Henderson-Smart, D. J. (1998). Elective high frequency jet ventilation versus conventional ventilation for respiratory distress syndrome in preterm infants. Cochrane Database of Systematic Reviews, (Issue 2), CD000328.
- Bhuta, T. and Henderson-Smart, D. J. (1998). Rescue high frequency oscillatory ventilation versus conventional ventilation for pulmonary dysfunction in preterm infants. Cochrane Database of Systematic Reviews, (Issue 2), CD000438.
- Bhuta, T. and Ohlsson, A. (1998). Systematic review and meta-analysis of early postnatal dexamethasone for prevention of chronic lung disease. Archives of Disease in Childhood Fetal & Neonatal Edition 79(1): F26-33.
- Blondel, B. and Breart, G. (1995). Home visits during pregnancy: consequences on pregnancy outcome, use of health services, and women's situations. Seminars in Perinatology 19(4): 263-71.
- Bombell, S. and McGuire, W. (2008). Delayed introduction of progressive enteral feeds to prevent necrotising enterocolitis in very low birth weight infants. Cochrane Database of Systematic Reviews, (Issue 2), CD001970.
- Botto, L. D., Olney, R. S. and Erickson, J. D. (2004). Vitamin Supplements and the Risk for Congenital Anomalies Other Than Neural Tube Defects. American Journal of Medical Genetics - Seminars in Medical Genetics 125 C(1): 12-21.
- Bricker, L., Neilson, J. P. and Dowswell, T. (2008). Routine ultrasound in late pregnancy (after 24 weeks' gestation). Cochrane Database of Systematic Reviews, (Issue 4), CD001451.
- Brion, L. P., Bell, E. F. and Raghubeer, T. S. (2003). Vitamin E supplementation for prevention of morbidity and mortality in preterm infants. Cochrane Database of Systematic Reviews, (Issue 4), CD003665.
- Brion, L. P., Primhak, R. A. and Ambrosio-Perez, I. (2002). Diuretics acting on the distal renal tubule for preterm infants with (or developing) chronic lung disease. Cochrane Database of Systematic Reviews, (Issue 1), CD001817.
- Brion, L. P., Primhak, R. A. and Yong, W. (2006). Aerosolized diuretics for preterm infants with (or developing) chronic lung disease. Cochrane Database of Systematic Reviews, (Issue 3), CD001694.
- Brion, L. P. and Soll, R. F. (2008). Diuretics for respiratory distress syndrome in preterm infants. Cochrane Database of Systematic Reviews, (Issue 1), CD001454.
- Brownfoot, F. C., Crowther, C. A. and Middleton, P. (2008). Different corticosteroids and regimens for accelerating fetal lung maturation for women at risk of preterm birth. Cochrane Database of Systematic Reviews, (Issue 4), CD006764.
- Bury, R. G. and Tudehope, D. (2001). Enteral antibiotics for preventing necrotizing enterocolitis in low birthweight or preterm infants. Cochrane Database of Systematic Reviews, (Issue 1), CD000405.
- Carr, R., Modi, N. and Dore, C. (2003). G-CSF and GM-CSF for treating or preventing neonatal infections. Cochrane Database of Systematic Reviews, (Issue 3), CD003066.
- Ceysens, G., Rouiller, D. and Boulvain, M. (2006). Exercise for diabetic pregnant women. Cochrane Database of Systematic Reviews, (Issue 3), CD004225.

- Chaudhari, T. and McGuire, W. (2008). Allopurinol for preventing mortality and morbidity in newborn infants with suspected hypoxic-ischaemic encephalopathy. Cochrane Database of Systematic Reviews, (Issue 2), CD006817.
- Churchill, D., Beavers, G. D., Meher, S. and Rhodes, C. (2007). Diuretics for preventing pre-eclampsia. Cochrane Database of Systematic Reviews, (Issue 1), CD004451.
- Churchill, D. and Duley, L. (2002). Interventionist versus expectant care for severe pre-eclampsia before term. Cochrane Database of Systematic Reviews, (Issue 3), CD003106.
- Clark, T. J., Martin, W. L., Divakaran, T. G., Whittle, M. J., Kilby, M. D. and Khan, K. S. (2003). Prenatal bladder drainage in the management of fetal lower urinary tract obstruction: a systematic review and meta-analysis. *Obstetrics & Gynecology* 102(2): 367-82.
- Clerihew, L., Austin, N. and McGuire, W. (2007). Prophylactic systemic antifungal agents to prevent mortality and morbidity in very low birth weight infants. Cochrane Database of Systematic Reviews, (Issue 4), CD003850.
- Clerihew, L. and McGuire, W. (2004). Systemic antifungal drugs for invasive fungal infection in preterm infants. Cochrane Database of Systematic Reviews, (Issue 1), CD003953.
- Colton, T., Kayne, H. L., Zhang, Y. and Heeren, T. (1995). A metaanalysis of home uterine activity monitoring. *American Journal of Obstetrics & Gynecology* 173(5): 1499-505.
- Conner, J. M., Soll, R. F. and Edwards, W. H. (2004). Topical ointment for preventing infection in preterm infants. Cochrane Database of Systematic Reviews, (Issue 1), CD001150.
- Cooke, L., Steer, P. and Woodgate, P. (2003). Indomethacin for asymptomatic patent ductus arteriosus in preterm infants. Cochrane Database of Systematic Reviews, (Issue 2), CD003745.
- Coomarasamy, A., Honest, H., Papaioannou, S., Gee, H. and Khan, K. S. (2003). Aspirin for prevention of preeclampsia in women with historical risk factors: A systematic review. *Obstetrics & Gynecology* 101(6): 1319-1332.
- Coomarasamy, A., Thangaratinam, S., Gee, H. and Khan, K. S. (2006). Progesterone for the prevention of preterm birth: A critical evaluation of evidence. *European Journal of Obstetrics Gynecology and Reproductive Biology* 129(2): 111-118.
- Craft, A. P., Finer, N. N. and Barrington, K. J. (2000). Vancomycin for prophylaxis against sepsis in preterm neonates. Cochrane Database of Systematic Reviews, (Issue 2), CD001971.
- Cramer, K., Wiebe, N., Hartling, L., Crumley, E. and Vohra, S. (2005). Heat loss prevention: a systematic review of occlusive skin wrap for premature neonates. *Journal of Perinatology* 25(12): 763-9.
- Crowley, P., Chalmers, I. and Keirse, M. J. (1990). The effects of corticosteroid administration before preterm delivery: an overview of the evidence from controlled trials. *British Journal of Obstetrics and Gynaecology* 97(1): 11-25.
- Crowther, C. A. (2001). Hospitalisation and bed rest for multiple pregnancy. Cochrane Database of Systematic Reviews, (Issue 1), CD000110.

- Crowther, C. A., Alfirevic, Z. and Haslam, R. R. (2004). Thyrotropin-releasing hormone added to corticosteroids for women at risk of preterm birth for preventing neonatal respiratory disease. Cochrane Database of Systematic Reviews, (Issue 2), CD000019.
- Crowther, C. A. and Harding, J. E. (2007). Repeat doses of prenatal corticosteroids for women at risk of preterm birth for preventing neonatal respiratory disease. Cochrane Database of Systematic Reviews, (Issue 3), CD003935.
- Crowther, C. A. and Henderson-Smart, D. J. (2001). Vitamin K prior to preterm birth for preventing neonatal periventricular haemorrhage. Cochrane Database of Systematic Reviews, (Issue 1), CD000229.
- Crowther, C. A. and Henderson-Smart, D. J. (2003). Phenobarbital prior to preterm birth for preventing neonatal periventricular haemorrhage. Cochrane Database of Systematic Reviews, (Issue 3), CD000164.
- Crowther, C. A., Hiller, J. E. and Doyle, L. W. (2002). Magnesium sulphate for preventing preterm birth in threatened preterm labour. Cochrane Database of Systematic Reviews, (Issue 4), CD001060.
- Crowther, C. A. and Moore, V. (1998). Magnesium maintenance therapy for preventing preterm birth after threatened preterm labour. Cochrane Database of Systematic Reviews, (Issue 1), CD000940.
- Cua, C. L., Thiagarajan, R. R., Taeed, R., Hoffman, T. M., Lai, L., Hayes, J., Laussen, P. C. and Feltes, T. F. (2005). Improved interstage mortality with the modified Norwood procedure: a meta-analysis. *Annals of Thoracic Surgery* 80(1): 44-9.
- Dare, M. R., Crowther, C. A., Dodd, J. M. and Norman, R. J. (2004). Single or multiple embryo transfer following in vitro fertilisation for improved neonatal outcome: a systematic review of the literature. *Australian and New Zealand Journal of Obstetrics and Gynaecology* 44(4): 283-91.
- Dare, M. R., Middleton, P., Crowther, C. A., Flenady, V. J. and Varatharaju, B. (2006). Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more). Cochrane Database of Systematic Reviews, (Issue 1), CD005302.
- Darlow, B. A. and Austin, N. C. (2003). Selenium supplementation to prevent short-term morbidity in preterm neonates. Cochrane Database of Systematic Reviews, (Issue 4), CD003312.
- Darlow, B. A. and Graham, P. J. (2007). Vitamin A supplementation to prevent mortality and short and long-term morbidity in very low birthweight infants. Cochrane Database of Systematic Reviews, (Issue 4), CD000501.
- Davies, M. W., Kimble, R. M. and Woodgate, P. G. (2002). Ward reduction without general anaesthesia versus reduction and repair under general anaesthesia for gastroschisis in newborn infants. Cochrane Database of Systematic Reviews, (Issue 3), CD003671.
- Davies, M. W. and Woodgate, P. G. (2002). Tracheal gas insufflation for the prevention of morbidity and mortality in mechanically ventilated newborn infants. Cochrane Database of Systematic Reviews, (Issue 2), CD002973.
- Davis, P. G., Tan, A., O'Donnell, C. P. and Schulze, A. (2004). Resuscitation of newborn infants with 100% oxygen or air: a systematic review and meta-analysis. *Lancet* 364(9442): 1329-33.

