

# **Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more) (Review)**

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# Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more) (Review)

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## ABSTRACT

### Background

Prelabour rupture of membranes at term is managed expectantly or by elective birth, but it is not clear if waiting for birth to occur spontaneously is better than intervening.

### Objectives

To assess the effects of planned early birth versus expectant management for women with term prelabour rupture of membranes on fetal, infant and maternal wellbeing.

### Search strategy

We searched the Cochrane Pregnancy and Childbirth Group Trials Register (November 2004), the Cochrane Central Register of Controlled Trials (*The Cochrane Library*, Issue 4, 2004), MEDLINE (1966 to November 2004) and EMBASE (1974 to November 2004).

### Selection criteria

Randomised or quasi-randomised trials of planned early birth compared with expectant management in women with prelabour rupture of membranes at 37 weeks' gestation or more.

### Data collection and analysis

Two review authors independently applied eligibility criteria, assessed trial quality and extracted data. A random-effects model was used.

### Main results

Twelve trials (total of 6814 women) were included. Planned management was generally induction with oxytocin or prostaglandin, with one trial using homoeopathic caulophyllum. Overall, no differences were detected for mode of birth between planned and expectant groups: relative risk (RR) of caesarean section 0.94, 95% confidence interval (CI) 0.82 to 1.08 (12 trials, 6814 women); RR of operative vaginal birth 0.98, 95% 0.84 to 1.16 (7 trials, 5511 women). Significantly fewer women in the planned compared with expectant management groups had chorioamnionitis (RR 0.74, 95% CI 0.56 to 0.97; 9 trials, 6611 women) or endometritis (RR 0.30, 95% CI 0.12 to 0.74; 4 trials, 445 women). No difference was seen for neonatal infection (RR 0.83, 95% CI 0.61 to 1.12; 9 trials, 6406 infants). However, fewer infants under planned management went to neonatal intensive or special care compared with expectant management (RR 0.72, 95% CI 0.57 to 0.92, number needed to treat 20; 5 trials, 5679 infants). In a single trial, significantly more women with planned management viewed their care more positively than those expectantly managed (RR of "nothing liked" 0.45, 95% CI 0.37 to 0.54; 5031 women).

### Authors' conclusions

Planned management (with methods such as oxytocin or prostaglandin) reduces the risk of some maternal infectious morbidity without increasing caesarean sections and operative vaginal births. Fewer infants went to neonatal intensive care under planned management although no differences were seen in neonatal infection rates. Since planned and expectant management may not be very different, women need to have appropriate information to make informed choices.

## PLAIN LANGUAGE SUMMARY

Some evidence in favour of planned management (usually by induction) when women have prelabour rupture of membranes at term

When women's membranes rupture at or after 37 weeks' gestation without having contractions, they can choose to intervene (usually by immediate induction with oxytocin or prostaglandin) or they can wait for spontaneous labour to occur. The concern that early planned intervention might result in more caesarean and operative births was not supported in this review, which also found that fewer mothers developed infections and that fewer babies were admitted to the neonatal intensive care units than if women waited for spontaneous birth. Similar number of babies developed infections whether intervention was early or whether women waited. In one trial, women clearly preferred early planned intervention.

## BACKGROUND

Prelabour rupture of membranes (PROM) is defined as rupture of membranes prior to the onset of labour (Duff 1998). PROM most frequently occurs at term (37 weeks or more of gestation) (Duff 1998), with the overall incidence of PROM at term being 8% (Cammu 1990). Spontaneous onset of labour after term PROM usually follows within 24 hours (Cammu 1990), with 79% of women labouring spontaneously within 12 hours, and 95% within 24 hours (Conway 1984; Zlatnik 1992). Even when the state of the cervix is unfavourable, the majority of women labour spontaneously within 24 hours (Hannah 1998). However, if the woman does not labour within 24 hours, labour may be delayed up to seven days after membrane rupture (Hannah 1998), with longer latent periods in nulliparous women (Zlatnik 1992). PROM at term may be managed expectantly or by elective birth, usually by induction of labour. Planned elective early birth is usually termed active or planned management. Expectant management involves waiting for labour to occur and then making management decisions (such as inducing labour) if labour does not happen spontaneously after a specified period.

PROM at term is known to be associated with overdistension of the uterus due to multiple pregnancy or polyhydramnios (abnormally high levels of amniotic fluid), cigarette smoking, altered mechanical properties of the amniotic membranes, frequent digital examinations, coitus and infection (Duff 1998; Hannah 1998), although it is not clear if these are causally related to PROM (Hannah 1998).

PROM may result in immediate risks such as cord prolapse, cord compression and placental abruptions; and later problems such as maternal or neonatal infection, as well as the use of interventions such as caesareans and instrumental vaginal delivery (Alexander

1996; Kong 1992; Merenstein 1996). Expectant management of term PROM has been associated with maternal infections such as chorioamnionitis (inflammations of the membranes) or endometritis (generally a postpartum infection). These infections may result in neonatal infection and mortality, chronic lung disease and cerebral palsy (Cammu 1990; Gonen 1989; Merenstein 1996; Robson 1990; Zlatnik 1992) as well as serious morbidity for the mother. Some reports have suggested that the risk of maternal and fetal infection increases proportionally with the time between membrane rupture and birth (Gafni 1997; Zlatnik 1992), while others refute this (Hannah 1998; Seaward 1997). Whether or not to induce labour may depend on the state of the cervix, with an insufficiently ripe cervix resulting in increased length of labour and failed induction requiring caesarean section (Cammu 1990; Duff 1996; Duff 1998; Yawn 2001). Uterine rupture has been reported, but only rarely. Induction of labour for women with PROM at term may incur fewer costs than expectant management (Gafni 1997). Women appear to be more satisfied with care when there is a short time between PROM and birth (Hannah 1999).

There are conflicting conclusions from literature reviews assessing PROM at term. Hallak 1999 found that with a longer interval from admission to the onset of labour, there is an increased incidence of neonatal intensive care unit admission, caesarean rates and more frequent maternal diarrhoea and use of analgesia or anaesthesia. Induction of labour is supported by a retrospective study (Johnson 1981), which reported increased perinatal mortality and intrapartum fever in women at term when there was delay of more than 72 hours between rupture of membranes and birth. Oxytocin infusion was recommended as the gold standard management of PROM at term in a recent review (Crane 2003). These results are in contrast to the findings of Guise 1992, who reported that induction of labour results in increased frequency

of chorioamnionitis, neonatal sepsis, caesarean section and longer duration of hospitalisation. Mozurkewich 1997 highlighted the risks and benefits of induction of labour, with reduced rates of chorioamnionitis, endometritis and neonatal infection, and increased number of caesarean births.

Two earlier Cochrane reviews have reported on the effect of labour induction or expectant management after 34 weeks' gestation. Tan 1996a found that induction of labour by oxytocin was associated with a decreased risk of maternal and neonatal infection and increased maternal satisfaction with care; and Tan 1996b found decreased risk of chorioamnionitis and admission to neonatal intensive care. These two reviews became outdated and have now been withdrawn from the Cochrane Database of Systematic Reviews. Another Cochrane review has found that there is insufficient evidence to assess the effects of routine use of maternal antibiotics for prelabour rupture of membranes at or near term (Flenady 2002). A Cochrane review evaluating management of women with preterm PROM between 34 and 37 weeks is currently in progress (Buchanan 2004) while our review focuses on women with prelabour rupture of membranes at term (a pregnancy of 37 weeks' gestation or more).

## OBJECTIVES

The objective of this review is to assess the effects of planned early birth (immediate intervention or intervention within 24 hours) when compared with expectant management (no planned intervention within 24 hours) for women with term prelabour rupture of membranes on fetal, infant and maternal wellbeing.

## CRITERIA FOR CONSIDERING STUDIES FOR THIS REVIEW

### Types of studies

Randomised and quasi-randomised trials.

### Types of participants

Women with prelabour rupture of membranes of at least 37 weeks' gestation with no specific maternal or fetal contraindications to expectant management.

### Types of intervention

Planned early birth was compared with expectant management (either in hospital or at home).

For an intervention to be considered 'planned early birth', a decision must be made to expedite birth after rupture of membranes through some form of induction of labour or by caesarean section. The planned intervention must have been implemented or intended to be implemented within 24 hours of randomisation.

Conversely, expectant management needed to have an intended delay of at least 24 hours.

### Types of outcome measures

These were chosen to reflect outcomes of maternal morbidity, obstetric intervention and perinatal morbidity and mortality.

#### Maternal and birth outcomes

Maternal mortality  
Caesarean section  
Caesarean section for fetal distress  
Chorioamnionitis (variously defined by authors)  
Endometritis (variously defined by authors)  
Postpartum fever (variously defined by authors)  
Placental abruption  
Induction of labour  
Mode of induction of labour  
Vaginal birth  
Operative vaginal birth  
Use of epidural anaesthesia  
Uterine rupture  
Days of antenatal hospitalisation  
Days of postnatal hospitalisation  
Maternal satisfaction  
Views of care  
Postnatal depression  
Breastfeeding:

- Breastfeeding initiated in hospital
- Timing of initiation of breastfeeding (hours after birth)
- Breastfeeding at hospital discharge
- Breastfeeding at postnatal visit

#### Fetal, neonatal and infant outcomes

Mortality (stillbirth, perinatal, neonatal or infant death)  
Cord prolapse  
Gestational age at birth  
Time from rupture of membranes to birth  
Respiratory distress syndrome  
Apgar score less than seven at five minutes  
Use of mechanical ventilation  
Days of mechanical ventilation  
Birthweight  
Neonatal infection/sepsis:

- Proven neonatal infection with positive blood culture up to 48 hours of birth
- Proven neonatal infection with positive blood culture 48 hours or more after birth
- Culture proven neonatal pneumonia or meningitis
- Presumed neonatal infection up to 48 hours of birth
- Presumed neonatal infection 48 hours or more after birth

Admission to neonatal intensive care unit  
Length of stay in neonatal intensive care unit  
Abnormality on cerebral ultrasound:

- Cystic periventricular leukomalacia
- Intraventricular haemorrhage (including grade)

Necrotising enterocolitis  
Neonatal encephalopathy  
Disability at time of childhood follow up

## SEARCH METHODS FOR IDENTIFICATION OF STUDIES

See: methods used in reviews.

We searched the Cochrane Pregnancy and Childbirth Group Trials Register by contacting the Trials Search Co-ordinator (November 2004).

The Cochrane Pregnancy and Childbirth Group's Trials Register is maintained by the Trials Search Co-ordinator and contains trials identified from:

- (1) quarterly searches of the Cochrane Central Register of Controlled Trials (CENTRAL);
- (2) monthly searches of MEDLINE;
- (3) handsearches of 30 journals and the proceedings of major conferences;
- (4) weekly current awareness search of a further 37 journals.

Details of the search strategies for CENTRAL and MEDLINE, the list of handsearched journals and conference proceedings, and the list of journals reviewed via the current awareness service can be found in the 'Search strategies for identification of studies' section within the editorial information about the Cochrane Pregnancy and Childbirth Group.

Trials identified through the searching activities described above are given a code (or codes) depending on the topic. The codes are linked to review topics. The Trials Search Co-ordinator searches the register for each review using these codes rather than keywords.

In addition, we searched the Cochrane Central Register of Controlled Trials (*The Cochrane Library*, Issue 4, 2004), MEDLINE (1966 to November 2004) and EMBASE (1974 to November 2004) using the following terms: (term) and ['(rupture near membranes)' or 'PROM'] and ('induction' and 'labo\*r') and ('randomi\*ed controlled trial').

We searched reference lists of trials and other review articles and contacted researchers to provide further information. We did not apply any language restrictions.

## METHODS OF THE REVIEW

We considered all studies identified by the methods described in the search strategy for inclusion. Two review authors independently assessed trials for their eligibility for inclusion and methodological quality. We resolved any differences of opinion by discussion. We recorded and reported reasons for excluding trials in the review. Trial authorship was not blinded.

If the report of a trial stated only that women had prelabour rupture of membranes at term, we attempted to contact the authors to establish that gestation was 37 weeks or more. In trials where the gestational ages overlap the greater and lesser than 37 weeks' gestation inclusion criteria, we also requested gestational age specific data. A large number of trials of potentially eligible trials were excluded because we were unable to establish which women in the trials had or had not achieved 37 completed weeks of gestation. The reasons for not being able to establish this included inability to locate an email address for study authors, study authors did not respond to email contact, data were not separately available for women with at least 37 completed weeks' gestation.

We assessed methodological quality of the included studies using criteria described in the Cochrane Reviewers' Handbook (Alderson 2004). We assigned quality ratings for allocation concealment to each trial, where A = adequate, B = unclear, C = clearly inadequate.

We assessed studies for completeness of follow up:

- (a) less than 3% of participants excluded;
- (b) 3% to 9.9% of participants excluded;
- (c) 10% to 19.9% of participants excluded;
- (d) 20% or more excluded;
- (e) unclear.

We assessed whether the outcome assessors were blinded to the treatment allocation group and whether the caregivers or women were blinded.

Three review authors (M Dare, P Middleton, B Varatharaju) independently extracted and double-entered data, with each trial being extracted by two of the three authors. Unpublished data were sought from investigators where necessary. Where outcomes are published in the form of percentages or graphs, we calculated the number of events. We performed statistical analyses using the Review Manager software (RevMan 2004), and processed trial data as described in the Cochrane Reviewers' Handbook (Alderson 2004). We attempted to analyse outcomes with an intention-to-treat analysis (meaning that outcomes for women and neonates were analysed according to the groups to which they were randomised). Generally outcomes were analysed by the number of women and neonates completing the study rather than the total number randomised.

We compared categorical data with relative risks and 95% confidence intervals and continuous data with mean differences

and 95% confidence intervals, using a random-effects model. We assessed statistical heterogeneity between trials using the  $I^2$  statistic.

We included all eligible trials in the initial analysis and performed sensitivity analyses to evaluate the effect of trial quality. A sensitivity analysis was performed based on the randomisation process, with quasi-randomised studies being excluded. We performed a sensitivity analysis assessing the presence of blinding of assessors to the primary outcome, but there were not enough studies to assess the quality of treatment allocation and the presence of losses to follow up.

We performed subgroup analyses on:

- (1) method of induction of labour used;
- (2) multiparous versus nulliparous women;
- (3) women with an unfavourable cervix (Bishop score less than five) versus a favourable cervix (Bishop score five or more);
- (4) maternal antibiotic versus no antibiotic prophylaxis;
- (5) women who had digital vaginal examinations versus women who had no vaginal examinations.

The rationale for these subgroup analyses follows.

- (1) Method of induction of labour - some trials have found differences between different methods such as oxytocin and prostaglandin and any such differences would be expected to be operating in women with prelabour rupture of membranes at term.
- (2) and (3) Differences in outcomes according to parity and state of cervix would be expected - for example nulliparous women and those with an unfavourable cervix are likely to have longer labours and this in turn may increase the risk of infection of infection and other adverse outcome.
- (4) Maternal antibiotic prophylaxis may be more likely to reduce maternal and neonatal infections than no maternal antibiotic prophylaxis.
- (5) Women who had digital examinations may be prone to more infections than those who did not have digital vaginal examinations.

#### **Differences from methods specified in the protocol**

The title was changed to better reflect that the intervention is designed to result in early birth and to clarify that the definition of term was 37 weeks or more.

The objectives were clarified to explain the intervention and comparison, rather than using the term 'optimal management'.

The intervention and comparisons were clarified; planned intervention must have been implemented or intended to be implemented within 24 hours of randomisation and conversely, expectant management needed to have an intended delay of at least 24 hours.

The definition of postpartum fever was changed from a temperature greater than 38°C on at least two occasions after the first 24 hours after birth to postpartum fever as variously defined by authors.

Rationales for subgroup analyses were not included in the protocol.

A random-effects model was used throughout. (The protocol specified that a random-effects model would be used when there was a substantial amount of statistical heterogeneity.)

## **DESCRIPTION OF STUDIES**

We included 12 trials in which a total of nearly 7000 women participated (including the large trial of Hannah 1996 with 5042 participants).

We excluded 34 trials, mostly because gestation was only reported as being at term or because some women in the trial may have not yet reached 37 completed weeks of gestation when their membranes ruptured.

### **Induction of labour methods**

Seven trials used oxytocin, five trials used prostaglandin and one trial used caulophyllum as the planned or active management method. (One trial, Hannah 1996, used both oxytocin and prostaglandin and reported results for each induction method separately.)

#### ***Oxytocin***

Akyol 1999

In the planned management group, immediate induction was by intravenous oxytocin and in the expectant management group, women were induced with oxytocin if spontaneous labour had not occurred within 24 hours.

Hannah 1996

In the planned management group (oxytocin) labour was immediately induced with intravenous oxytocin, titrated according to contractions. Women in the expectant management group were observed for up to four days, then induced with intravenous oxytocin if spontaneous labour had not occurred. Labour was induced if complications developed.

McQueen 1992

Oxytocin infusion was compared with observation until birth (unless women in the expectant management group were in labour or were suspected to have sepsis). In the latter case they were induced with oxytocin.

Natale 1994

In the planned management group, labour was induced eight hours after PROM with intravenous oxytocin. In the expectant management group, women were observed for 48 hours and induced if group B beta-haemolytic streptococci were detected on screen or culture; if a clinical diagnosis of chorioamnionitis was made; or if 48 hours from PROM had elapsed and spontaneous labour had not ensued.

Ottervanger 1996

In the planned management group, labour was induced by intravenous oxytocin, starting at a dose of 2.5 mU/min and augmented every 20 minutes until adequate contractility was achieved. In the expectant management group, women were admitted to hospital for 48 hours. If labour had not ensued within 48 hours in the expectant group, women were offered induction of labour by intravenous oxytocin.

Shalev 1995

Twelve-hour expectant management then oxytocin was compared with 72 hour expectant management. All women were managed with bed rest unless signs of chorioamnionitis or uterine contractions developed. Women who had not entered labour at the end of the assigned period were induced with oxytocin.

Wagner 1989

In the planned (early) management group, women were immediately induced with oxytocin. If women randomised to the early group were not induced by 10 hours after spontaneous rupture of membranes, they were excluded. In the expectant (delayed) management group, labour was awaited and women were returned to the labour and delivery suite:

- (1) if signs of infection or fetal distress occurred;
- (2) when spontaneous labour occurred;
- (3) 24 hours after spontaneous rupture of membranes for oxytocin labour if labour did not occur spontaneously.

### **Prostaglandin**

Chung 1992

Prostaglandin E2 (3 mg) gel intravaginally was compared with sterile K-Y jelly intravaginally (placebo).

Hannah 1996

In the planned management group, labour was immediately induced with vaginal prostaglandin E2 gel (1 or 2 mg) inserted into the posterior vaginal fornix; repeated six hours later if labour had not started, followed by an infusion of oxytocin four or more hours later if labour still had not started. Women in the expectant management group were observed for up to four days, then induced with vaginal prostaglandin E2 gel if spontaneous labour had not occurred. Labour was induced if complications developed.

Mahmood 1992

In the planned management group, women were given PGE2 gel (2 mg) in the posterior fornix; if uterine activity did not ensue, a repeat treatment with PGE2 gel (1 mg) was given 6 hours later. Women in the expectant management group were observed for up to 24 hours; if labour did not ensue after 24 hours, women were treated with intravenous oxytocin. In both groups, intravenous oxytocin was started 24 hours after hospital admission if labour had not begun or sooner if augmentation of established labour was required.

Mahmood 1995

In the planned management group, PGE2 gel (1 mg) was administered at admission to the posterior fornix and this was repeated

six hours later if labour was not established. In the expectant management group, women were observed for up to 24 hours. Both groups received intravenous oxytocin if labour did not start within 24 hours of admission.

Milasinovic 1998

In the planned management group, labour was induced six hours following rupture of membranes with prostaglandin (Predipil) gel and oxytocin infusion. In the expectant management group, all women were given antibiotics but the use of induction was not reported.

### **Caulophyllum**

Beer 1999

Caulophyllum (for seven hours or until labour started) was compared with placebo. Caulophyllum (also known as blue cohosh or papoose root) is a herbal preparation and in this trial it was given at a homeopathic dose (dilution D4).

### **Parity**

In two trials, most outcomes for nulliparous women were reported separately (Hannah 1996) or the trial only included nulliparous women (Mahmood 1992). In two trials, most outcomes for multiparous women were reported separately (Hannah 1996) or the trial only included multiparous women (Mahmood 1995). The remaining nine trials either did not report parity at all or did not report most outcomes by parity. Parity was not stated in seven trials: Chung 1992; Milasinovic 1998; Natale 1994; Ottervanger 1996; Shalev 1995; Wagner 1989.

### **Favourable/unfavourable cervix**

In six trials (Chung 1992; Mahmood 1992; Mahmood 1995; Milasinovic 1998; Natale 1994; Wagner 1989), all women had an unfavourable cervix, with the remaining trials either having a mixture of women with unfavourable and favourable cervixes (Akyol 1999; Hannah 1996) or not reporting cervical state (Beer 1999; McQueen 1992; Ottervanger 1996; Shalev 1995).

### **Antibiotic prophylaxis**

Akyol 1999

44% of women in the planned management group received antibiotics before or during labour compared with 46% in the expectant management group.

Hannah 1996

502 women (10%) received antibiotics after rupture of membranes, either before or during labour but before birth.

Mahmood 1995

9/100 women were given prophylactic antibiotics because of a positive  $\beta$ -haemolytic streptococci test (four in the planned management group and five in the expectant management group).

Milasinovic 1998

Women in the expectant management group were given antibiotics.

McQueen 1992

Women were given antibiotics once membranes had been ruptured for 10 hours.

Ottervanger 1996

Prophylactic antibiotics were not administered except in association with caesarean section.

Wagner 1989

Indicated that all women had received prophylactic antibiotics, but this was not explicitly stated.

Five trials (Beer 1999; Chung 1992; Mahmood 1992; Natale 1994; Shalev 1995) did not state whether any women were given prophylactic antibiotics.

### **Digital vaginal examination**

In Mahmood 1992 and Mahmood 1995, all women were given a digital vaginal examination and in most of the other trials, at least some women were digitally examined. Women who were digitally examined were excluded from Shalev 1995 and women in Wagner 1989 generally were not digitally examined. Four trials (Beer 1999; Chung 1992; Milasinovic 1998; Ottervanger 1996) did not state whether any women were given digital examinations.

### **Determination of maternal infection**

Chorioamnionitis was defined as fever before or during labour, although there were some differences between studies in regard to temperatures and requirement for antibiotics. Endometritis was generally defined as clinical signs of infection postpartum whereas postpartum fever was defined as raised temperature.

### **Determination of neonatal infection**

In Akyol 1999 this was measured by the number of babies requiring antibiotics. In Hannah 1996 more than 80% of babies had blood cultures and white blood cell counts and in Shalev 1995 neonatal infection was determined by a positive blood culture of from cerebrospinal fluid. Seven studies did not report how they determined neonatal infection and two studies (Beer 1999; Natale 1994) did not report neonatal infection at all.

## **METHODOLOGICAL QUALITY**

### **Allocation concealment**

Only two of the 12 trials (Chung 1992; Hannah 1996) clearly demonstrated an adequate method for allocation concealment.

### **Adequate**

Chung 1992 kept the code with a third party and Hannah 1996 used centrally controlled computerised randomisation, with telephone access (in blocks of four and eight and stratified according to centre and parity).

### **Unclear**

Mahmood 1995

Randomisation lists were used to assign odd and even numbers and then women opened a sealed, numbered envelope (which we judged to be unclear rather than inadequate allocation concealment).

Ottervanger 1996

Used sealed opaque envelopes.

Method of allocation concealment was not stated in five studies: Akyol 1999; Beer 1999; Mahmood 1992; McQueen 1992; Natale 1994.

### **Inadequate**

In Milasinovic 1998; Shalev 1995 and Wagner 1989, women were alternately allocated to groups.

### **Blinding**

Two trials (Beer 1999; Chung 1992) were blinded throughout by use of a placebo, in two trials (Mahmood 1992; Natale 1994) neonatal outcomes were blinded and neonatal infection was blinded in another two trials (Akyol 1999; Hannah 1996).

In Akyol 1999 and Hannah 1996, an adjudication committee, unaware of the women's group assignments and of where labour was induced or spontaneous, determined whether neonatal infection was present.

In Beer 1999, both investigators and women were blinded since a placebo was used.

In Chung 1992, a placebo was also used and so the attendant obstetrician, paediatrician and women were all blinded to which of the gels the woman received.

In Mahmood 1992, each newborn was seen and examined by a paediatric resident who was unaware of the woman's allocation.

The Mahmood 1995 trial was described as "open".

In Natale 1994, while the study was not able to be blinded, neonatal treatment was prescribed by physicians who were blinded as to which arm the neonate was in and pathologists assigning diagnoses of chorioamnionitis and funisitis were also blinded.

Although the system of allocation in Shalev 1995 was known only to the attending physicians and women, nurses and other medical staff members were not told of the assignment method, it may have been easy to guess since it was based on alternation. Similarly, Wagner 1989 would effectively have been unblinded due to the alternation method of allocation.

Three trials (McQueen 1992; Milasinovic 1998; Ottervanger 1996) did not state whether anyone was blinded.

### **Losses to follow up**

One woman out of 5042 was lost to follow up in Hannah 1996 (data not received); and for the maternal satisfaction outcomes, completed questionnaires were obtained from 4129 women (81.9%).

In Mahmood 1992, 10/230 (4%) women were excluded from final analysis (five in each group) because they did not fulfil the study criteria (four with undiagnosed breech presentation; two who were parous, two who had a positive nitrazine test at randomisation but without a definite fluid pool in the vagina and two whose case notes could not be traced). Analysis was therefore based on 220 women.

In Milasinovic 1998, one out of 76 women was lost to follow up; this woman was from the planned management group.

In Natale 1994, 10 women from each group dropped out after randomisation, giving an overall 7.6% (20/262) loss to follow up. It was not clear whether results were reported for all women or for only the women completing the study, but the latter case (total of 242 women) was assumed.

Akyol 1999; Beer 1999; Chung 1992; and Mahmood 1995 did not state if there were any losses to follow up. Neither did McQueen 1992, but it was not clear whether seven exclusions out of a total 47 women occurred before or after randomisation.

## RESULTS

### Maternal outcomes

#### *Maternal mortality (Graph 01/01)*

This was reported in only one trial (Ottervanger 1996), with no deaths in either the planned (oxytocin) or expectant group.

#### *Caesarean section (Graphs 01/02, 02/01, 03/01, 04/01, 5/01)*

No differences were detected between the planned and expectant groups overall (relative risk (RR) 0.94, 95% confidence interval (CI) 0.82 to 1.08; 12 trials, 6814 women) with no parity differences seen. There were no significant differences between planned and expectant management in the oxytocin (RR 0.96, 95% CI 0.79 to 1.16; 7 trials, 3800 women), prostaglandin (RR 0.91, 95% CI 0.74 to 1.11; 5 trials, 2980 women) or caulophyllum (RR 5.00, 95% CI 0.26 to 98.00; 1 trial) subgroups. Similarly no parity differences were seen.

In Mahmood 1992, 4/110 women in the planned management group and 1/110 in the expectant management group had caesarean sections for fetal distress. The corresponding figures for Chung 1992 were 3/30 and 0/29; and for Wagner 1989, 0/86 and 3/96.

#### *Chorioamnionitis (Graphs 01/03, 02/02, 03/02, 4/02)*

Significantly fewer women overall developed chorioamnionitis in planned management groups compared with expectant management groups (RR 0.74, 95% CI 0.56 to 0.97; 9 trials, 6611 women). However, neither the oxytocin or prostaglandin subgroups reached statistical significance on their own: oxytocin RR 0.74, 95% CI 0.51 to 1.07; prostaglandin 0.77, 95% CI 0.49 to 1.22. Substantial heterogeneity ( $I^2 = 66\%$ ) was seen between the oxytocin trials. The overall result gives a number needed to treat

(NNT) of 50, that is, for every 50 women undergoing planned management, one case of chorioamnionitis will be avoided.

#### *Endometritis (Graphs 01/04, 02/03, 03/03, 04/03)*

Four trials (445 women) reported significantly fewer instances of endometritis in the planned group compared with the expectant group (RR 0.30, 95% CI 0.12 to 0.74). Three of the four trials compared oxytocin with expectant management.

#### *Postpartum fever (Graphs 01/05, 2/04, 3/04, 04/04)*

Overall, no significant difference was seen in the number of women with postpartum fever in planned management groups compared with expectant management groups (RR 0.69, 95% CI 0.41 to 1.17; 5 trials, 5521 women). Mahmood 1992 (which only included nulliparous women) showed a significant difference in favour of planned management (RR 0.27, 95% CI 0.09 to 0.78). Four other trials of mixed or unknown parity showed no significant difference between planned and expectant management (RR 0.83, 95% CI 0.48 to 1.43). The oxytocin trials favoured planned management (RR 0.55, 95% CI 0.35 to 0.86; 2 trials), while no overall difference between planned and expectant management was seen for the prostaglandin trials (RR 0.75, 95% CI 0.32 to 1.76; 4 trials). This latter result showed significant heterogeneity ( $I^2 = 69\%$ ) which can only be partially explained by parity differences. Some heterogeneity may be explained by different definitions of postpartum fever. For example Chung 1992 defined this as an episode of more than  $37.5^\circ\text{C}$ , whereas Hannah 1996 defined it as a temperature greater than  $37.5^\circ\text{C}$  on two occasions equal to or greater than one hour apart or a temperature greater than  $38^\circ\text{C}$ .

#### *Induction of labour (Graphs 01/07, 02/05, 03/05, 04/05, 05/02)*

Women in the planned management groups were more likely to have their labour induced than those in the expectant management groups (overall RR 3.51, 95% CI 3.03 to 4.05; 8 trials, 6420 women). This held true across parity and method of induction subgroups as well as for immediate versus delayed (8 to 12 hours) planned management. None of these factors explained the high amount of statistical heterogeneity (overall  $I^2 = 68\%$ ). As would be expected, almost all women (87%) in the planned management groups were induced. Overall, 22% of women in the expectant management groups were induced with a range from 18% to 45%. The most common method of induction used in the expectant management groups was oxytocin but the dose may have varied and so may the policy of each institution about when to induce women in the expectant management groups. In Hannah 1996 a small number of women in the induction oxytocin group received prostaglandin only and vice-versa for the induction prostaglandin group, but data were analysed according to the group to which the women were randomised.

#### *Vaginal birth and operative vaginal birth (Graphs 01/08, 02/06, 03/06, 04/06, 05/03; and 01/09, 02/07, 03/07, 04/07, 05/04)*

No overall differences were seen between planned and expectant management groups (RR 1.01, 95% CI 0.99 to 1.02; 12 trials, 6814 women) for vaginal birth and regardless of particular method of induction or parity. Similarly, no differences were seen between planned and expectant management groups for operative vaginal births (overall RR 0.98, 95% CI 0.84 to 1.16; 7 trials, 5611 women), with no differences seen for any of the method of induction or parity subgroups.

#### ***Use of epidural anaesthesia (Graphs 01/10, 02/08, 04/08, 05/05)***

In three trials, no differences between planned and expectant management groups were seen in regard to use of epidural analgesia (overall RR 1.09, 95% CI 0.74 to 1.61, 360 women). Two trials used prostaglandin and one trial used caulophyllum as the method of induction. Akyol 1999 did not state type of anaesthesia, but we have assumed it to have been epidural.

#### ***Uterine rupture (Graphs 01/11, 03/08)***

Only one instance of uterine rupture was reported - this was in the prostaglandin arm of the Chung 1992 trial (RR 2.90, 95% CI 0.12 to 68.50, 59 women). Hannah 1996 stated they detected no differences in the rate of uterine rupture between planned and expectant management, but actual numbers were not reported.

#### ***Antenatal hospital stay***

Hannah 1996 and Akyol 1999 reported antenatal hospital stay as medians and 5th, 95th percentiles.

Hannah 1996 (5041 women):

Induction oxytocin group: 12.0 hours (4.6, 32.1)

Induction prostaglandin group: 16.5 (2.9, 66.8)

Expectant oxytocin group: 17.0 (4.8, 38.9)

Expectant prostaglandin group: 16.9 (2.0, 69.7)

For the induction oxytocin group versus the expectant oxytocin group, the P value was < 0.001.

For the induction oxytocin group versus the induction prostaglandin group, the P value was < 0.001.

Akyol 1999 (126 women)

Induction oxytocin: 20.5 hours (3.0, 4.8)

Expectant: oxytocin 22.0 (4.9, 45.8); spontaneous labour 6.0 (1.3, 19.0)

There was a statistically significant difference ( $P < 0.05$ ) when the expectant oxytocin group was compared with either the induction oxytocin group or the expectant spontaneous labour group.

#### ***Postnatal hospital stay***

Hannah 1996 (5041 women) reported stay in the postpartum ward as medians and 5th, 95th percentiles.

Induction oxytocin group: 62.97 hours (22.40, 130.78)

Induction prostaglandin group: 62.50 (20.03, 136.88)

Expectant oxytocin group: 63.02 (23.05, 137.18)

Expectant prostaglandin group: 62.97 (23.03, 134.22)

#### ***Maternal satisfaction (Graphs 01/14, 01/15, 03/08, 03/09, 04/10, 04/11)***

Only one trial of 5041 women (Hannah 1996) reported any measure of maternal satisfaction. Significantly fewer women in the two planned management groups compared with the two expectant management groups reported that there was nothing about their management that they liked (overall RR 0.43, 95% CI 0.36 to 0.52 (NNT 14); RR for oxytocin 0.43, 95% CI 0.33 to 0.56; RR for prostaglandin 0.44, 95% CI 0.33 to 0.58). A similar pattern in favour of planned management was seen when mothers reported satisfaction in terms of nothing disliked in their management (overall RR 1.20, 95% CI 1.10 to 1.30; RR for oxytocin 1.19, 95% CI 1.05 to 1.34; RR for prostaglandin 1.21, 95% CI 1.07 to 1.36).

No trials reported on placental abruption, maternal views of care, or postnatal depression.

#### ***Fetal, neonatal and infant outcomes***

##### ***Fetal or perinatal mortality (Graphs 01/19, 02/09, 03/11, 04/12)***

This was reported in five trials, with a total of three deaths in the planned management groups and seven in the expectant management groups (overall RR 0.46, 95% CI 0.13 to 1.66, 5870 infants). In Hannah 1996 five babies died from lethal congenital abnormalities; and four other babies died (one due to infection). Two of these were in the expectant oxytocin group and two were in the expectant prostaglandin group.

##### ***Cord prolapse (Graphs 01/20, 02/10, 03/12, 04/14)***

Hannah 1996 reported one cord prolapse in each of the planned and expectant groups (both in the oxytocin planned and oxytocin expectant groups) and McQueen 1992 reported no instances of cord prolapse in either group (overall RR 1.00, 95% CI 0.06 to 16.03, 5081 infants).

##### ***Apgar score < 7 at 5 minutes (Graphs 01/24, 02/12, 03/14, 04/15)***

No statistically significant differences were seen between planned and expectant management, either overall (RR 0.93, 95% CI 0.81 to 1.07; 6 trials, 6005 infants); or for oxytocin (RR 0.94, 95% CI 0.78 to 1.14; 5 trials) or prostaglandin (RR 0.91, 95% CI 0.75 to 1.12; 2 trials) as the method of induction.

##### ***Mechanical ventilation (after initial resuscitation) (Graphs 01/25, 02/13, 03/15, 04/16)***

No statistically significant differences were seen between planned and expectant management, either overall (RR 0.99, 95% CI 0.46 to 2.12; 2 trials, 5158 infants) or for oxytocin (RR 0.69, 95% CI 0.34 to 1.40; 2 trials) or prostaglandin (RR 1.86, 95% CI 0.74 to 4.64; 1 trial).

##### ***Birthweight (Graphs 01/26, 02/14, 03/16, 04/17)***

Planned induction with any method showed a small but statistically significant lower birthweight compared with expectant management (overall WMD -88.93 g, 95% CI -138.73 to -39.13; 3 trials, 845 infants).

##### ***Neonatal infection (Graphs 01/27, 02/15, 03/17, 04/18)***

No differences in neonatal infection rates were detected between planned and expectant management (overall RR 0.83, 95% CI 0.61 to 1.12; 9 trials, 6406 infants) or for oxytocin (RR 0.67, 95% CI 0.43 to 1.06; 4 trials), or prostaglandin (RR 0.99, 95% CI to 0.65 to 1.50; 5 trials). Wagner 1989 reported that the mothers of the five infants who developed neonatal infections (all from the expectant management group) had undergone digital vaginal examinations.

In Akyol 1999, this outcome was reported as need for antibiotics, with 2/52 (4%) in the planned group compared with 14/74 (30%) in the expectant group. Mothers of these 14 infants had all received oxytocin expectantly rather than giving birth spontaneously.

#### **Admission to neonatal intensive care unit or special care nursery (Graphs 01/28, 02/16, 03/18, 04/19)**

Overall, there were fewer admissions to the neonatal intensive care unit or special care nursery for planned management compared with expectant management (RR 0.72, 95% CI 0.57 to 0.92; 5 trials, 5679 infants). This held true for oxytocin (0.58, 95% CI 0.39 to 0.85; 3 trials) but the results for prostaglandin did not quite reach statistical significance (RR 0.87, 95% CI 0.73 to 1.03; 3 trials). The overall result translates to a NNT of 20 (95% CI 14 to 50), that is, on average, for every 20 women undergoing planned management, there will be one less admission of their infant to the neonatal intensive care unit or special care nursery. Hannah 1996 also provided data for number of infants who spent more than 24 hours in the neonatal intensive care unit:

- Induction oxytocin: 83/1256 (7%)
- Induction prostaglandin: 116/1258 (9%)
- Expectant oxytocin: 146/1259 (12%)
- Expectant prostaglandin: 128/1259 (10%)

The P value for the induction oxytocin group versus the expectant oxytocin group was < 0.001.

#### **Length of stay in the neonatal intensive care unit (Graphs 01/29, 03/18, 04/20)**

In one trial of prostaglandin, no difference was seen between planned and expectant management (RR 2.00, 95% CI 0.37 to 10.70; 220 infants).

Hannah 1996 (5041 infants) reported this outcome as medians and 5th and 95th percentiles:

- Induction oxytocin: 0 hours (0, 3.75)
- Induction prostaglandin: 0 (0, 14.00)
- Expectant oxytocin: 0 (0, 16.75)
- Expectant prostaglandin: 0 (0, 31.98)

No trials reported on gestational age at birth, respiratory distress syndrome, cystic periventricular leukomalacia, intraventricular haemorrhage, necrotising enterocolitis, neonatal encephalopathy or disability at time of childhood follow up.

## **Other outcomes**

### **Breastfeeding (Graphs 01/18, 03/10)**

A single trial of oxytocin versus expectant management (Akyol 1999; 126 women) found that no women in either group had problems with breastfeeding their babies 48 hours or more after birth.

### **Time from rupture of membranes to birth (Graphs 01/22, 01/35, 02/11, 03/13, 04/14)**

Overall, women experienced a significantly shorter time from rupture of membranes to birth in the planned management groups compared with the expectant management groups (WMD -9.53 hours, 95% CI -12.56 to -6.10; 5 trials, 1108 women). With oxytocin this reduction was nearly 13 hours (WMD -12.75, 95% CI -15.36 to -10.15; 2 trials) eight hours for prostaglandin (WMD -8.45, 95% CI -12.24 to -4.66; 2 trials) but was not statistically significant for caulophyllum (WMD -0.80 hours, 95% CI -9.50 to +7.90; 1 trial). Three other trials of 5942 women reported these times as medians and ranges (Akyol 1999; Hannah 1996) and in Milasinovic 1998 it was not clear if the variance measures were standard deviations. These results were consistent with the above trials and they are shown in graph 01/35.

