

# SUBSTANCE USE SYNTHESIS RESEARCH GAPS FROM COCHRANE REVIEWS (Cochrane Library Issue 2, 2010)

The faces indicate the direction of findings in each review:

- ☺ Likely to be effective
- ☹ Both benefits and risks
- ❓ Uncertain or limited effect
- ☹ Likely to be ineffective or potentially harmful

*Important research implications are more likely to arise from*

❓ *reviews with uncertain findings  
or where*

☹ *the risks and benefits are mixed.*

## Drugs/alcohol

### ❓ **Home visits during pregnancy and after birth for women with an alcohol or drug problem (Doggett 2005)**

*In six studies comparing home visits after birth with no home visits, there were no significant differences in continued illicit drug use, continued alcohol use, failure to enrol in a drug treatment program or Bayley MDI.*

*Review content assessed as up-to-date: 21 August 2005*

- Need further large trials of antenatal home visits
- These trials should provide a flexible approach to home visits using a multidisciplinary team, focus on reduction of drug and alcohol abuse in pregnancy and postpartum, provide continuity of care throughout pregnancy and the postpartum, and continue until the infant is preschool ready
- Trials should measure important pregnancy, infant and psychosocial outcomes and women's views on home visiting need to be assessed.

### ❓ **Maintenance agonist treatments for opiate dependent pregnant women (Minozzi 2008)**

*No significant differences were seen between the drugs compared (methadone, buprenorphone, oral slow morphine) for both mother and for child outcomes (treatment drop out rate, use of primary substance and abstaining from heroin use; birthweight, APGAR scores and NAS measures).*

*Review content assessed as up-to-date: 7 January 2008*

- Urgent need for more large trials to assess the effectiveness of any maintenance treatment alone or in combination with psychosocial interventions compared with no intervention, other pharmacological intervention or psychosocial intervention
- Trials should measure child health status, neonatal mortality, retaining pregnant women in treatment, and reducing use of substances.

### **?** Naloxone for opiate-exposed newborn infants (McGuire 2002)

*In trials comparing naloxone versus placebo or no drug in newborn infants exposed to maternal opiate analgesia prior to delivery, there was some evidence that naloxone increases alveolar ventilation.*

*Review content assessed as up-to-date: 13 March 2007*

- Need for trials to evaluate the effectiveness of naloxone in newborns exposed to transplacental narcotics in reducing the need/duration of ventilatory support or neonatal intensive care unit admission
- Outcomes should be of clinical relevance (e.g. the need for assisted mechanical ventilation or admission to a neonatal unit) rather than measures of short term pulmonary function
- Naloxone may interfere with the role of endogenous opioids in neuroendocrine programming and on behaviour, and therefore follow up assessment beyond infancy is required to determine neurodevelopmental outcomes.

### **☺** Opiate treatment for opiate withdrawal in newborn infants (Osborn 2005a)

*Opiates, as compared to supportive care only, appear to reduce the time to regain birth weight and reduce the duration of supportive care, but duration of hospital stay is increased.*

*Review content assessed as up-to-date: 28 March 2005.*

- Need further well designed studies amongst mothers who used opiates only, to determine which opiate is most effective and what treatment threshold should be used
- In infants of mothers using an opiate and another drug, need further trials of an opiate versus phenobarbitone or opiate combined with a sedative
- Trials should include objective and validated infant symptom severity scores and effects on infant signs of withdrawal, quality of mother-infant interaction and infant growth and long term development should be assessed.

### **?** Pharmacologic interventions for pregnant women enrolled in alcohol treatment (Smith 2009)

*No trials were located.*

*Review content assessed as up-to-date: 25 March 2009.*

- Need high quality research to determine the effectiveness of pharmacologic interventions in pregnant women enrolled in alcohol treatment programs
- RCTs for this question may not be feasible and/or appropriate due to large numbers needed to assess neonatal outcomes and the long follow-up time needed to assess developmental outcomes
- Quality cohort studies with appropriate unexposed controls to assess potential confounders such as continued maternal alcohol use and socioeconomic variables may be more appropriate and cost effective
- Recruitment to studies is likely to remain difficult, given the stigma attached to alcohol consumption in pregnancy.