- Dempsey, E. M. and Barrington, K. J. (2007). Treating hypotension in the preterm infant: when and with what: a critical and systematic review. *Journal of Perinatology* 27(8): 469-78.
- Dennis, C.-L. and Kingston, D. (2008). A systematic review of telephone support for women during pregnancy and the early postpartum period. *JOGNN - Journal of Obstetric, Gynecologic, & Neonatal Nursing* 37(3): 301-14.
- Deshpande, G., Rao, S. and Patole, S. (2007). Probiotics for prevention of necrotising enterocolitis in preterm neonates with very low birthweight: a systematic review of randomised controlled trials. *Lancet* 369(9573): 1614-20.
- Dimmick, S., Badawi, N. and Randell, T. (2004). Thyroid hormone supplementation for the prevention of morbidity and mortality in infants undergoing cardiac surgery. *Cochrane Database of Systematic Reviews*, (Issue 3), CD004220.
- Dodd, J. and Crowther, C. (2004). Multifetal pregnancy reduction of triplet and higher-order multiple pregnancies to twins. *Fertility and Sterility* 81(5): 1420-1422.
- Dodd, J. M. and Crowther, C. A. (2006). Elective repeat caesarean section versus induction of labour for women with a previous caesarean birth. *Cochrane Database of Systematic Reviews*, (Issue 4), CD004906.
- Dodd, J. M. and Crowther, C. A. (2007). Specialised antenatal clinics for women with a multiple pregnancy for improving maternal and infant outcomes. *Cochrane Database of Systematic Reviews*, (Issue 2), CD005300.
- Dodd, J. M., Crowther, C. A., Cincotta, R., Flenady, V. and Robinson, J. S. (2005). Progesterone supplementation for preventing preterm birth: a systematic review and meta-analysis. *Acta Obstetricia et Gynecologica Scandinavica* 84(6): 526-33.
- Dodd, J. M., Crowther, C. A. and Dare, M. R. (2003). Reduction of the number of fetuses for women with triplet and higher order multiple pregnancies. *Cochrane Database of Systematic Reviews*, (Issue 2), CD003932.
- Dodd, J. M., Crowther, C. A., Dare, M. R. and Middleton, P. (2006). Oral betamimetics for maintenance therapy after threatened preterm labour. *Cochrane Database of Systematic Reviews*, (Issue 1), CD003927.
- Dodd, J. M., Flenady, V., Cincotta, R. and Crowther, C. A. (2006). Prenatal administration of progesterone for preventing preterm birth. *Cochrane Database of Systematic Reviews*, (Issue 1), CD004947.
- Dodd, J. M., Flenady, V. J., Cincotta, R. and Crowther, C. A. (2008). Progesterone for the prevention of preterm birth: a systematic review. *Obstetrics & Gynecology* 112(1): 127-34.
- Dodd, J. M., Sahi, K., McLeod, A., Windrim, R. C. and Kingdom, J. P. C. (2008). Heparin therapy for complications of placental dysfunction: a systematic review of the literature. *Acta Obstetricia et Gynecologica Scandinavica* 87(8): 804-11.
- Doggett, C., Burrett Sara, L. and Osborn David, A. (2005). Home visits during pregnancy and after birth for women with an alcohol or drug problem. *Cochrane Database of Systematic Reviews*, (Issue 4), CD004456.
- Doyle, L. and Davis, P. (2000). Postnatal corticosteroids in preterm infants: systematic review of effects on mortality and motor function. *Journal of Paediatrics & Child Health* 36(2): 101-7.

- Doyle, L. W., Crowther, C. A., Middleton, P., Marret, S. and Rouse, D. (2009). Magnesium sulphate for women at risk of preterm birth for neuroprotection of the fetus. Cochrane Database of Systematic Reviews, (Issue 1), CD004661.
- Doyle, L. W., Halliday, H. L., Ehrenkranz, R. A., Davis, P. G. and Sinclair, J. C. (2005). Impact of Postnatal Systemic Corticosteroids on Mortality and Cerebral Palsy in Preterm Infants: Effect Modification by Risk for Chronic Lung Disease. *Pediatrics* 115(3): 655-661.
- Drakeley, A. J., Roberts, D. and Alfirevic, Z. (2003). Cervical stitch (cerclage) for preventing pregnancy loss in women. Cochrane Database of Systematic Reviews, (Issue 1), CD003253.
- Duckitt, K. and Thornton, S. (2002). Nitric oxide donors for the treatment of preterm labour. Cochrane Database of Systematic Reviews, (Issue 3), CD002860.
- Duley, L., Gulmezoglu, A. M. and Henderson-Smart, D. J. (2003). Magnesium sulphate and other anticonvulsants for women with pre-eclampsia. Cochrane Database of Systematic Reviews, (Issue 2), CD000025.
- Duley, L., Henderson-Smart, D. J. and Meher, S. (2006). Drugs for treatment of very high blood pressure during pregnancy. Cochrane Database of Systematic Reviews, (Issue 3), CD001449.
- Duley, L., Henderson-Smart, D. J., Meher, S. and King, J. F. (2007). Antiplatelet agents for preventing pre-eclampsia and its complications. Cochrane Database of Systematic Reviews, (Issue 2), CD004659.
- East, C. E., Chan, F. Y., Colditz, P. B. and Begg, L. (2007). Fetal pulse oximetry for fetal assessment in labour. Cochrane Database of Systematic Reviews, (Issue 2), CD004075.
- Egarter, C., Leitich, H., Husslein, P., Kaider, A. and Schemper, M. (1996). Adjunctive antibiotic treatment in preterm labor and neonatal morbidity: A meta-analysis. *Obstetrics & Gynecology* 88(2): 303-309.
- Farrar, D., Tuffnell, D. J. and West, J. (2007). Continuous subcutaneous insulin infusion versus multiple daily injections of insulin for pregnant women with diabetes. Cochrane Database of Systematic Reviews, (Issue 3), CD005542.
- Ferrer, R. L., Sibai, B. M., Mulrow, C. D., Chiquette, E., Stevens, K. R. and Cornell, J. (2000). Management of mild chronic hypertension during pregnancy: a review. *Obstetrics & Gynecology* 96(5 Pt 2): 849-60.
- Finer, N. N. and Barrington, K. J. (2006). Nitric oxide for respiratory failure in infants born at or near term. Cochrane Database of Systematic Reviews, (Issue 4), CD000399.
- Fink, A., Yano, E. M. and Goya, D. (1992). Prenatal programs: what the literature reveals. *Obstetrics & Gynecology* 80(5): 867-72.
- Flenady, V. and King, J. (2002). Antibiotics for prelabour rupture of membranes at or near term. Cochrane Database of Systematic Reviews, (Issue 3), CD001807.
- Foster, J. and Cole, M. (2004). Oral immunoglobulin for preventing necrotizing enterocolitis in preterm and low birth-weight neonates. Cochrane Database of Systematic Reviews, (Issue 1), CD001816.
- Foster, J., Richards, R. and Showell, M. (2006). Intravenous in-line filters for preventing morbidity and mortality in neonates. Cochrane Database of Systematic Reviews, (Issue 2), CD005248.