## **SUBGROUP ANALYSES**

The subgroup analyses for parity and method of induction were integrated into the main structure of the graphs and comments relating to these subgroups have been made above.

### **Digital vaginal examination (Graphs 06/01, 06/02, 06/03)**

Only outcomes relating to infection and containing sufficient data (chorioamnionitis, endometritis and neonatal infection) were included in this sensitivity analysis. No clear differences between the subgroups were seen, although the mixed or not stated subgroup showed planned management to result in less cases of chorioamnionitis, while both the digital examination and no examination subgroups failed to reach statistical significance.

### **Unfavourable/favourable cervix (Graphs 07/01 to 07/13)**

For chorioamnionitis, neither the unfavourable or mixed state of cervix subgroups gave statistically significant results although the overall result was significantly in favour of planned management. Both subgroups showed substantial levels of statistical heterogeneity. Other outcomes did not show any clear differences that were not apparent in the main analyses.

### **Maternal prophylactic antibiotics (Graphs 08/01 to 08/08)**

This subgroup analysis did not show any differences from the main analysis.

## **Sensitivity analyses**

### **Quality (Graphs 09/01 to 09/11)**

A sensitivity analysis of quality was performed by omitting the three trials with clearly inadequate allocation concealment (Milasinovic 1998; Shalev 1995 and Wagner 1989).

For chorioamnionitis, the results strengthened slightly more in favour of planned management when the quasi-randomised trials were excluded (from RR 0.74, 95% CI 0.56 to 0.97 to RR 0.67, 95% 0.51 to 0.87). In addition, the moderate statistical heterogeneity of  $I^2 = 37\%$  in the main analysis was reduced to 14% in this sensitivity analysis. However, for Apgar score, statistical heterogeneity increased from 0% in the main analysis to a moderate 36% in the sensitivity analysis. The small birthweight advantage seen for expectant management disappeared in this sensitivity analysis.

### ***Blinding (Graphs 10/1 to 1011)***

When study outcomes were subgrouped by type of blinding, no differences from the main analyses were apparent, although this is based on scant data.

## **DISCUSSION**

The findings of this review are dominated by the largest trial, Hannah 1996 with over 5000 participants (which represents 70% of the total number of participants included in the review). In addition, Hannah 1996 was one of only two trials to report adequate allocation concealment and so rates more highly than most of the other studies in terms of trial quality.

Although 12 trials were able to be included, over 30 other trials were excluded even though many of them would have included relevant data. We do not know how the results of this review may have differed if these missing data had been able to be included. Most of these trials reported outcomes for women less than, as well as greater than, 37 weeks' gestation at rupture of membranes and so it was not possible to extract only the information relating to women with greater than 37 weeks' gestation. Nor were trial authors able to provide this information when we requested it from them. This strict inclusion criterion was applied because we believe that women at full term represent a different clinical group than women whose membranes rupture at less than 37 weeks' gestation (preterm rupture of membranes will be the topic of another Cochrane review (Buchanan 2004)).

Concerns that planned management may result in more caesarean sections and instrumental vaginal births were not supported by the review, which also showed no differences between women of different parities or between methods of induction for these outcomes. Planned management (whether using oxytocin or prostaglandin) resulted in a lower rate of chorioamnionitis and endometritis compared with expectant management, which might be expected to result in less neonatal infection. However, no overall differences between planned and expectant management were seen for rates of neonatal infection (though this nearly reached statistical significance in favour of planned management for oxytocin induction). Babies under planned management were less likely to be admitted to the neonatal care unit or the special care nursery than those

who experienced expectant management, which could relate to hospital policy but also may reflect less illness in the babies under planned management.

There was some suggestion that planned induction with oxytocin was more effective than prostaglandin in reducing the rate of admission, which is given more strength by the head-to-head randomised comparison in Hannah 1996. In addition, there was a 5% risk difference between planned and expectant oxytocin management and only a 1% risk difference for planned and expectant prostaglandin management in favour of planned management for babies spending more than 24 hours in the neonatal intensive care unit. This suggestion is supported to some extent by Cochrane reviews of general induction of labour at term, which indicate that oxytocin is better or equivalent to prostaglandin, although there may be some adverse effects from prostaglandin use (Kelly 2001; Lucas 2000).

Gafni 1997 performed an economic evaluation alongside the Hannah 1996 trial and found that while induction with oxytocin was less costly than induction with prostaglandin or with expectant management, the cost differences, while statistically significant, may not be important differences in most countries.

In the Hannah 1996 trial, women clearly preferred planned management. Although this finding is based on a single trial, it was a large and well conducted study. Particularly because there may not be large differences in maternal and neonatal outcomes for planned versus expectant management, it is vital to have a better understanding of women's preferences regarding whether or not they wish to be immediately induced or whether they wish to wait for spontaneous labour if their membranes have ruptured prematurely at term.

There was substantial heterogeneity for some outcomes, which was only partly able to be explained by factors such as parity, method of induction and study quality. Different methods of measurement and definitions, particularly for presence of maternal infections, were also likely to have contributed to heterogeneity, as well as limiting the ability to pool data. In addition, some trials did not report important outcomes such as maternal and neonatal infection, other neonatal morbidity outcomes and maternal satisfaction. No trials reported on longer term child development or disability.

## **AUTHORS' CONCLUSIONS**

### **Implications for practice**

Planned management (with methods such as oxytocin or prostaglandin) reduces the risk of some maternal infectious morbidity without increasing caesarean sections and operative vaginal births. Fewer infants were admitted to neonatal intensive care under planned management although no differences were seen in

neonatal infection rates between planned and expectant management. Since the differences in outcomes between planned and expectant management may not be substantial, women need to be able to access the appropriate information to make an informed choice.

### Implications for research

Future trial design should attempt to blind outcomes such as maternal and neonatal infection and to report these outcomes in a standardised way. Outcomes such as maternal satisfaction, maternal and neonatal infectious morbidity, other neonatal morbidities, and longer term child development/disability need to be included in future trials.

## FEEDBACK

### Kripke, March 2006

#### Summary

There appears to be an inconsistency between the abstract and text. In the abstract it says, "However, fewer infants under planned management went to neonatal intensive or special care compared with expectant management (RR 0.72, 95% CI 0.57 to 0.92)"

Then the main text of results states, "Overall, there were fewer admissions to the neonatal intensive care unit or special care nursery for planned management compared with expectant management (RR 0.73, 95% CI 0.58 to 0.91; 5 trials, 5679 infants)."

Which relative risk and confidence interval are correct?

(Summary of comment from Clarissa Kripke, March 2006)

#### Author's reply

Thank you for your comment. We have checked the figures and confirm that the relative risk and the confidence interval in the Abstract are correct. We have corrected the figures in the text.

(Reply from Philippa Middleton, February 2007)

#### Contributors

Clarissa Kripke

## POTENTIAL CONFLICT OF INTEREST

None known.

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As part of the pre-publication editorial process, this review has been commented on by three peers (an editor and two referees who are external to the editorial team), one or more members of the Pregnancy and Childbirth Group's international panel of consumers and the Group's Statistical Adviser.

Ruth Martis translated the German language study into English.

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\* Indicates the major publication for the study

## T A B L E S

### Characteristics of included studies

Study	Akyol 1999
Methods	Randomisation: described as “simple randomisation”; no other details given for randomisation and allocation concealment. Blinding: outcome assessment for neonatal infection. Losses to follow-up: not stated.
Participants	126 women with singleton pregnancy, cephalic presentation and gestation at least 37 weeks. Nulliparous: 34/52 (65%) in the planned management group; 49/74 (66%) in the expectant management group. Planned management: 26/52 (50%) unripe cervix. Expectant management: 36/74 (49%) unripe cervix (defined as < 3 cm dilated or < 80% effaced). Exclusion criteria: women in active labour, previous failed attempt to induce labour, contraindication to either induction of labour (such as placenta praevia) or expectant management (such as meconium staining of amniotic fluid or chorioamnionitis).
Interventions	Planned management (n = 52): immediate induction of labour with intravenous oxytocin. Expectant management (n = 74): labour induced with oxytocin after 24 hours (n = 25) or labour began spontaneously within 24 hours (n = 49).
Outcomes	Primary outcome was neonatal infection (reported as need for antibiotics); secondary outcome was need for caesarean; other outcomes were postpartum fever, induction of labour, use of anaesthesia, time from rupture of membranes to birth, fetal distress, seizures, Apgar score < 7 at 5 minutes, resuscitation with oxygen, neonatal ventilation, admission to NICU, breastfeeding.
Notes	Time from rupture of membranes to birth reported as medians.
Allocation concealment	B – Unclear

## Characteristics of included studies (Continued)

Study	Beer 1999
Methods	Randomisation: not stated. Blinding: investigators and women were blinded (placebo was used). Losses to follow up: not stated.
Participants	40 women (28 (70%) nulliparas) with PROM between 38 and 42 weeks, and cervical dilatation 3 or less cm, with no regular uterine contractions.
Interventions	Planned management (n = 20): caulophyllum (D4) for 7 hours or until labour started. Expectant management (n = 20): placebo.
Outcomes	Caesarean section; vaginal birth; operative vaginal birth; use of epidural anaesthesia; time from rupture of membranes to birth.
Notes	
Allocation concealment	B – Unclear

Study	Chung 1992
Methods	Randomisation: "Computer-generated set of random numbers", and code kept by trial coordinator. Blinding: obstetrician, paediatrician and woman were all blinded (placebo used). Losses to follow up: not stated.
Participants	59 women with PROM, unfavourable cervix (Bishop score of 4 or less) and no evidence of infection or fetal distress; singleton pregnancy with cephalic presentation and at 37 completed weeks of gestation; no evidence of uterine contractions, no maternal tachycardia, absence of any medical or obstetric complications; parity not stated.
Interventions	Planned management (n = 30): Prostaglandin E2 (3 mg) gel intravaginally. Expectant management (n = 29): placebo - sterile K-Y jelly intravaginally.
Outcomes	Caesarean section; caesarean section for fetal distress, for induction failure, for failure to progress; vaginal birth; operative vaginal birth; postpartum fever; oxytocin infusion for induction or augmentation of labour; hyperstimulation; major complication (uterine rupture); neonatal infection/sepsis; Apgar score < 7; birth-weight; admission to NICU.
Notes	
Allocation concealment	A – Adequate

Study	Hannah 1996
Methods	Randomisation: centrally controlled computerised randomisation, with telephone access. Blinding: an adjudication committee, unaware of the women's group assignments and of whether labour was induced or spontaneous, determined whether neonatal infection was present. Losses to follow up: 1/5042 (data not received). Completed questionnaires were obtained from 4129 women (81.9%).
Participants	5042 women (72 hospitals in 6 countries) at least 37 weeks' gestation, with ruptured membranes with a single fetus in a cephalic presentation, with no contraindications for induction of labour or expectant management. Exclusion criteria: women in active labour if there had been a previous failed attempt to induce labour or if there was a contraindication to either induction of labour (such as placenta praevia) or expectant management (such as meconium staining of the amniotic fluid or chorioamnionitis). In the induction oxytocin group, 59% (743/1258) were nulliparous, in the induction prostaglandin group 60% (751/1259); in the expectant oxytocin group 59% (750/1263) and in the expectant prostaglandin group 60% (756/1261). About half the women had an unfavourable cervix; in about one-third of women, state of the cervix was not assessed; and the balance of women had a favourable cervix.
Interventions	Planned management (n = 2517): EITHER immediate induction of labour with intravenous oxytocin (n = 1258) OR immediate induction of labour with vaginal prostaglandin E2 gel (n = 1259).

## Characteristics of included studies (Continued)

	Expectant management (n = 2524): expectant management for up to four days, then induced with intravenous oxytocin (n = 1263) or vaginal prostaglandin E2 gel (n = 1261) if spontaneous labour had not occurred.
Outcomes	Caesarean section; vaginal birth; operative vaginal birth, chorioamnionitis; postpartum fever; induction of labour and mode; antenatal and postnatal hospitalisation; maternal satisfaction; time from rupture of membranes to birth; fetal distress; cord prolapse; perinatal mortality; neonatal infection/sepsis; antibiotic use (neonatal); Apgar score < 7 at 5 minutes; neonatal ventilation; admission to NICU (> 24 hours); admission to NICU or special care nursery; length of stay in NICU; costs.
Notes	Time from rupture of membranes to birth reported as medians. Power of 80% to detect a reduction of 50% or more, from = 4% to = 2% in the rate of neonatal infection in each treatment group.
Allocation concealment	A – Adequate

<b>Study</b>	<b>Mahmood 1992</b>
Methods	Randomisation: described as “numbered sealed randomisation envelope”. Blinding: Each newborn was seen and examined by a paediatric resident who was unaware of the woman’s allocation. Losses to follow up: 10/230 women were excluded from final analysis (5 in each group) because they did not fulfil the study criteria (4 with undiagnosed breech presentation; 2 who were parous, 2 who had a positive nitrazine test at randomisation but without a definite fluid pool in the vagina and 2 whose case notes could not be traced). Analysis based on 220 women.
Participants	230 women, primigravidae with PROM in an uncomplicated singleton pregnancy with gestation confirmed by early pregnancy ultrasound, cephalic presentation, with no uterine activity. Exclusions: women with previous significant antepartum haemorrhage, intrauterine growth retardation, diabetes mellitus, Rhesus disease, moderate pre-eclampsia, a history of venereal disease, a temperature > 37.5 C on admission, ruptured membrane > 12 hours, or meconium stained amniotic fluid on admission.
Interventions	Planned management (n = 115): prostaglandin - 2 mg PGE2 gel in posterior fornix; if uterine activity did not ensue (after 1 hour), then a repeat treatment with PGE2 gel (1 mg) was given 6 hours later. Expectant management (n = 115): observed for up to 24 hours; if labour did not ensue after 24 hours, women were treated with intravenous oxytocin using an escalating scale of 1-32 mU/min.  In both groups, intravenous oxytocin was started 24 hours after hospital admission, if labour had not begun or sooner if augmentation of established labour was required.
Outcomes	Caesarean section, vaginal birth, postpartum fever, use of epidural anaesthesia, time from rupture of membranes to birth, neonatal infection, Apgar score ≤ 8 at 5 mins, birthweight, admission to NICU, length of stay in NICU.
Notes	220 women (110 in each arm) would be required to test the hypothesis that PGE2 would reduce PROM to birth interval by 50% without increasing the frequency of caesarean section; a further 10 women (5 in each arm) needed to be recruited to account for protocol violations in the trial.
Allocation concealment	B – Unclear

<b>Study</b>	<b>Mahmood 1995</b>
Methods	Randomisation: randomisation lists were used to assign odd and even numbers, and each woman opened a sealed numbered envelope. Blinding: the trial was described as “open”. Losses to follow up: not stated.
Participants	100 parous women. Inclusion criteria: healthy, parous women with SROM and singleton uncomplicated pregnancies, cephalic presentation and no uterine activity.

## Characteristics of included studies (Continued)

	<p>Exclusion criteria: previous serious antepartum haemorrhage, fetal growth retardation, diabetes mellitus, Rh immunisation, moderate pre-eclampsia, history of venereal disease, previous caesarean birth, temperature above 37.5 C on admission, ruptured membranes for longer than 12 hours, or meconium-stained amniotic fluid on admission.</p> <p>Mean gestational age at SROM (days):</p> <p>PG: 277 [5].</p> <p>Conservative: 278 [6].</p> <p>Each woman had a cervical dilatation less than 3 cm (on admission). Mean cervical score at admission (range):</p> <p>PG: 5 (2-8).</p> <p>Conservative: 5 (2-9).</p>
Interventions	<p>Planned management (n = 50): prostaglandin E2 gel, 1 mg administered at admission to posterior fornix and repeated 6 hours later if labour was not established.</p> <p>Expectant management (n = 50): conservative management (for up to 24 hours).</p> <p>Both groups received intravenous oxytocin if labour did not start within 24 hours of admission using an escalating scale of 1-32 µ/min.</p>
Outcomes	Caesarean section, caesarean section for fetal distress, vaginal birth, induction of labour and mode, use of epidural anaesthesia, time from rupture of membranes to onset of labour, perinatal mortality, neonatal infection, birthweight.
Notes	Birthweight variance measures not specified as SDs.
Allocation concealment	B – Unclear

### Study McQueen 1992

Methods	<p>Randomisation: random numbers were generated by a table of random numbers, but no details were given about the method of allocation concealment.</p> <p>Blinding: not stated.</p> <p>Losses to follow up: not stated (although not clear if 7/47 exclusions were before randomisation).</p>
Participants	<p>40 women.</p> <p>25% nulliparous (5 in each group).</p> <p>Inclusion criteria: rupture of membranes confirmed by speculum examination and the presence of ferning. No contractions felt or observed after half hour of admission (therefore early ROM). Gestation of 37 weeks or more confirmed by the women's dates, by clinical assessments at antenatal visits, by ultrasound. No evidence of fetal distress, e.g. meconium staining of the liquor, and no sepsis, manifested by fetal or maternal tachycardia, pyrexia or uterine tenderness. No other risk factors in pregnancy, e.g. medical complication, abnormal lie, multiple pregnancy, previous caesarean section etc.</p> <p>Active management: mean GA 38 weeks 5 days.</p> <p>Expectant management: 39 weeks and one day.</p>
Interventions	<p>Planned management: oxytocin infusion (n = 20)</p> <p>Expectant management (n = 20): if in labour, managed in same way as planned management, or observed until contractions; or if sepsis suspected woman was given antibiotics and induced with oxytocin.</p>
Outcomes	Caesarean section, vaginal birth, operative vaginal birth, maternal sepsis, overall hospital stay, cord prolapse, perinatal mortality, neonatal infection, Apgar score < 7 at 5 minutes.
Notes	
Allocation concealment	B – Unclear

### Study Milasinovic 1998

Methods	<p>Randomisation: alternation.</p> <p>Blinding: not stated.</p> <p>Losses to follow up: 1/76 (from the planned management group).</p>
Participants	76 women.

## Characteristics of included studies (Continued)

	<p>Parity: not stated.</p> <p>Women with PROM at 259 days (= 37 weeks).</p> <p>Bishop score 5 to 6.</p>
Interventions	<p>Planned management (n = 38): labour was induced with prostaglandin gel and oxytocin infusion 6 hours following rupture of membranes (n = 38).</p> <p>Expectant management (n = 37): antibiotics.</p>
Outcomes	Caesarean section, vaginal birth, chorioamnionitis, postpartum fever, time from rupture of membranes to birth, neonatal infection.
Notes	<p>Time from rupture of membranes to birth - not clear if variance measures are SDs.</p> <p>Paper was only partially translated.</p>
Allocation concealment	C – Inadequate

<b>Study</b>	<b>Natale 1994</b>
Methods	<p>Randomisation: not stated.</p> <p>Blinding: neonatal treatment was prescribed by physicians who were blinded as to which arm the neonate was in. Pathologists assigning diagnoses of chorioamnionitis and funisitis were also blinded.</p> <p>Losses to follow up: 20/262 (10 women from each group dropped out after randomisation). Analysis was based on 242 women only.</p>
Participants	<p>262 women.</p> <p>Parity: not stated.</p> <p>Inclusion criteria: all women diagnosed with premature rupture of membranes with a confirmed gestational age greater than or equal to 37 completed weeks. PROM was confirmed by obvious pooling of amniotic fluid on sterile speculum examination. Women with no risks other than previous caesarean birth or breech presentation (frank or complete) were included.</p> <p>Exclusion criteria: meconium staining of the amniotic fluid, diabetes (gestational or overt), pre-eclampsia, malpresentation (footling or incomplete breech, not frank breech), intrauterine growth restriction, women transferred from other centres, known placenta praevia or active vaginal bleeding, cervical dilatation &gt; 3 cm and effacement &gt; 80%, active herpes and known group B streptococci-positive women.</p>
Interventions	<p>Planned management (n = 119): induction of labour 8 hours after PROM with intravenous oxytocin.</p> <p>Expectant management (n = 123): expectant management for 48 hours; induced if group B beta-haemolytic streptococci were detected on screen or culture; if a clinical diagnosis of chorioamnionitis was made; if 48 hours from PROM had elapsed and spontaneous labour had not ensued.</p>
Outcomes	Caesarean section, caesarean section for Bishop score < 5, chorioamnionitis, funisitis, endometritis, induction of labour, admission to NICU.
Notes	
Allocation concealment	B – Unclear

<b>Study</b>	<b>Ottervanger 1996</b>
Methods	<p>Randomisation: method of generation was not stated, and allocation concealment was by means of sealed opaque envelopes.</p> <p>Blinding: not stated.</p> <p>Losses to follow up: not stated.</p>
Participants	<p>123 women.</p> <p>Parity: not stated.</p> <p>Inclusion criteria: women with a singleton pregnancy with cephalic presentation and ruptured membranes for at least 8 hours at a gestational age between 37 and 42 weeks.</p> <p>Exclusion criteria: women with obstetric problems judged to require direct intervention, such as signs of intrauterine infection, abnormal cardiotocographic registration or hypertensive disorders.</p>

## Characteristics of included studies (Continued)

	State of cervix: not stated.
Interventions	Planned management (n = 61): intravenous oxytocin, starting at a dose of 2.5 mU/min and augmented every 20 mins until adequate contractility was obtained. Expectant management (n = 62): admission to hospital for 48 hours; if labour had not ensued within 48 hours, women were offered induction of labour by intravenous oxytocin.
Outcomes	Maternal mortality, caesarean section, vaginal birth, operative vaginal birth, endometritis, induction of labour, perinatal mortality, neonatal infection.
Notes	
Allocation concealment	B – Unclear

### Study Shalev 1995

Methods	Randomisation: last digit of each woman's ID number (odd and even). Blinding: the alternation system of allocation was known only to the attending physicians - women, nurses and other medical staff members were not told of the assignment method (although this may have been quite easy to guess). Losses to follow up: not stated.
Participants	566. Parity: not stated. Inclusion criteria: women between 37-42 weeks' gestation (as defined by the last menstrual period and confirmed by ultrasound). All had presented with PROM followed by at least 6 hours without uterine contractions. Exclusion criteria: women with uncertain dating, maternal diseases (gestational diabetes and hypertension), maternal fever, previous caesarean, nonvertex presentation, suspected fetal malformation or fetal distress. Women who were examined digitally were excluded from further study. State of cervix: not stated.
Interventions	Planned management (n = 298): 12 hour expectant management, then oxytocin. Expectant management (n = 268): 72 hour expectant management.
Outcomes	Caesarean section, vaginal birth, operative vaginal birth, chorioamnionitis, mode of induction of labour, time from rupture of membranes to birth, perinatal mortality, neonatal sepsis, Apgar score < 7 at 5 minutes, birthweight.
Notes	
Allocation concealment	C – Inadequate

### Study Wagner 1989

Methods	Randomisation: last digit of the medical record number (odd/even). Blinding: not stated (but not possible here). Losses to follow up: not stated but women in the planned management group were excluded if they had not gone into labour within 10 hours of ROM (likely reason for fewer women in planned management group compared with the expectant management group).
Participants	182 women. Parity: not stated. Inclusion criteria: healthy pregnant women with low risk pregnancies at 37-42 weeks' gestation, seen within 6 hours of spontaneous rupture of membranes, who had an unfavourable cervix and were not in labour. Rupture of membranes had to be documented by sterile speculum examination with positive ferning and nitrazine tests. Cervix had to appear dilated less than 2 cm and effaced less than 80%.
Interventions	Planned management (n = 86): immediate induction with oxytocin. Expectant management (n = 96): waited for labour; returned to labour and delivery suite if: 1) if signs of infection or fetal distress occurred; 2) when spontaneous labour occurred; 3) 24 hours after spontaneous rupture of membranes for oxytocin labour if labour did not occur spontaneously (3 mU/minute and was increased by 3 mU.minute every 20 mins until the desired contraction pattern).

Outcomes	Caesarean section (and reason for caesarean section), vaginal birth, operative vaginal birth, chorioamnionitis, endometritis, neonatal infection, Apgar score < 7 at 5 minutes.
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#### Notes

Allocation concealment C – Inadequate

GA: gestational age

min/mins: minute(s)

NICU: neonatal intensive care unit

PROM: prelabour rupture of membranes

ROM: rupture of membranes

SD: standard deviation

SROM: spontaneous rupture of membranes

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### Characteristics of excluded studies

Study	Reason for exclusion
Alcalay 1996	Could not establish that all women had gestations of at least 37 weeks; Paper stated "greater than 36 weeks".
Brosnan 1996	Plan for a study that appears not to have been carried out.
Cararach 1994	Could not establish that all women had gestations of at least 37 weeks; abstract stated greater than or equal to 34 weeks.
Chang 1997	Could not establish that all women had gestations of at least 37 weeks; abstract stated "at term".
Chua 1995	Could not establish that all women had gestations of at least 37 weeks; paper stated "after 36 weeks of pregnancy" plus labour was induced after only 12 hours in the expectant management group.
Davies 1991	Could not establish that all women had gestations of at least 37 weeks; paper stated "after 36 weeks of pregnancy".
Duff 1984	Could not establish that all women had gestations of at least 37 weeks; paper stated "greater than or equal to 36 weeks".
Freeman 1968	Could not establish that all women had gestations of at least 37 weeks; paper stated "36 weeks or greater".
Gloeb 1989	Could not establish that all women had gestations of at least 37 weeks; abstract stated "34 completed to 41 weeks gestation".
Gonen 1994	Could not establish that all women had gestations of at least 37 weeks; paper stated "PROM at or beyond 36 complete weeks".
Granstrom 1996	Could not establish that all women had gestations of at least 37 weeks; paper stated "36 to 42 weeks".
Grant 1992	Excluded women with gestation equal to or less than 36 weeks so trial may have included women with less than 37 weeks' gestation.
Hidar 2000	Could not establish that all women had gestations of at least 37 weeks; paper stated "greater than or equal to 36 weeks".
Hjertberg 1996	Could not establish that all women had gestations of at least 37 weeks; paper stated "36+0 to 46+0 weeks".
Hoffman 2001	Expectant management lasted less than 24 hours.
Ladfors 1996	Could not establish that all women had gestations of at least 37 weeks; paper stated "34 to 42 weeks".
Lo 2003	Could not establish that all women had gestations of at least 37 weeks; paper stated "at least 36 0/7 to 41 6/7 weeks' gestation".
Mahmood 1989	Could not establish that all women had gestations of at least 37 weeks; abstract stated "after 34 weeks' gestation".
Mateos 1998	> 34 weeks gestation; figures for 37 weeks or more gestation not reported separately.
McCaul 1997	Could not establish that all women had gestations of at least 37 weeks; paper stated "between 36 weeks and 42 weeks".
Morales 1986	Could not establish that all women had gestations of at least 37 weeks; paper stated "greater than 36 weeks".

## Characteristics of excluded studies (Continued)

Ngai 1996	Labour was induced after only 12 hours in the expectant management group.
Ozden 2002	Could not establish that all women had gestations of at least 37 weeks; paper stated "36 weeks of completed gestation".
Perez Picarol 1990	Could not establish that all women had gestations of at least 37 weeks; abstract stated "at term".
Ray 1992	Could not establish that all women had gestations of at least 37 weeks; paper stated "greater than 36 weeks".
Rydhstrom 1991	Could not establish that all women had gestations of at least 37 weeks; paper stated "between 36 weeks and 41 weeks".
Shetty 2002	Could not establish that all women had gestations of at least 37 weeks; specified only as at or after 36 weeks.
Shoaib 1994	Could not establish that all women had gestations of at least 37 weeks; specified only as "at or near term".
Sperling 1993	Could not establish that all women had gestations of at least 37 weeks; specified only as "after 36 weeks".
Suzuki 2000	Not all women had PROM.
Tamsen 1990	Could not establish that all women had gestations of at least 37 weeks; paper stated "> 36 completed weeks".
Thomas 2000	Could not establish that all women had gestations of at least 37 weeks; abstract stated "at term".
Van Heerden 1992	> 34 weeks gestation; figures for 37 weeks or more gestation not reported separately.
Van der Walt 1989	Could not establish that all women had gestations of at least 37 weeks; paper stated greater than or equal to 36 weeks.

## ANALYSES

### Comparison 01. Any planned versus expectant management: by type

Outcome title	No. of studies	No. of participants	Statistical method	Effect size
01 Maternal mortality	1	123	Relative Risk (Random) 95% CI	Not estimable
02 Caesarean section	13	6814	Relative Risk (Random) 95% CI	0.94 [0.82, 1.08]
03 Chorioamnionitis	10	6611	Relative Risk (Random) 95% CI	0.74 [0.56, 0.97]
04 Endometritis	4	445	Relative Risk (Random) 95% CI	0.30 [0.12, 0.74]
05 Postpartum fever	6	5521	Relative Risk (Random) 95% CI	0.69 [0.41, 1.17]
06 Placental abruption	0	0	Relative Risk (Random) 95% CI	Not estimable
07 Induction of labour	9	6420	Relative Risk (Random) 95% CI	3.51 [3.03, 4.05]
08 Vaginal birth	13	6814	Relative Risk (Random) 95% CI	1.01 [0.99, 1.02]
09 Operative vaginal birth	8	5611	Relative Risk (Random) 95% CI	0.98 [0.84, 1.16]
10 Use of epidural anaesthesia	3	360	Relative Risk (Random) 95% CI	1.09 [0.74, 1.61]
11 Uterine rupture	1	59	Relative Risk (Random) 95% CI	2.90 [0.12, 68.50]
12 Antenatal hospital stay	0	0	Weighted Mean Difference (Random) 95% CI	Not estimable
13 Postnatal hospital stay	0	0	Weighted Mean Difference (Random) 95% CI	Not estimable
14 Maternal satisfaction: nothing liked	2	5041	Relative Risk (Random) 95% CI	0.43 [0.36, 0.52]
15 Maternal satisfaction: nothing disliked	2	5041	Relative Risk (Random) 95% CI	1.20 [1.10, 1.30]
16 Maternal views of care	0	0	Relative Risk (Random) 95% CI	Not estimable
17 Postnatal depression	0	0	Relative Risk (Random) 95% CI	Not estimable
18 Breastfeeding	1	126	Relative Risk (Random) 95% CI	Not estimable
19 Fetal/perinatal mortality	6	5870	Odds Ratio (Fixed) 95% CI	0.46 [0.13, 1.66]
20 Cord prolapse	3	5081	Relative Risk (Random) 95% CI	1.00 [0.06, 16.03]
21 Gestational age at birth	0	0	Weighted Mean Difference (Random) 95% CI	Not estimable
22 Time from rupture of membranes to birth	5	1108	Weighted Mean Difference (Random) 95% CI	-9.53 [-12.96, -6.10]
23 Respiratory distress syndrome	0	0	Relative Risk (Random) 95% CI	Not estimable

24 Apgar score < 7 at 5 minutes	7	6005	Relative Risk (Random) 95% CI	0.93 [0.81, 1.07]
25 Mechanical ventilation	3	5158	Relative Risk (Random) 95% CI	0.99 [0.46, 2.12]
26 Birthweight	3	845	Weighted Mean Difference (Random) 95% CI	-88.93 [-138.73, -39.13]
27 Neonatal infection	10	6406	Relative Risk (Random) 95% CI	0.83 [0.61, 1.12]
28 Neonatal intensive care unit or special care nursery admission	6	5679	Relative Risk (Random) 95% CI	0.73 [0.58, 0.91]
29 Length of stay in neonatal intensive care unit	1	220	Relative Risk (Random) 95% CI	2.00 [0.37, 10.70]
30 Cystic periventricular leukomalacia	0	0	Relative Risk (Random) 95% CI	Not estimable
31 Intraventricular haemorrhage	0	0	Relative Risk (Random) 95% CI	Not estimable
32 Necrotising enterocolitis	0	0	Relative Risk (Random) 95% CI	Not estimable
33 Neonatal encephalopathy	0	0	Relative Risk (Random) 95% CI	Not estimable
34 Disability at time of childhood follow up	0	0	Relative Risk (Random) 95% CI	Not estimable
35 Time from rupture of membranes to birth: other data			Other data	No numeric data

### Comparison 02. Any planned versus expectant management: by parity

Outcome title	No. of studies	No. of participants	Statistical method	Effect size
01 Caesarean section	14	6814	Relative Risk (Random) 95% CI	0.94 [0.82, 1.08]
02 Chorioamnionitis	9	6611	Relative Risk (Random) 95% CI	0.75 [0.59, 0.97]
03 Endometritis	4	445	Relative Risk (Random) 95% CI	0.30 [0.12, 0.74]
04 Postpartum fever	5	5521	Relative Risk (Random) 95% CI	0.69 [0.38, 1.24]
05 Induction of labour	8	6420	Relative Risk (Random) 95% CI	3.38 [2.81, 4.07]
06 Vaginal birth	14	6814	Relative Risk (Random) 95% CI	1.01 [0.99, 1.02]
07 Operative vaginal birth	9	5611	Relative Risk (Random) 95% CI	1.04 [0.83, 1.31]
08 Use of epidural anaesthesia	3	360	Relative Risk (Random) 95% CI	1.09 [0.74, 1.61]
09 Fetal/perinatal mortality	5	5870	Relative Risk (Random) 95% CI	0.47 [0.13, 1.67]
10 Cord prolapse	2	5081	Relative Risk (Random) 95% CI	1.00 [0.06, 16.02]
11 Time from rupture of membranes to birth (hours)	5	1108	Weighted Mean Difference (Random) 95% CI	-9.53 [-12.96, -6.10]
12 Apgar score < 7 at 5 minutes	6	6005	Relative Risk (Random) 95% CI	0.93 [0.81, 1.07]
13 Mechanical ventilation (after initial resuscitation)	2	5158	Relative Risk (Random) 95% CI	0.90 [0.33, 2.47]
14 Birthweight	3	845	Weighted Mean Difference (Random) 95% CI	-88.93 [-138.73, -39.13]
15 Neonatal infection	9	6406	Relative Risk (Random) 95% CI	0.83 [0.61, 1.12]
16 Neonatal intensive care unit or special care nursery admission	5	5679	Relative Risk (Random) 95% CI	0.72 [0.57, 0.92]

### Comparison 03. Oxytocin versus expectant management/placebo: by parity

Outcome title	No. of studies	No. of participants	Statistical method	Effect size
01 Caesarean section	9	3800	Relative Risk (Random) 95% CI	0.96 [0.80, 1.16]
02 Chorioamnionitis	5	3637	Relative Risk (Random) 95% CI	0.74 [0.51, 1.07]
03 Endometritis	3	345	Relative Risk (Random) 95% CI	0.29 [0.11, 0.76]
04 Postpartum fever	2	2647	Relative Risk (Random) 95% CI	0.55 [0.35, 0.86]

05 Induction of labour	6	3760	Relative Risk (Random) 95% CI	3.49 [2.89, 4.22]
06 Vaginal birth	9	3800	Relative Risk (Random) 95% CI	1.00 [0.98, 1.02]
07 Operative vaginal birth	7	2992	Relative Risk (Random) 95% CI	0.98 [0.74, 1.28]
08 Maternal satisfaction: nothing liked	1	2521	Relative Risk (Random) 95% CI	0.43 [0.33, 0.56]
09 Maternal satisfaction: nothing disliked	1	2521	Relative Risk (Random) 95% CI	1.19 [1.05, 1.34]
10 Breastfeeding	1	126	Relative Risk (Random) 95% CI	Not estimable
11 Fetal/perinatal mortality	4	3250	Relative Risk (Random) 95% CI	0.46 [0.10, 2.04]
12 Cord prolapse	2	2561	Relative Risk (Random) 95% CI	1.00 [0.06, 16.03]
13 Time from rupture of membranes to birth (hours)	2	748	Weighted Mean Difference (Random) 95% CI	-12.75 [-15.36, -10.15]
14 Apgar score < 7 at 5 mins	5	3429	Relative Risk (Random) 95% CI	0.94 [0.78, 1.14]
15 Mechanical ventilation (after initial resuscitation)	2	2641	Relative Risk (Random) 95% CI	0.69 [0.34, 1.40]
16 Birthweight	1	566	Weighted Mean Difference (Random) 95% CI	-113.00 [-186.16, -39.84]
17 Neonatal infection	5	3432	Relative Risk (Random) 95% CI	0.67 [0.43, 1.06]
18 Neonatal intensive care unit or special care nursery admission	3	2883	Relative Risk (Random) 95% CI	0.58 [0.39, 0.85]

#### Comparison 04. Prostaglandin versus expectant management/placebo: by parity

Outcome title	No. of studies	No. of participants	Statistical method	Effect size
01 Caesarean section	6	2980	Relative Risk (Random) 95% CI	0.91 [0.74, 1.11]
02 Chorioamnionitis	5	2974	Relative Risk (Random) 95% CI	0.77 [0.49, 1.22]
03 Endometritis	1	100	Relative Risk (Random) 95% CI	0.33 [0.01, 7.99]
04 Postpartum fever	4	2874	Relative Risk (Random) 95% CI	0.75 [0.32, 1.76]
05 Induction of labour	2	2620	Relative Risk (Random) 95% CI	4.12 [3.50, 4.84]
06 Vaginal birth	6	2974	Relative Risk (Random) 95% CI	1.01 [0.99, 1.03]
07 Operative vaginal birth	3	2579	Relative Risk (Random) 95% CI	1.07 [0.82, 1.40]
08 Use of epidural anaesthesia	2	320	Relative Risk (Random) 95% CI	1.05 [0.70, 1.57]
09 Uterine rupture	1	59	Relative Risk (Random) 95% CI	2.90 [0.12, 68.50]
10 Maternal satisfaction: nothing liked	1	2520	Relative Risk (Random) 95% CI	0.44 [0.33, 0.58]
11 Maternal satisfaction: nothing disliked	1	2520	Relative Risk (Random) 95% CI	1.21 [1.07, 1.36]
12 Fetal/perinatal mortality	1	2520	Relative Risk (Random) 95% CI	0.50 [0.05, 5.52]
13 Cord prolapse	1	2520	Relative Risk (Random) 95% CI	Not estimable
14 Time from rupture of membranes to birth (hours)	2	320	Weighted Mean Difference (Random) 95% CI	-8.45 [-12.24, -4.66]
15 Apgar score < 7 at 5 minutes	2	2576	Relative Risk (Random) 95% CI	0.91 [0.75, 1.12]
16 Mechanical ventilation (after initial resuscitation)	1	2517	Relative Risk (Random) 95% CI	1.86 [0.74, 4.64]
17 Birthweight	2	279	Weighted Mean Difference (Random) 95% CI	-68.15 [-136.13, -0.17]
18 Neonatal infection	5	2974	Relative Risk (Random) 95% CI	0.99 [0.65, 1.50]
19 Neonatal intensive care unit or special care nursery admission	3	2796	Relative Risk (Random) 95% CI	0.87 [0.73, 1.03]

20 Length of stay in neonatal intensive care unit	1	220	Relative Risk (Random) 95% CI	2.00 [0.37, 10.70]
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#### Comparison 05. Caulophyllum versus placebo: by parity

Outcome title	No. of studies	No. of participants	Statistical method	Effect size
01 Caesarean section	1	40	Relative Risk (Random) 95% CI	5.00 [0.26, 98.00]
02 Induction of labour	1	40	Relative Risk (Random) 95% CI	2.22 [1.37, 3.61]
03 Vaginal birth	1	40	Relative Risk (Random) 95% CI	0.90 [0.78, 1.04]
04 Operative vaginal birth	1	40	Relative Risk (Random) 95% CI	1.00 [0.16, 6.42]
05 Use of epidural anaesthesia	1	40	Relative Risk (Random) 95% CI	2.00 [0.41, 9.71]
06 Time from rupture of membranes to birth (hours)	1	40	Weighted Mean Difference (Random) 95% CI	-0.80 [-9.50, 7.90]