**?** **Psychological and/or educational interventions for reducing prenatal alcohol consumption in pregnant women and women planning pregnancy (Stade 2009)**

*Results from four individual studies suggest that psychological and educational interventions may result in increased abstinence from alcohol, and a reduction in alcohol consumption among pregnant women.*

*Review content assessed as up-to-date: 8 January 2009.*

- Urgently need more studies to determine the most effective interventions for increasing abstinence from, or reducing the consumption of, alcohol among pregnant women
- Need a large well conducted blinded RCT trial measuring relevant outcomes (including reduction of alcohol consumption during pregnancy to less than seven standard drinks a week; abstinence from alcohol during pregnancy, adverse effects and/or benefits to the mother and neonatal outcomes).

**?** **Psychosocial interventions for pregnant women in outpatient illicit treatment programs compared to other interventions (Terplan 2007).**

*Trials of contingency management led to better study retention but had minimal effect on illicit drug abstinence and motivational interviewing led to poorer study retention.*

*Last assessed as up-to-date: 2 August 2007*

- Need large well-conducted randomised trials with meaningful perinatal endpoints, and longer follow ups to examine whether psychosocial interventions help pregnant women with illicit drug dependence
- Poor obstetrical outcomes should not be study exclusion criteria, as these events are essential to capture.
- The reporting of criminal justice referral into treatment is especially important, as the efficacy of psychosocial interventions may differ between individuals who have been coerced into treatment and those who enter voluntarily.
- Questions that should be considered include the following: Is one psychosocial intervention more effective than another? What covariate, such as, drug use history, time in treatment, or gestational age upon enrolment, are associated with treatment effectiveness? What is the optimal reimbursement for contingency management and what is its overall cost effectiveness?

**?** **Psychosocial interventions for women enrolled in alcohol treatment during pregnancy (Lui 2008)**

*No trials were located.*

*Review content assessed as up-to-date: 15 April 2008.*

- Need RCTs addressing frequency of treatment, length of time per session, group versus individual, treatment duration, type of psychosocial intervention
- Important outcomes are poor birth outcomes, gestational age at birth, weight and possible signs of fetal alcohol syndrome, treatment retention, frequency of attendance, reasons for non-attendance, alcohol abstinence measures, frequency and number of alcohol drinks per week/per occasion during follow-up.

**?** **Sedatives for opiate withdrawal in newborn infants (Osborn 2005b)**

*Phenobarbitone compared with supportive care alone was not shown to reduce treatment failure for newborn infants with neonatal abstinence syndrome, although phenobarbitone may reduce the daily duration of supportive care needed.*

*Review content assessed as up-to-date: 30 March 2005.*

- Need more large well designed studies adding phenobarbitone for infants treated with an opiate for neonatal abstinence syndrome, incorporating higher initial dosing schedules of opiate
- Need to measure effects on infant symptoms of withdrawal, quality of mother-infant interaction, growth and long term development
- The roles of clonidine and chlorpromazine need to be established through RCTs (and should only be used in the context of a RCT).

## Smoking

### ❓ **Enhancing partner support to improve smoking cessation (Park 2004)**

*No data relevant to cessation in pregnancy were reported.*

*Review content assessed as up-to-date: 24 February 2008.*

- Need additional studies with larger samples to adequately explore the effects of partner support interventions for smoking cessation.
- In future studies, partner support should be routinely measured as an intermediate outcome.
- Pre-existing support and partner smoking status need to be controlled for
- Interventions should pay more attention to the quality of the partner interaction and be more effective at increasing partner support.

### 😊 **Interventions for promoting smoking cessation during pregnancy (Lumley 2009)**

*In 72 trials (over 25,000 women), there was a significant reduction in smoking in late pregnancy following interventions.*

*Eight trials of smoking relapse prevention (over 1000 women) showed no statistically significant reduction in relapse.*

*Review content assessed as up to date: 3 December 2008.*

Future trials need:

- A developmental phase to test intervention materials and to assess appropriateness
- Full involvement of staff to ensure that their concerns have been addressed
- A process evaluation identifying the extent of implementation in terms of its reach and the satisfaction of clients/consumers and staff
- Biochemical validation of non-smoking status
- Collection of outcome data on birthweight, preterm birth and perinatal deaths, breastfeeding, operative births, maternal psychological well-being and perceived impact on family functioning
- Reporting of subgroup analyses to attempt to answer if there is differential effectiveness of interventions by social, economic or demographic characteristics.

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