- Fowlie, P. W. and Davis, P. G. (2002). Prophylactic intravenous indomethacin for preventing mortality and morbidity in preterm infants. Cochrane Database of Systematic Reviews, (Issue 3), CD000174.
- Fuller, H. and Del Mar, C. (2006). Immunoglobulin treatment for respiratory syncytial virus infection. Cochrane Database of Systematic Reviews, (Issue 4), CD004883.
- Gaunekar, N. N. and Crowther, C. A. (2004). Maintenance therapy with calcium channel blockers for preventing preterm birth after threatened preterm labour. Cochrane Database of Systematic Reviews, (Issue 3), CD004071.
- Goh, Y. I., Bollano, E., Einarsen, T. R. and Koren, G. (2006). Prenatal multivitamin supplementation and rates of congenital anomalies: a meta-analysis. Journal of Obstetrics & Gynaecology Canada: JOGC 28(8): 680-9.
- Görk, A. S., Ehrenkranz Richard, A. and Bracken Michael, B. (2008). Continuous infusion versus intermittent bolus doses of indomethacin for patent ductus arteriosus closure in symptomatic preterm infants. Cochrane Database of Systematic Reviews, (Issue 1), CD006071.
- Grant, A. and Glazener, C. M. (2001). Elective caesarean section versus expectant management for delivery of the small baby. Cochrane Database of Systematic Reviews, (Issue 2), CD000078.
- Greenough, A., Dimitriou, G., Prendergast, M. and Milner, A. D. (2008). Synchronized mechanical ventilation for respiratory support in newborn infants. Cochrane Database of Systematic Reviews, (Issue 1), CD000456.
- Grivell, R., Wong, L. and Bhatia, V. (2009). Regimens of fetal surveillance for impaired fetal growth. Cochrane Database of Systematic Reviews, (Issue 1), CD007113.
- Grover, Z., Tubman, R. and McGuire, W. (2007). Glutamine supplementation for young infants with severe gastrointestinal disease. Cochrane Database of Systematic Reviews, (Issue 1), CD005947.
- Guise, J. M., Mahon, S. M., Aickin, M., Helfand, M., Peipert, J. F. and Westhoff, C. (2001). Screening for bacterial vaginosis in pregnancy. American Journal of Preventive Medicine 20(3 Suppl): 62-72.
- Gulmezoglu, A. M. (2002). Interventions for trichomoniasis in pregnancy. Cochrane Database of Systematic Reviews, (Issue 3), CD000220.
- Gulmezoglu, A. M., Crowther, C. A. and Middleton, P. (2006). Induction of labour for improving birth outcomes for women at or beyond term. Cochrane Database of Systematic Reviews, (Issue 4), CD004945.
- Haider, B. A. and Bhutta, Z. A. (2006). Multiple-micronutrient supplementation for women during pregnancy. Cochrane Database of Systematic Reviews, (Issue 4), CD004905.
- Halliday, H., Ehrenkranz, R. A. and Doyle, L. W. (2009). Early (< 8 days) postnatal corticosteroids for preventing chronic lung disease in preterm infants. Cochrane Database of Systematic Reviews, (Issue 1), CD001146.
- Halliday, H. L. (1996). Natural vs synthetic surfactants in neonatal respiratory distress syndrome. Drugs 51(2): 226-237.
- Halliday, H. L. (1999). Clinical trials of postnatal corticosteroids: Inhaled and systemic. Biology of the Neonate 76(SUPPL. 1): 29-40.

- Halliday, H. L., Ehrenkranz, R. A. and Doyle, L. W. (2003). Moderately early (7-14 days) postnatal corticosteroids for preventing chronic lung disease in preterm infants. Cochrane Database of Systematic Reviews, (Issue 1), CD001144.
- Halliday, H. L., Ehrenkranz, R. A. and Doyle, L. W. (2009). Late (>7 days) postnatal corticosteroids for chronic lung disease in preterm infants. Cochrane Database of Systematic Reviews, (Issue 1), CD001145.
- Halliday, H. L. and Sweet, D. G. (2001). Endotracheal intubation at birth for preventing morbidity and mortality in vigorous, meconium-stained infants born at term. Cochrane Database of Systematic Reviews, (Issue 1), CD000500.
- Haque, K. and Mohan, P. (2003). Pentoxifylline for treatment of sepsis and necrotizing enterocolitis in neonates. Cochrane Database of Systematic Reviews, (Issue 2), CD004205.
- Harding, J. E., Pang, J., Knight, D. B. and Liggins, G. C. (2001). Do antenatal corticosteroids help in the setting of preterm rupture of membranes? American Journal of Obstetrics & Gynecology 184(2): 131-9.
- Hartling, L., Chari, R., Friesen, C., Vandermeer, B. and Lacaze-Masmonteil, T. (2006). A systematic review of intentional delivery in women with preterm prelabor rupture of membranes. Journal of Maternal-Fetal & Neonatal Medicine 19(3): 177-87.
- Henderson-Smart, D. J., Cools, F., Bhuta, T. and Offringa, M. (2007). Elective high frequency oscillatory ventilation versus conventional ventilation for acute pulmonary dysfunction in preterm infants. Cochrane Database of Systematic Reviews, (Issue 3), CD000104.
- Henderson-Smart, D. J. and Davis, P. G. (2000). Prophylactic doxapram for the prevention of morbidity and mortality in preterm infants undergoing endotracheal extubation. Cochrane Database of Systematic Reviews, (Issue 3), CD001966.
- Henderson-Smart, D. J., Subramaniam, P. and Davis, P. G. (2001). Continuous positive airway pressure versus theophylline for apnea in preterm infants. Cochrane Database of Systematic Reviews, (Issue 4), CD001072.
- Henderson-Smart, D. J., Wilkinson, A. and Raynes-Greenow, C. H. (2002). Mechanical ventilation for newborn infants with respiratory failure due to pulmonary disease. Cochrane Database of Systematic Reviews, (Issue 4), CD002770.
- Herrera, C., Holberton, J. and Davis, P. (2007). Prolonged versus short course of indomethacin for the treatment of patent ductus arteriosus in preterm infants. Cochrane Database of Systematic Reviews, (Issue 2), CD003480.
- Hillier, T. A., Vesco, K. K., Pedula, K. L., Beil, T. L., Whitlock, E. P. and Pettitt, D. J. (2008). Screening for gestational diabetes mellitus: a systematic review for the U.S. Preventive Services Task Force. Annals of Internal Medicine 148(10): 766-75.
- Ho, J. J., Henderson-Smart, D. J. and Davis, P. G. (2002). Early versus delayed initiation of continuous distending pressure for respiratory distress syndrome in preterm infants. Cochrane Database of Systematic Reviews, (Issue 2), CD002975.
- Ho, J. J., Subramaniam, P., Henderson-Smart, D. J. and Davis, P. G. (2002). Continuous distending pressure for respiratory distress syndrome in preterm infants. Cochrane Database of Systematic Reviews, (Issue 2), CD002271.
- Hodnett, E. D. and Fredericks, S. (2003). Support during pregnancy for women at increased risk of low birthweight babies. Cochrane Database of Systematic Reviews, (Issue 3), CD000198.