#### Comparison 06. Digital vaginal exam: planned versus expectant management

Outcome title	No. of studies	No. of participants	Statistical method	Effect size
01 Chorioamnionitis	9	6611	Relative Risk (Random) 95% CI	0.75 [0.59, 0.97]
02 Endometritis	4	445	Relative Risk (Random) 95% CI	0.30 [0.12, 0.74]
03 Neonatal infection	9	6406	Relative Risk (Random) 95% CI	0.85 [0.63, 1.15]

#### Comparison 07. Unfavourable/favourable cervix: planned versus expectant management:

Outcome title	No. of studies	No. of participants	Statistical method	Effect size
01 Caesarean section	12	6814	Relative Risk (Random) 95% CI	0.94 [0.82, 1.08]
02 Chorioamnionitis	9	6611	Relative Risk (Random) 95% CI	0.75 [0.59, 0.97]
03 Endometritis	4	445	Relative Risk (Random) 95% CI	0.30 [0.12, 0.74]
04 Postpartum fever	5	5521	Relative Risk (Random) 95% CI	0.69 [0.38, 1.24]
05 Induction of labour	8	6420	Relative Risk (Random) 95% CI	3.38 [2.81, 4.07]
06 Vaginal birth	11	6739	Relative Risk (Random) 95% CI	1.00 [0.99, 1.02]
07 Operative vaginal birth	7	5611	Relative Risk (Random) 95% CI	1.11 [0.74, 1.69]
08 Use of epidural anaesthesia	3	360	Relative Risk (Random) 95% CI	1.09 [0.74, 1.61]
09 Time of rupture of membranes to birth (hours)	5	1108	Weighted Mean Difference (Random) 95% CI	-9.53 [-12.96, -6.10]
10 Apgar score < 7 at 5 minutes	6	6005	Relative Risk (Random) 95% CI	0.93 [0.81, 1.07]
11 Birthweight	3	845	Weighted Mean Difference (Random) 95% CI	-88.93 [-138.73, -39.13]
12 Neonatal infection	9	6406	Relative Risk (Random) 95% CI	0.83 [0.61, 1.12]
13 Neonatal intensive care unit or special care nursery admission	5	5679	Relative Risk (Random) 95% CI	0.72 [0.57, 0.92]

#### Comparison 08. Maternal antibiotic prophylaxis: planned versus expectant management

Outcome title	No. of studies	No. of participants	Statistical method	Effect size
01 Caesarean section	11	6739	Relative Risk (Random) 95% CI	0.93 [0.81, 1.08]
02 Chorioamnionitis	9	6611	Relative Risk (Random) 95% CI	0.75 [0.59, 0.97]
03 Endometritis	4	445	Relative Risk (Random) 95% CI	0.30 [0.12, 0.74]
04 Postpartum fever	5	5521	Relative Risk (Random) 95% CI	0.69 [0.38, 1.24]
05 Induction of labour	8	6420	Relative Risk (Random) 95% CI	3.38 [2.81, 4.07]

06 Vaginal birth	12	6981	Relative Risk (Random) 95% CI	1.01 [0.99, 1.02]
07 Operative vaginal birth	7	5611	Relative Risk (Random) 95% CI	1.11 [0.74, 1.69]
08 Neonatal infection	9	6406	Relative Risk (Random) 95% CI	0.83 [0.61, 1.12]

### Comparison 09. Quality (excluding trials with inadequate allocation concealment): planned versus expectant management

Outcome title	No. of studies	No. of participants	Statistical method	Effect size
01 Caesarean section	11	5991	Relative Risk (Random) 95% CI	0.95 [0.82, 1.10]
02 Chorioamnionitis	6	5778	Relative Risk (Random) 95% CI	0.67 [0.51, 0.87]
03 Endometritis	3	263	Relative Risk (Random) 95% CI	0.31 [0.10, 0.95]
04 Postpartum fever	4	5446	Relative Risk (Random) 95% CI	0.75 [0.37, 1.51]
05 Induction of labour	6	5672	Relative Risk (Random) 95% CI	3.65 [2.99, 4.45]
06 Vaginal birth	11	5991	Relative Risk (Random) 95% CI	1.00 [0.99, 1.02]
07 Operative vaginal birth	8	4920	Relative Risk (Random) 95% CI	1.09 [0.84, 1.41]
08 Time from rupture of membranes until birth (hours)	3	360	Weighted Mean Difference (Random) 95% CI	-7.36 [-11.28, -3.45]
09 Apgar score < 7 at 5 minutes	4	5257	Relative Risk (Random) 95% CI	0.78 [0.43, 1.40]
10 Birthweight	2	279	Weighted Mean Difference (Random) 95% CI	-68.15 [-136.13, -0.17]
11 Neonatal infection	6	5583	Relative Risk (Random) 95% CI	0.85 [0.62, 1.17]

### Comparison 10. Blinding: planned versus expectant management

Outcome title	No. of studies	No. of participants	Statistical method	Effect size
01 Caesarean section			Relative Risk (Random) 95% CI	Subtotals only
02 Chorioamnionitis			Relative Risk (Random) 95% CI	Subtotals only
03 Endometritis			Relative Risk (Random) 95% CI	Subtotals only
04 Postpartum fever			Relative Risk (Random) 95% CI	Subtotals only
05 Induction of labour			Relative Risk (Random) 95% CI	Subtotals only
06 Vaginal birth			Relative Risk (Random) 95% CI	Subtotals only
07 Operative vaginal birth			Relative Risk (Random) 95% CI	Subtotals only
08 Use of epidural anaesthesia			Relative Risk (Random) 95% CI	Subtotals only
09 Apgar score < 7 at 5 minutes			Relative Risk (Random) 95% CI	Subtotals only
10 Neonatal infection			Relative Risk (Random) 95% CI	Subtotals only
11 Neonatal intensive care unit or special care nursery admission			Relative Risk (Random) 95% CI	Subtotals only

## INDEX TERMS

### Medical Subject Headings (MeSH)

Cesarean Section [utilization]; \*Fetal Membranes, Premature Rupture; Labor, Induced [\*methods]; Obstetric Labor Complications; Oxytocics; Pregnancy Outcome; Randomized Controlled Trials; \*Term Birth

### MeSH check words

Female; Humans; Pregnancy

## COVER SHEET

<b>Title</b>	Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)
<b>Authors</b>	Dare MR, Middleton P, Crowther CA, Flenady VJ, Varatharaju B
<b>Contribution of author(s)</b>	Marianna Dare wrote the protocol and Caroline Crowther and Philippa Middleton worked with Marianna to produce the final draft. Marianna Dare, Philippa Middleton and Bala Varatharaju carried out the data extraction and all authors worked to produce the final draft of the review.
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<b>Review first published</b>	2006/1
<b>Date of most recent amendment</b>	13 February 2007
<b>Date of most recent SUBSTANTIVE amendment</b>	01 October 2005
<b>What's New</b>	Information not supplied by author
<b>Date new studies sought but none found</b>	Information not supplied by author
<b>Date new studies found but not yet included/excluded</b>	Information not supplied by author
<b>Date new studies found and included/excluded</b>	Information not supplied by author
<b>Date authors' conclusions section amended</b>	Information not supplied by author
<b>Contact address</b>	Ms Philippa Middleton Co-ordinator, Australian Pregnancy and Childbirth Review Authors' Group Discipline of Obstetrics and Gynaecology The University of Adelaide Women's and Children's Hospital 72 King William Road Adelaide South Australia 5006 AUSTRALIA E-mail: philippa.middleton@adelaide.edu.au Tel: +61 8 8161 7612 Fax: +61 8 8161 7652
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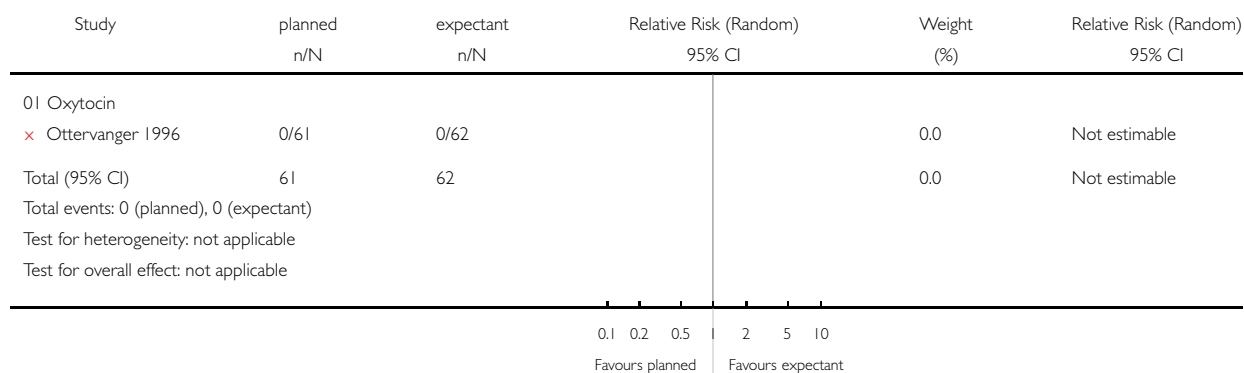
## GRAPHS AND OTHER TABLES

### Analysis 01.01. Comparison 01 Any planned versus expectant management: by type, Outcome 01 Maternal mortality

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 01 Any planned versus expectant management: by type

Outcome: 01 Maternal mortality

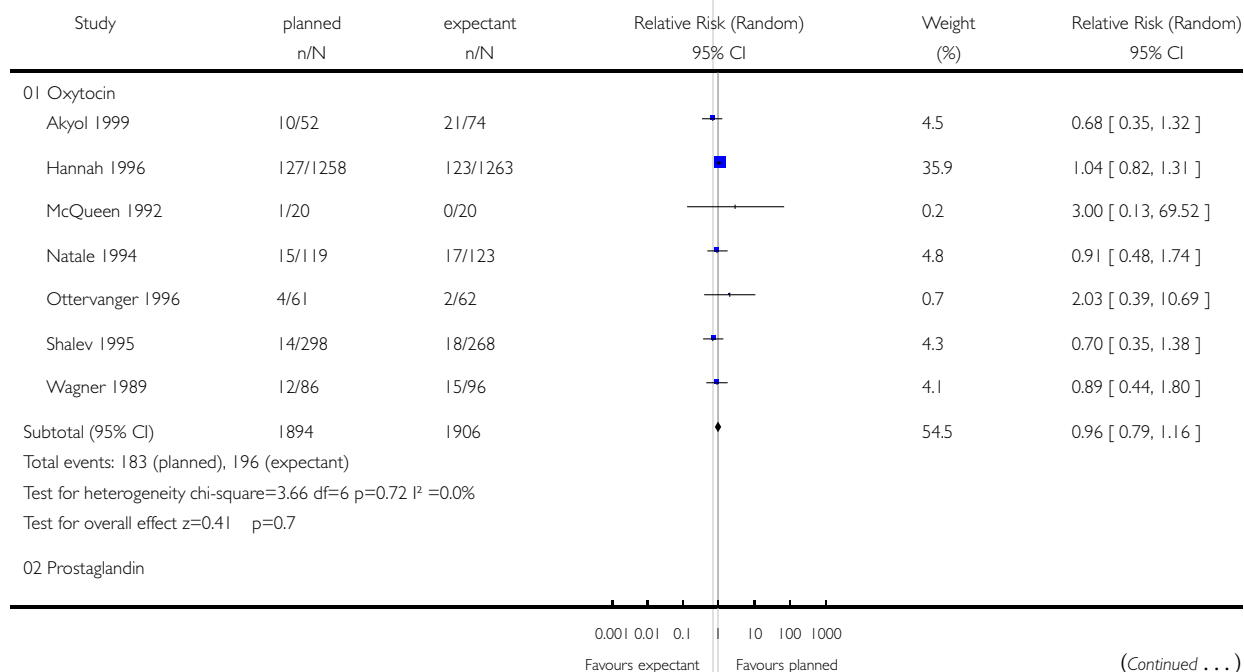


### Analysis 01.02. Comparison 01 Any planned versus expectant management: by type, Outcome 02 Caesarean section

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

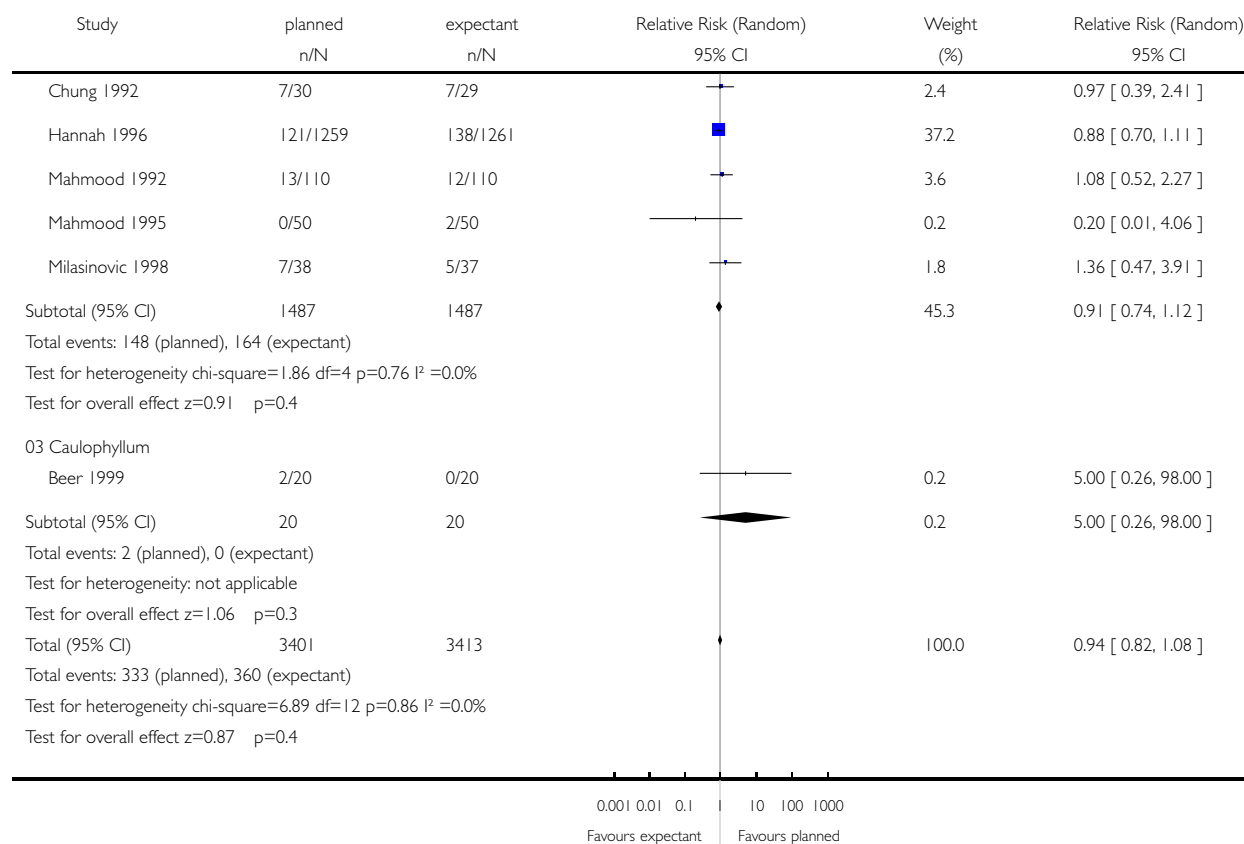
Comparison: 01 Any planned versus expectant management: by type

Outcome: 02 Caesarean section



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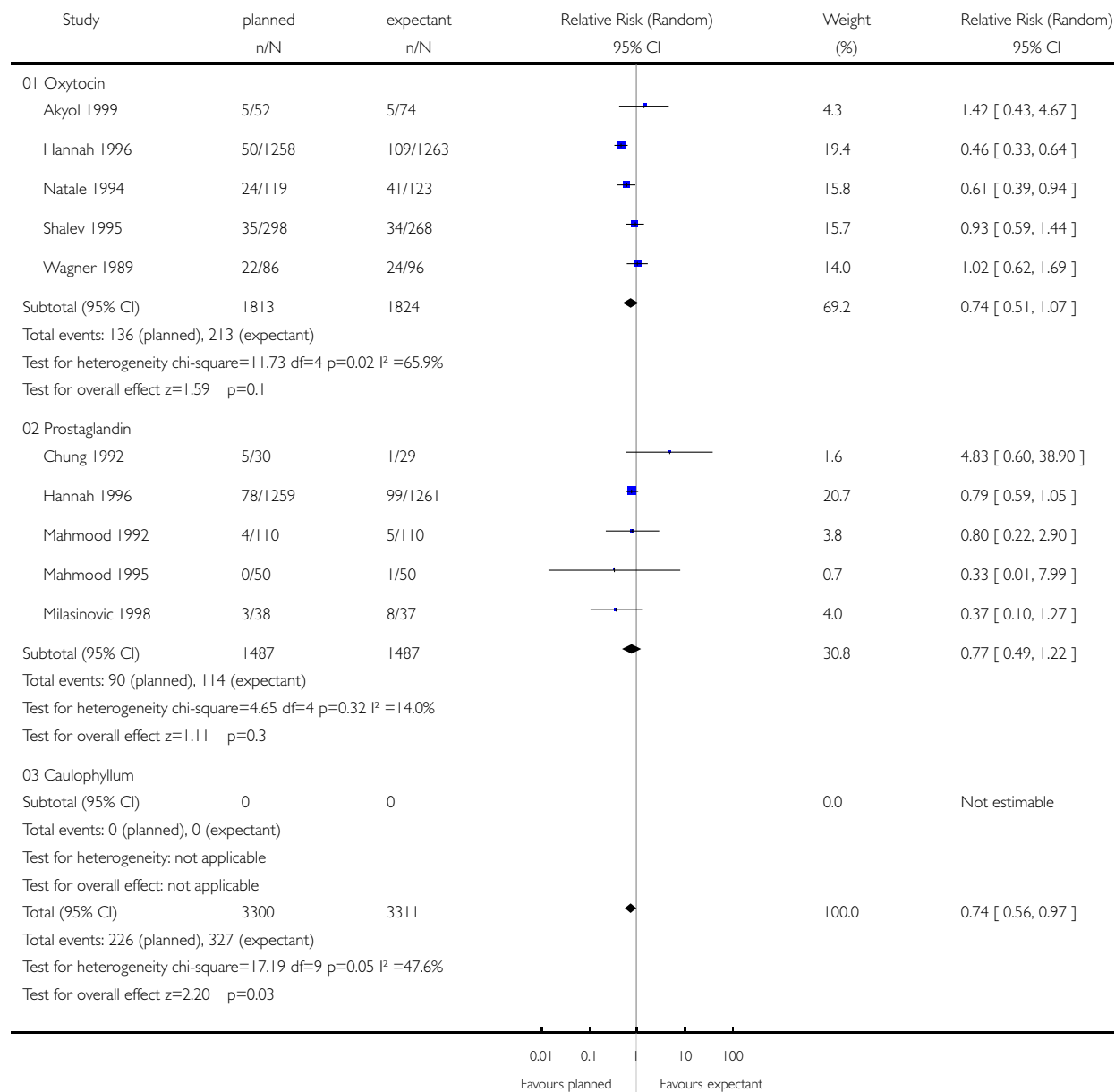


### Analysis 01.03. Comparison 01 Any planned versus expectant management: by type, Outcome 03 Chorioamnionitis

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Comparison: 01 Any planned versus expectant management: by type

Outcome: 03 Chorioamnionitis

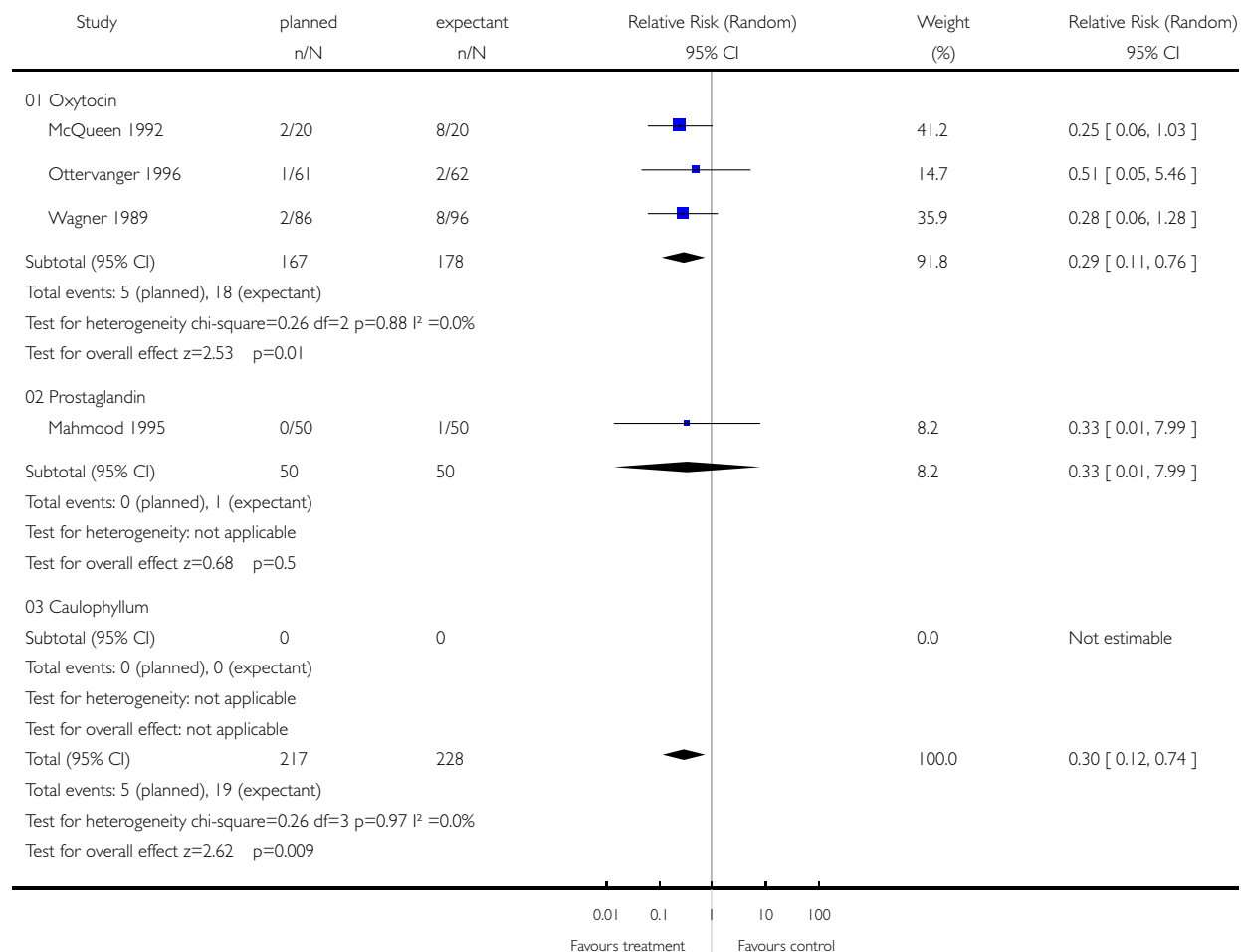


# **Analysis 01.04. Comparison 01 Any planned versus expectant management: by type, Outcome 04 Endometritis**

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Comparison: 01 Any planned versus expectant management: by type

Outcome: 04 Endometritis

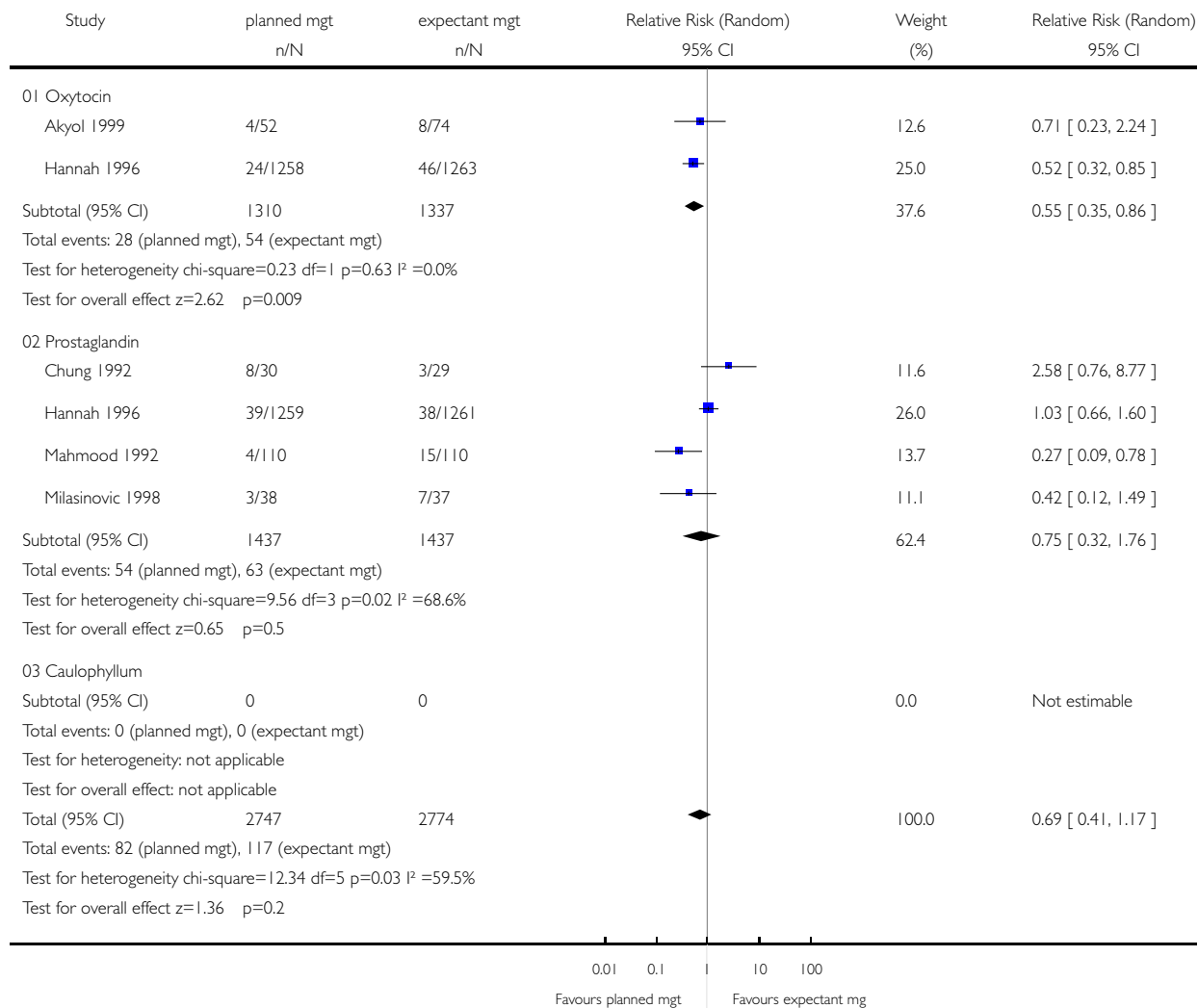


# **Analysis 01.05. Comparison 01 Any planned versus expectant management: by type, Outcome 05 Postpartum fever**

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Comparison: 01 Any planned versus expectant management: by type

Outcome: 05 Postpartum fever

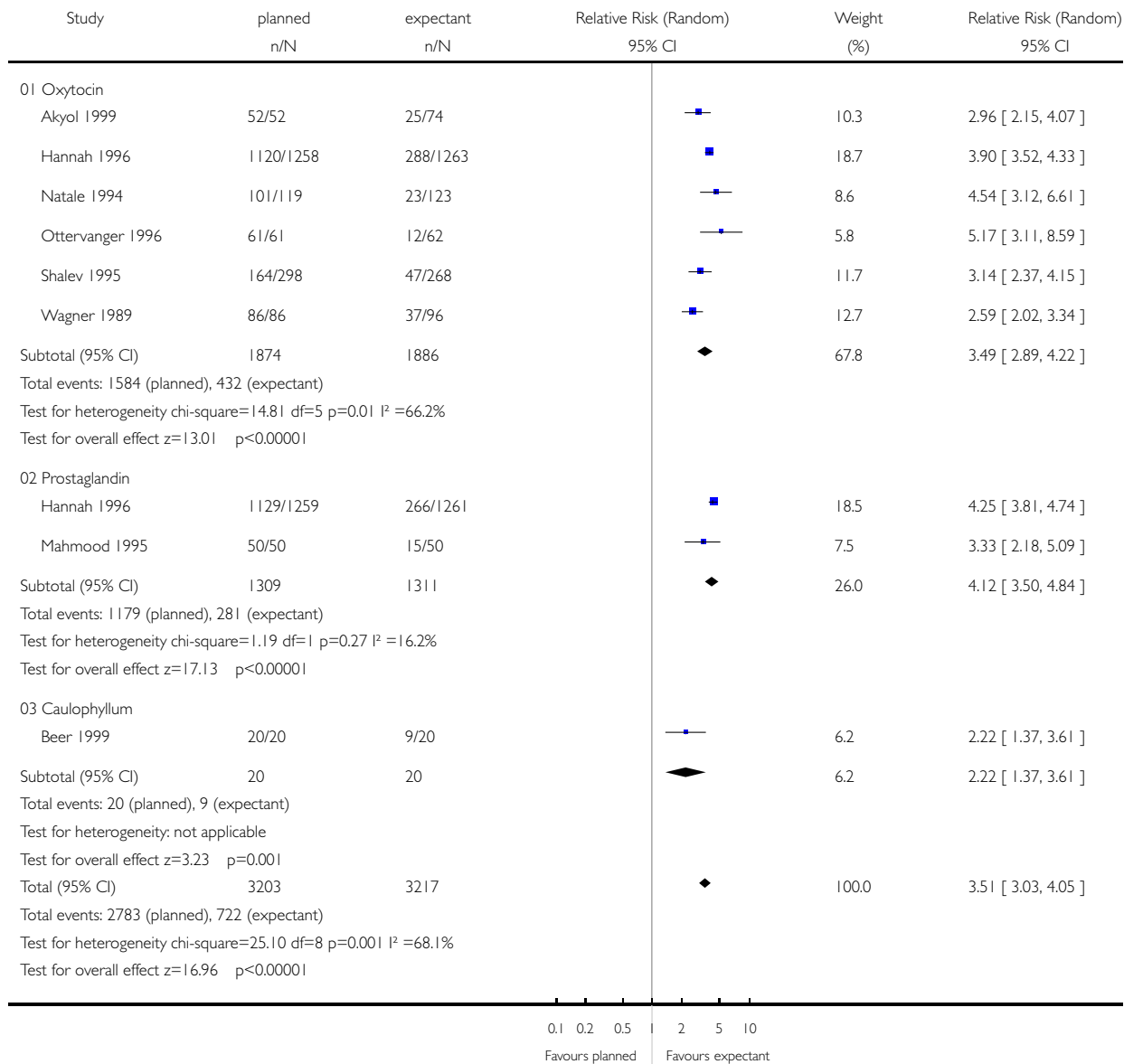


## Analysis 01.07. Comparison 01 Any planned versus expectant management: by type, Outcome 07 Induction of labour

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 01 Any planned versus expectant management: by type

Outcome: 07 Induction of labour

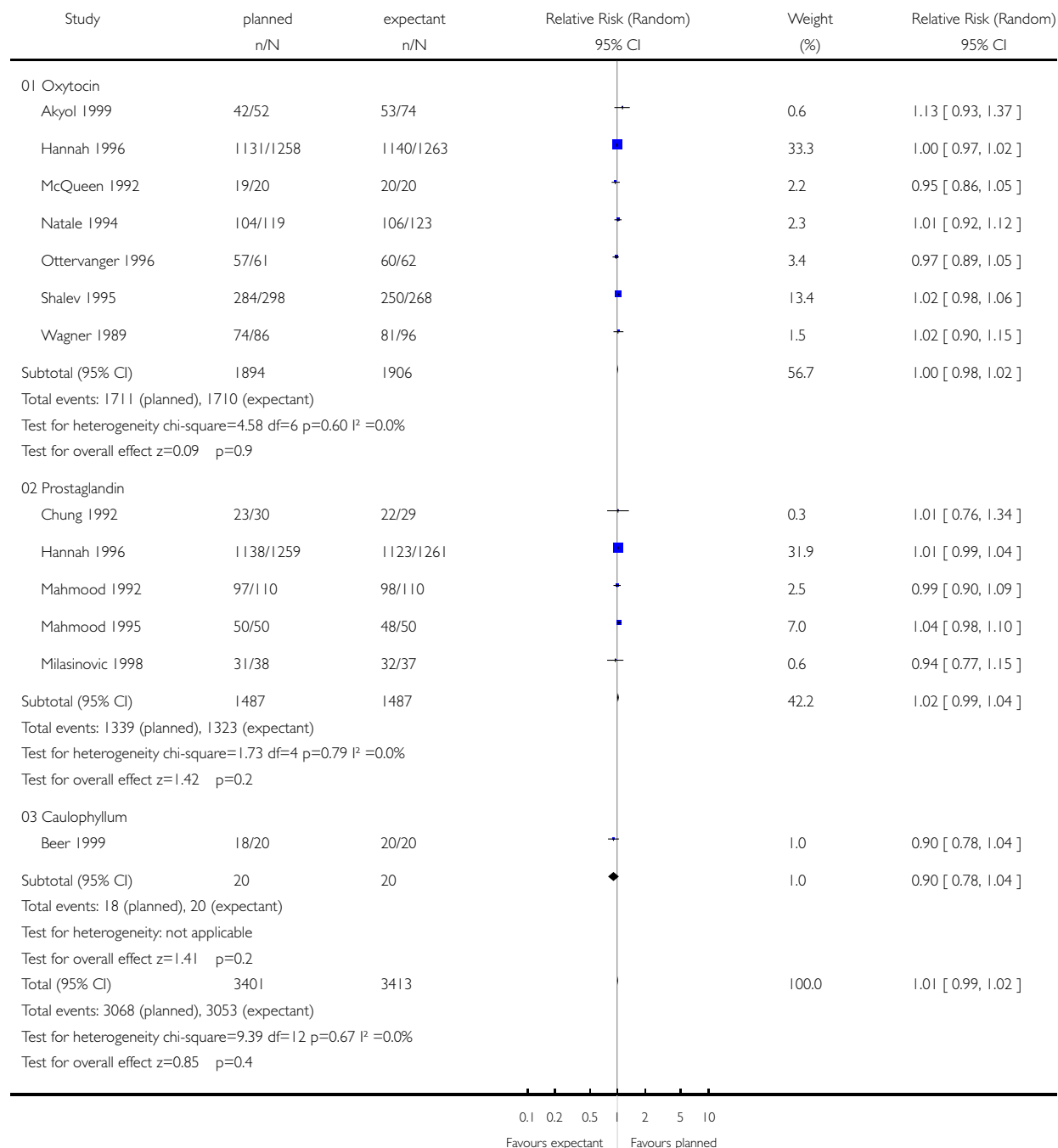


# **Analysis 01.08. Comparison 01 Any planned versus expectant management: by type, Outcome 08 Vaginal birth**

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Comparison: 01 Any planned versus expectant management: by type

Outcome: 08 Vaginal birth

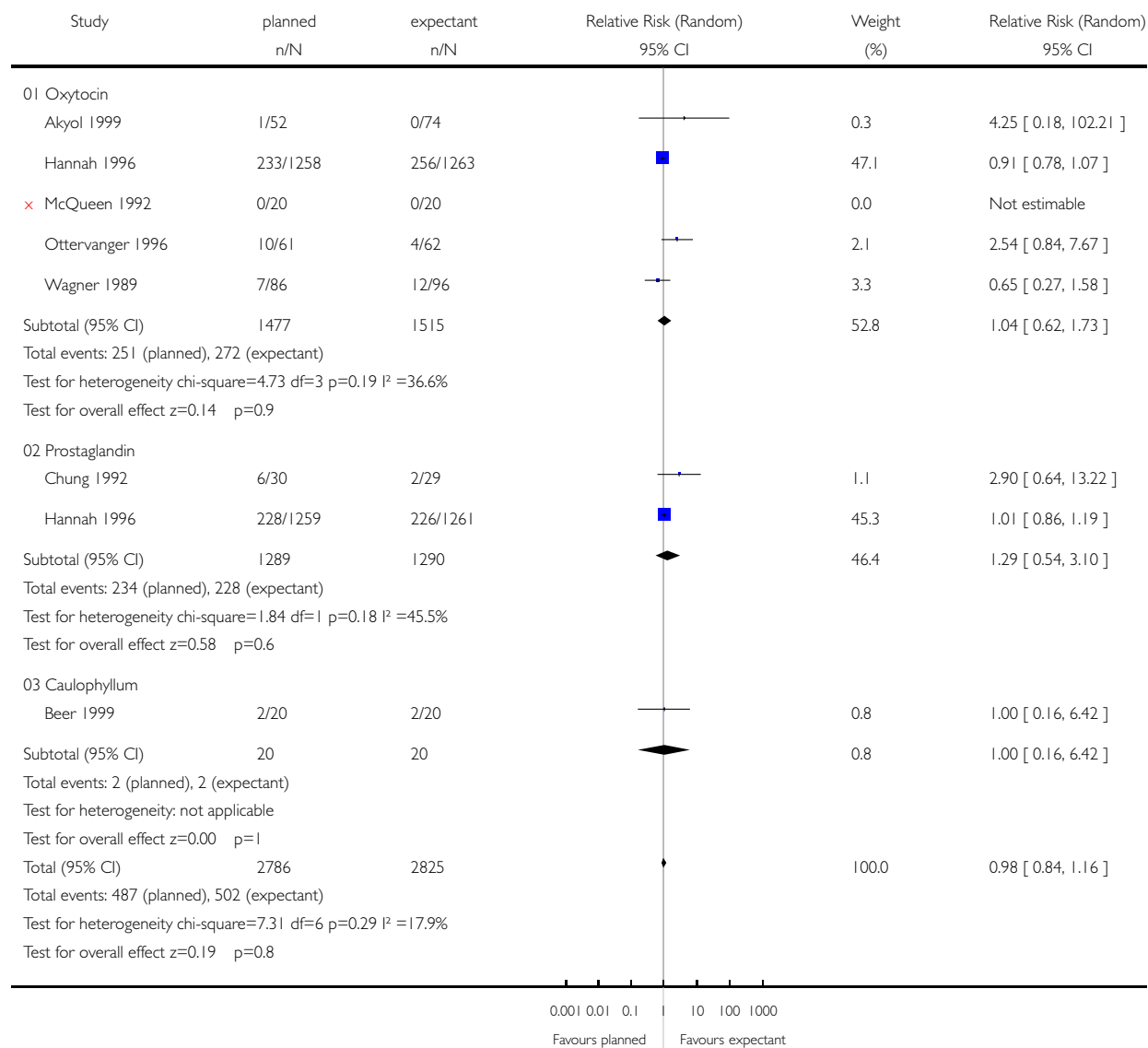


### Analysis 01.09. Comparison 01 Any planned versus expectant management: by type, Outcome 09 Operative vaginal birth

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Comparison: 01 Any planned versus expectant management: by type