- Hoehn, T., Krause, M. F. and Buhrer, C. (2006). Meta-analysis of inhaled nitric oxide in premature infants: an update. *Klinische Padiatrie* 218(2): 57-61.
- Hofmeyr, G. J., Atallah, A. N. and Duley, L. (2006). Calcium supplementation during pregnancy for preventing hypertensive disorders and related problems. Cochrane Database of Systematic Reviews, (Issue 3), CD001059.
- Hofmeyr, G. J., Duley, L. and Atallah, A. (2007). Dietary calcium supplementation for prevention of pre-eclampsia and related problems: a systematic review and commentary. *BJOG: An International Journal of Obstetrics & Gynaecology* 114(8): 933-43.
- Hofmeyr, G. J. and Hannah, M. E. (2003). Planned caesarean section for term breech delivery. Cochrane Database of Systematic Reviews, (Issue 3), CD000166.
- Hofmeyr, G. J. and Kulier, R. (1998). Abdominal decompression in normal pregnancy. Cochrane Database of Systematic Reviews, (Issue 1), CD001062.
- Hogle, K. L., Hutton, E. K., McBrien, K. A., Barrett, J. F. R. and Hannah, M. E. (2003). Cesarean delivery for twins: A systematic review and meta-analysis. *American Journal of Obstetrics and Gynecology* 188(1): 220-227.
- Hopkins, L. and Smaill, F. (2002). Antibiotic regimens for management of intraamniotic infection. Cochrane Database of Systematic Reviews, (Issue 3), CD003254.
- Horvath, A., Koletzko, B. and Szajewska, H. (2007). Effect of supplementation of women in high-risk pregnancies with long-chain polyunsaturated fatty acids on pregnancy outcomes and growth measures at birth: a meta-analysis of randomized controlled trials. *British Journal of Nutrition* 98(2): 253-9.
- Howlett, A. and Ohlsson, A. (2003). Inositol for respiratory distress syndrome in preterm infants. Cochrane Database of Systematic Reviews, (Issue 4), CD000366.
- Hueston, W. J., Knox, M. A., Eilers, G., Pauwels, J. and Lonsdorf, D. (1995). The effectiveness of preterm-birth prevention educational programs for high-risk women: A meta-analysis. *Obstetrics & Gynecology* 86(4 II SUPPL.): 705-712.
- Hunt, R., Davis, P. G. and Inder, T. (2004). Replacement of estrogens and progestins to prevent morbidity and mortality in preterm infants. Cochrane Database of Systematic Reviews, (Issue 4), CD003848.
- Hutton, E. K. and Hofmeyr, G. J. (2006). External cephalic version for breech presentation before term. Cochrane Database of Systematic Reviews, (Issue 1), CD000084.
- Hutzal, C. E., Boyle, E. M., Kenyon, S. L., Nash, J. V., Winsor, S., Taylor, D. J. and Kirpalani, H. (2008). Use of antibiotics for the treatment of preterm parturition and prevention of neonatal morbidity: a meta analysis. *American Journal of Obstetrics & Gynecology* 199(6): 620.e1-8.
- Ibrahim, M., Sinn, J. and McGuire, W. (2006). Iodine supplementation for the prevention of mortality and adverse neurodevelopmental outcomes in preterm infants. Cochrane Database of Systematic Reviews, (Issue 2), CD005253.
- Imperiale, T. F. and Petrulis, A. S. (1991). A meta-analysis of low-dose aspirin for the prevention of pregnancy-induced hypertensive disease. *JAMA* 266(2): 260-4.
- Inglis, G. D., Jardine, L. A. and Davies, M. W. (2007). Prophylactic antibiotics to reduce morbidity and mortality in neonates with umbilical artery catheters. Cochrane Database of Systematic Reviews, (Issue 4), CD004697.

- Inglis, G. D. T., Jardine, L. A. and Davies, M. W. (2007). Prophylactic antibiotics to reduce morbidity and mortality in ventilated newborn infants. Cochrane Database of Systematic Reviews, (Issue 3), CD004338.
- Ishisaka, D. Y. (1996). Exogenous surfactant use in neonates. *Annals of Pharmacotherapy* 30(4): 389-98.
- Jacobs, S., Hunt, R., Tarnow-Mordi, W., Inder, T. and Davis, P. (2007). Cooling for newborns with hypoxic ischaemic encephalopathy. Cochrane Database of Systematic Reviews, (Issue 4), CD003311.
- Jardine, L. A., Inglis, G. D. and Davies, M. W. (2008). Prophylactic systemic antibiotics to reduce morbidity and mortality in neonates with central venous catheters. Cochrane Database of Systematic Reviews, (Issue 1), CD006179.
- Jardine, L. A., Jenkins-Manning, S. and Davies, M. W. (2004). Albumin infusion for low serum albumin in preterm newborn infants. Cochrane Database of Systematic Reviews, (Issue 3), CD004208.
- Jorgensen, A. L., Alfirevic, Z., Tudur, S. C. and Williamson, P. R. (2007). Cervical stitch (cerclage) for preventing pregnancy loss: Individual patient data meta-analysis. *BJOG: An International Journal of Obstetrics and Gynaecology* 114(12): 1460-1476.
- Joshi, V. H. and Bhuta, T. (2006). Rescue high frequency jet ventilation versus conventional ventilation for severe pulmonary dysfunction in preterm infants. Cochrane Database of Systematic Reviews, (Issue 1), CD000437.
- Kabra, N. S., Kumar, M. and Shah, S. S. (2005). Multiple versus single lumen umbilical venous catheters for newborn infants. Cochrane Database of Systematic Reviews, (Issue 3), CD004498.
- Kamlin, C. O. and Davis, P. G. (2003). Long versus short inspiratory times in neonates receiving mechanical ventilation. Cochrane Database of Systematic Reviews, (Issue 4), CD004503.
- Kenyon, S., Boulvain, M. and Neilson, J. (2003). Antibiotics for preterm rupture of membranes. Cochrane Database of Systematic Reviews, (Issue 2), CD001058.
- Kenyon, S., Boulvain, M. and Neilson, J. (2004). Antibiotics for preterm rupture of the membranes: a systematic review. *Obstetrics & Gynecology* 104(5 Pt 1): 1051-7.
- Khan-Neelofur, D., Gulmezoglu, M. and Villar, J. (1998). Who should provide routine antenatal care for low-risk women, and how often? A systematic review of randomised controlled trials. *Paediatric and Perinatal Epidemiology* 12(SUPPL. 2): 7-26.
- King, J. and Flenady, V. (2002). Prophylactic antibiotics for inhibiting preterm labour with intact membranes. Cochrane Database of Systematic Reviews, (Issue 4), CD000246.
- King, J., Flenady, V., Cole, S. and Thornton, S. (2005). Cyclo-oxygenase (COX) inhibitors for treating preterm labour. Cochrane Database of Systematic Reviews, (Issue 2), CD001992.
- King, J. F., Flenady, V. J., Papatsonis, D. N., Dekker, G. A. and Carbone, B. (2003). Calcium channel blockers for inhibiting preterm labour. Cochrane Database of Systematic Reviews, (Issue 1), CD002255.
- Korenbrot, C. C., Steinberg, A., Bender, C. and Newberry, S. (2002). Preconception care: a systematic review. *Maternal and Child Health Journal* 6(2): 75-88.

- Koumans, E. H., Markowitz, L. E. and Hogan, V. (2002). Indications for therapy and treatment recommendations for bacterial vaginosis in nonpregnant and pregnant women: A synthesis of data. *Clinical Infectious Diseases* 35(SUPPL. 2): S152-S172.
- Kramer, M. S. and Kakuma, R. (2003). Energy and protein intake in pregnancy. *Cochrane Database of Systematic Reviews*, (Issue 4), CD000032.
- Kresch, M. J. and Clive, J. M. (1998). Meta-analyses of surfactant replacement therapy of infants with birth weights less than 2000 grams. *Journal of Perinatology* 18(4): 276-83.
- Kylat, R. I. and Ohlsson (2006). Recombinant human activated protein C for severe sepsis in neonates. *Cochrane Database of Systematic Reviews*, (Issue 2), CD005385.
- Lacy, J. B. and Ohlsson, A. (1995). Administration of intravenous immunoglobulins for prophylaxis or treatment of infection in preterm infants: Meta-analysis. *Archives of Disease in Childhood* 72(3 SUPPL.): F151-F155.
- Lai, N. M., Rajadurai, S. V. and Tan, K. H. (2006). Increased energy intake for preterm infants with (or developing) bronchopulmonary dysplasia/ chronic lung disease. *Cochrane Database of Systematic Reviews*, (Issue 3), CD005093.
- Laroia, N., Phelps, D. L. and Roy, J. (2007). Double wall versus single wall incubator for reducing heat loss in very low birth weight infants in incubators. *Cochrane Database of Systematic Reviews*, (Issue 2), CD004215.
- Lawn, C. J., Weir, F. J. and McGuire, W. (2005). Base administration or fluid bolus for preventing morbidity and mortality in preterm infants with metabolic acidosis. *Cochrane Database of Systematic Reviews*, (Issue 2), CD003215.
- Leitich, H., Egarter, C., Reisenberger, K., Kaider, A. and Berghammer, P. (1998). Concomitant use of glucocorticoids: a comparison of two metaanalyses on antibiotic treatment in preterm premature rupture of membranes. *American Journal of Obstetrics & Gynecology* 178(5): 899-908.
- Li, X., Zhang, Y. and Shi, Z. (2005). Ritodrine in the treatment of preterm labour: a meta-analysis. *Indian Journal of Medical Research* 121(2): 120-7.
- Lodha, A., Furlan, A. D., Whyte, H. and Moore, A. M. (2008). Prophylactic antibiotics in the prevention of catheter-associated bloodstream bacterial infection in preterm neonates: a systematic review. *Journal of Perinatology* 28(8): 526-33.
- Loe S.M, S.-R. L. K. A. M. (2005). Assessing the neonatal safety of indomethacin tocolysis: A systematic review with meta-analysis. *Obstetrics & Gynecology* 106(1): 173-179.
- Lumley, J., Oliver, S. S., Chamberlain, C. and Oakley, L. (2004). Interventions for promoting smoking cessation during pregnancy. *Cochrane Database of Systematic Reviews*, (Issue 4), CD001055.
- Lumley, J., Watson, L., Watson, M. and Bower, C. (2001). Periconceptional supplementation with folic acid and/or multivitamins for preventing neural tube defects. *Cochrane Database of Systematic Reviews*, (Issue 3), CD001056.
- Lust, A., De Catte, L., Lewi, L., Deprest, J., Loquet, P. and Devlieger, R. (2008). Monochorionic and dichorionic twin pregnancies discordant for fetal anencephaly: a systematic review of prenatal management options. *Prenatal Diagnosis* 28(4): 275-9.

- Mackenzie, R., Walker, M., Armson, A. and Hannah, M. E. (2006). Progesterone for the prevention of preterm birth among women at increased risk: A systematic review and meta-analysis of randomized controlled trials. *American Journal of Obstetrics and Gynecology* 194(5): 1234-1242.
- MacConaughton, G. A., Berlin, M. and Berlin, J. A. (1995). Efficacy of oral beta-antagonist maintenance therapy in preterm labor: A meta-analysis. *Obstetrics & Gynecology* 85(2): 313-317.
- MacConaughton, G. A., Sehdev, H. M., Berlin, M., Morgan, M. A. and Berlin, J. A. (1997). Evidence for magnesium sulfate as a tocolytic agent. *Obstetrical & Gynecological Survey* 52(10): 652-8.
- Magee, L. A. and Duley, L. (2003). Oral beta-blockers for mild to moderate hypertension during pregnancy. *Cochrane Database of Systematic Reviews*, (Issue 3), CD002863.
- Magee, L. A., Elran, E., Bull, S. B., Logan, A. and Koren, G. (2000). Risks and benefits of beta-receptor blockers for pregnancy hypertension: Overview of the randomized trials. *European Journal of Obstetrics Gynecology and Reproductive Biology* 88(1): 15-26.
- Mahomed, K., Bhutta, Z. and Middleton, P. (2007). Zinc supplementation for improving pregnancy and infant outcome. *Cochrane Database of Systematic Reviews*, (Issue 2), CD000230.
- Makrides, M. and Crowther, C. A. (2001). Magnesium supplementation in pregnancy. *Cochrane Database of Systematic Reviews*, (Issue 4), CD000937.
- Makrides, M., Duley, L. and Olsen, S. F. (2006). Marine oil, and other prostaglandin precursor, supplementation for pregnancy uncomplicated by pre-eclampsia or intrauterine growth restriction. *Cochrane Database of Systematic Reviews*, (Issue 3), CD003402.
- Malviya, M., Ohlsson, A. and Shah, S. (2008). Surgical versus medical treatment with cyclooxygenase inhibitors for symptomatic patent ductus arteriosus in preterm infants. *Cochrane Database of Systematic Reviews*, (Issue 1), CD003951.
- Mangels, L. and Hofmeyr, G. J. (2007). Fetal movement counting for assessment of fetal wellbeing. *Cochrane Database of Systematic Reviews*, (Issue 1), CD004909.
- McCall, E. M., Alderdice, F. A., Halliday, H. L., Jenkins, J. G. and Vohra, S. (2008). Interventions to prevent hypothermia at birth in preterm and/or low birthweight infants. *Cochrane Database of Systematic Reviews*, (Issue 1), CD004210.
- McCallion, N., Davis, P. G. and Morley, C. J. (2005). Volume-targeted versus pressure-limited ventilation in the neonate. *Cochrane Database of Systematic Reviews*, (Issue 3), CD003666.
- McDonald, H. M., Brocklehurst, P. and Gordon, A. (2007). Antibiotics for treating bacterial vaginosis in pregnancy. *Cochrane Database of Systematic Reviews*, (Issue 1), CD000262.
- McGuire, W. and Bombell, S. (2008). Slow advancement of enteral feed volumes to prevent necrotising enterocolitis in very low birth weight infants. *Cochrane Database of Systematic Reviews*, (Issue 2), CD001241.
- McGuire, W., Fowlie, P. W. and Evans, D. J. (2004). Naloxone for preventing morbidity and mortality in newborn infants of greater than 34 weeks' gestation with suspected perinatal asphyxia. *Cochrane Database of Systematic Reviews*, (Issue 1), CD003955.

- McGuire, W. and McEwan, P. (2007). Transpyloric versus gastric tube feeding for preterm infants. Cochrane Database of Systematic Reviews, (Issue 3), CD003487.
- McLaughlin, K. J., Crowther, C. A., Walker, N. and Harding, J. E. (2003). Effects of a single course of corticosteroids given more than 7 days before birth: a systematic review. Australian and New Zealand Journal of Obstetrics and Gynaecology 43(2): 101-6.
- Meher, S., Abalos, E. and Carroli, G. (2005). Bed rest with or without hospitalisation for hypertension during pregnancy. Cochrane Database of Systematic Reviews, (Issue 4), CD003514.
- Meher, S. and Duley, L. (2006). Exercise or other physical activity for preventing pre-eclampsia and its complications. Cochrane Database of Systematic Reviews, (Issue 2), CD005942.
- Meher, S. and Duley, L. (2006). Garlic for preventing pre-eclampsia and its complications. Cochrane Database of Systematic Reviews, (Issue 3), CD006065.
- Meher, S. and Duley, L. (2006). Progesterone for preventing pre-eclampsia and its complications. Cochrane Database of Systematic Reviews, (Issue 4), CD006175.
- Meher, S. and Duley, L. (2006). Rest during pregnancy for preventing pre-eclampsia and its complications in women with normal blood pressure. Cochrane Database of Systematic Reviews, (Issue 2), CD005939.
- Meher, S. and Duley, L. (2007). Nitric oxide for preventing pre-eclampsia and its complications. Cochrane Database of Systematic Reviews, (Issue 2), CD006490.
- Meirowitz, N. B., Ananth, C. V., Smulian, J. C. and Vintzileos, A. M. (1999). Value of maintenance therapy with oral tocolytics: a systematic review. Journal of Maternal-Fetal & Neonatal Medicine 8(4): 177-83.
- Mercer, B. M. and Arheart, K. L. (1995). Antimicrobial therapy in expectant management of preterm premature rupture of the membranes. Lancet 346(8985): 1271-1279.
- Minozzi, S., Amato, L., Vecchi, S. and Davoli, M. (2008). Maintenance agonist treatments for opiate dependent pregnant women. Cochrane Database of Systematic Reviews, (Issue 2), CD006318.
- Mohan, P. and Abrams, S. A. (2009). Oral lactoferrin for the treatment of sepsis and necrotizing enterocolitis in neonates. Cochrane Database of Systematic Reviews, (Issue 1), CD007138.
- Mohan, P. and Brocklehurst, P. (2003). Granulocyte transfusions for neonates with confirmed or suspected sepsis and neutropaenia. Cochrane Database of Systematic Reviews, (Issue 4), CD003956.
- Morency, A. M. and Bujold, E. (2007). The effect of second-trimester antibiotic therapy on the rate of preterm birth. Journal of Obstetrics & Gynaecology Canada: JOGC 29(1): 35-44.
- Morgan, P. J., Kung, R. and Tarshis, J. (2002). Nitroglycerin as a uterine relaxant: a systematic review. Journal of Obstetrics & Gynaecology Canada: JOGC 24(5): 403-9.
- Mosalli, R. and Alfaleh, K. (2008). Prophylactic surgical ligation of patent ductus arteriosus for prevention of mortality and morbidity in extremely low birth weight infants. Cochrane Database of Systematic Reviews, (Issue 1), CD006181.