Outcome: 09 Operative vaginal birth

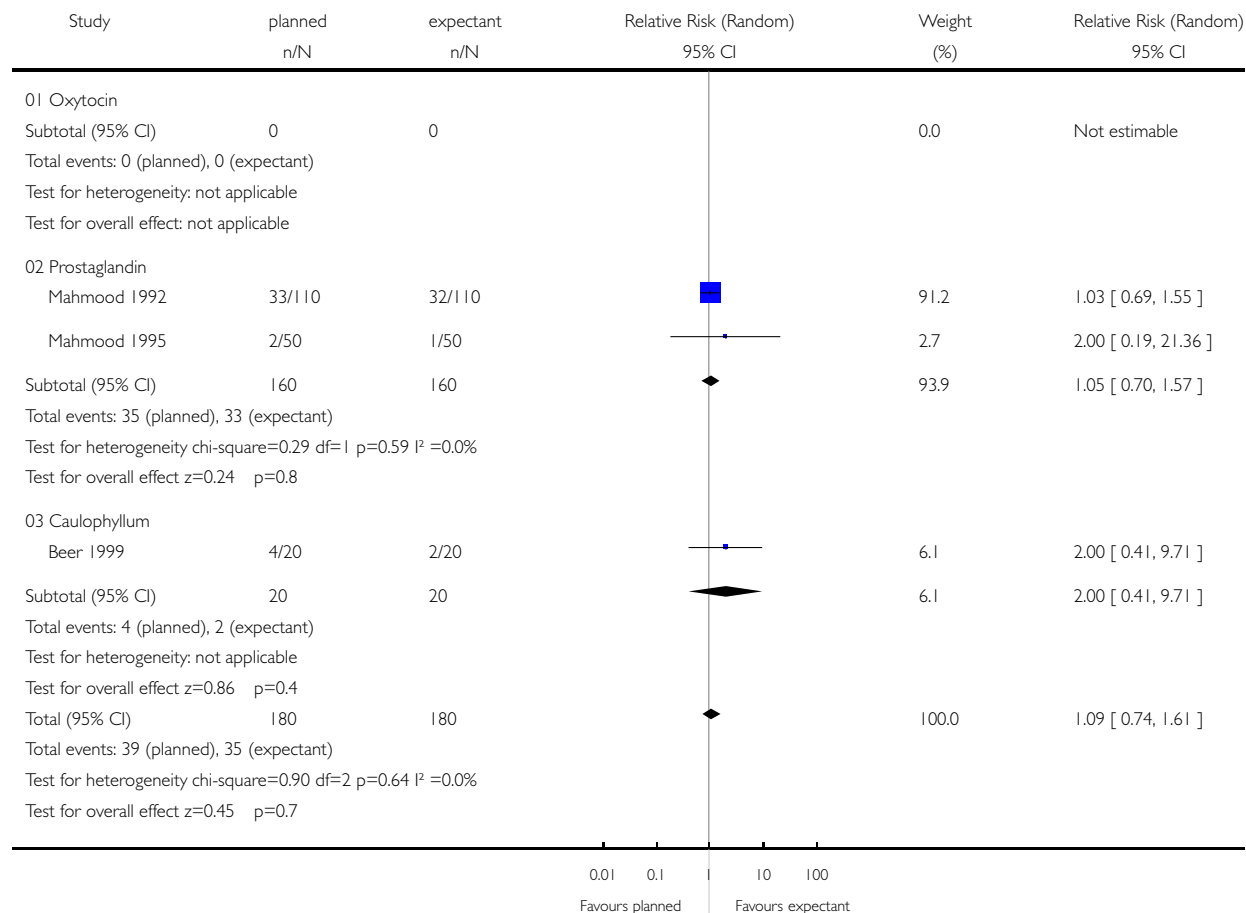


# **Analysis 01.10. Comparison 01 Any planned versus expectant management: by type, Outcome 10 Use of epidural anaesthesia**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 01 Any planned versus expectant management: by type

Outcome: 10 Use of epidural anaesthesia

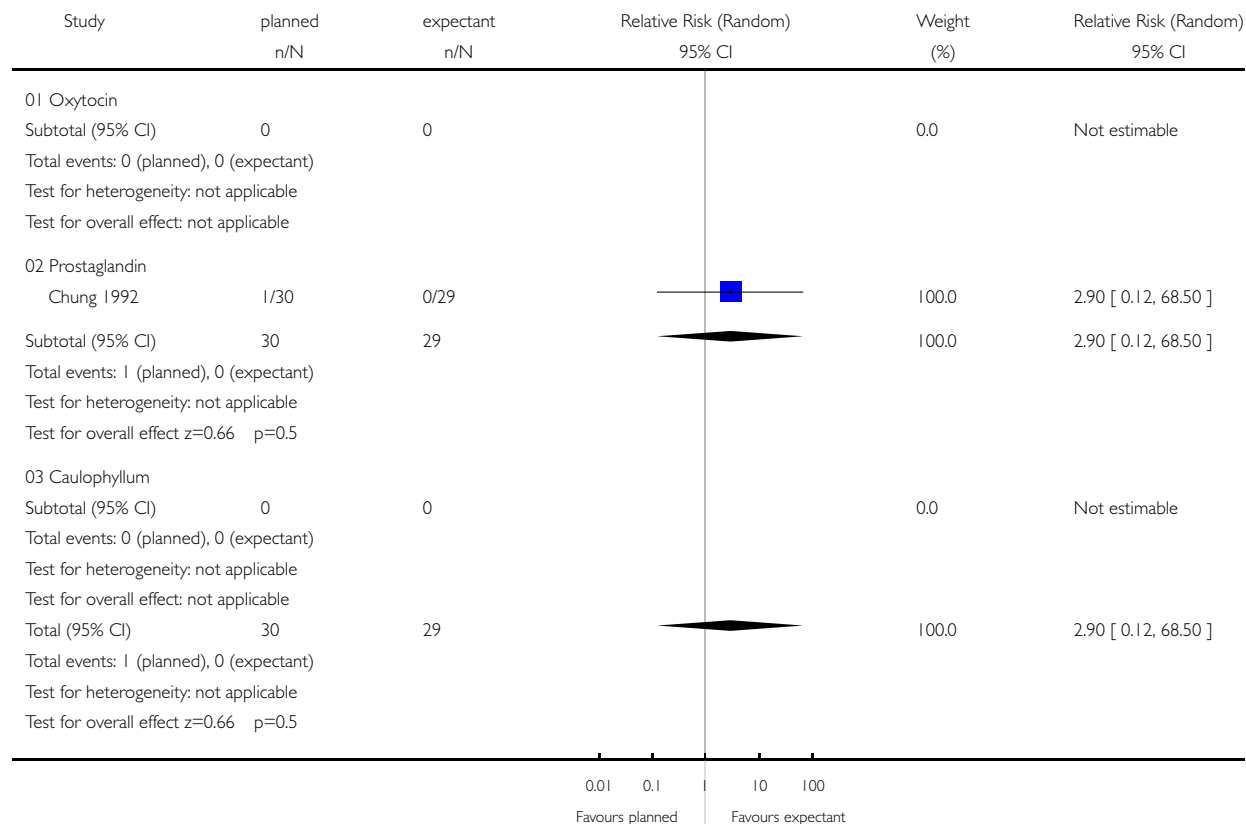


### Analysis 01.11. Comparison 01 Any planned versus expectant management: by type, Outcome 11 Uterine rupture

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 01 Any planned versus expectant management: by type

Outcome: 11 Uterine rupture

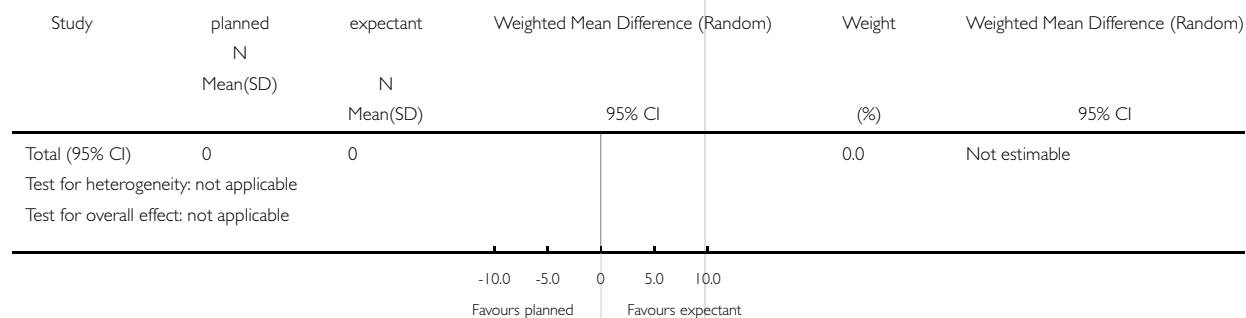


### Analysis 01.12. Comparison 01 Any planned versus expectant management: by type, Outcome 12 Antenatal hospital stay

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 01 Any planned versus expectant management: by type

Outcome: 12 Antenatal hospital stay

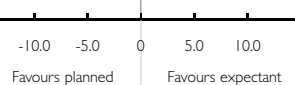


**Analysis 01.13. Comparison 01 Any planned versus expectant management: by type, Outcome 13 Postnatal hospital stay**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 01 Any planned versus expectant management: by type

Outcome: 13 Postnatal hospital stay

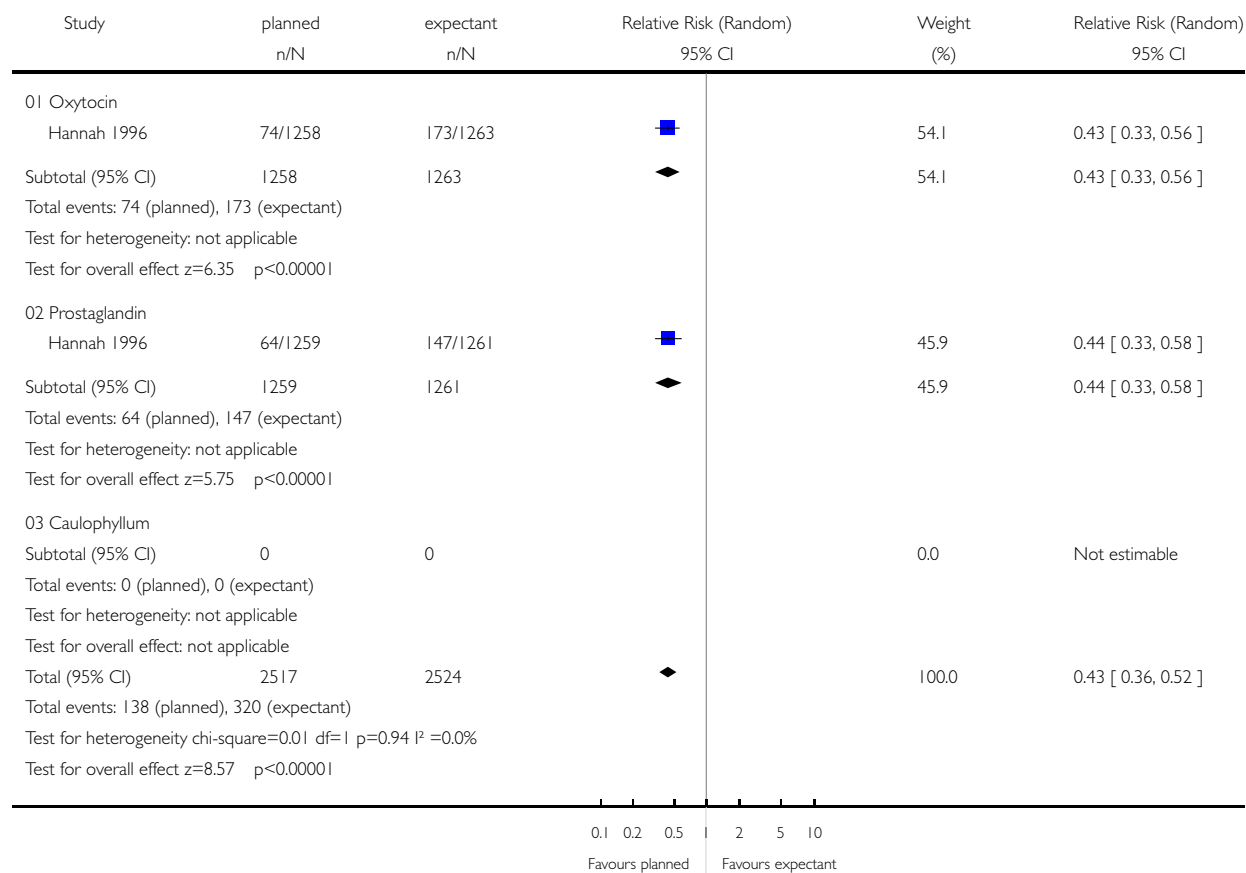
Study	planned N Mean(SD)	expectant N Mean(SD)	Weighted Mean Difference (Random) 95% CI	Weight (%)	Weighted Mean Difference (Random) 95% CI
Total (95% CI)	0	0		0.0	Not estimable
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
					

# **Analysis 01.14. Comparison 01 Any planned versus expectant management: by type, Outcome 14 Maternal satisfaction: nothing liked**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 01 Any planned versus expectant management: by type

Outcome: 14 Maternal satisfaction: nothing liked

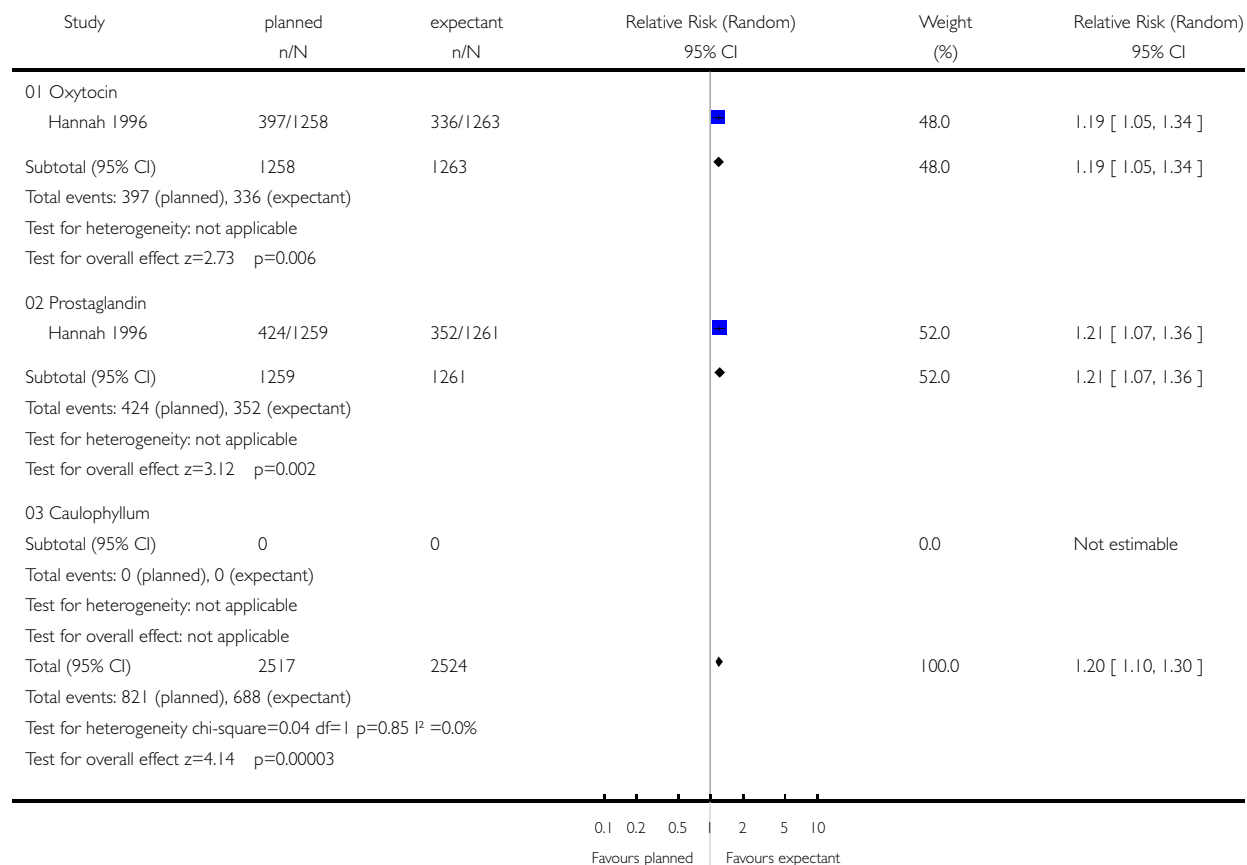


# **Analysis 01.15. Comparison 01 Any planned versus expectant management: by type, Outcome 15 Maternal satisfaction: nothing disliked**

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Comparison: 01 Any planned versus expectant management: by type

Outcome: 15 Maternal satisfaction: nothing disliked

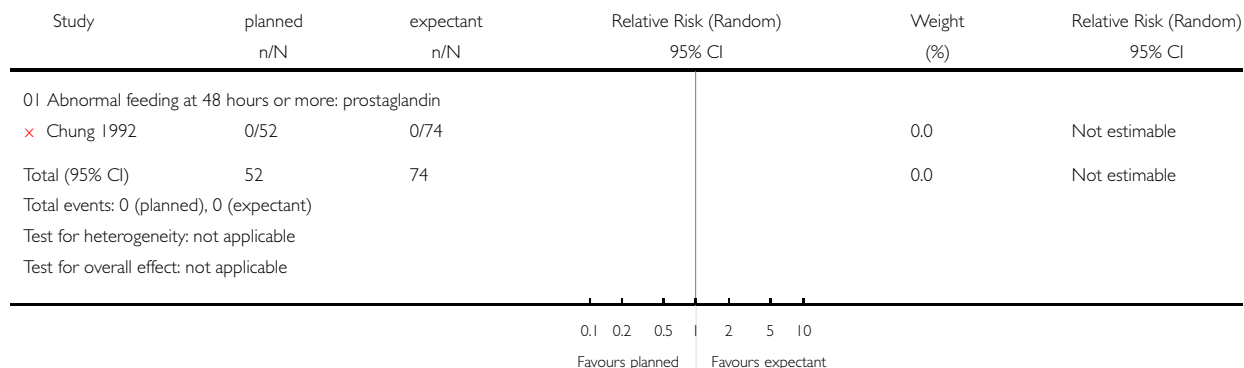


### Analysis 01.18. Comparison 01 Any planned versus expectant management: by type, Outcome 18 Breastfeeding

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 01 Any planned versus expectant management: by type

Outcome: 18 Breastfeeding

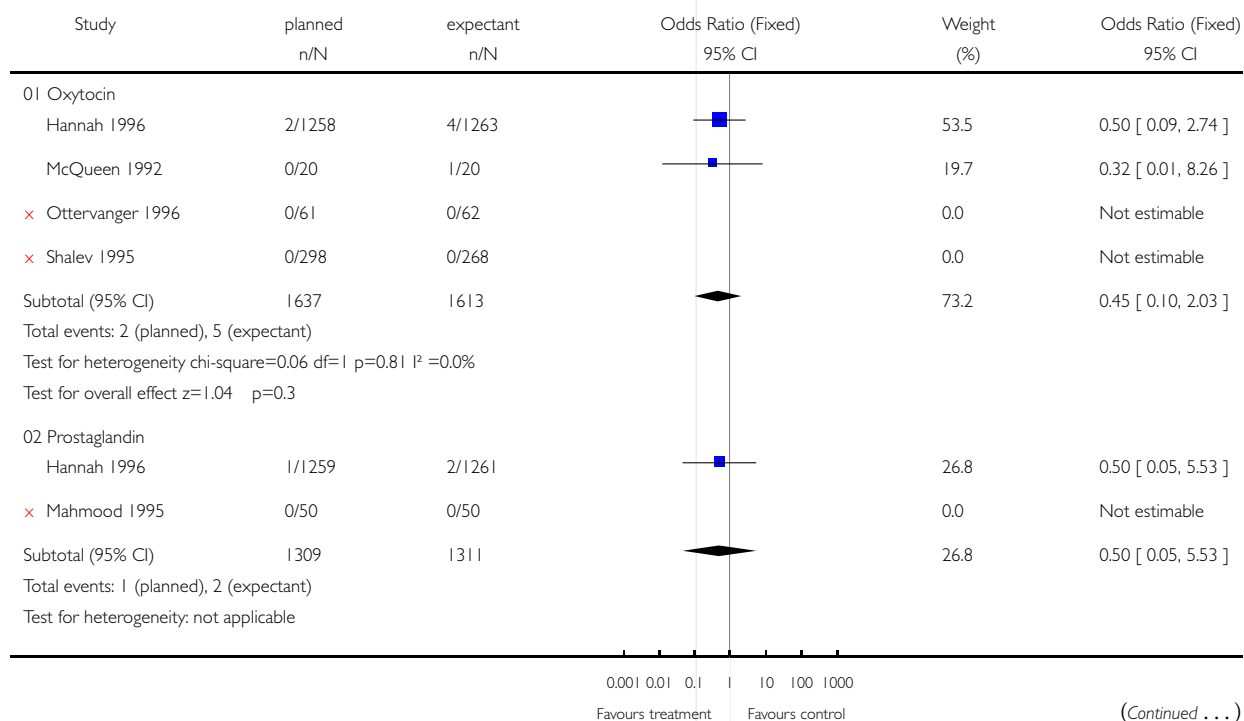


### Analysis 01.19. Comparison 01 Any planned versus expectant management: by type, Outcome 19 Fetal/perinatal mortality

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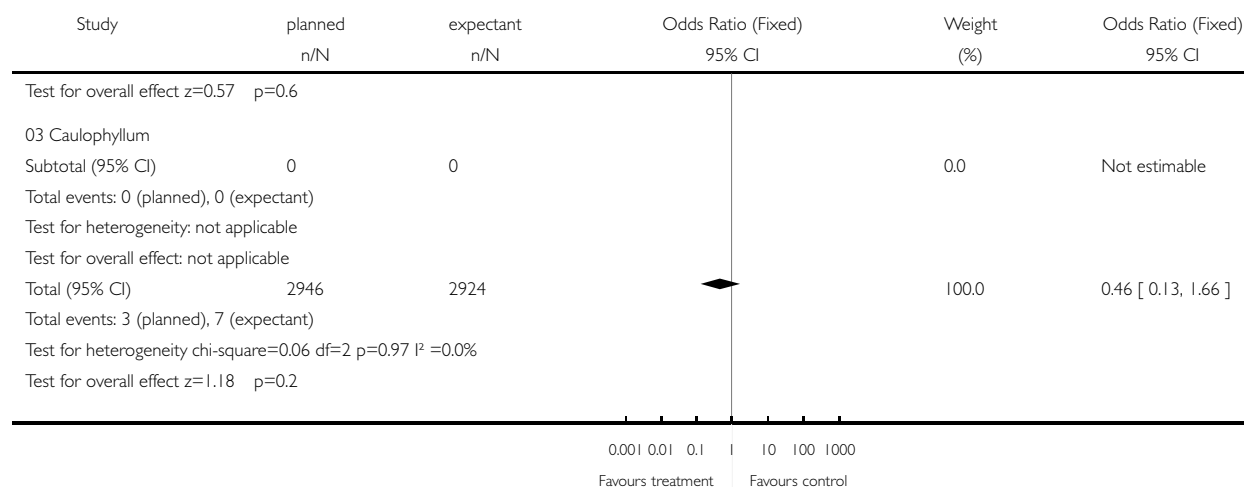
Comparison: 01 Any planned versus expectant management: by type

Outcome: 19 Fetal/perinatal mortality



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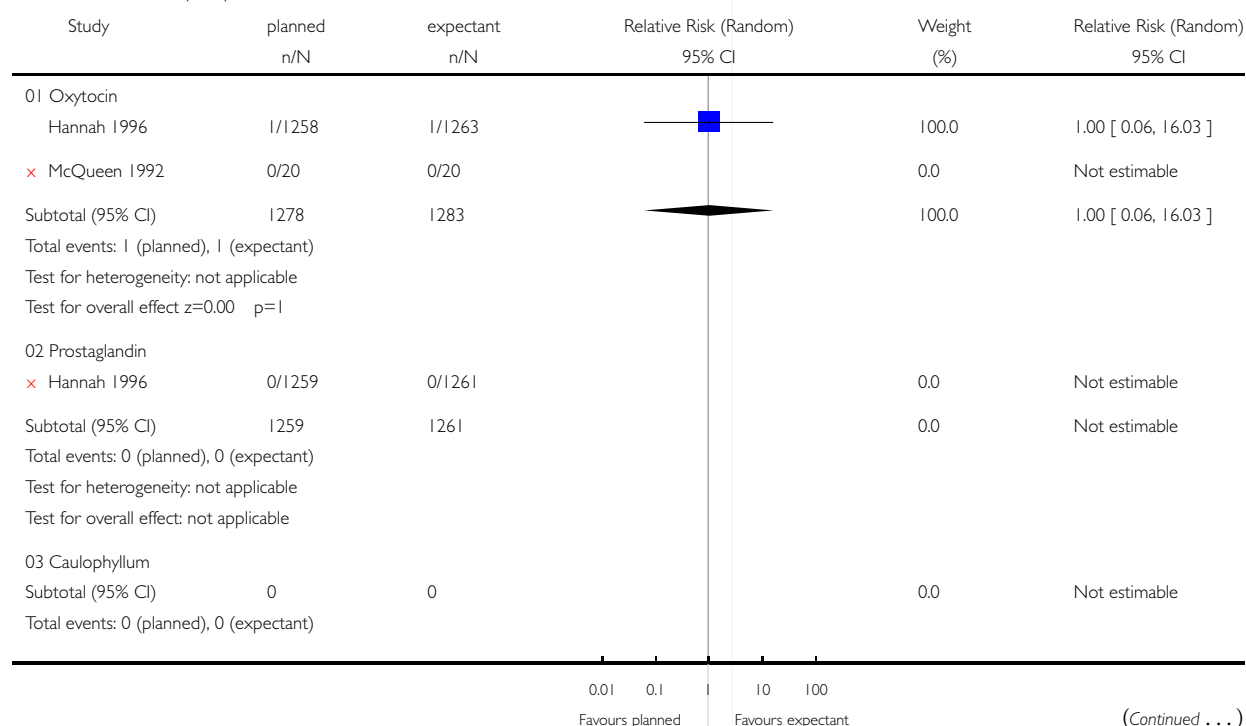


## Analysis 01.20. Comparison 01 Any planned versus expectant management: by type, Outcome 20 Cord prolapse

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

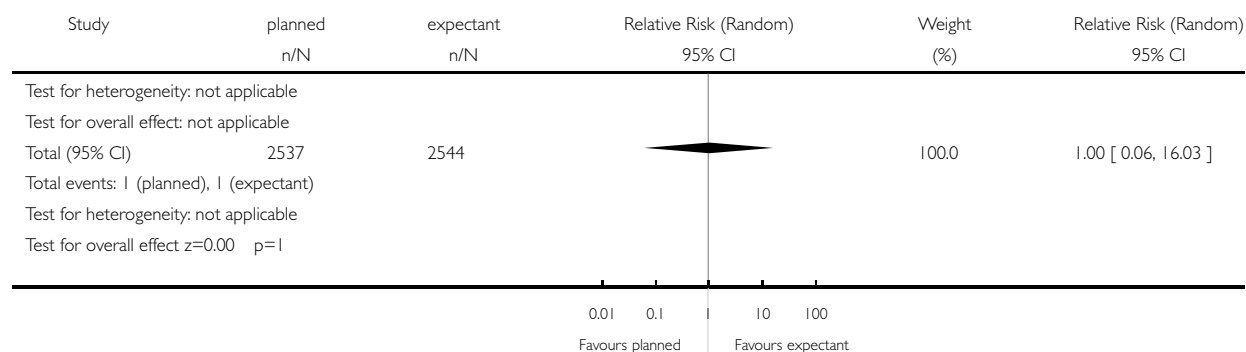
Comparison: 01 Any planned versus expectant management: by type

Outcome: 20 Cord prolapse



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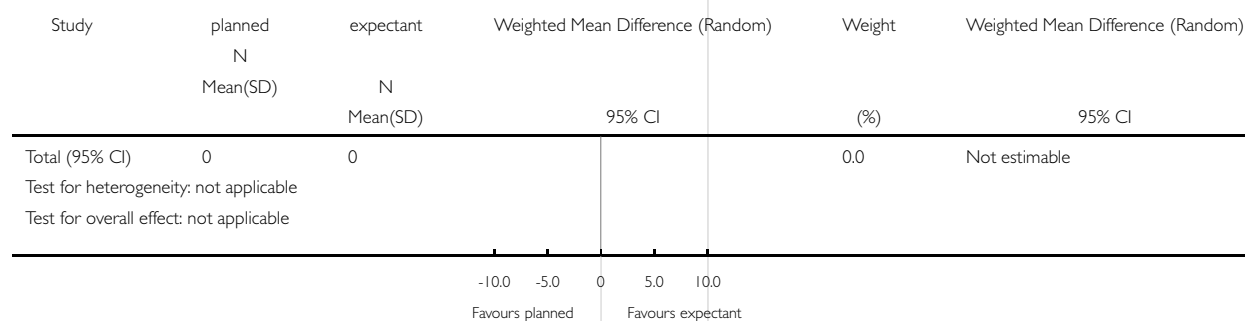


### Analysis 01.21. Comparison 01 Any planned versus expectant management: by type, Outcome 21 Gestational age at birth

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 01 Any planned versus expectant management: by type

Outcome: 21 Gestational age at birth

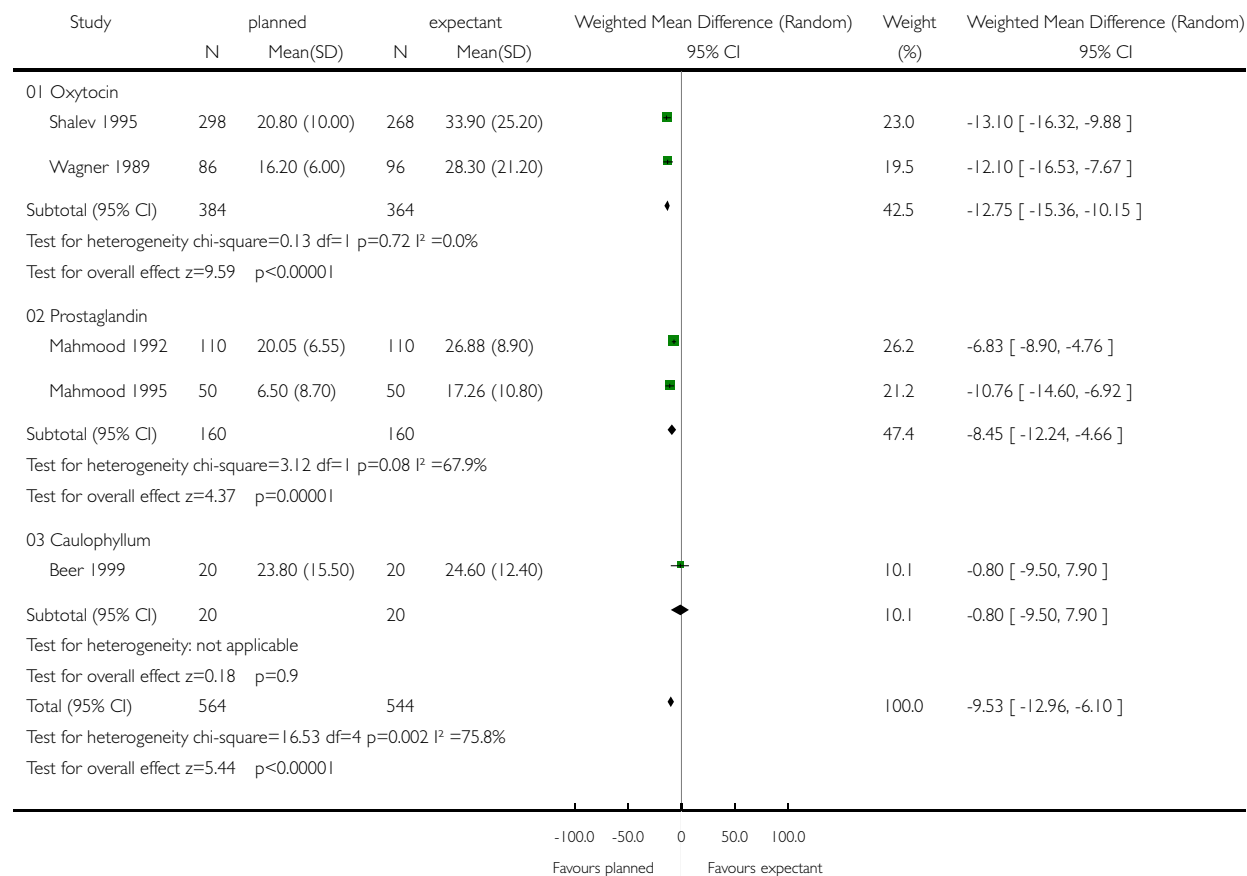


## Analysis 01.22. Comparison 01 Any planned versus expectant management: by type, Outcome 22 Time from rupture of membranes to birth

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 01 Any planned versus expectant management: by type

Outcome: 22 Time from rupture of membranes to birth

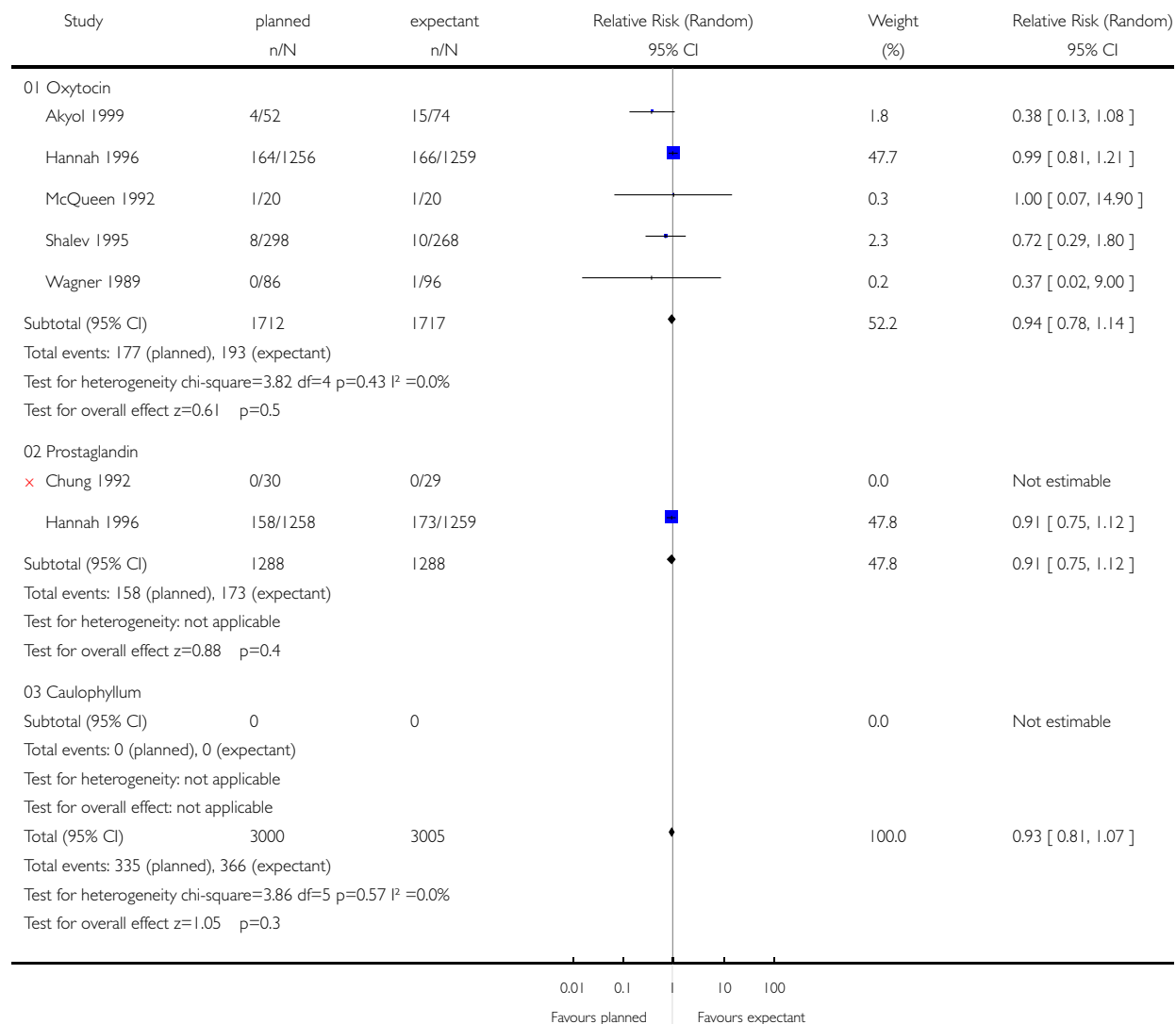


## Analysis 01.24. Comparison 01 Any planned versus expectant management: by type, Outcome 24 Apgar score < 7 at 5 minutes

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 01 Any planned versus expectant management: by type

Outcome: 24 Apgar score < 7 at 5 minutes

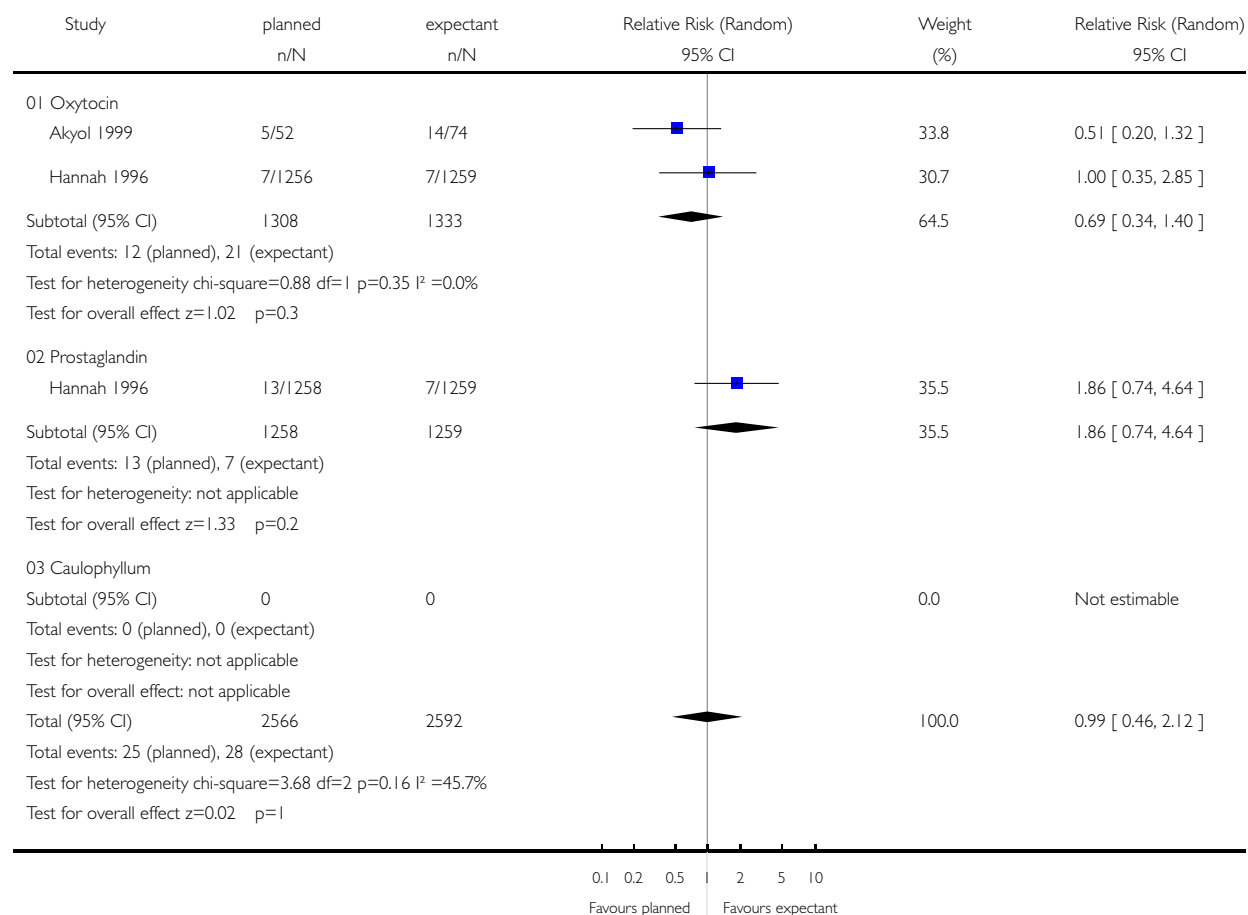


## Analysis 01.25. Comparison 01 Any planned versus expectant management: by type, Outcome 25 Mechanical ventilation

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 01 Any planned versus expectant management: by type