- Mozurkewich, E. L. and Fredric, W. M. (2000). Near-infrared spectroscopy for fetal assessment during labour. Cochrane Database of Systematic Reviews, (Issue 3), CD002254.
- Mozurkewich, E. L. and Hutton, E. K. (2000). Elective repeat cesarean delivery versus trial of labor: A meta-analysis of the literature from 1989 to 1999. American Journal of Obstetrics and Gynecology 183(5): 1187-1197.
- Mtitimila, E. I. and Cooke, R. W. I. (2004). Antibiotic regimens for suspected early neonatal sepsis. Cochrane Database of Systematic Reviews, (Issue 4), CD004495.
- Mugford, M., Elbourne, D. and Field, D. (2008). Extracorporeal membrane oxygenation for severe respiratory failure in newborn infants. Cochrane Database of Systematic Reviews, (Issue 3), CD001340.
- Nanda, K., Cook, L. A., Gallo, M. F. and Grimes, D. A. (2002). Terbutaline pump maintenance therapy after threatened preterm labor for preventing preterm birth. Cochrane Database of Systematic Reviews, (Issue 4), CD003933.
- Neilson, J. P. (1998). Ultrasound for fetal assessment in early pregnancy. Cochrane Database of Systematic Reviews, (Issue 4), CD000182.
- Neilson, J. P. (2003). Biochemical tests of placental function for assessment in pregnancy. Cochrane Database of Systematic Reviews, (Issue 2), CD000108.
- Neilson, J. P. (2003). Interventions for suspected placenta praevia. Cochrane Database of Systematic Reviews, (Issue 2), CD001998.
- Ng, G. Y., Da, S. and Ohlsson, A. (2001). Bronchodilators for the prevention and treatment of chronic lung disease in preterm infants. Cochrane Database of Systematic Reviews, (Issue 3), CD003214.
- Ng, G. Y. and Ohlsson, A. (2001). Cromolyn sodium for the prevention of chronic lung disease in preterm infants. Cochrane Database of Systematic Reviews, (Issue 2), CD003059.
- Nygren, P., Fu, R., Freeman, M., Bougatsos, C., Klebanoff, M., Guise, J. and US Preventive Services Task Force (2008). Clinical guidelines. Evidence on the benefits and harms of screening and treating pregnant women who are asymptomatic for bacterial vaginosis: an update review for the U.S. Preventive Services Task Force. Annals of Internal Medicine 148(3): 220-33, I30.
- Odibo, A. O., Elkousy, M., Ural, S. H. and Macones, G. A. (2003). Prevention of preterm birth by cervical cerclage compared with expectant management: a systematic review. Obstetrical & Gynecological Survey 58(2): 130-6.
- O'Donnell, C., Davis, P. and Morley, C. (2003). Positive end-expiratory pressure for resuscitation of newborn infants at birth. Cochrane Database of Systematic Reviews, (Issue 3), CD004341.
- Oei, S. G., Mol, B. W., de Kleine, M. J. and Brodmann, H. A. (1999). Nifedipine versus ritodrine for suppression of preterm labor; a meta-analysis. Acta Obstetricia et Gynecologica Scandinavica 78(9): 783-8.
- Ohlsson, A. and Lacy, J. B. (2004). Intravenous immunoglobulin for preventing infection in preterm and/or low-birth-weight infants. Cochrane Database of Systematic Reviews, (Issue 1), CD000361.

- Ohlsson, A. and Lacy, J. B. (2004). Intravenous immunoglobulin for suspected or subsequently proven infection in neonates. Cochrane Database of Systematic Reviews. England: CD001239.
- Ohlsson, A., Walia, R. and Shah, S. (2008). Ibuprofen for the treatment of patent ductus arteriosus in preterm and/or low birth weight infants. Cochrane Database of Systematic Reviews, (Issue 1), CD003481.
- Okun, N., Gronau, K. A. and Hannah, M. E. (2005). Antibiotics for bacterial vaginosis or Trichomonas vaginalis in pregnancy: a systematic review. *Obstetrics & Gynecology* 105(4): 857-68.
- Onland, W., De Jaegere, A. P., Offringa, M. and van Kaam, A. H. (2008). Effects of higher versus lower dexamethasone doses on pulmonary and neurodevelopmental sequelae in preterm infants at risk for chronic lung disease: a meta-analysis. *Pediatrics* 122(1): 92-101.
- Osborn, D. A. (2001). Thyroid hormones for preventing neurodevelopmental impairment in preterm infants. Cochrane Database of Systematic Reviews, (Issue 4), CD001070.
- Osborn, D. A. and Evans, N. (2001). Early volume expansion versus inotrope for prevention of morbidity and mortality in very preterm infants. Cochrane Database of Systematic Reviews, (Issue 2), CD002056.
- Osborn, D. A. and Evans, N. (2004). Early volume expansion for prevention of morbidity and mortality in very preterm infants. Cochrane Database of Systematic Reviews, (Issue 2), CD002055.
- Osborn, D. A. and Hunt, R. W. (2007). Postnatal thyroid hormones for preterm infants with transient hypothyroxinaemia. Cochrane Database of Systematic Reviews, (Issue 1), CD005945.
- Osborn, D. A. and Hunt, R. W. (2007). Postnatal thyroid hormones for respiratory distress syndrome in preterm infants. Cochrane Database of Systematic Reviews, (Issue 1), CD005946.
- Osborn, D. A. and Hunt, R. W. (2007). Prophylactic postnatal thyroid hormones for prevention of morbidity and mortality in preterm infants. Cochrane Database of Systematic Reviews, (Issue 1), CD005948.
- Osborn, D. A., Paradisis, M. and Evans, N. (2007). The effect of inotropes on morbidity and mortality in preterm infants with low systemic or organ blood flow. Cochrane Database of Systematic Reviews, (Issue 1), CD005090.
- Othman, M., Neilson, J. P. and Alfirevic, Z. (2007). Probiotics for preventing preterm labour. Cochrane Database of Systematic Reviews, (Issue 1), CD005941.
- Papageorghiou, A. T., Avgidou, K., Bakoulas, V., Sebire, N. J. and Nicolaides, K. H. (2006). Risks of miscarriage and early preterm birth in trichorionic triplet pregnancies with embryo reduction versus expectant management: new data and systematic review. *Human Reproduction* 21(7): 1912-7.
- Papatsonis, D., Flenady, V., Cole, S. and Liley, H. (2005). Oxytocin receptor antagonists for inhibiting preterm labour. Cochrane Database of Systematic Reviews, (Issue 3), CD004452.
- Papatsonis, D., Flenady, V. and Liley, H. (2009). Maintenance therapy with oxytocin antagonists for inhibiting preterm birth after threatened preterm labour. Cochrane Database of Systematic Reviews, (Issue 1), CD005938.

- Paradisis, M. and Osborn, D. A. (2004). Adrenaline for prevention of morbidity and mortality in preterm infants with cardiovascular compromise. Cochrane Database of Systematic Reviews, (Issue 1), CD003958.
- Pfister, R. H., Soll, R. F. and Wiswell, T. (2007). Protein containing synthetic surfactant versus animal derived surfactant extract for the prevention and treatment of respiratory distress syndrome. Cochrane Database of Systematic Reviews, (Issue 4), CD006069.
- Pilley, E. and McGuire, W. (2006). Pre-discharge "car seat challenge" for preventing morbidity and mortality in preterm infants. Cochrane Database of Systematic Reviews, (Issue 1), CD005386.
- Polyzos, N. P., Mauri, D., Tsappi, M., Tzioras, S., Kamposioras, K., Cortinovis, I. and Casazza, G. (2007). Combined vitamin C and E supplementation during pregnancy for preeclampsia prevention: a systematic review. *Obstetrical & Gynecological Survey* 62(3): 202-6.
- Rabi, Y., Rabi, D. and Yee, W. (2007). Room air resuscitation of the depressed newborn: A systematic review and meta-analysis. *Resuscitation* 72(3): 353-363.
- Ramakrishnan, U., Manjrekar, R., Rivera, J., González-Cossío, T. and Martorell, R. (1999). Micronutrients and pregnancy outcome: A review of the literature. *Nutrition Research* 19(1): 103-159.
- Ray, J. G., O'Brien, T. E. and Chan, W. S. (2001). Preconception care and the risk of congenital anomalies in the offspring of women with diabetes mellitus: a meta-analysis. *QJM: An International Journal of Medicine* 94(8): 435-44.
- Raynes-Greenow, C. H., Roberts, C. L., Bell, J. C., Peat, B. and Gilbert, G. L. (2004). Antibiotics for ureaplasma in the vagina in pregnancy. Cochrane Database of Systematic Reviews, (Issue 1), CD003767.
- Roberts, D. and Dalziel, S. (2006). Antenatal corticosteroids for accelerating fetal lung maturation for women at risk of preterm birth. Cochrane Database of Systematic Reviews, (Issue 3), CD004454.
- Roberts, D., Gates, S., Kilby, M. and Neilson, J. P. (2008). Interventions for twin-twin transfusion syndrome: A Cochrane review. *Ultrasound in Obstetrics and Gynecology* 31(6): 701-711.
- Roberts, D., Neilson, J. P., Kilby, M. and Gates, S. (2008). Interventions for the treatment of twin-twin transfusion syndrome. Cochrane Database of Systematic Reviews, (Issue 1), CD002073.
- Rossi, A. C. and D'Addario, V. (2008). Laser therapy and serial amnioreduction as treatment for twin-twin transfusion syndrome: a metaanalysis and review of literature. *American Journal of Obstetrics and Gynecology* 198(2): 147-152.
- Rumbold, A. and Crowther, C. A. (2005). Vitamin C supplementation in pregnancy. Cochrane Database of Systematic Reviews, (Issue 2), CD004072.
- Rumbold, A. and Crowther, C. A. (2005). Vitamin E supplementation in pregnancy. Cochrane Database of Systematic Reviews, (Issue 2), CD004069.
- Rumbold, A., Duley, L., Crowther, C. A. and Haslam, R. R. (2008). Antioxidants for preventing pre-eclampsia. Cochrane Database of Systematic Reviews, (Issue 1), CD004227.

- Rumbold, A. R. and Cunningham, J. (2008). A review of the impact of antenatal care for Australian Indigenous women and attempts to strengthen these services. *Maternal and Child Health Journal* 12(1): 83-100.
- Sanchez-Ramos, L., Kaunitz, A. M. and Delke, I. (2005). Progestational agents to prevent preterm birth: A meta-analysis of randomized controlled trials. *Obstetrics & Gynecology* 105(2): 273-279.
- Sanchez-Ramos, L., Kaunitz, A. M., Gaudier, F. L. and Delke, I. (1999). Efficacy of maintenance therapy after acute tocolysis: A meta-analysis. *American Journal of Obstetrics and Gynecology* 181(2): 484-490.
- Sangkomkamhang, U. S., Lumbiganon, P., Prasertcharoensook, W. and Laopaiboon, M. (2008). Antenatal lower genital tract infection screening and treatment programs for preventing preterm delivery. *Cochrane Database of Systematic Reviews*, (Issue 2), CD006178.
- Saugstad, O. D., Ramji, S., Soll, R. F. and Vento, M. (2008). Resuscitation of newborn infants with 21% or 100% oxygen: an updated systematic review and meta-analysis. *Neonatology* 94(3): 176-82.
- Saugstad, O. D., Ramji, S. and Vento, M. (2005). Resuscitation of depressed newborn infants with ambient air or pure oxygen: A meta-analysis. *Biology of the Neonate* 87(1): 27-34.
- Segel, S. Y., Marder, S. J., Parry, S. and Macones, G. A. (2001). Fetal abdominal wall defects and mode of delivery: a systematic review. *Obstetrics & Gynecology* 98(5 Pt 1): 867-73.
- Seger, N. and Soll, R. (2009). Animal derived surfactant extract for treatment of respiratory distress syndrome. *Cochrane Database of Systematic Reviews*, (Issue 2), CD007836.
- Shah, P. and Shah, V. (2007). Arginine supplementation for prevention of necrotising enterocolitis in preterm infants. *Cochrane Database of Systematic Reviews*, (Issue 3), CD004339.
- Shah, P. S. and Ohlsson, A. (2007). Sildenafil for pulmonary hypertension in neonates. *Cochrane Database of Systematic Reviews*, (Issue 3), CD005494.
- Shah, P. S., Ohlsson, A. and Perlman, M. (2007). Hypothermia to treat neonatal hypoxic ischemic encephalopathy: Systematic review. *Archives of Pediatrics and Adolescent Medicine* 161(10): 951-958.
- Shah, S., Ohlsson, A. and Shah, V. (2004). Intraventricular antibiotics for bacterial meningitis in neonates. *Cochrane Database of Systematic Reviews*, (Issue 4), CD004496.
- Shah, S. S., Ohlsson, A., Halliday, H. and Shah, V. S. (2007). Inhaled versus systemic corticosteroids for the treatment of chronic lung disease in ventilated very low birth weight preterm infants. *Cochrane Database of Systematic Reviews*, (Issue 4), CD002057.
- Shah, V., Ohlsson, A., Halliday, H. L. and Dunn, M. S. (2007). Early administration of inhaled corticosteroids for preventing chronic lung disease in ventilated very low birth weight preterm neonates. *Cochrane Database of Systematic Reviews*, (Issue 4), CD001969.

- Simcox, R., Sin, W.-A., Seed, P. T., Briley, A. and Shennan, A. H. (2007). Prophylactic antibiotics for the prevention of preterm birth in women at risk: A meta-analysis. *Australian and New Zealand Journal of Obstetrics and Gynaecology* 47(5): 368-377.
- Simmer, K. and Rao, S. C. (2005). Early introduction of lipids to parenterally-fed preterm infants. *Cochrane Database of Systematic Reviews*, (Issue 2), CD005256.
- Sinclair, J. C. (2002). Servo-control for maintaining abdominal skin temperature at 36C in low birth weight infants. *Cochrane Database of Systematic Reviews*, (Issue 1), CD001074.
- Sinn, J. K. H., Ward, M. C. and Henderson-Smart, D. J. (2002). Developmental outcome of preterm infants after surfactant therapy: Systematic review of randomized controlled trials. *Journal of Paediatrics and Child Health* 38(6): 597-600.
- Smaill, F. (1996). Intrapartum antibiotics for Group B streptococcal colonisation. *Cochrane Database of Systematic Reviews*, (Issue 1), CD000115.
- Smaill, F. and Vazquez, J. C. (2007). Antibiotics for asymptomatic bacteriuria in pregnancy. *Cochrane Database of Systematic Reviews*, (Issue 2), CD000490.
- Soghier, L. M. and Brion, L. P. (2006). Cysteine, cystine or N-acetylcysteine supplementation in parenterally fed neonates. *Cochrane Database of Systematic Reviews*, (Issue 4), CD004869.
- Soll, R. and Ozek, E. (1998). Digoxin for preventing or treating neonatal respiratory distress syndrome. *Cochrane Database of Systematic Reviews*, (Issue 2), CD001080.
- Soll, R. and Ozek, E. (2009). Multiple versus single doses of exogenous surfactant for the prevention or treatment of neonatal respiratory distress syndrome. *Cochrane Database of Systematic Reviews*, (Issue 1), CD000141.
- Soll, R. F. (1998). Prophylactic synthetic surfactant for preventing morbidity and mortality in preterm infants. *Cochrane Database of Systematic Reviews*, (Issue 2), CD001079.
- Soll, R. F. (1998). Synthetic surfactant for respiratory distress syndrome in preterm infants. *Cochrane Database of Systematic Reviews*, (Issue 3), CD001149.
- Soll, R. F. and Blanco, F. (2001). Natural surfactant extract versus synthetic surfactant for neonatal respiratory distress syndrome. *Cochrane Database of Systematic Reviews*, (Issue 2), CD000144.
- Soll, R. F. and Morley, C. J. (2001). Prophylactic versus selective use of surfactant in preventing morbidity and mortality in preterm infants. *Cochrane Database of Systematic Reviews*, (Issue 2), CD000510.
- Sosa, C., Althabe, F., Belizan, J. and Bergel, E. (2004). Bed rest in singleton pregnancies for preventing preterm birth. *Cochrane Database of Systematic Reviews*, (Issue 1), CD003581.
- Stade, B., Shah, V. and Ohlsson, A. (2004). Vaginal chlorhexidine during labour to prevent early-onset neonatal group B streptococcal infection. *Cochrane Database of Systematic Reviews*, (Issue 3), CD003520.
- Stan, C., Boulvain, M., Hirsbrunner-Amagbaly, P. and Pfister, R. (2002). Hydration for treatment of preterm labour. *Cochrane Database of Systematic Reviews*, (Issue 2), CD003096.