Outcome: 25 Mechanical ventilation

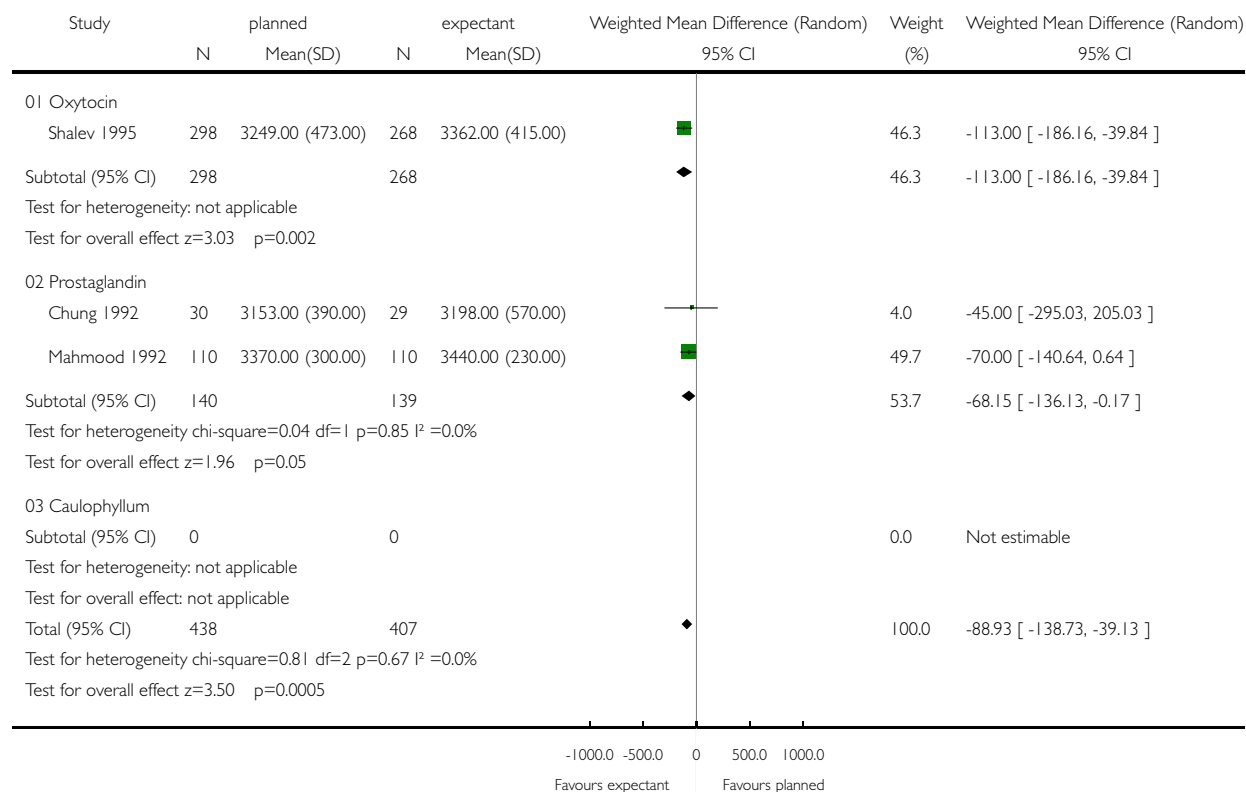


## Analysis 01.26. Comparison 01 Any planned versus expectant management: by type, Outcome 26 Birthweight

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 01 Any planned versus expectant management: by type

Outcome: 26 Birthweight

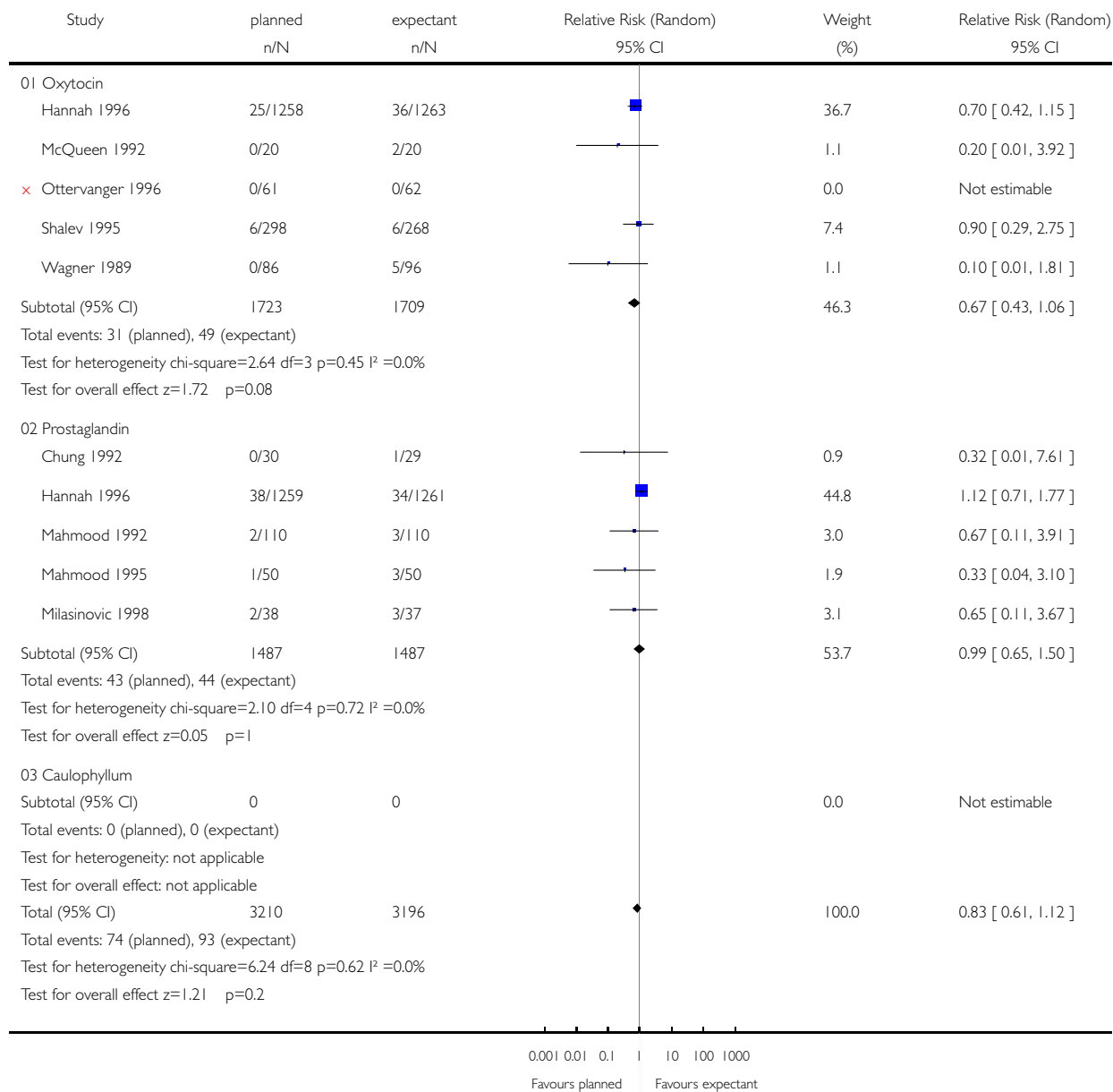


## Analysis 01.27. Comparison 01 Any planned versus expectant management: by type, Outcome 27 Neonatal infection

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 01 Any planned versus expectant management: by type

Outcome: 27 Neonatal infection

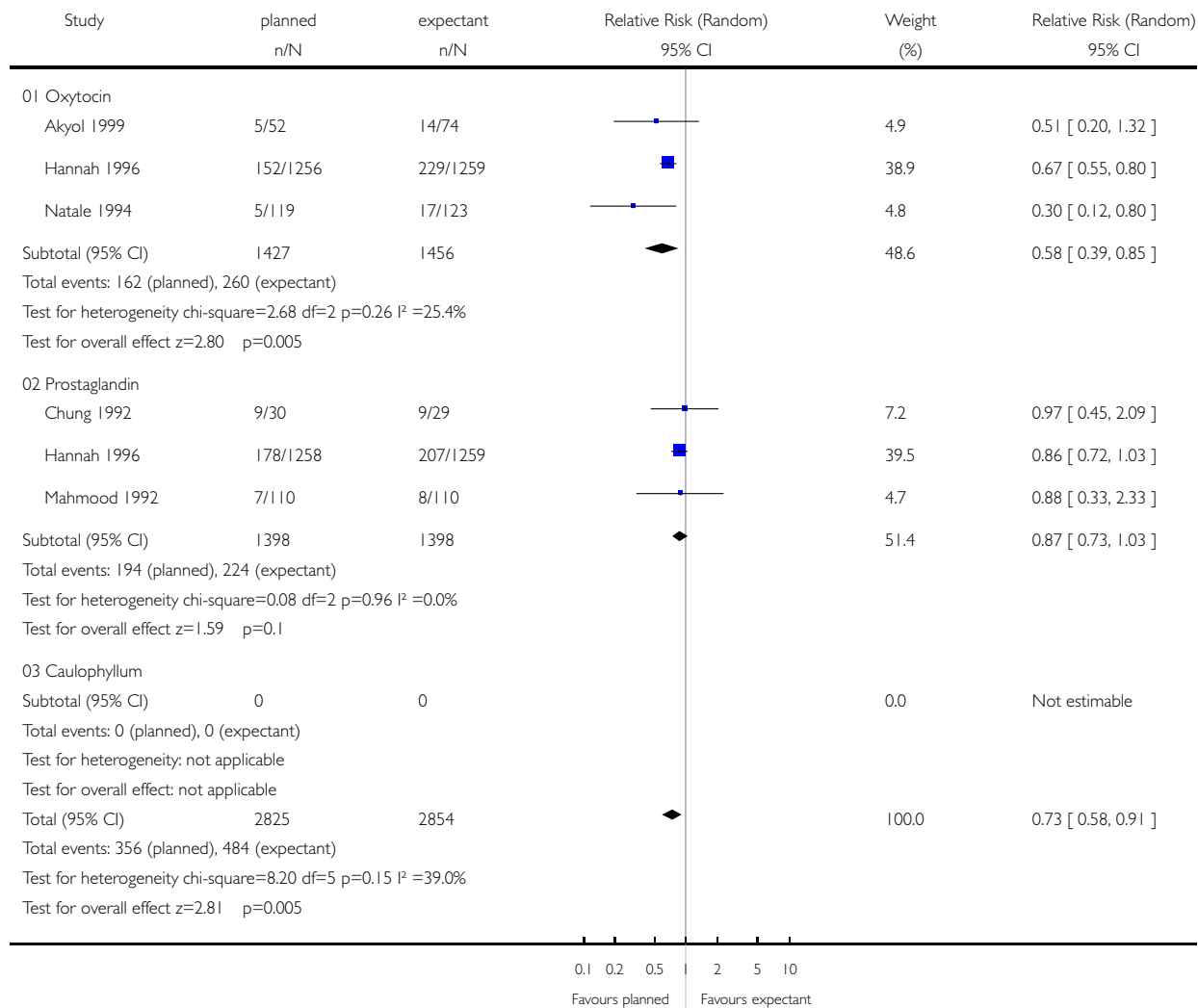


# **Analysis 01.28. Comparison 01 Any planned versus expectant management: by type, Outcome 28 Neonatal intensive care unit or special care nursery admission**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 01 Any planned versus expectant management: by type

Outcome: 28 Neonatal intensive care unit or special care nursery admission

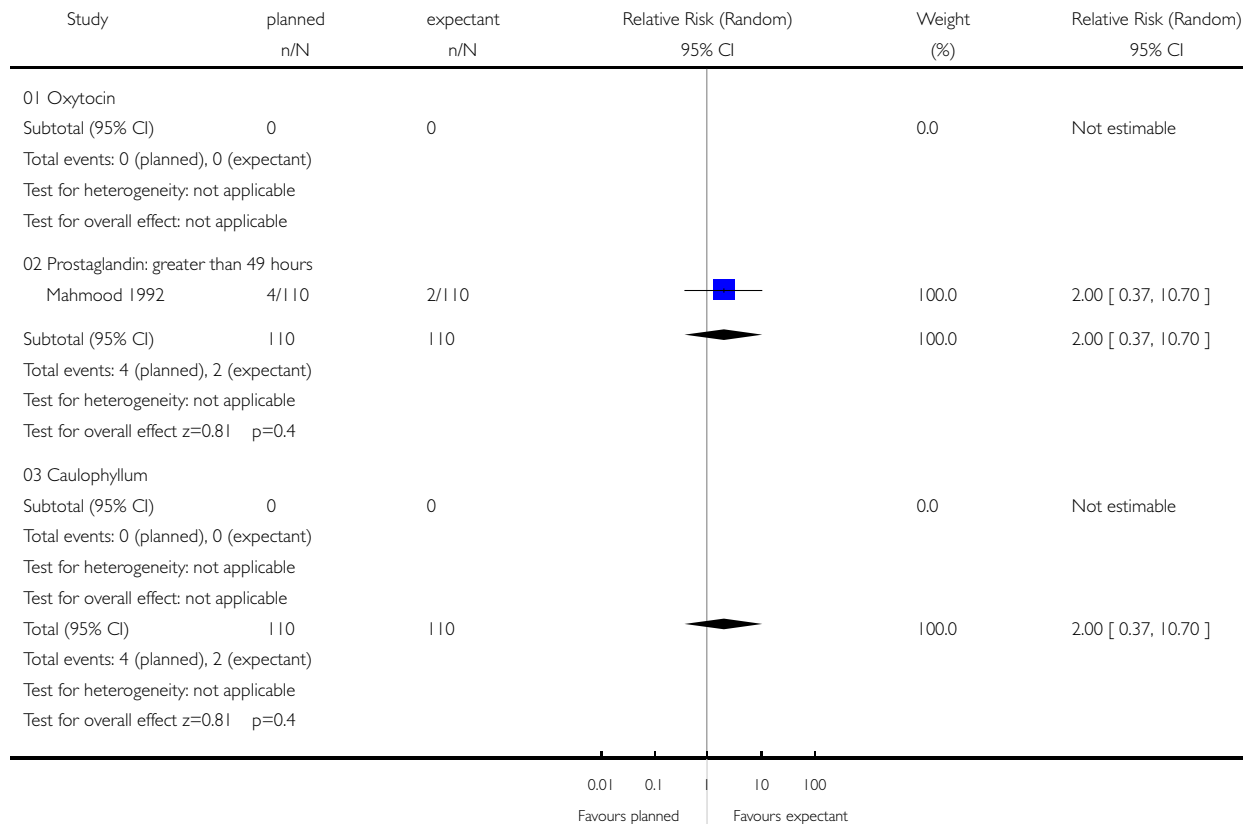


**Analysis 01.29. Comparison 01 Any planned versus expectant management: by type, Outcome 29 Length of stay in neonatal intensive care unit**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 01 Any planned versus expectant management: by type

Outcome: 29 Length of stay in neonatal intensive care unit



**Analysis 01.35. Comparison 01 Any planned versus expectant management: by type, Outcome 35 Time from rupture of membranes to birth: other data**

**Time from rupture of membranes to birth: other data**

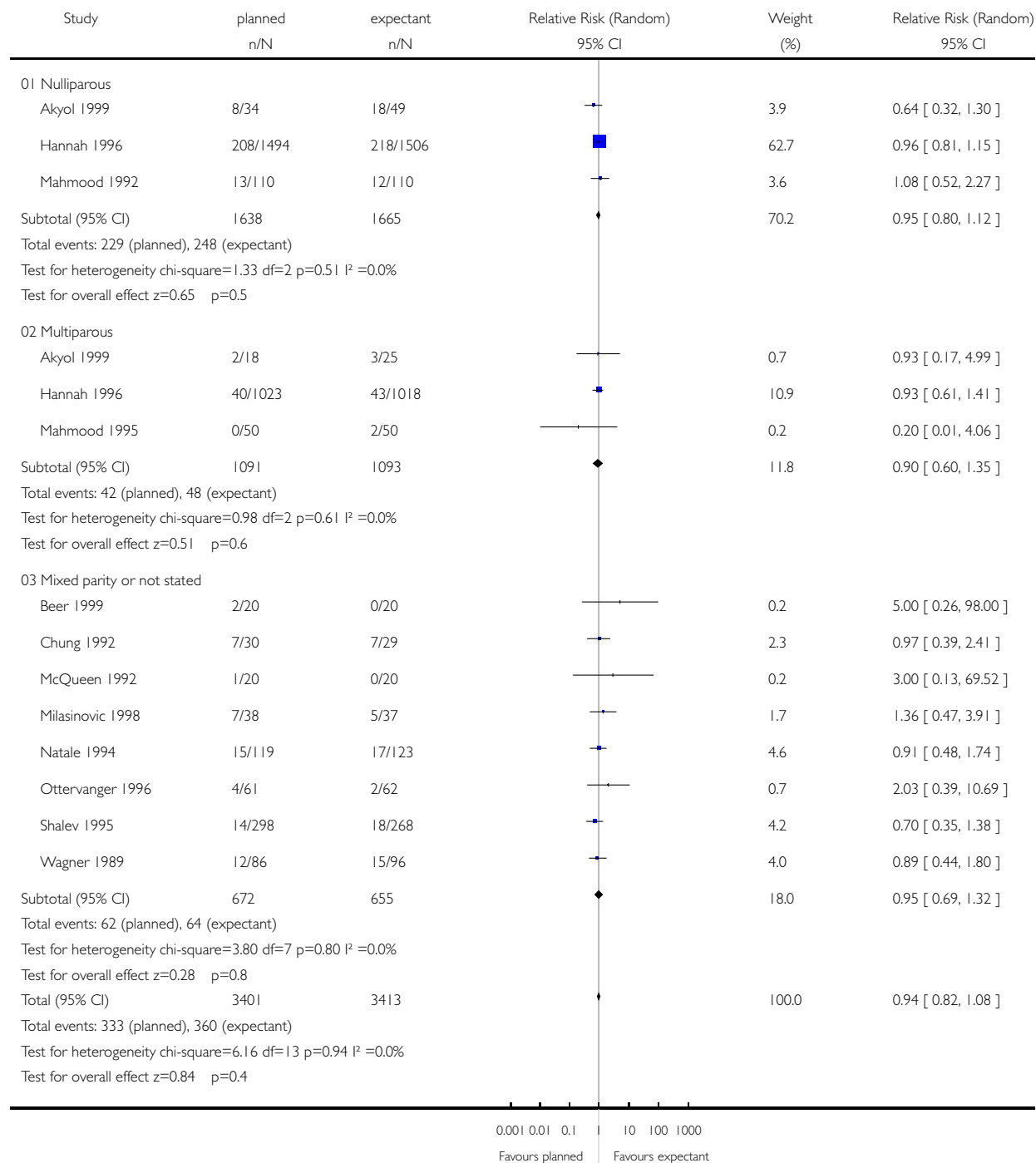
Study	planned management	expectant management	p value
Akyol 1999	OXYTOCIN median 13.0 hours (5th, 95th percentiles 4.0, 37.2)	median 33.9 hours (5th, 95th percentiles 25.0, 66.1)	
Hannah 1996	OXYTOCIN OR PROSTAGLANDIN Induction oxytocin (IO) median 17.2 hours (5th, 95th percentiles 7.7, 47.1) Induction prostaglandin (IP)	Expectant oxytocin (EO) median 33.3 (5th, 95th percentiles 10.3, 94.4) Expectant prostaglandin (EP) 32.6 (5th, 95th percentiles 9.9, 106.5)	IO/EO: P < 0.001 IO/IP: P < 0.001 IP/EP: P < 0.001
Milasinovic 1998	PROSTAGLANDIN mean 15.9 hours (variance 4.4)	mean 28.4 (variance 7.6)	

## Analysis 02.01. Comparison 02 Any planned versus expectant management: by parity, Outcome 01 Caesarean section

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 02 Any planned versus expectant management: by parity

Outcome: 01 Caesarean section

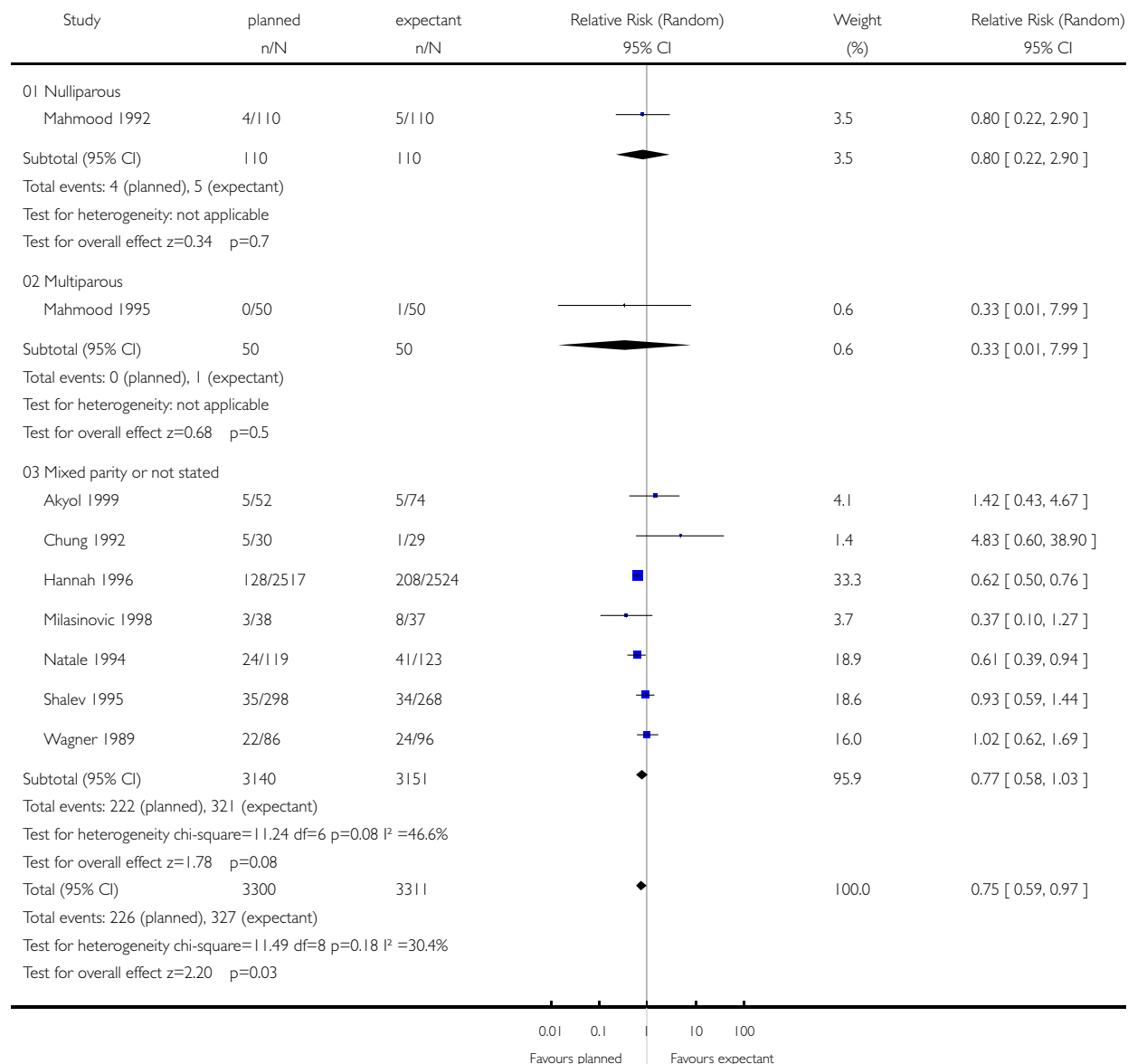


## Analysis 02.02. Comparison 02 Any planned versus expectant management: by parity, Outcome 02 Chorioamnionitis

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 02 Any planned versus expectant management: by parity

Outcome: 02 Chorioamnionitis

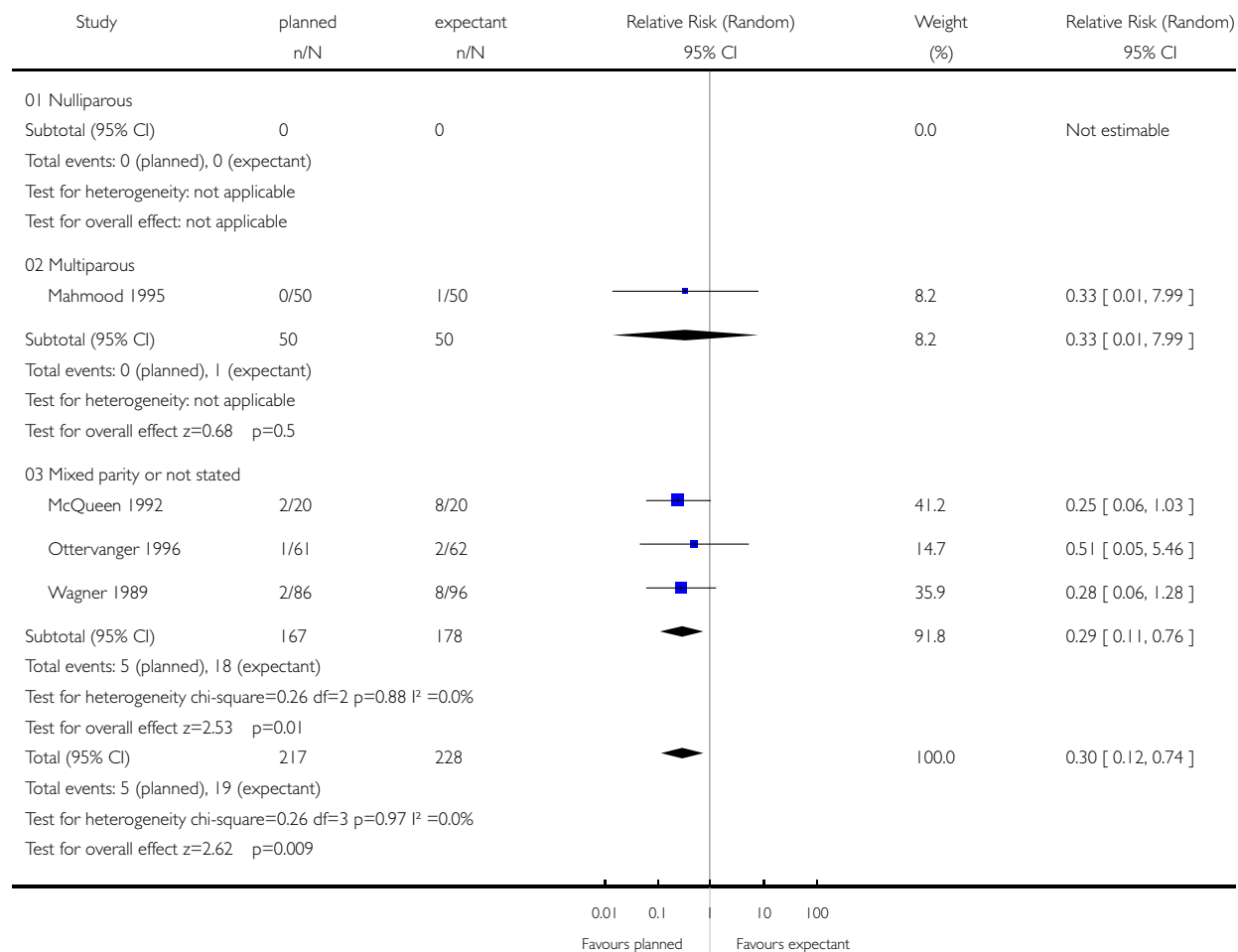


### Analysis 02.03. Comparison 02 Any planned versus expectant management: by parity, Outcome 03 Endometritis

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 02 Any planned versus expectant management: by parity

Outcome: 03 Endometritis

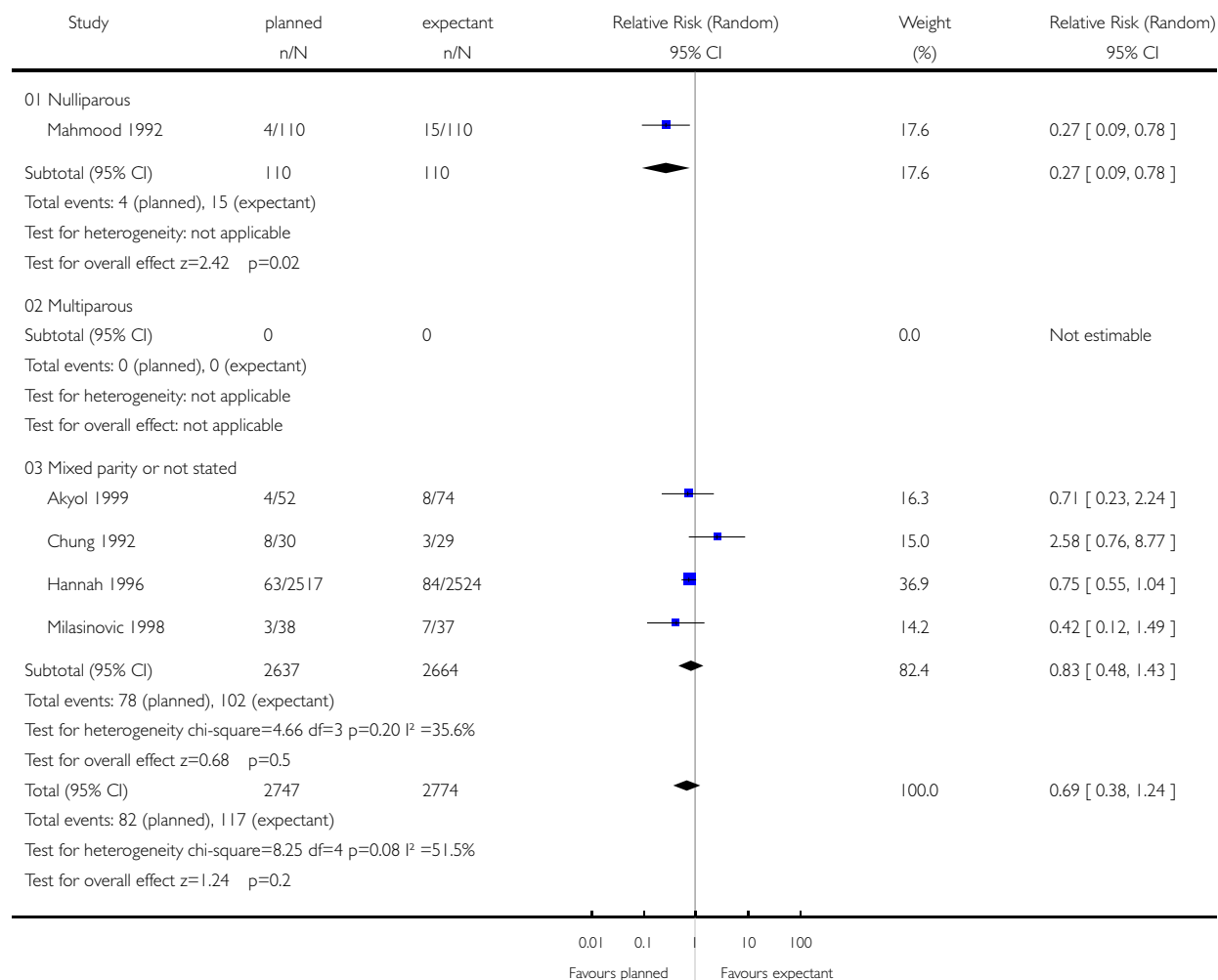


## Analysis 02.04. Comparison 02 Any planned versus expectant management: by parity, Outcome 04 Postpartum fever

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 02 Any planned versus expectant management: by parity

Outcome: 04 Postpartum fever

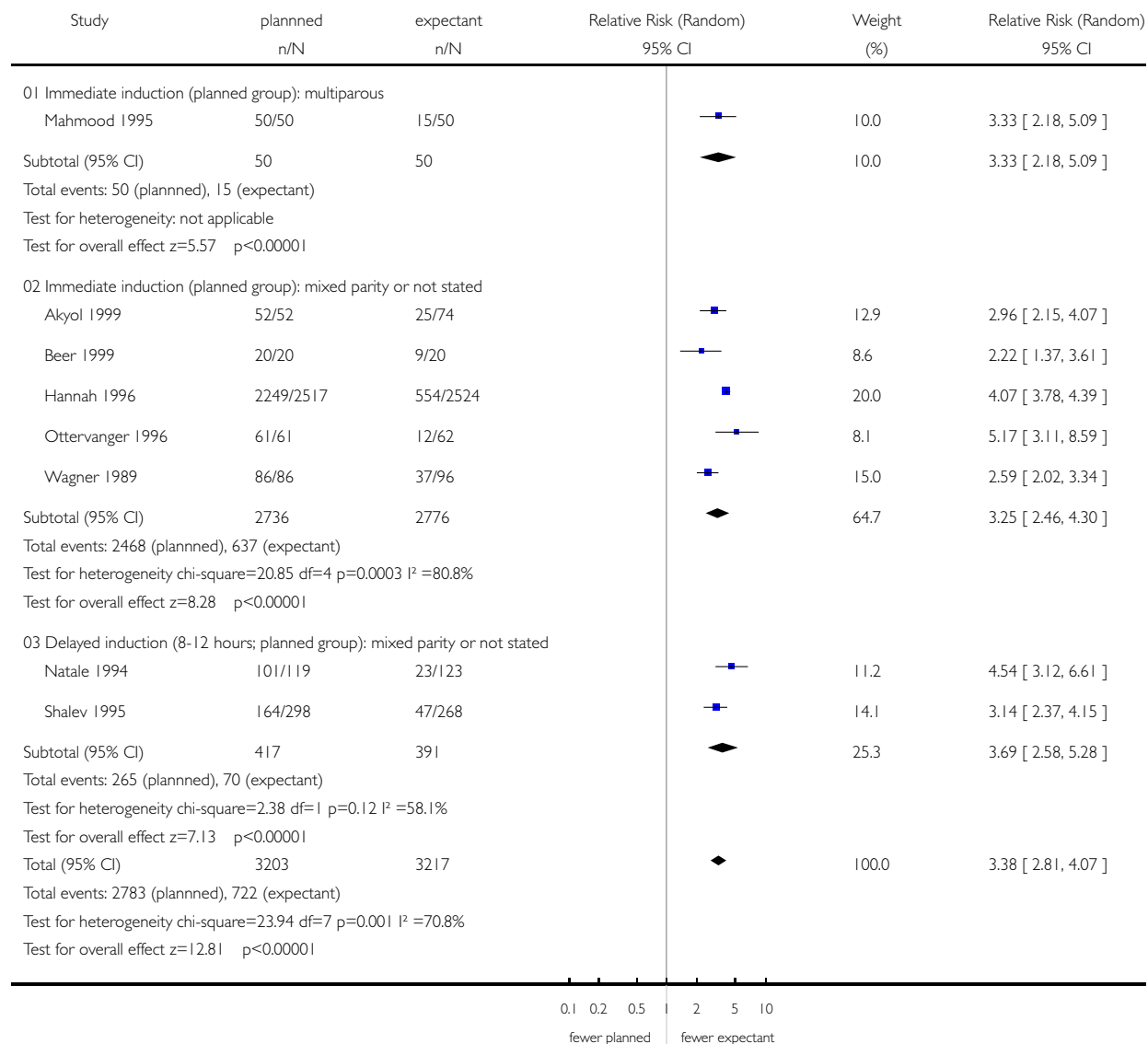


## Analysis 02.05. Comparison 02 Any planned versus expectant management: by parity, Outcome 05 Induction of labour

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 02 Any planned versus expectant management: by parity

Outcome: 05 Induction of labour

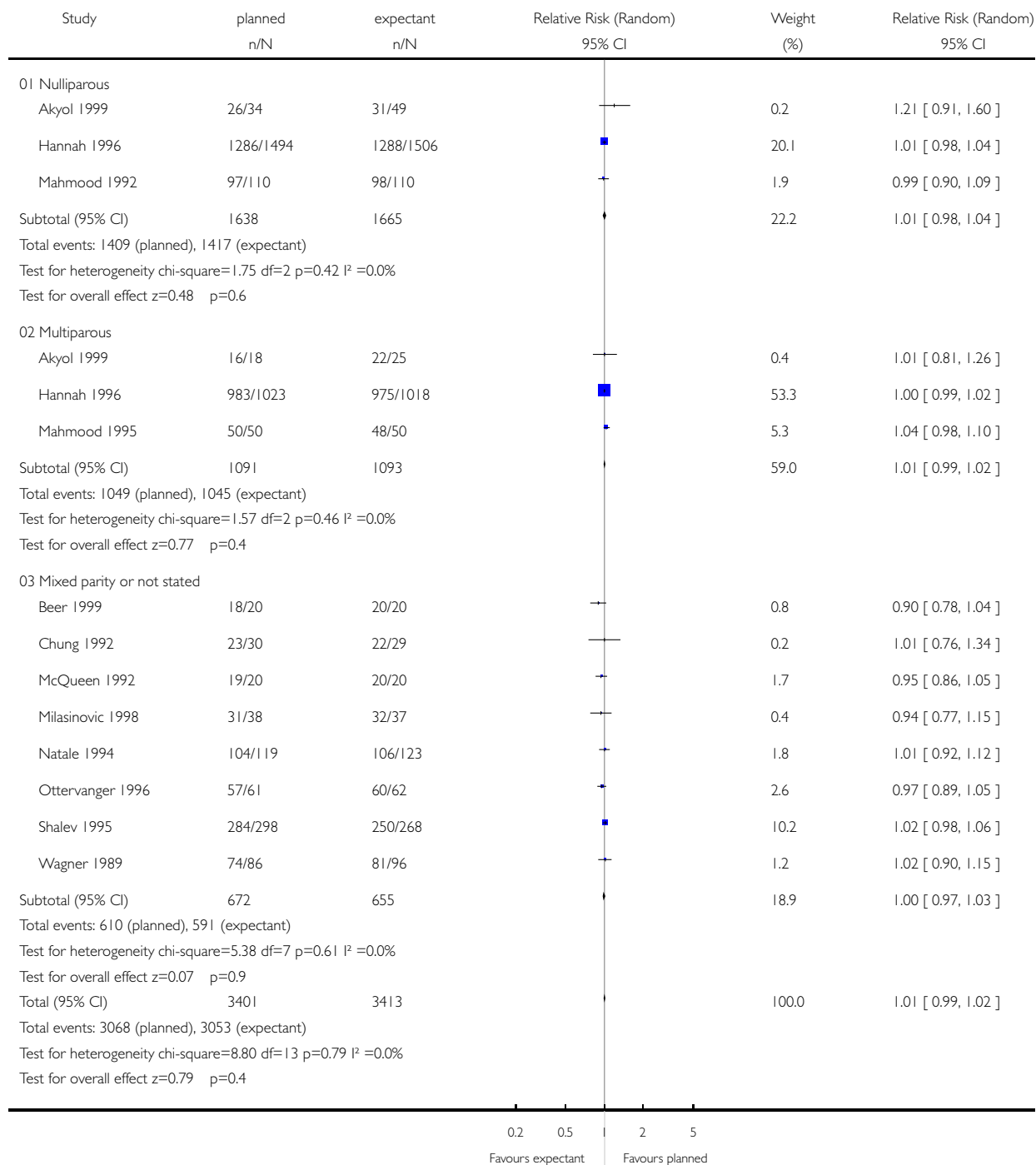


## Analysis 02.06. Comparison 02 Any planned versus expectant management: by parity, Outcome 06 Vaginal birth

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 02 Any planned versus expectant management: by parity

Outcome: 06 Vaginal birth

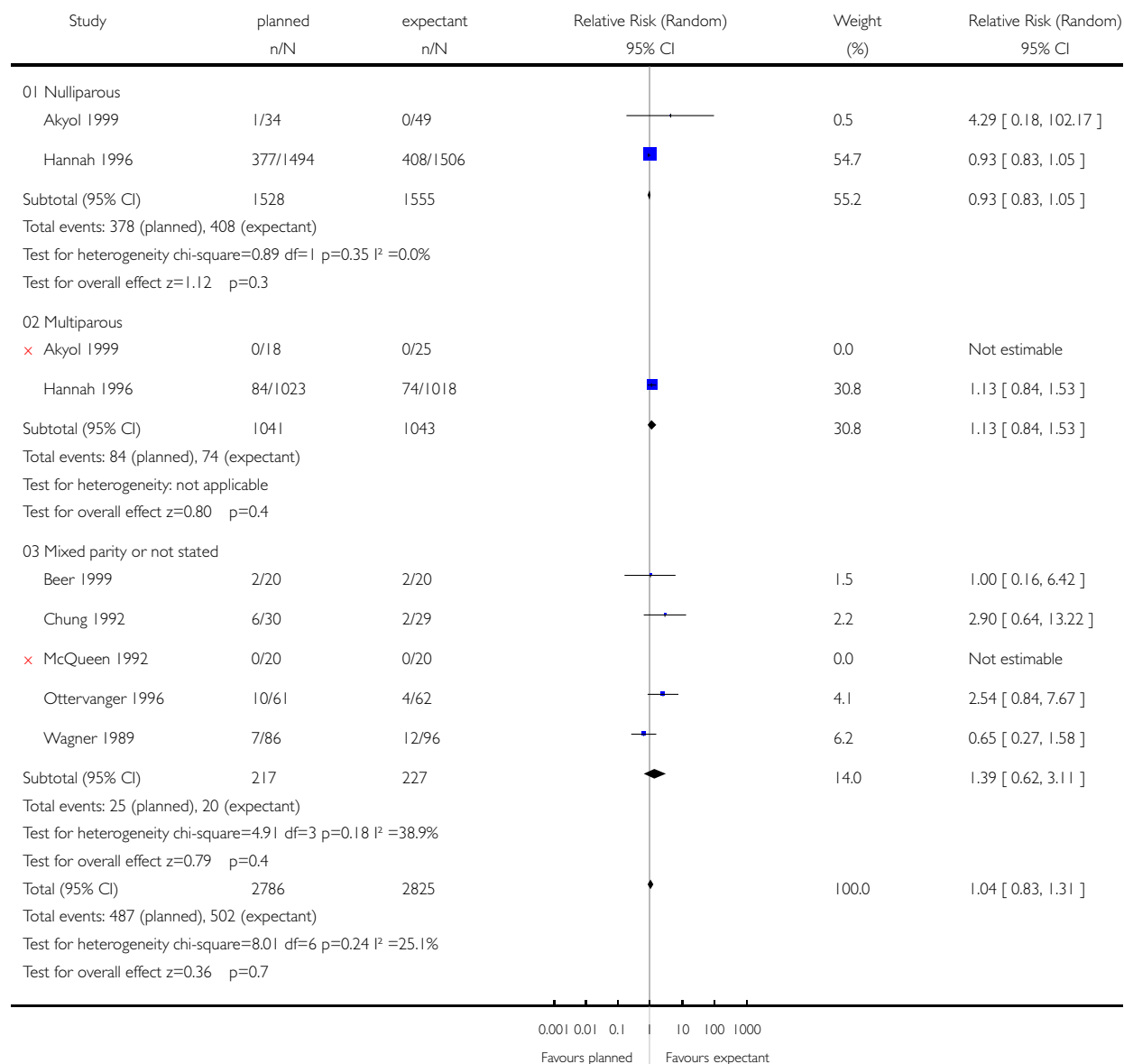


## Analysis 02.07. Comparison 02 Any planned versus expectant management: by parity, Outcome 07 Operative vaginal birth

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 02 Any planned versus expectant management: by parity

Outcome: 07 Operative vaginal birth

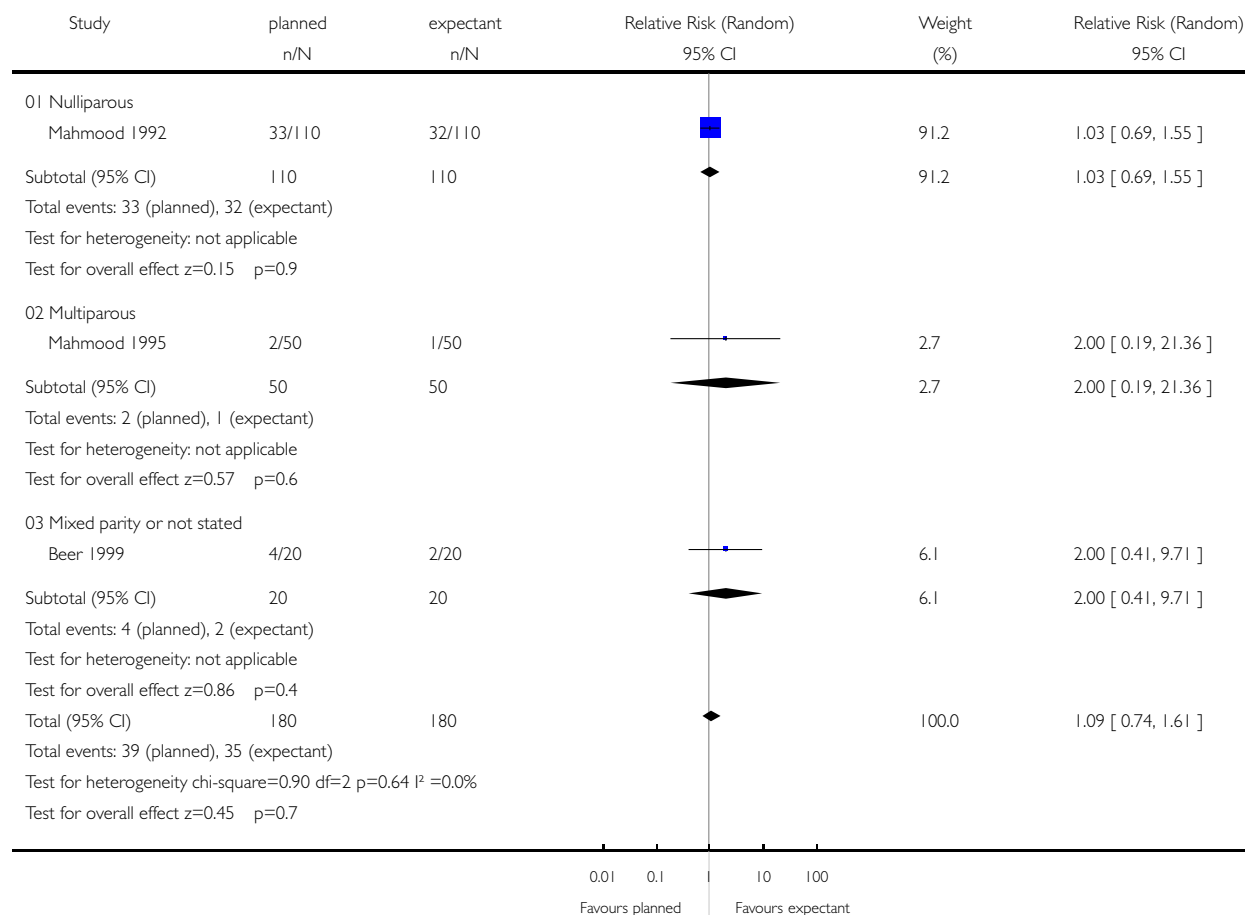


## Analysis 02.08. Comparison 02 Any planned versus expectant management: by parity, Outcome 08 Use of epidural anaesthesia

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 02 Any planned versus expectant management: by parity

Outcome: 08 Use of epidural anaesthesia

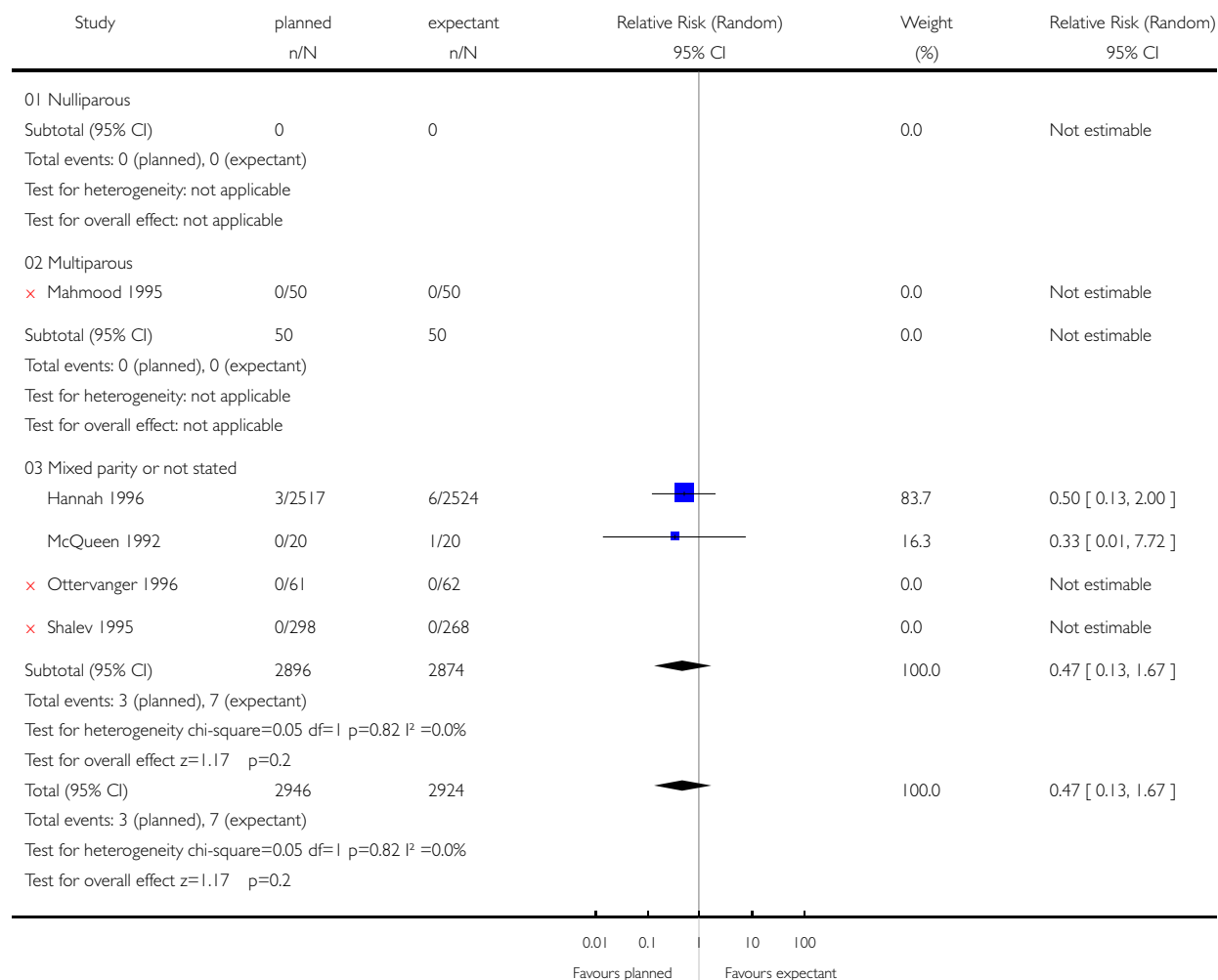


## Analysis 02.09. Comparison 02 Any planned versus expectant management: by parity, Outcome 09 Fetal/perinatal mortality

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 02 Any planned versus expectant management: by parity

Outcome: 09 Fetal/perinatal mortality

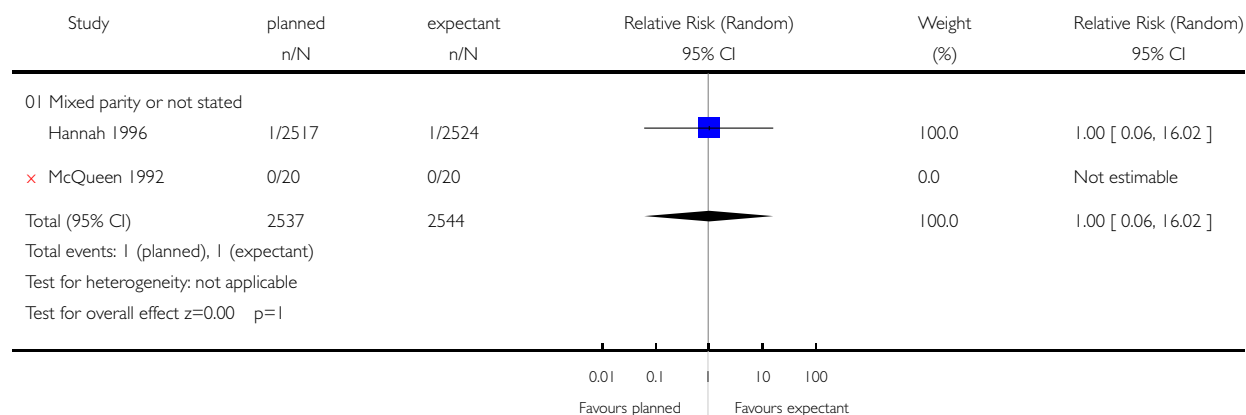


## Analysis 02.10. Comparison 02 Any planned versus expectant management: by parity, Outcome 10 Cord prolapse

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 02 Any planned versus expectant management: by parity

Outcome: 10 Cord prolapse

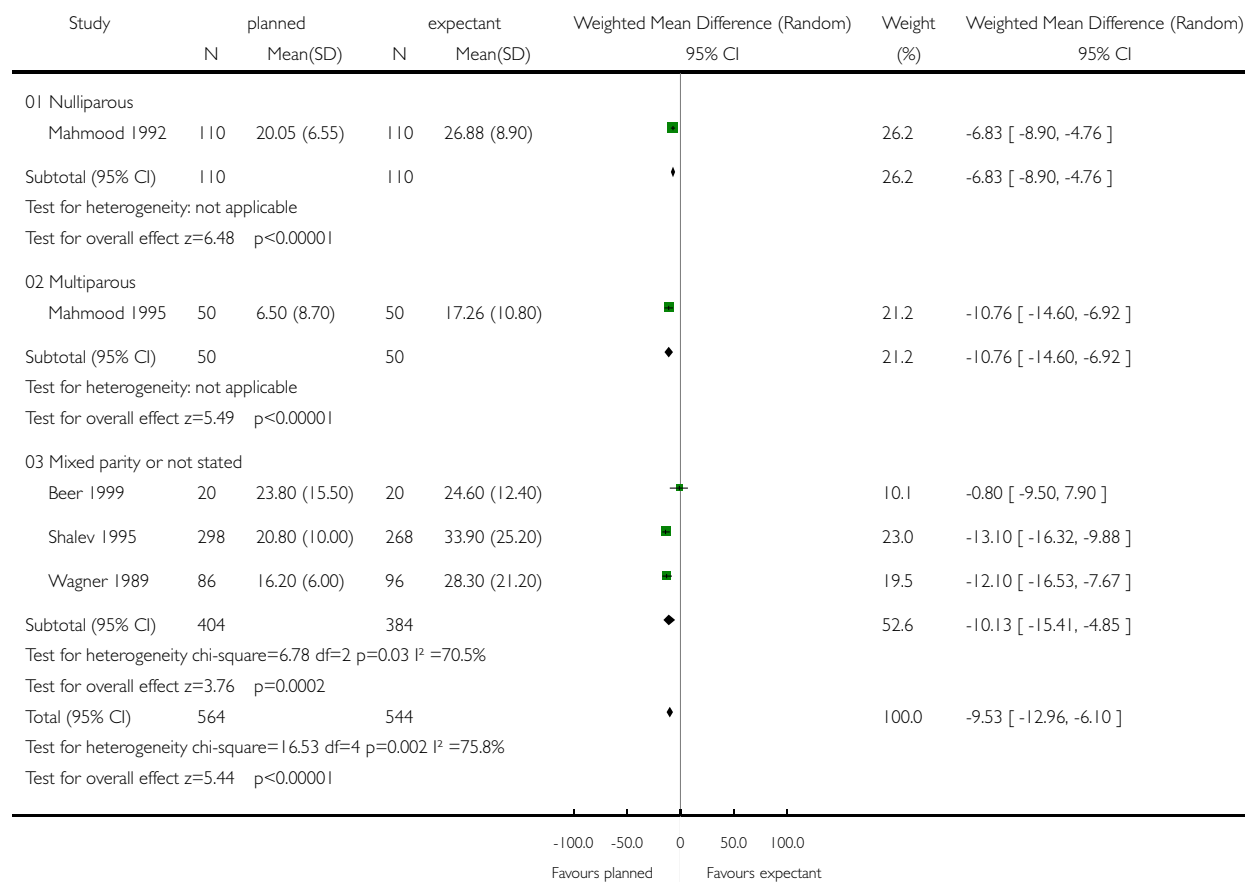


## Analysis 02.11. Comparison 02 Any planned versus expectant management: by parity, Outcome 11 Time from rupture of membranes to birth (hours)

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 02 Any planned versus expectant management: by parity

Outcome: 11 Time from rupture of membranes to birth (hours)

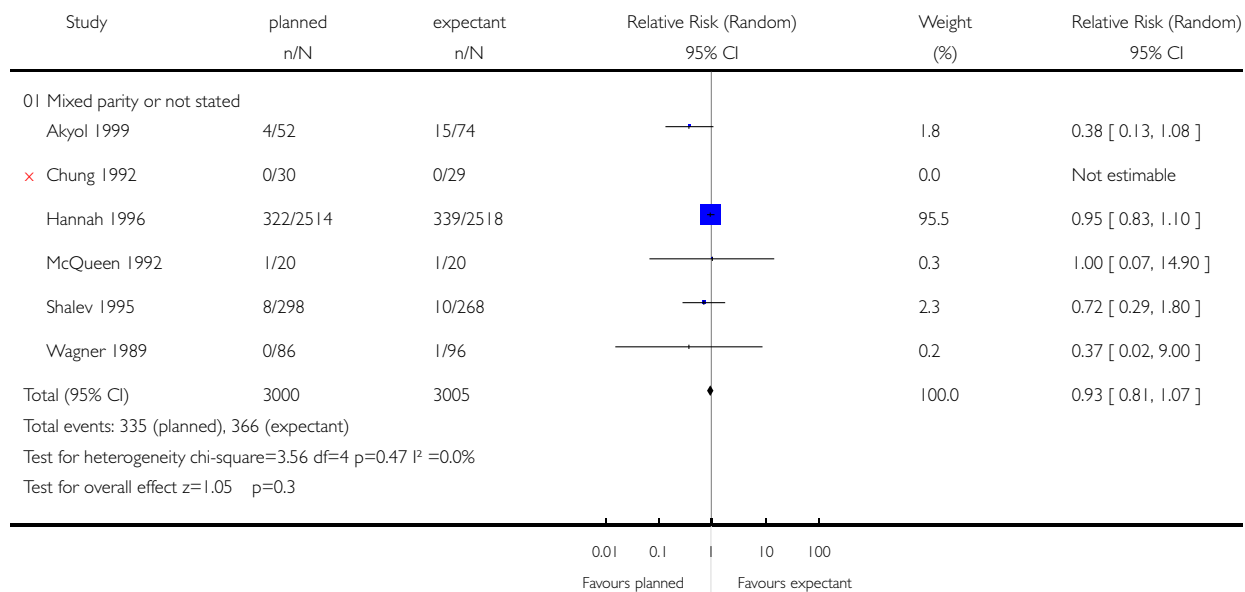


## Analysis 02.12. Comparison 02 Any planned versus expectant management: by parity, Outcome 12 Apgar score < 7 at 5 minutes

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 02 Any planned versus expectant management: by parity

Outcome: 12 Apgar score < 7 at 5 minutes

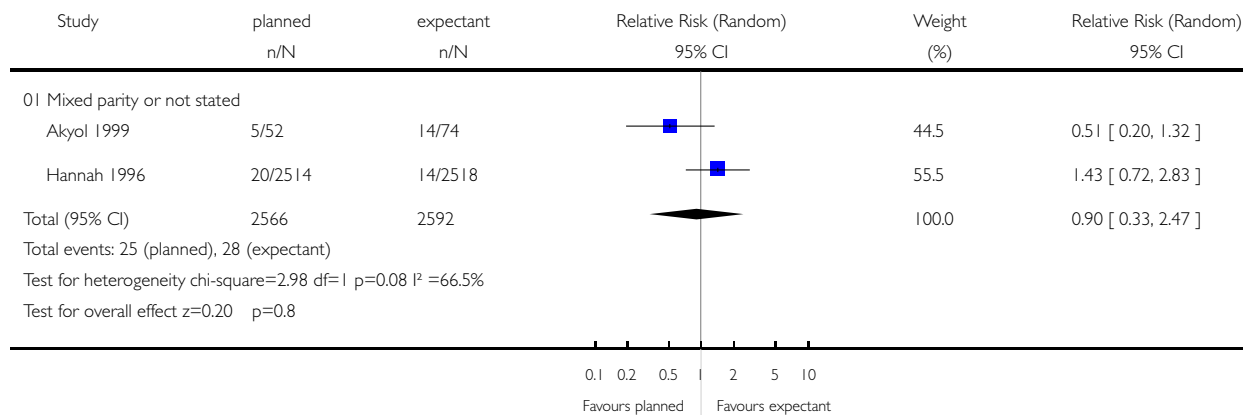


### Analysis 02.13. Comparison 02 Any planned versus expectant management: by parity, Outcome 13 Mechanical ventilation (after initial resuscitation)

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 02 Any planned versus expectant management: by parity

Outcome: 13 Mechanical ventilation (after initial resuscitation)

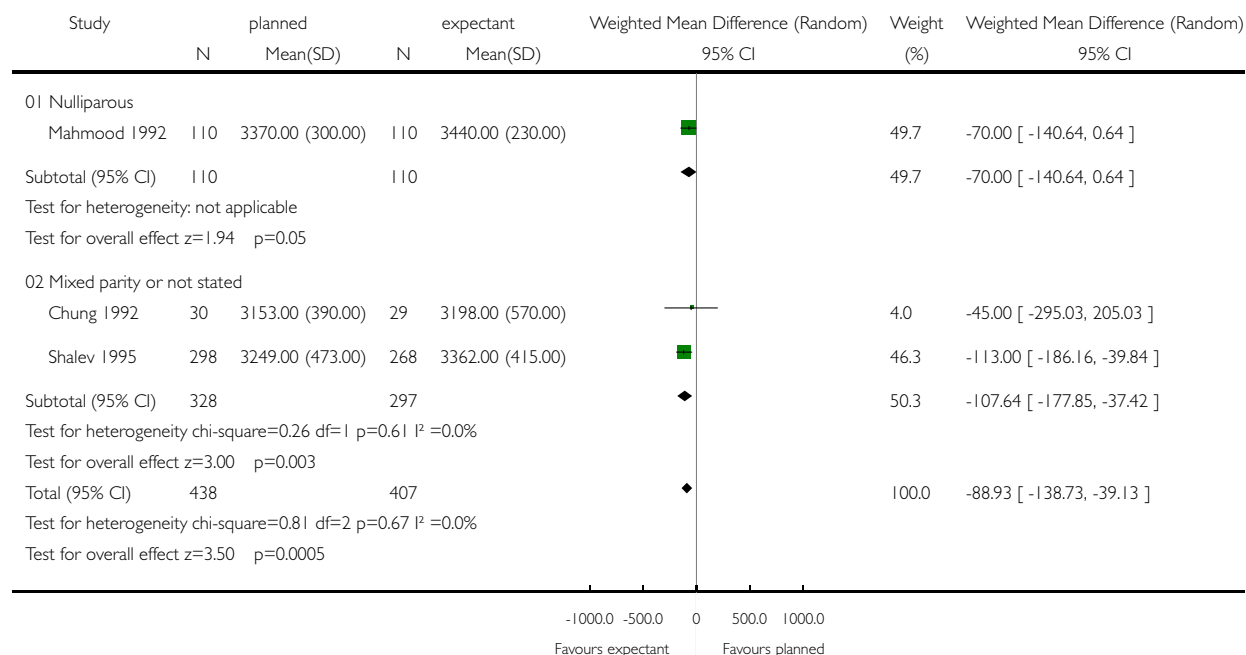


## Analysis 02.14. Comparison 02 Any planned versus expectant management: by parity, Outcome 14 Birthweight

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 02 Any planned versus expectant management: by parity

Outcome: 14 Birthweight

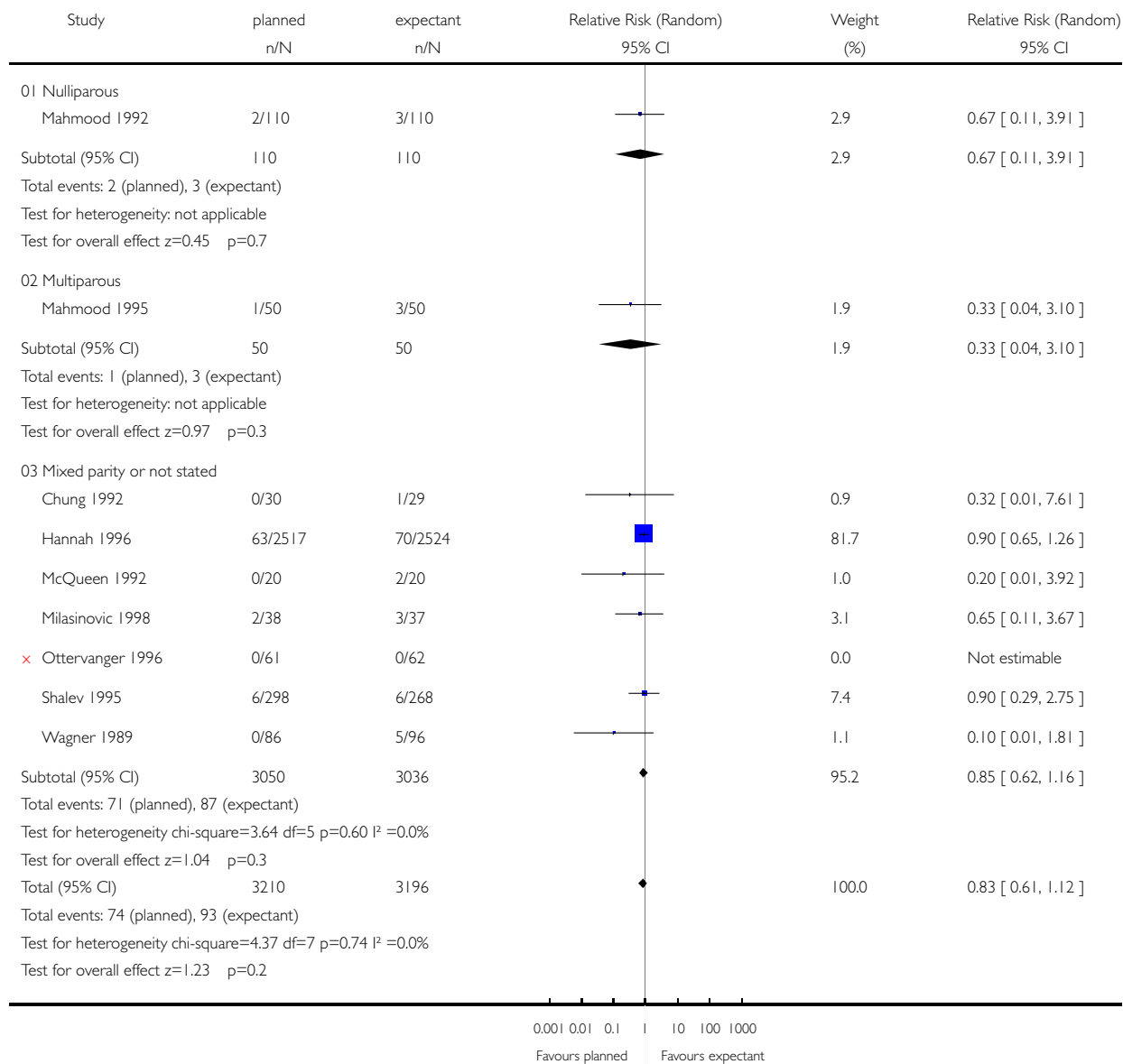


## Analysis 02.15. Comparison 02 Any planned versus expectant management: by parity, Outcome 15 Neonatal infection

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 02 Any planned versus expectant management: by parity

Outcome: 15 Neonatal infection

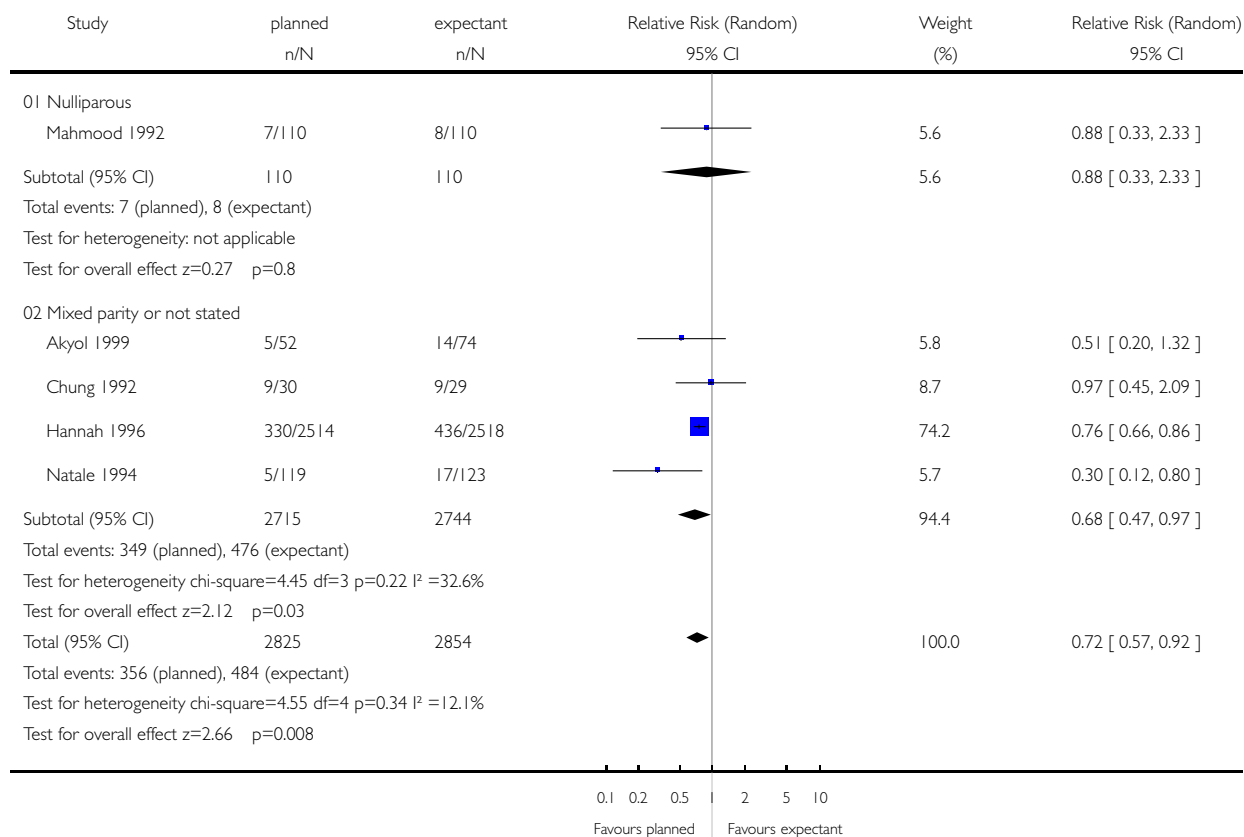


## Analysis 02.16. Comparison 02 Any planned versus expectant management: by parity, Outcome 16 Neonatal intensive care unit or special care nursery admission

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 02 Any planned versus expectant management: by parity

Outcome: 16 Neonatal intensive care unit or special care nursery admission

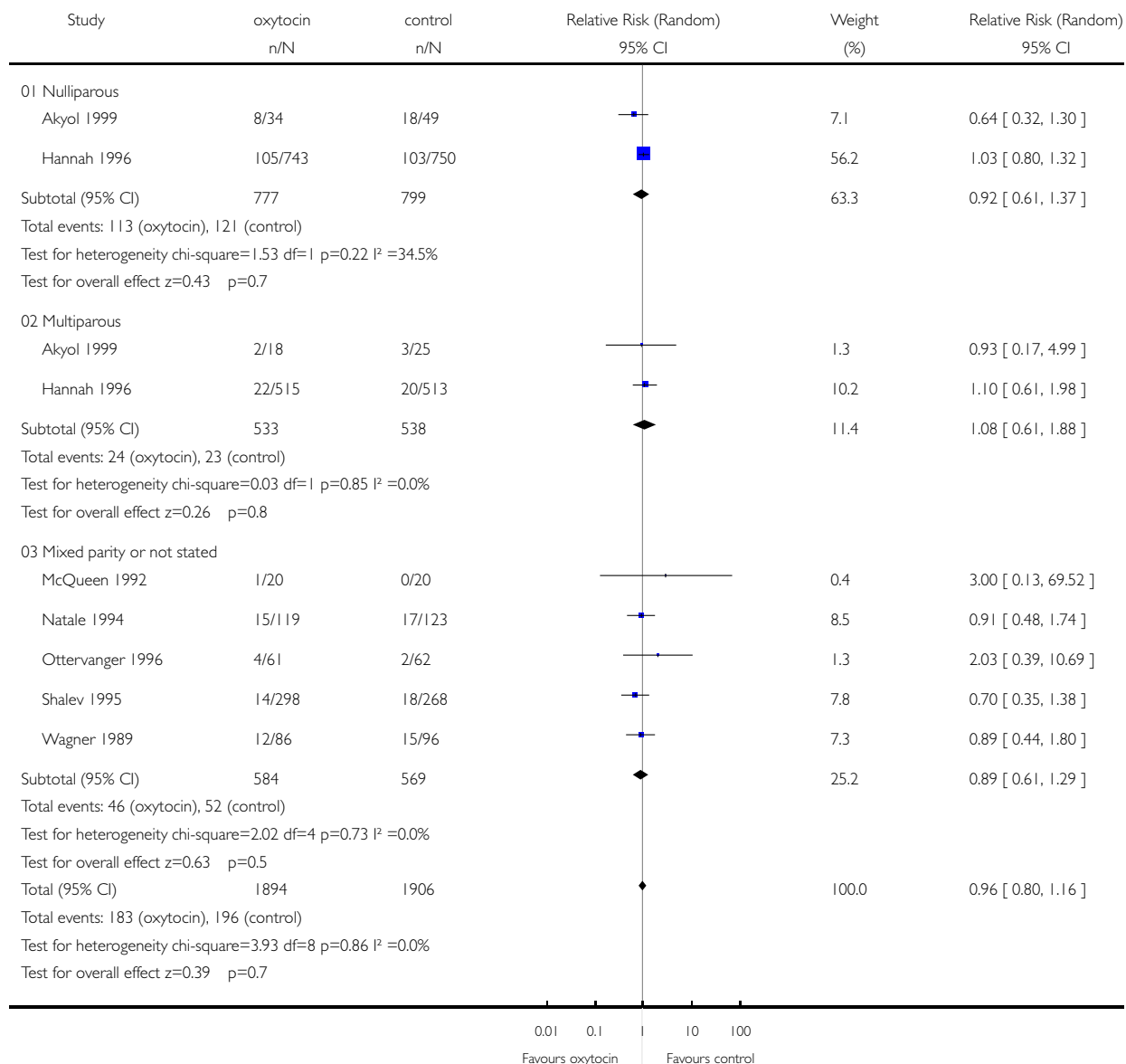


### Analysis 03.01. Comparison 03 Oxytocin versus expectant management/placebo: by parity, Outcome 01 Caesarean section

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 03 Oxytocin versus expectant management/placebo: by parity

Outcome: 01 Caesarean section

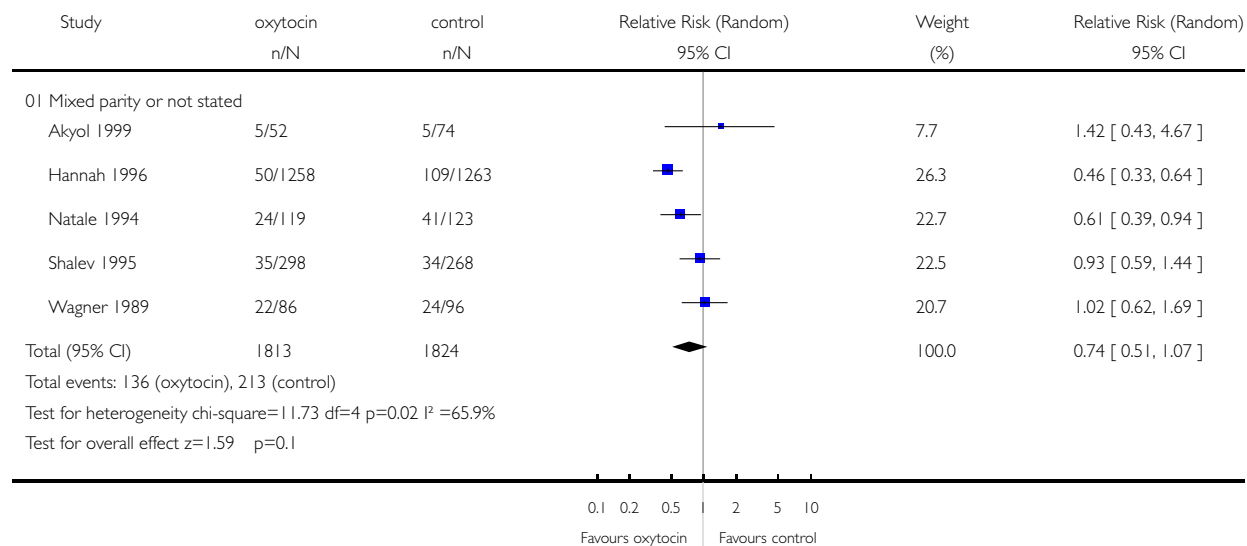


### Analysis 03.02. Comparison 03 Oxytocin versus expectant management/placebo: by parity, Outcome 02 Chorioamnionitis

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 03 Oxytocin versus expectant management/placebo: by parity