- Stevens, T. P., Harrington, E. W., Blennow, M. and Soll, R. F. (2007). Early surfactant administration with brief ventilation vs. selective surfactant and continued mechanical ventilation for preterm infants with or at risk for respiratory distress syndrome. *Cochrane Database of Systematic Reviews*, (Issue 4), CD003063.
- Steyn, D. W. and Steyn, P. (2007). Low-dose dopamine for women with severe pre-eclampsia. *Cochrane Database of Systematic Reviews*, (Issue 1), CD003515.
- Subhedar, N. V., Duffy, K. and Ibrahim, H. (2007). Corticosteroids for treating hypotension in preterm infants. *Cochrane Database of Systematic Reviews*, (Issue 1), CD003662.
- Subhedar, N. V. and Shaw, N. J. (2003). Dopamine versus dobutamine for hypotensive preterm infants. *Cochrane Database of Systematic Reviews*, (Issue 3), CD001242.
- Subramaniam, P., Henderson-Smart, D. J. and Davis, P. G. (2005). Prophylactic nasal continuous positive airways pressure for preventing morbidity and mortality in very preterm infants. *Cochrane Database of Systematic Reviews*, (Issue 3), CD001243.
- Suresh, G. K., Davis, J. M. and Soll, R. F. (2001). Superoxide dismutase for preventing chronic lung disease in mechanically ventilated preterm infants. *Cochrane Database of Systematic Reviews*, (Issue 1), CD001968.
- Szajewska, H., Horvath, A. and Koletzko, B. (2006). Effect of n-3 long-chain polyunsaturated fatty acid supplementation of women with low-risk pregnancies on pregnancy outcomes and growth measures at birth: a meta-analysis of randomized controlled trials. *American Journal of Clinical Nutrition* 83(6): 1337-44.
- Tan, A., Schulze, A., O'Donnell, C. P. and Davis, P. G. (2005). Air versus oxygen for resuscitation of infants at birth. *Cochrane Database of Systematic Reviews*, (Issue 2), CD002273.
- Tan, K., Dear, P. R. F. and Newell, S. J. (2005). Clinical decision support systems for neonatal care. *Cochrane Database of Systematic Reviews*, (Issue 2), CD004211.
- Tan, T. C., Devendra, K., Tan, L. K. and Tan, H. K. (2006). Tocolytic treatment for the management of preterm labour: a systematic review. *Singapore Medical Journal* 47(5): 361-6.
- Thaver, D., Saeed, M. A. and Bhutta, Z. A. (2006). Pyridoxine (vitamin B6) supplementation in pregnancy. *Cochrane Database of Systematic Reviews*, (Issue 2), CD000179.
- Thinkhamrop, J., Hofmeyr, G. J., Adetoro, O. and Lumbiganon, P. (2002). Prophylactic antibiotic administration in pregnancy to prevent infectious morbidity and mortality. *Cochrane Database of Systematic Reviews*, (Issue 4), CD002250.
- Thomas, R. L., Parker, G. C., Van Overmeire, B. and Aranda, J. V. (2005). A meta-analysis of ibuprofen versus indomethacin for closure of patent ductus arteriosus. *European Journal of Pediatrics* 164(3): 135-40.
- Thorp, J. M., Hartmann, K. E., Berkman, N. D., Carey, T. S., Lohr, K. N., Gavin, N. I. and Hasselblad, V. (2002). Antibiotic therapy for the treatment of preterm labor: A review of the evidence. *American Journal of Obstetrics and Gynecology* 186(3): 587-592.
- Tieu, J., Crowther, C. A. and Middleton, P. (2008). Dietary advice in pregnancy for preventing gestational diabetes mellitus. *Cochrane Database of Systematic Reviews*, (Issue 2), CD006674.

- Tsatsaris, V., Papatsonis, D., Goffinet, F., Dekker, G. and Carbone, B. (2001). Tocolysis with nifedipine or beta-adrenergic agonists: A meta-analysis. *Obstetrics & Gynecology* 97(5): 840-847.
- Tubman, T. R. J., Thompson, S. W. and McGuire, W. (2008). Glutamine supplementation to prevent morbidity and mortality in preterm infants. *Cochrane Database of Systematic Reviews*, (Issue 1), CD001457.
- Ungerer, R. L., Lincetto, O., McGuire, W., Saloojee, H. and Gulmezoglu, A. M. (2004). Prophylactic versus selective antibiotics for term newborn infants of mothers with risk factors for neonatal infection. *Cochrane Database of Systematic Reviews*, (Issue 4), CD003957.
- Vazquez, J. C. and Villar, J. (2003). Treatments for symptomatic urinary tract infections during pregnancy. *Cochrane Database of Systematic Reviews*, (Issue 4), CD002256.
- Vemgal, P. and Ohlsson, A. (2007). Interventions for non-oliguric hyperkalaemia in preterm neonates. *Cochrane Database of Systematic Reviews*, (Issue 1), CD005257.
- Ventre, K. and Randolph, A. (2007). Ribavirin for respiratory syncytial virus infection of the lower respiratory tract in infants and young children. *Cochrane Database of Systematic Reviews*, (Issue 1), CD000181.
- Verner, A., Craig, S. and McGuire, W. (2007). Effect of taurine supplementation on growth and development in preterm or low birth weight infants. *Cochrane Database of Systematic Reviews*, (Issue 4), CD006072.
- Villar, J., Carroli, G., Khan-Neelofur, D., Piaggio, G. and Gulmezoglu, M. (2001). Patterns of routine antenatal care for low-risk pregnancy. *Cochrane Database of Systematic Reviews*, (Issue 4), CD000934.
- Villar, J., Lydon-Rochelle, M. T., Gulmezoglu, A. M. and Roganti, A. (2000). Duration of treatment for asymptomatic bacteriuria during pregnancy. *Cochrane Database of Systematic Reviews*, (Issue 2), CD000491.
- Volmink, J., Siegfried, N. L., van der Merwe, L. and Brocklehurst, P. (2007). Antiretrovirals for reducing the risk of mother-to-child transmission of HIV infection. *Cochrane Database of Systematic Reviews*, (Issue 1), CD003510.
- Waldenstrom, U. and Turnbull, D. (1998). A systematic review comparing continuity of midwifery care with standard maternity services. *British Journal of Obstetrics and Gynaecology* 105(11): 1160-70.
- Ward, M. C. and Sinn, J. K. H. (2003). Steroid therapy for meconium aspiration syndrome in newborn infants. *Cochrane Database of Systematic Reviews*, (Issue 4), CD003485.
- Webster, J. and Pritchard, M. A. (2003). Gowning by attendants and visitors in newborn nurseries for prevention of neonatal morbidity and mortality. *Cochrane Database of Systematic Reviews*, (Issue 3), CD003670.
- Wells, D. A., Gillies, D. and Fitzgerald, D. A. (2005). Positioning for acute respiratory distress in hospitalised infants and children. *Cochrane Database of Systematic Reviews*, (Issue 2), CD003645.
- Whitelaw, A. (2001). Repeated lumbar or ventricular punctures in newborns with intraventricular hemorrhage. *Cochrane Database of Systematic Reviews*, (Issue 1), CD000216.

- Whitelaw, A., Kennedy, C. R. and Brion, L. P. (2001). Diuretic therapy for newborn infants with posthemorrhagic ventricular dilatation. Cochrane Database of Systematic Reviews, (Issue 2), CD002270.
- Whitelaw, A. and Odd, D. (2007). Postnatal phenobarbital for the prevention of intraventricular hemorrhage in preterm infants. Cochrane Database of Systematic Reviews, (Issue 4), CD001691.
- Whitelaw, A. and Odd, D. E. (2007). Intraventricular streptokinase after intraventricular hemorrhage in newborn infants. Cochrane Database of Systematic Reviews, (Issue 4), CD000498.
- Whitworth, M. and Quenby, S. (2008). Prophylactic oral betamimetics for preventing preterm labour in singleton pregnancies. Cochrane Database of Systematic Reviews, (Issue 1), CD006395.
- Winterbottom, J. B., Smyth, R., Jacoby, A. and Baker, G. A. (2008). Preconception counselling for women with epilepsy to reduce adverse pregnancy outcome. Cochrane Database of Systematic Reviews, (Issue 3), CD006645.
- Woodgate, P., Flenady, V. and Steer, P. (2004). Intramuscular penicillin for the prevention of early onset group B streptococcal infection in newborn infants. Cochrane Database of Systematic Reviews, (Issue 3), CD003667.
- Woodgate, P. G. and Davies, M. W. (2001). Permissive hypercapnia for the prevention of morbidity and mortality in mechanically ventilated newborn infants. Cochrane Database of Systematic Reviews, (Issue 2), CD002061.
- Xiong, X., Buekens, P., Vastardis, S. and Yu, S. M. (2007). Periodontal disease and pregnancy outcomes: State-of-the-science. *Obstetrical & Gynecological Survey* 62(9): 605-615.
- Yaju, Y. and Nakayama, T. (2006). Effectiveness and safety of ritodrine hydrochloride for the treatment of preterm labour: a systematic review. *Pharmacoepidemiology & Drug Safety* 15(11): 813-22.
- Yamasmit, W., Chaithongwongwatthana, S., Tolosa, J. E., Limpongsanurak, S., Pereira, L. and Lumbiganon, P. (2005). Prophylactic oral betamimetics for reducing preterm birth in women with a twin pregnancy. Cochrane Database of Systematic Reviews, (Issue 3), CD004733.
- Zaveri, V., Aghajafari, F., Amankwah, K. and Hannah, M. (2002). Abdominal versus vaginal cerclage after a failed transvaginal cerclage: a systematic review. *American Journal of Obstetrics & Gynecology* 187(4): 868-72.
- Ziino, A. J. A., Davies, M. W. and Davis, P. G. (2002). Epinephrine for the resuscitation of apparently stillborn or extremely bradycardic newborn infants. Cochrane Database of Systematic Reviews, (Issue 3), CD003849.
- Zupan, J., Garner, P. and Omari, A. A. (2004). Topical umbilical cord care at birth. Cochrane Database of Systematic Reviews, (Issue 3), CD001057.

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