Outcome: 02 Chorioamnionitis

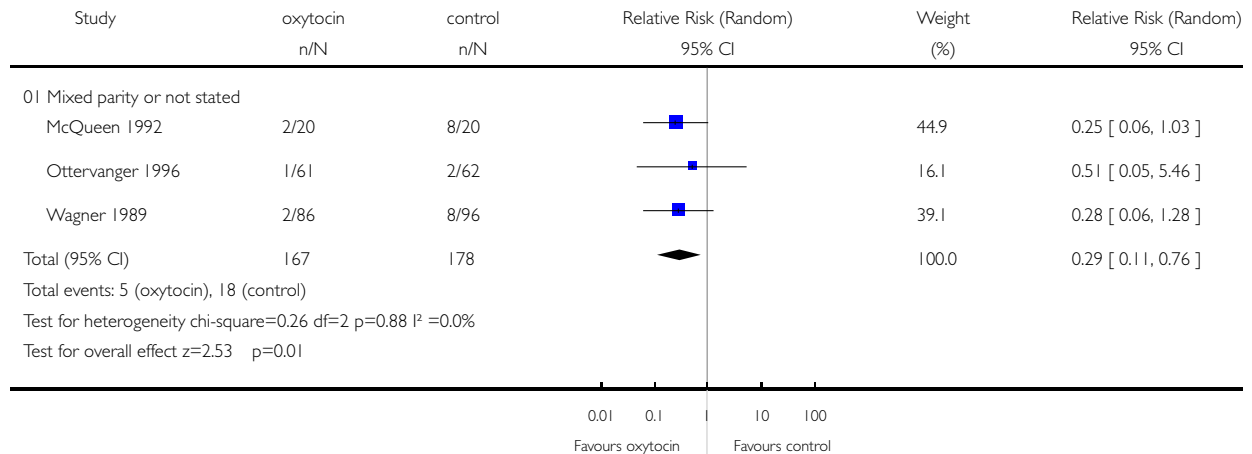


### Analysis 03.03. Comparison 03 Oxytocin versus expectant management/placebo: by parity, Outcome 03 Endometritis

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 03 Oxytocin versus expectant management/placebo: by parity

Outcome: 03 Endometritis

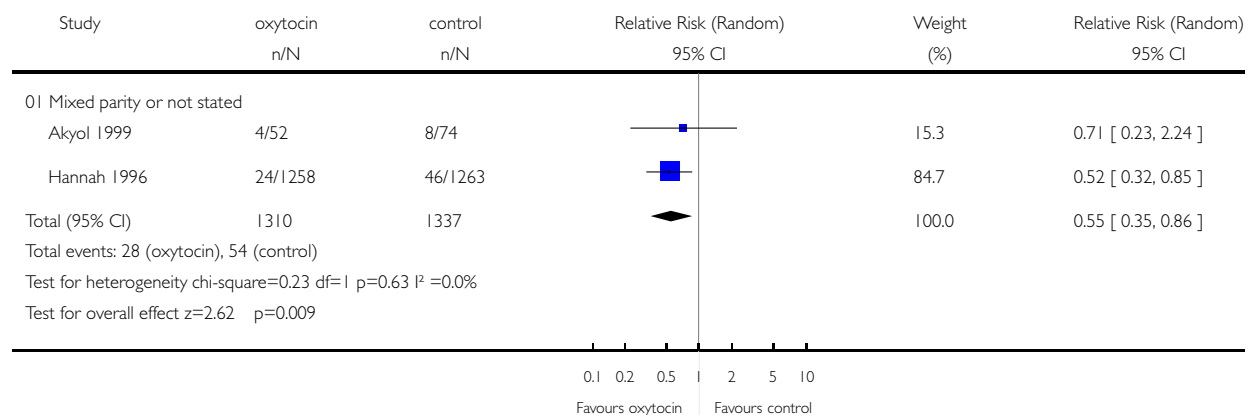


### Analysis 03.04. Comparison 03 Oxytocin versus expectant management/placebo: by parity, Outcome 04 Postpartum fever

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 03 Oxytocin versus expectant management/placebo: by parity

Outcome: 04 Postpartum fever

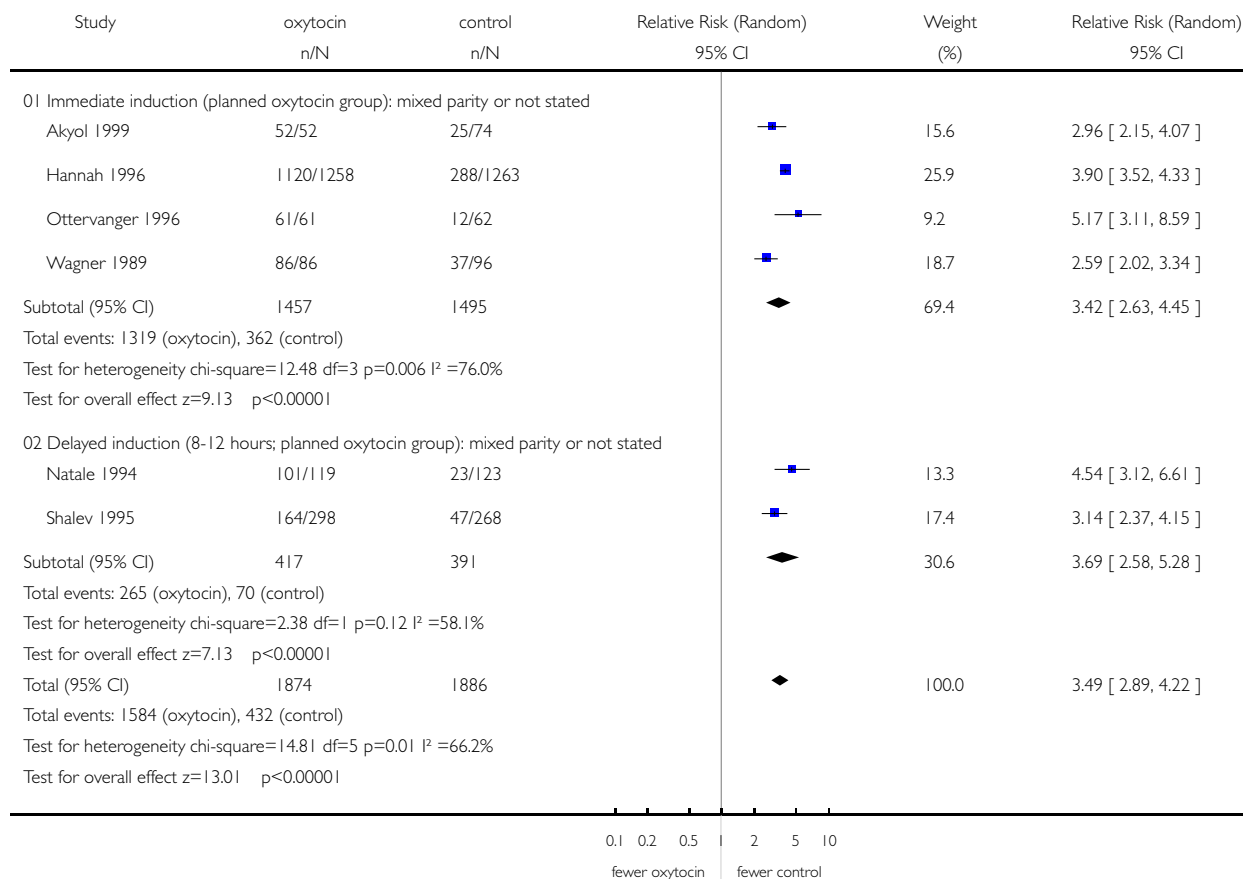


### Analysis 03.05. Comparison 03 Oxytocin versus expectant management/placebo: by parity, Outcome 05 Induction of labour

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 03 Oxytocin versus expectant management/placebo: by parity

Outcome: 05 Induction of labour

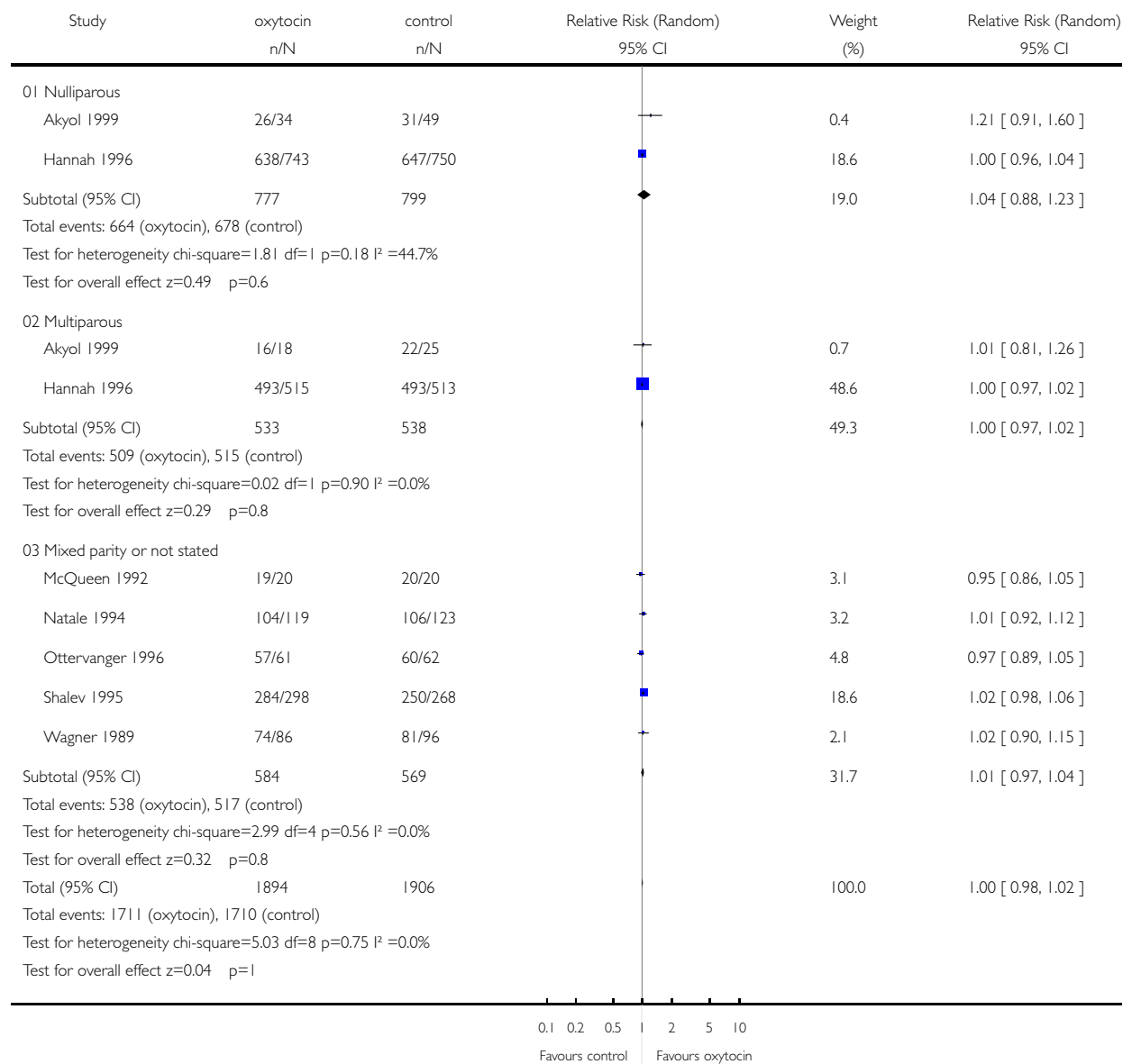


### Analysis 03.06. Comparison 03 Oxytocin versus expectant management/placebo: by parity, Outcome 06 Vaginal birth

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 03 Oxytocin versus expectant management/placebo: by parity

Outcome: 06 Vaginal birth

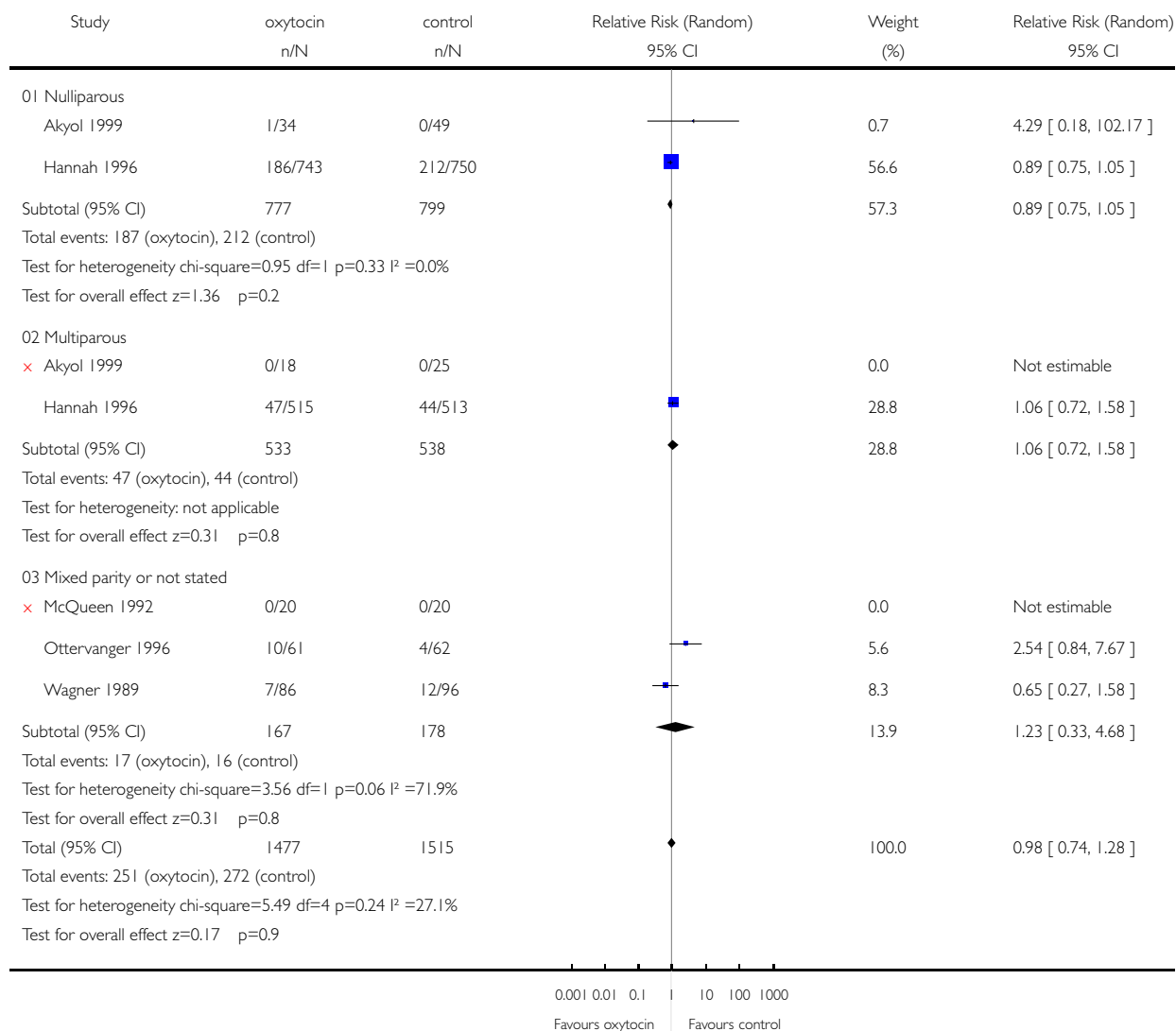


### Analysis 03.07. Comparison 03 Oxytocin versus expectant management/placebo: by parity, Outcome 07 Operative vaginal birth

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 03 Oxytocin versus expectant management/placebo: by parity

Outcome: 07 Operative vaginal birth

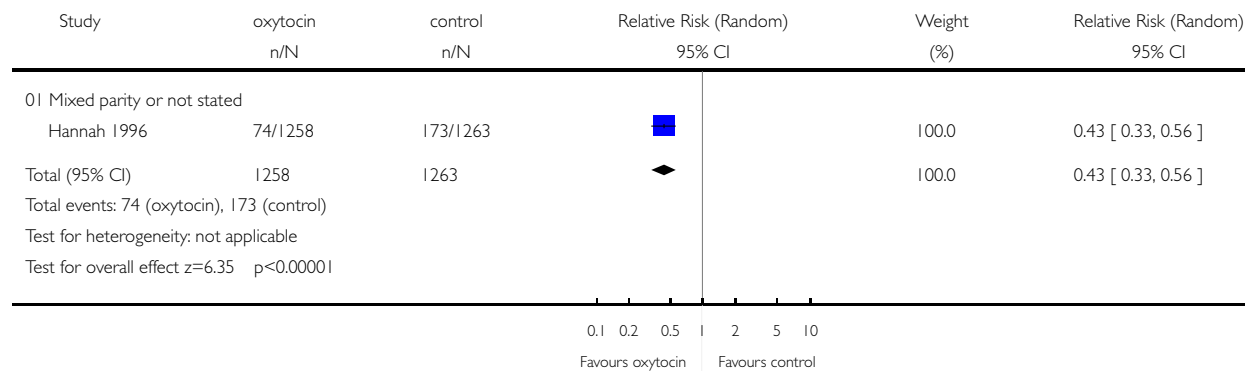


**Analysis 03.08. Comparison 03 Oxytocin versus expectant management/placebo: by parity, Outcome 08 Maternal satisfaction: nothing liked**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 03 Oxytocin versus expectant management/placebo: by parity

Outcome: 08 Maternal satisfaction: nothing liked

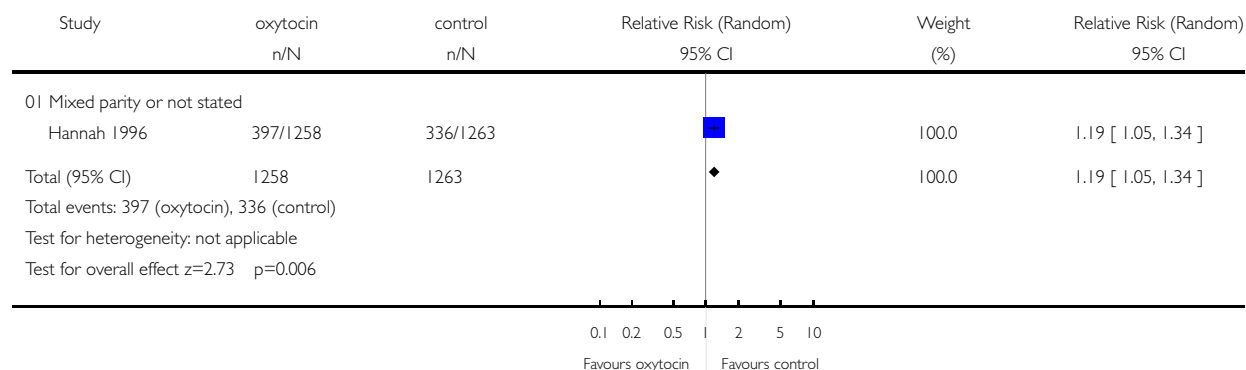


### Analysis 03.09. Comparison 03 Oxytocin versus expectant management/placebo: by parity, Outcome 09 Maternal satisfaction: nothing disliked

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 03 Oxytocin versus expectant management/placebo: by parity

Outcome: 09 Maternal satisfaction: nothing disliked



### Analysis 03.10. Comparison 03 Oxytocin versus expectant management/placebo: by parity, Outcome 10 Breastfeeding

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 03 Oxytocin versus expectant management/placebo: by parity

Outcome: 10 Breastfeeding

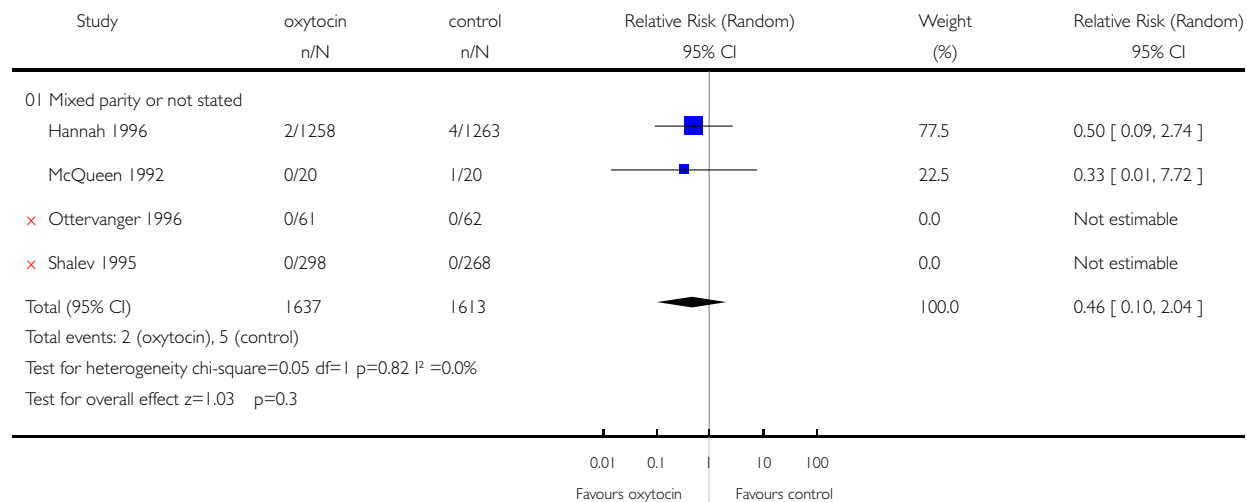
Study	oxytocin n/N	control n/N	Relative Risk (Random) 95% CI	Weight (%)	Relative Risk (Random) 95% CI
01 Abnormal feeding at 48 hours or more: mixed parity or not stated					
× Akyol 1999	0/52	0/74		0.0	Not estimable
Total (95% CI)	52	74		0.0	Not estimable
Total events: 0 (oxytocin), 0 (control)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
			0.1 0.2 0.5   2 5 10		
			Favours oxytocin Favours control		

### Analysis 03.11. Comparison 03 Oxytocin versus expectant management/placebo: by parity, Outcome 11 Fetal/perinatal mortality

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 03 Oxytocin versus expectant management/placebo: by parity

Outcome: 11 Fetal/perinatal mortality

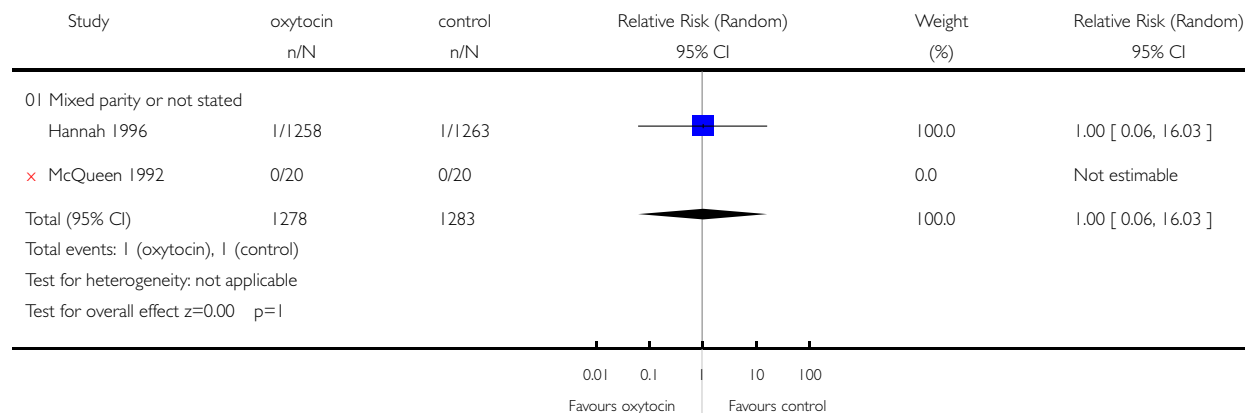


### Analysis 03.12. Comparison 03 Oxytocin versus expectant management/placebo: by parity, Outcome 12 Cord prolapse

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 03 Oxytocin versus expectant management/placebo: by parity

Outcome: 12 Cord prolapse

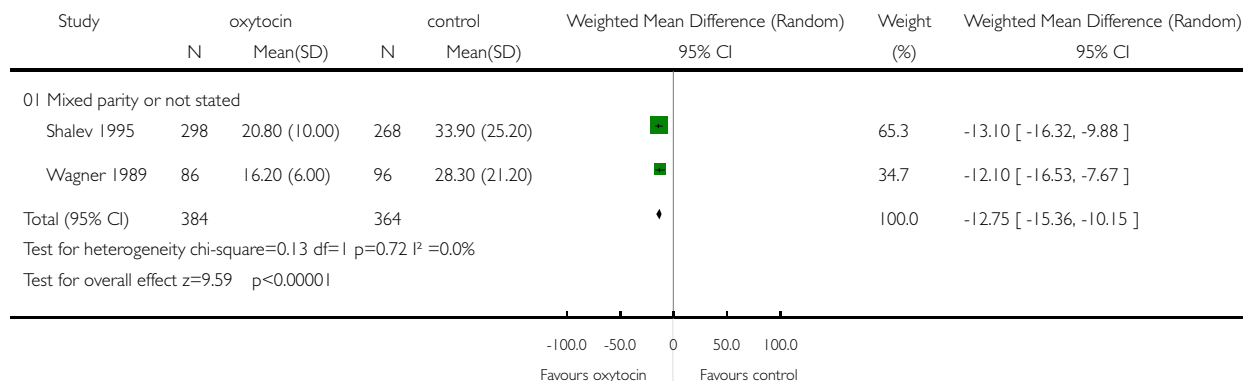


### Analysis 03.13. Comparison 03 Oxytocin versus expectant management/placebo: by parity, Outcome 13 Time from rupture of membranes to birth (hours)

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 03 Oxytocin versus expectant management/placebo: by parity

Outcome: 13 Time from rupture of membranes to birth (hours)

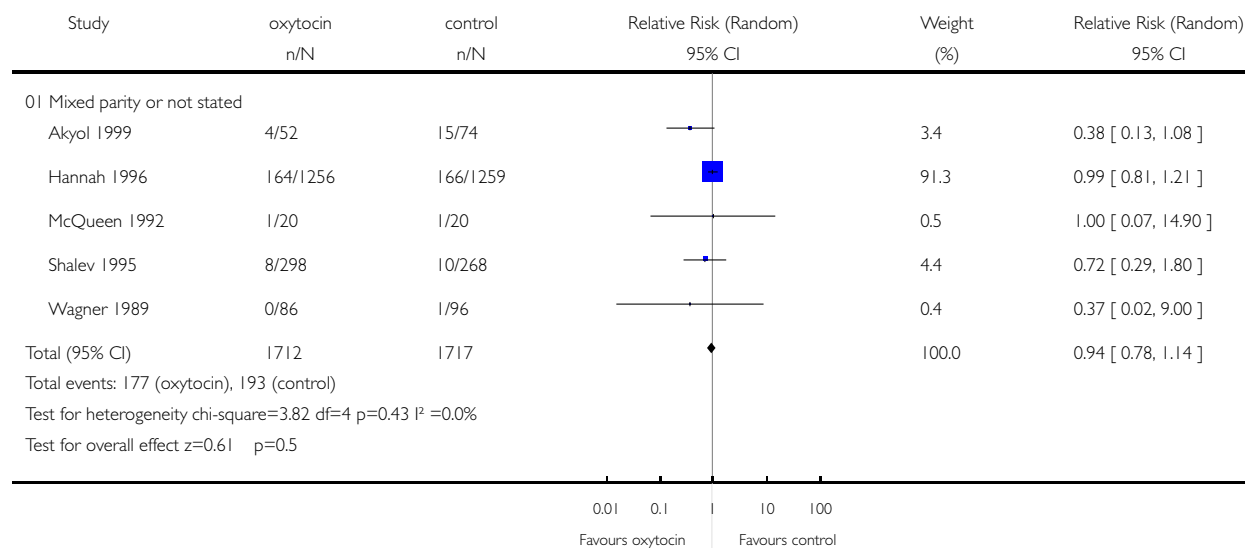


### Analysis 03.14. Comparison 03 Oxytocin versus expectant management/placebo: by parity, Outcome 14 Apgar score < 7 at 5 mins

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 03 Oxytocin versus expectant management/placebo: by parity

Outcome: 14 Apgar score < 7 at 5 mins

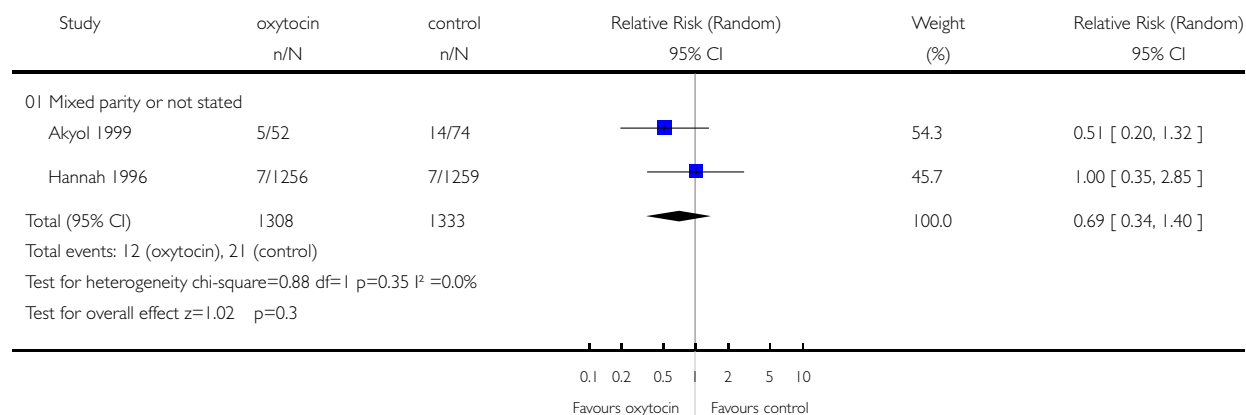


### Analysis 03.15. Comparison 03 Oxytocin versus expectant management/placebo: by parity, Outcome 15 Mechanical ventilation (after initial resuscitation)

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 03 Oxytocin versus expectant management/placebo: by parity

Outcome: 15 Mechanical ventilation (after initial resuscitation)

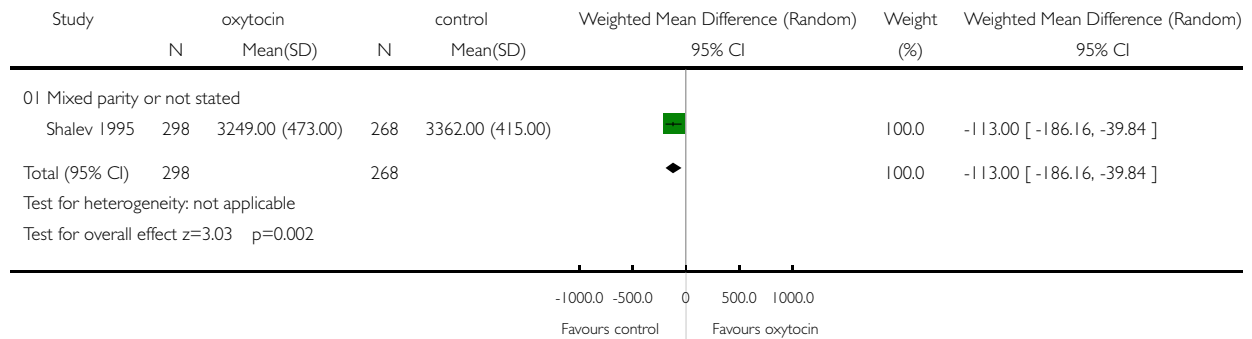


### Analysis 03.16. Comparison 03 Oxytocin versus expectant management/placebo: by parity, Outcome 16 Birthweight

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 03 Oxytocin versus expectant management/placebo: by parity

Outcome: 16 Birthweight

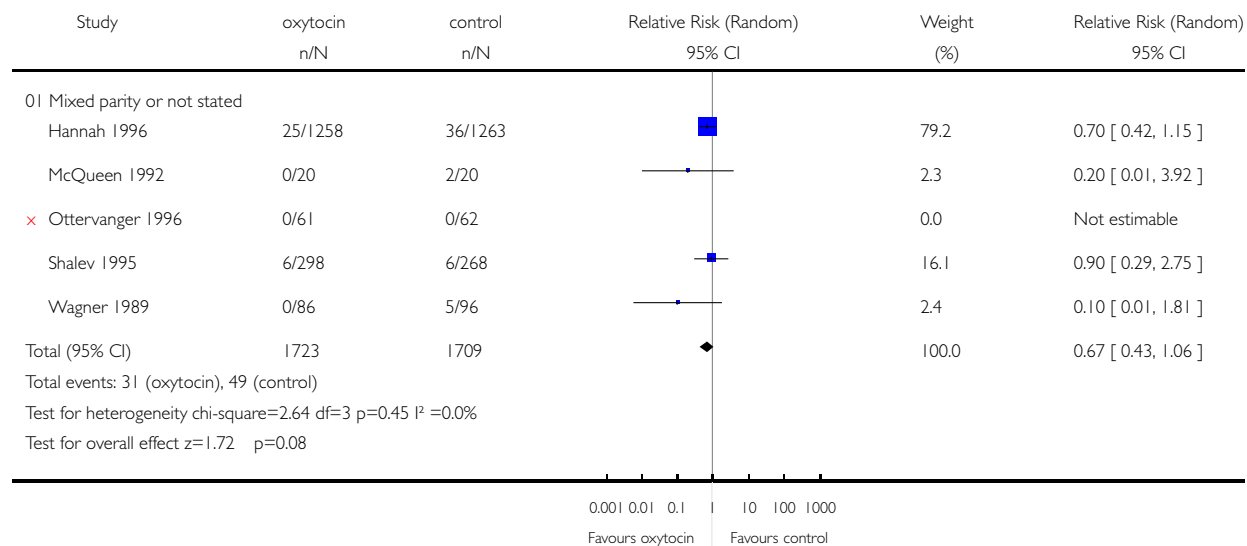


### Analysis 03.17. Comparison 03 Oxytocin versus expectant management/placebo: by parity, Outcome 17 Neonatal infection

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 03 Oxytocin versus expectant management/placebo: by parity

Outcome: 17 Neonatal infection

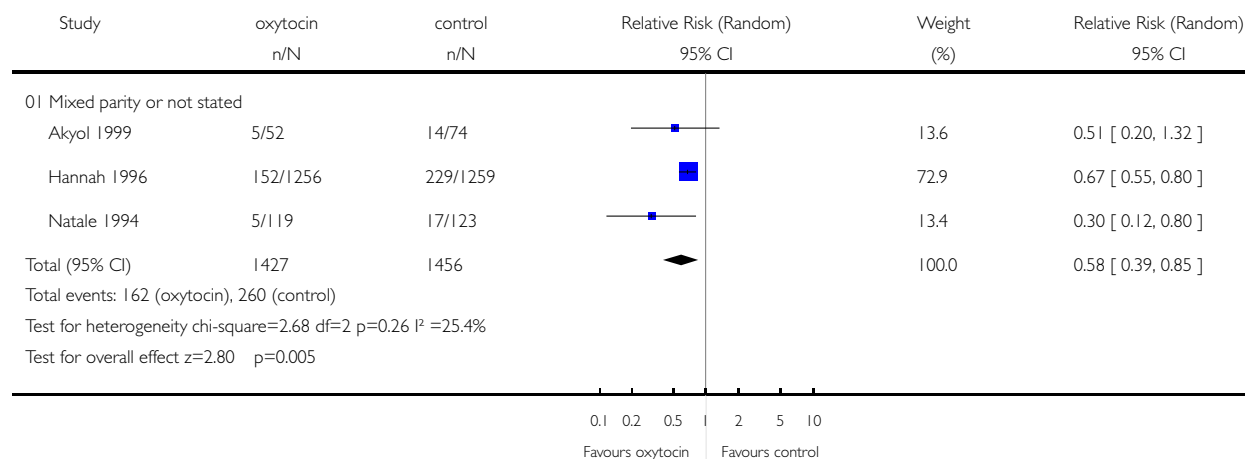


### Analysis 03.18. Comparison 03 Oxytocin versus expectant management/placebo: by parity, Outcome 18 Neonatal intensive care unit or special care nursery admission

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 03 Oxytocin versus expectant management/placebo: by parity

Outcome: 18 Neonatal intensive care unit or special care nursery admission

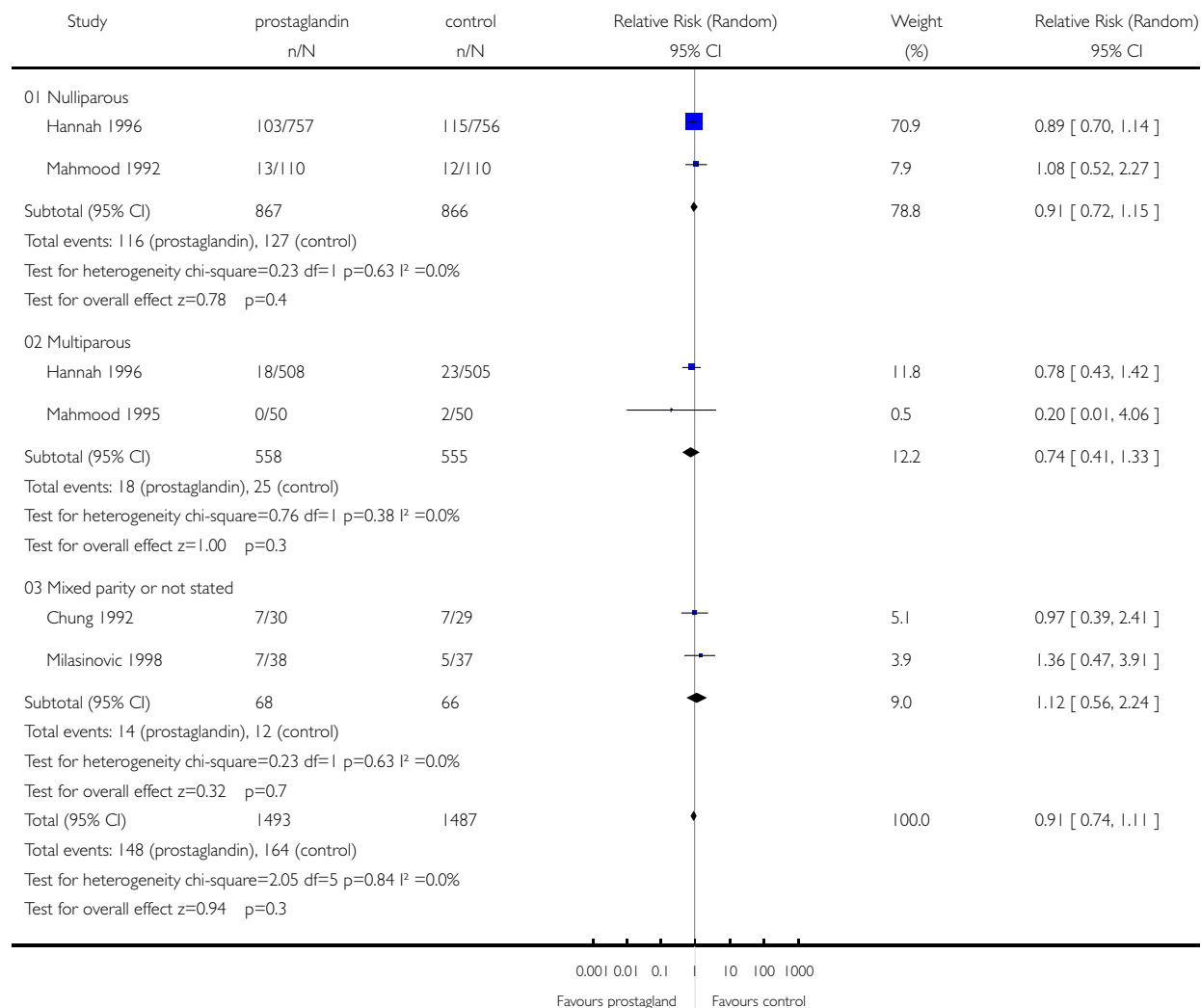


# **Analysis 04.01. Comparison 04 Prostaglandin versus expectant management/placebo: by parity, Outcome 01 Caesarean section**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 04 Prostaglandin versus expectant management/placebo: by parity

Outcome: 01 Caesarean section

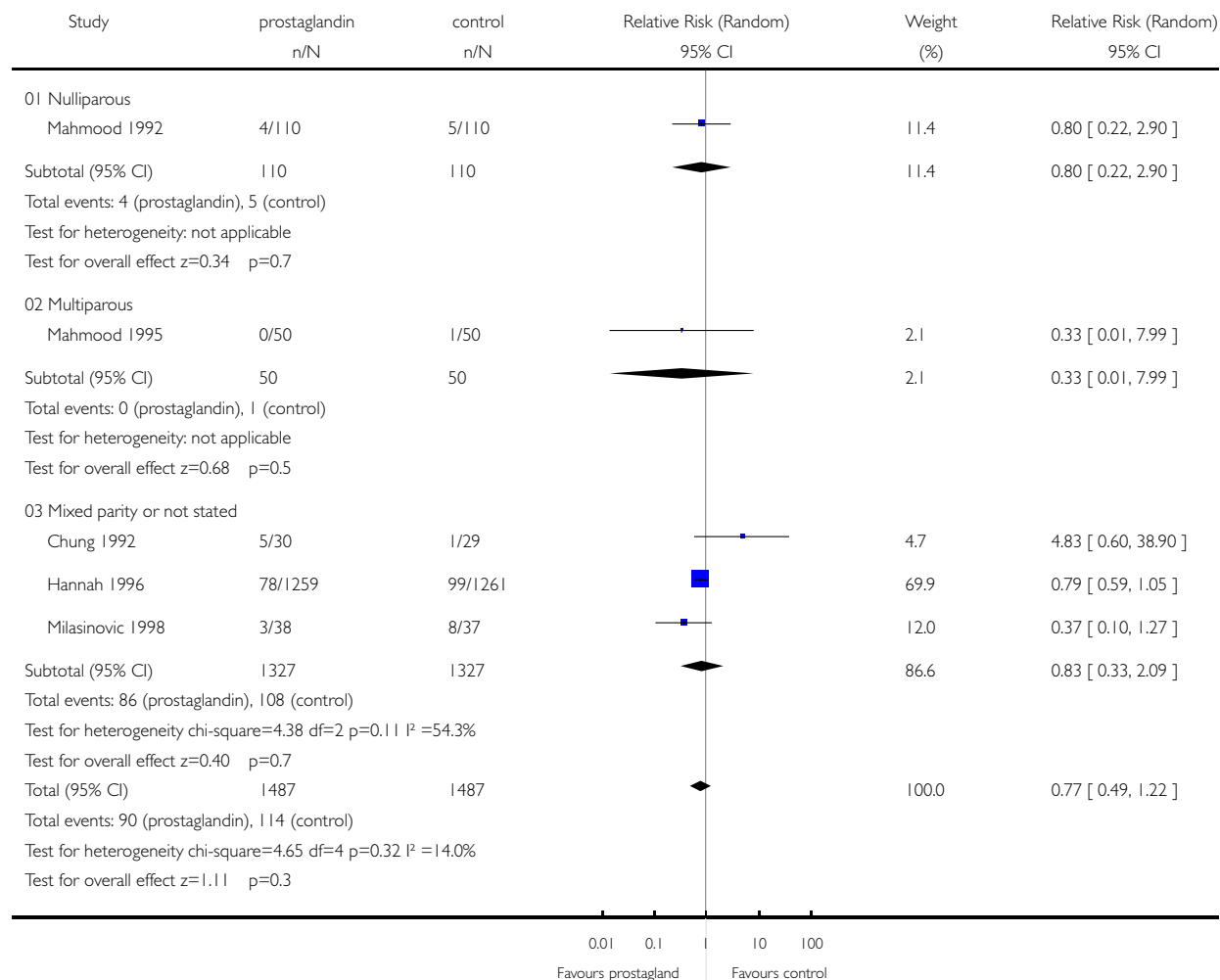


## Analysis 04.02. Comparison 04 Prostaglandin versus expectant management/placebo: by parity, Outcome 02 Chorioamnionitis

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 04 Prostaglandin versus expectant management/placebo: by parity

Outcome: 02 Chorioamnionitis

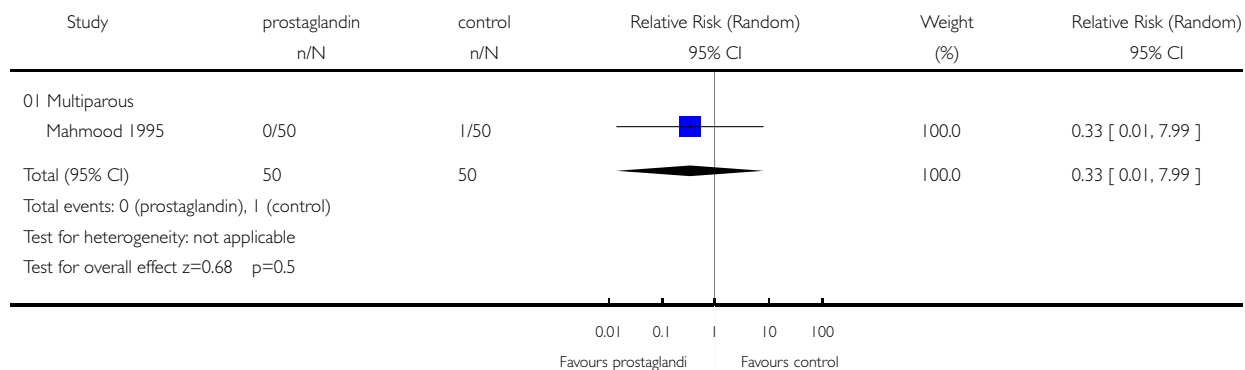


### Analysis 04.03. Comparison 04 Prostaglandin versus expectant management/placebo: by parity, Outcome 03 Endometritis

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 04 Prostaglandin versus expectant management/placebo: by parity

Outcome: 03 Endometritis

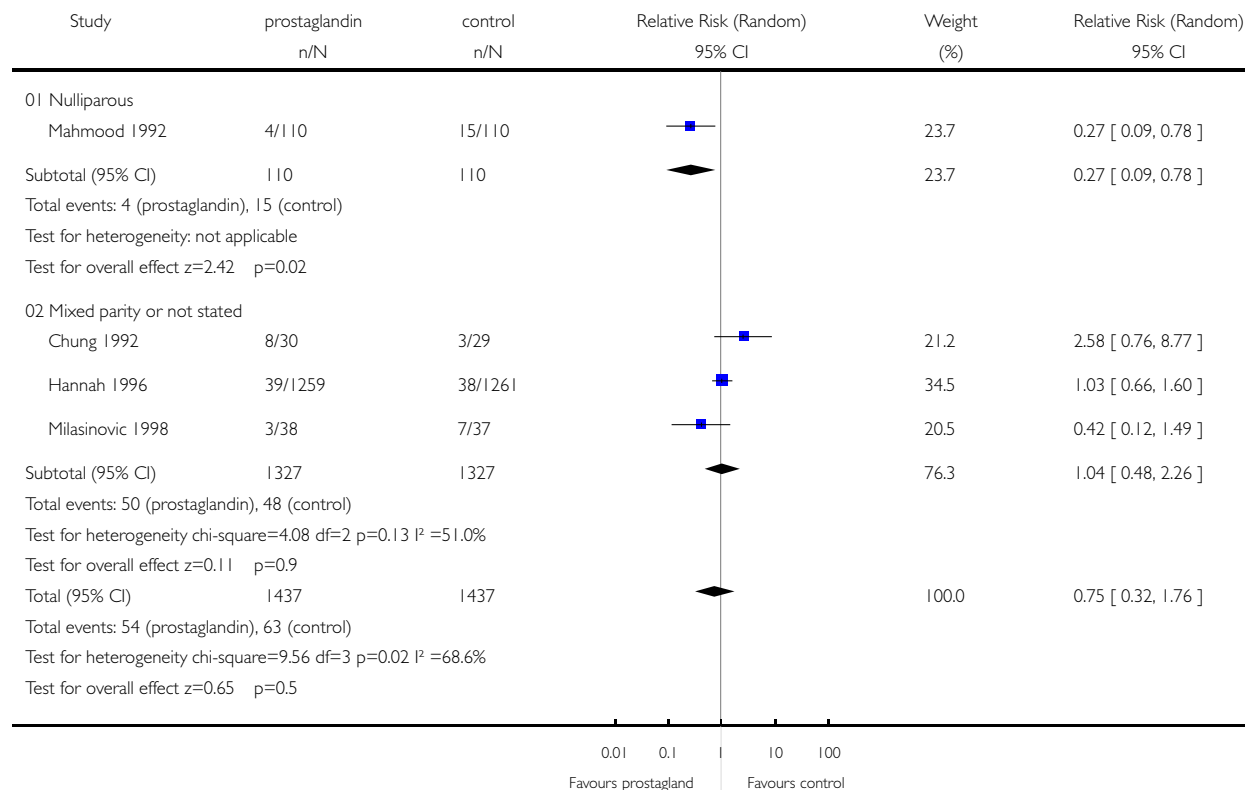


#### Analysis 04.04. Comparison 04 Prostaglandin versus expectant management/placebo: by parity, Outcome 04 Postpartum fever

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 04 Prostaglandin versus expectant management/placebo: by parity

Outcome: 04 Postpartum fever

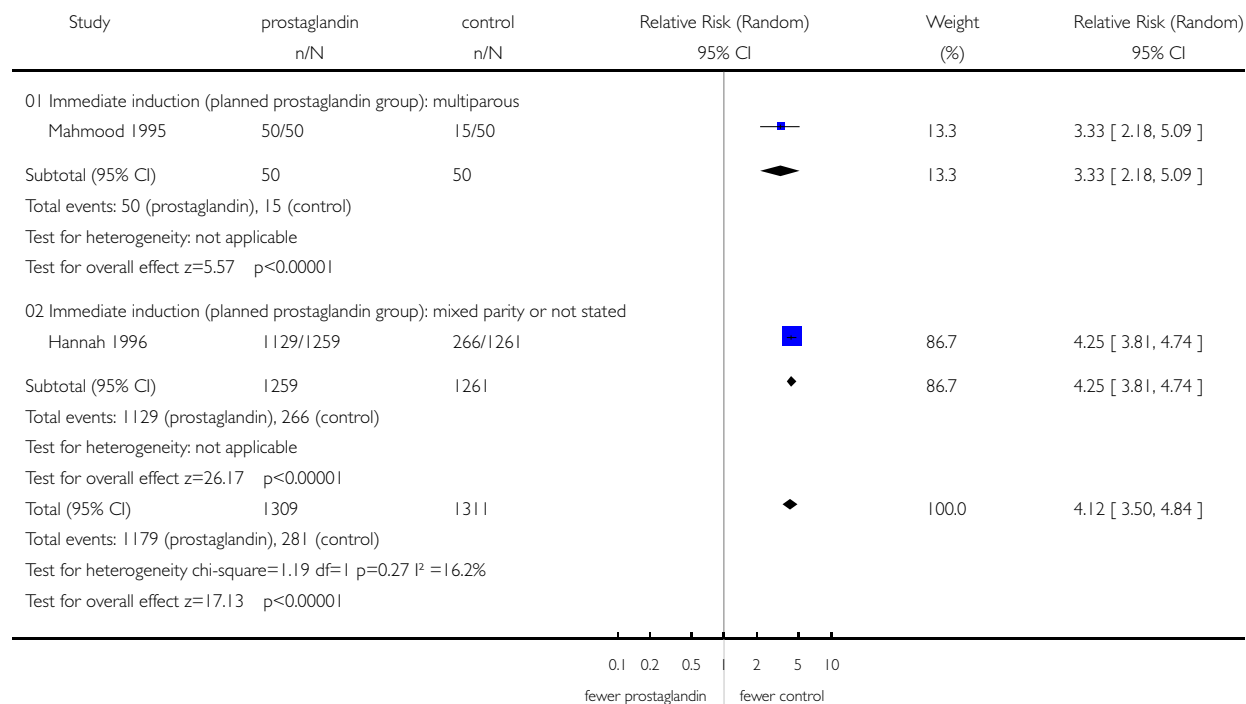


# **Analysis 04.05. Comparison 04 Prostaglandin versus expectant management/placebo: by parity, Outcome 05 Induction of labour**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 04 Prostaglandin versus expectant management/placebo: by parity

Outcome: 05 Induction of labour

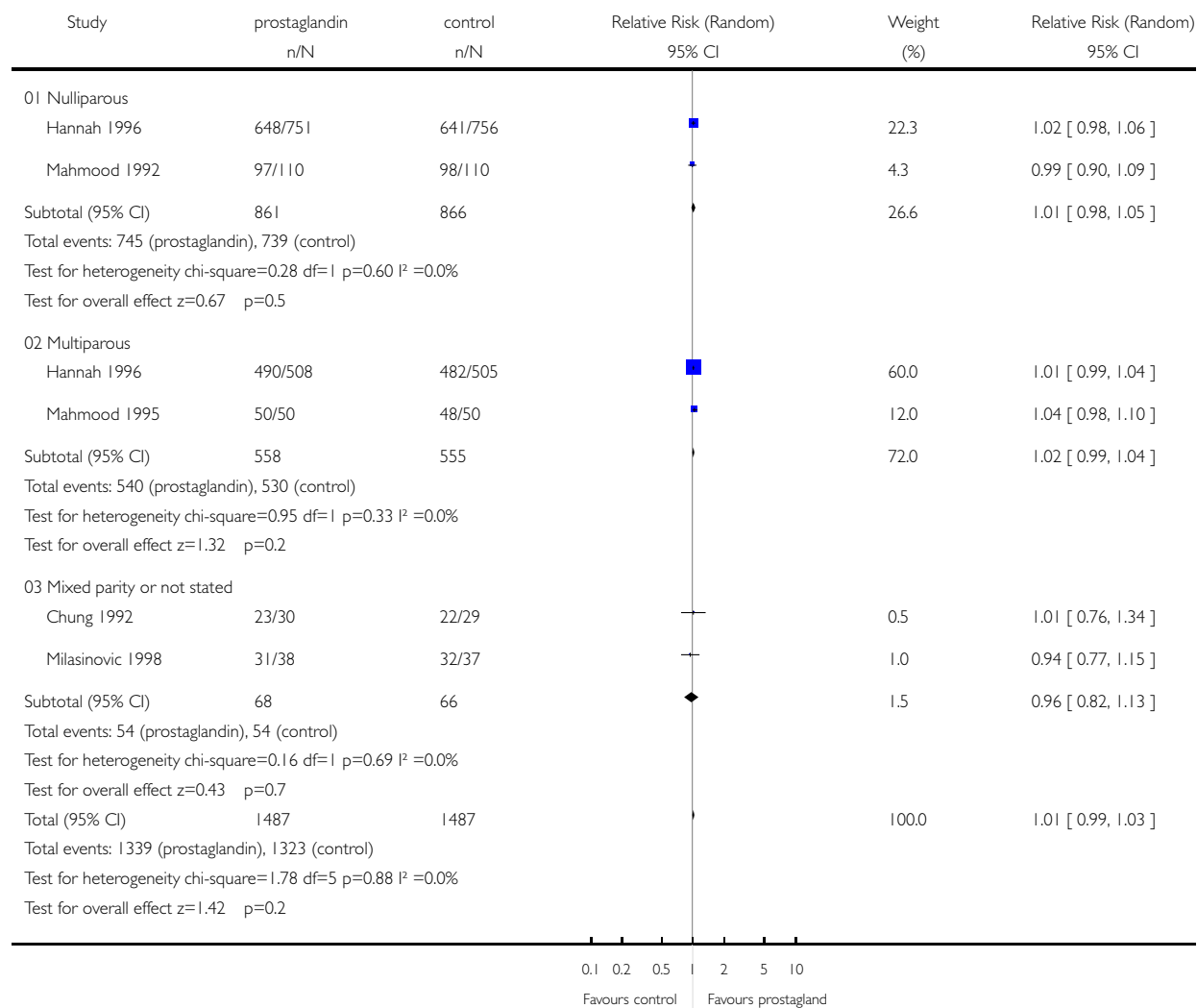


# **Analysis 04.06. Comparison 04 Prostaglandin versus expectant management/placebo: by parity, Outcome 06 Vaginal birth**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 04 Prostaglandin versus expectant management/placebo: by parity

Outcome: 06 Vaginal birth

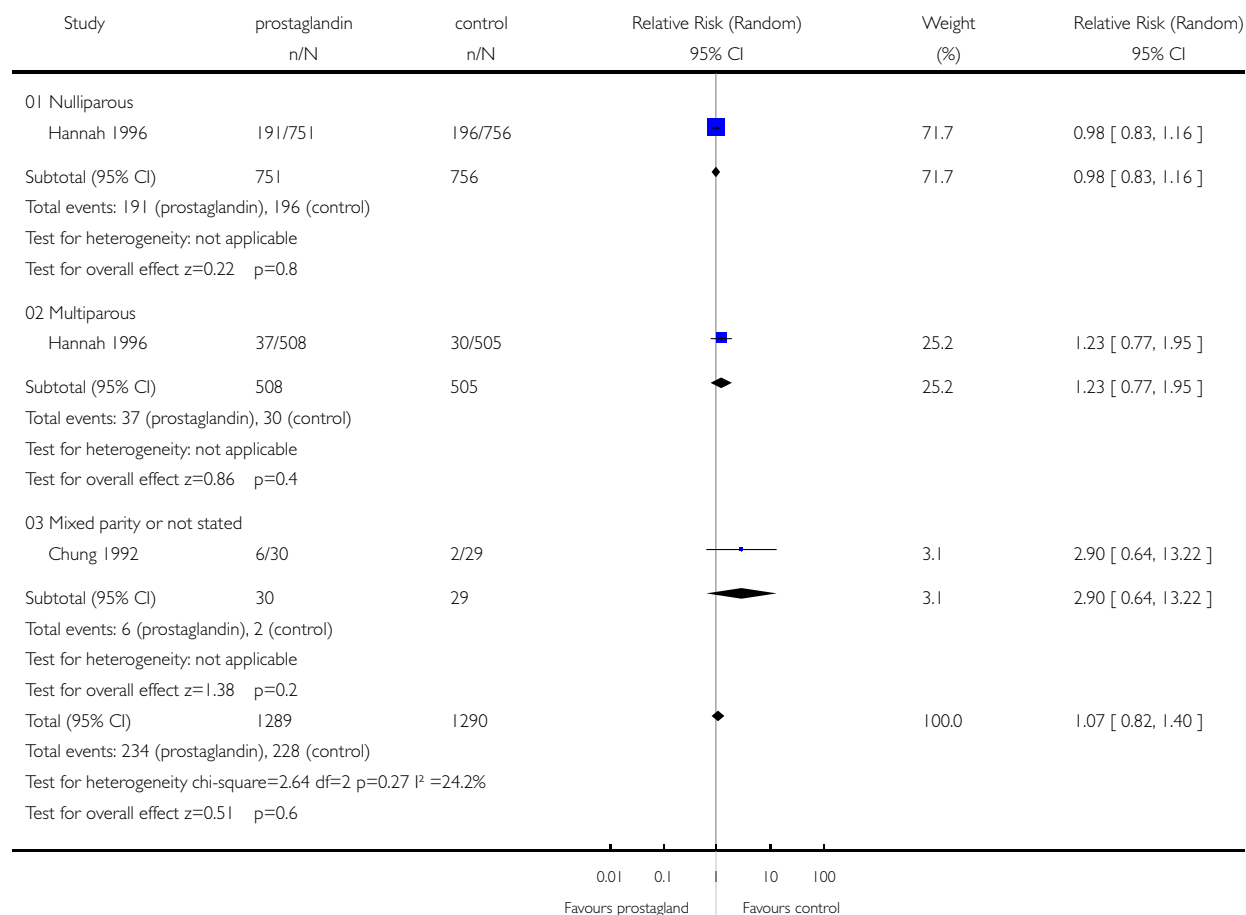


# **Analysis 04.07. Comparison 04 Prostaglandin versus expectant management/placebo: by parity, Outcome 07 Operative vaginal birth**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 04 Prostaglandin versus expectant management/placebo: by parity

Outcome: 07 Operative vaginal birth

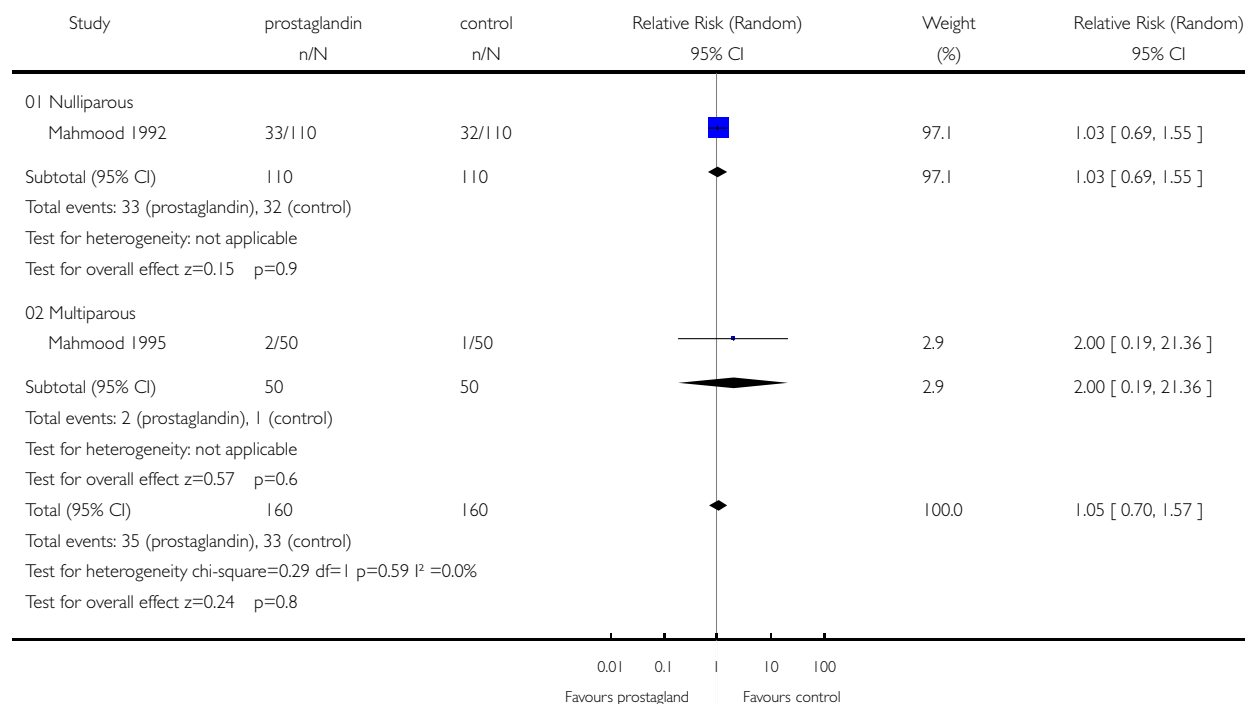


# **Analysis 04.08. Comparison 04 Prostaglandin versus expectant management/placebo: by parity, Outcome 08 Use of epidural anaesthesia**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 04 Prostaglandin versus expectant management/placebo: by parity

Outcome: 08 Use of epidural anaesthesia

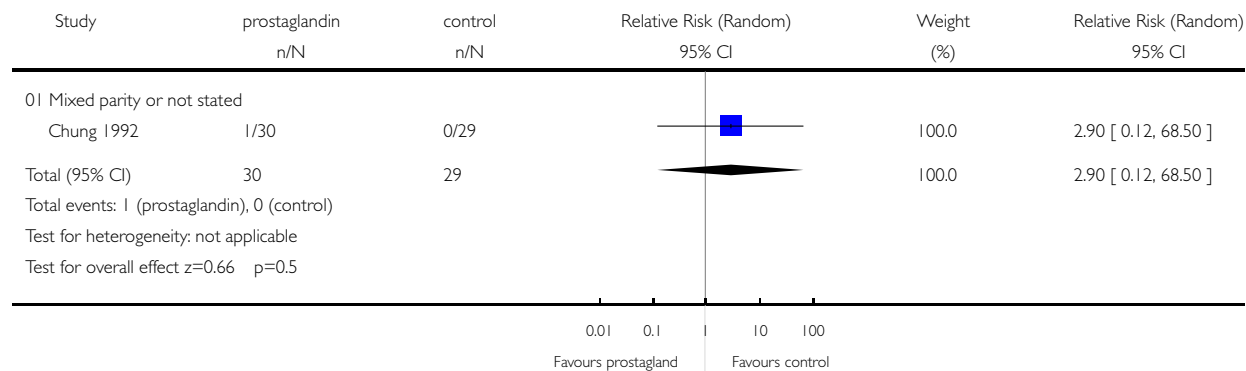


# **Analysis 04.09. Comparison 04 Prostaglandin versus expectant management/placebo: by parity, Outcome 09 Uterine rupture**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 04 Prostaglandin versus expectant management/placebo: by parity

Outcome: 09 Uterine rupture

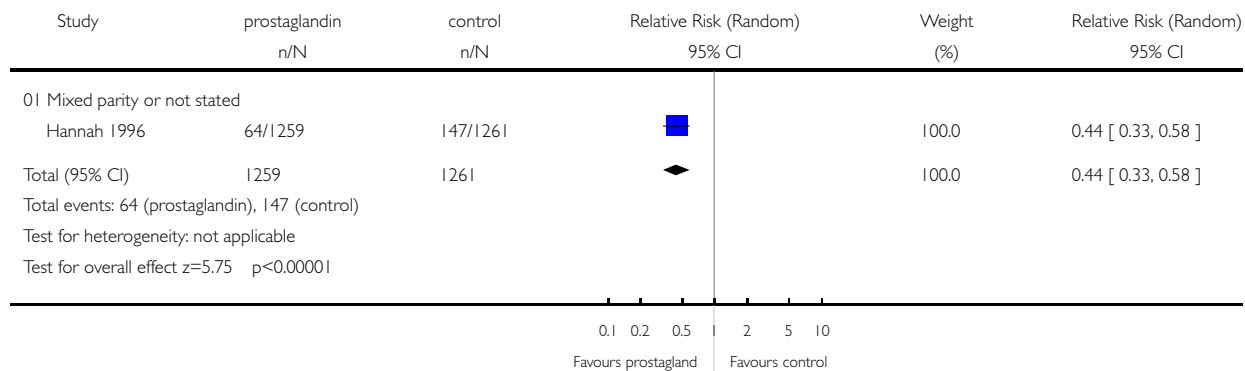


# **Analysis 04.10. Comparison 04 Prostaglandin versus expectant management/placebo: by parity, Outcome 10 Maternal satisfaction: nothing liked**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 04 Prostaglandin versus expectant management/placebo: by parity

Outcome: 10 Maternal satisfaction: nothing liked

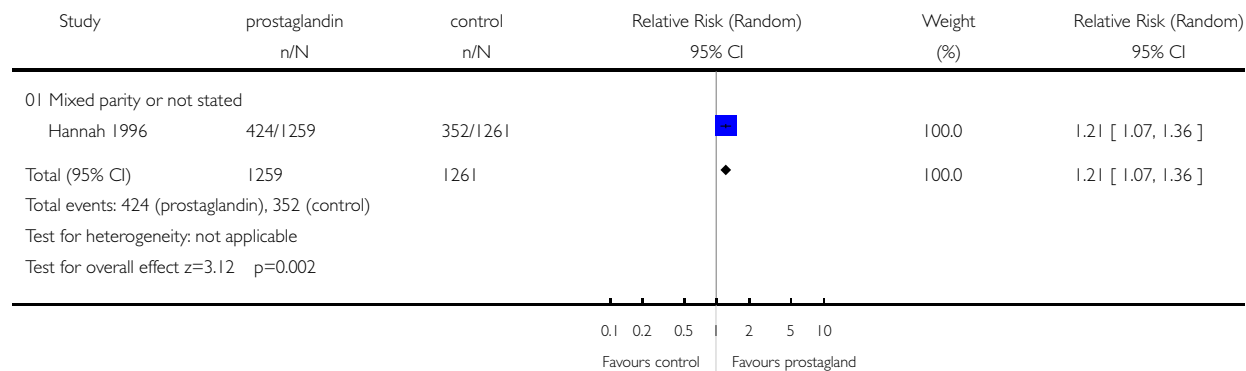


# **Analysis 04.11. Comparison 04 Prostaglandin versus expectant management/placebo: by parity, Outcome 11 Maternal satisfaction: nothing disliked**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 04 Prostaglandin versus expectant management/placebo: by parity

Outcome: 11 Maternal satisfaction: nothing disliked

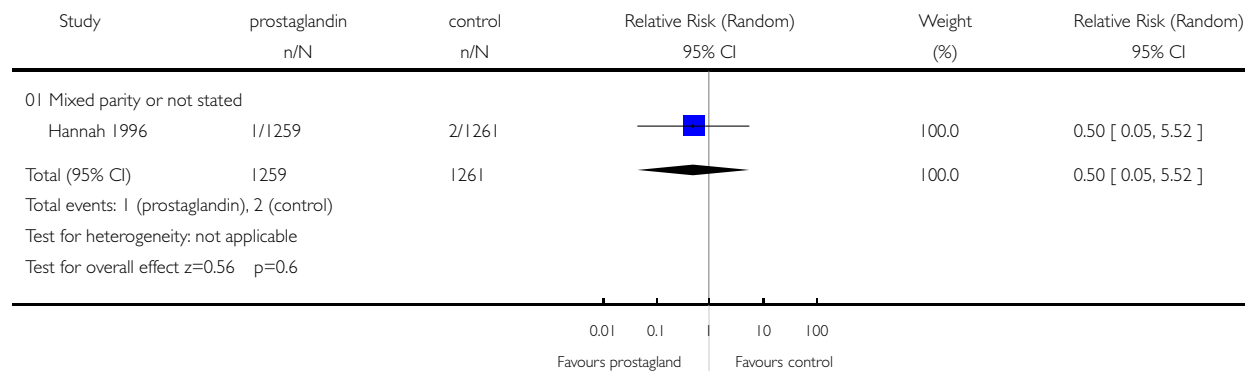


# **Analysis 04.12. Comparison 04 Prostaglandin versus expectant management/placebo: by parity, Outcome 12 Fetal/perinatal mortality**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 04 Prostaglandin versus expectant management/placebo: by parity

Outcome: 12 Fetal/perinatal mortality



### Analysis 04.13. Comparison 04 Prostaglandin versus expectant management/placebo: by parity, Outcome 13 Cord prolapse

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 04 Prostaglandin versus expectant management/placebo: by parity

Outcome: 13 Cord prolapse

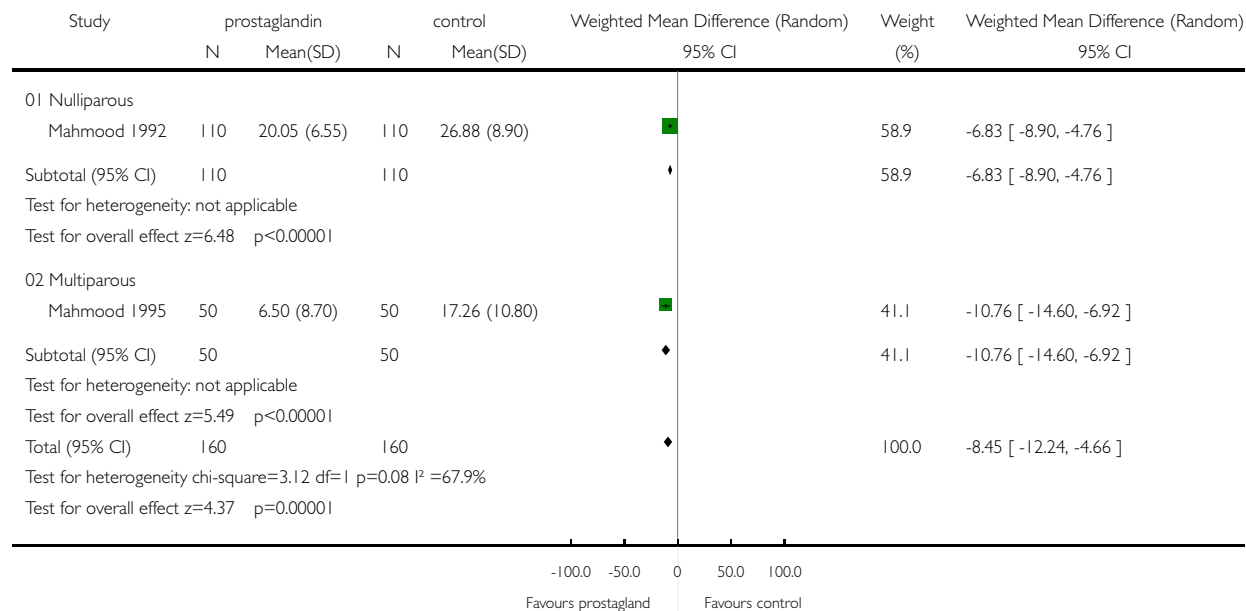
Study	prostaglandin n/N	control n/N	Relative Risk (Random) 95% CI	Weight (%)	Relative Risk (Random) 95% CI
01 Mixed parity or not stated					
× Hannah 1996	0/1259	0/1261		0.0	Not estimable
Total (95% CI)	1259	1261		0.0	Not estimable
Total events: 0 (prostaglandin), 0 (control)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
			0.1 0.2 0.5   2 5 10		
			Favours prostagland	Favours control	

#### Analysis 04.14. Comparison 04 Prostaglandin versus expectant management/placebo: by parity, Outcome 14 Time from rupture of membranes to birth (hours)

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 04 Prostaglandin versus expectant management/placebo: by parity

Outcome: 14 Time from rupture of membranes to birth (hours)

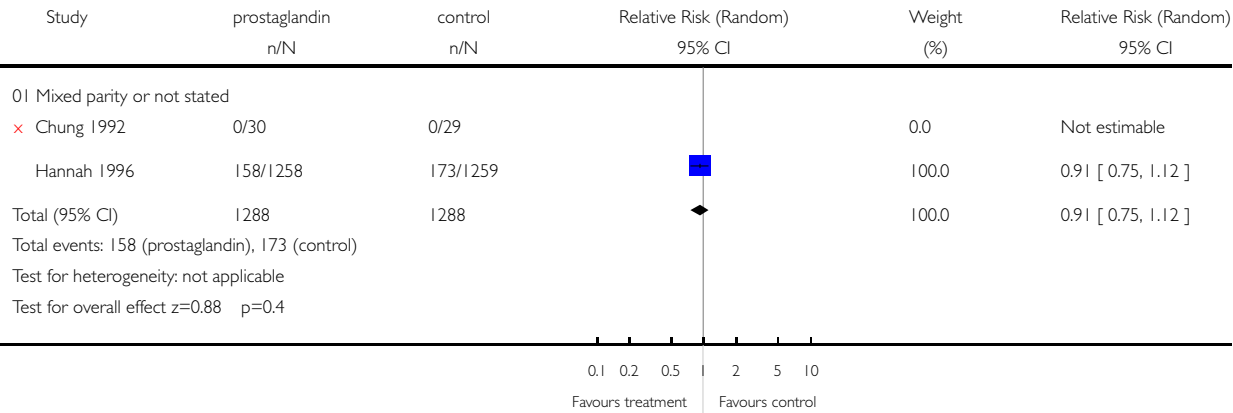


**Analysis 04.15. Comparison 04 Prostaglandin versus expectant management/placebo: by parity, Outcome 15**  
**Apgar score < 7 at 5 minutes**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 04 Prostaglandin versus expectant management/placebo: by parity

Outcome: 15 Apgar score < 7 at 5 minutes

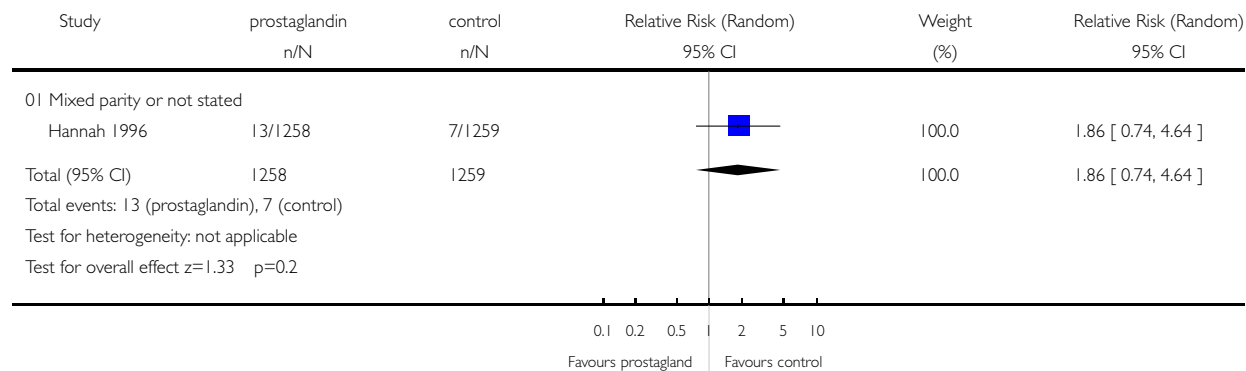


# **Analysis 04.16. Comparison 04 Prostaglandin versus expectant management/placebo: by parity, Outcome 16 Mechanical ventilation (after initial resuscitation)**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 04 Prostaglandin versus expectant management/placebo: by parity

Outcome: 16 Mechanical ventilation (after initial resuscitation)

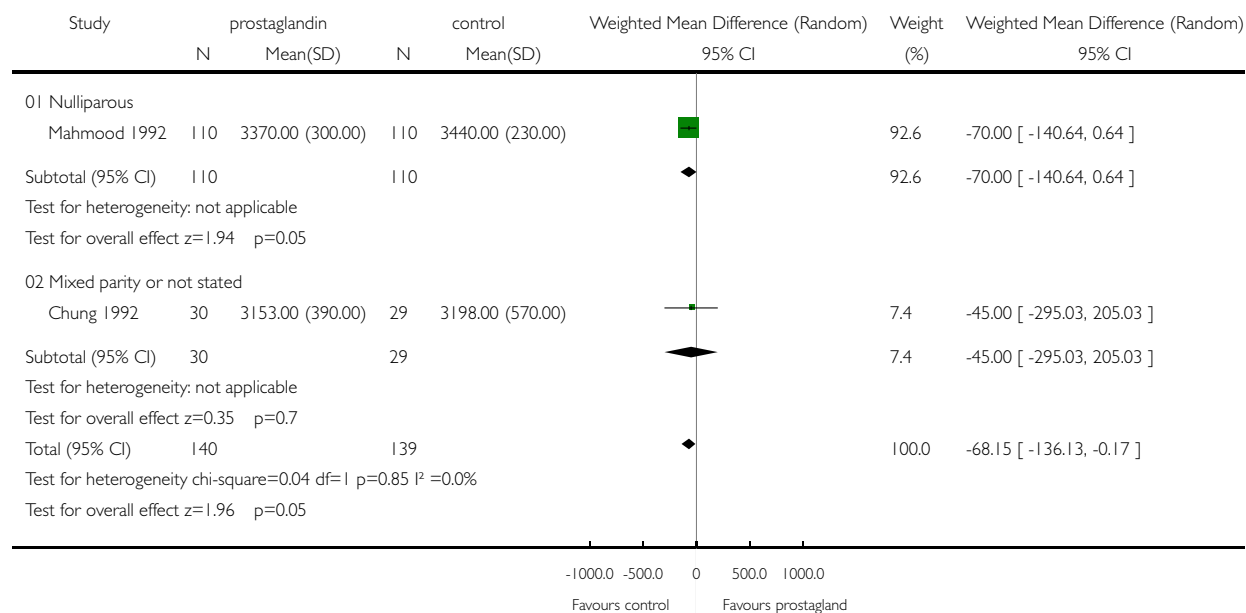


# **Analysis 04.17. Comparison 04 Prostaglandin versus expectant management/placebo: by parity, Outcome 17 Birthweight**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 04 Prostaglandin versus expectant management/placebo: by parity

Outcome: 17 Birthweight

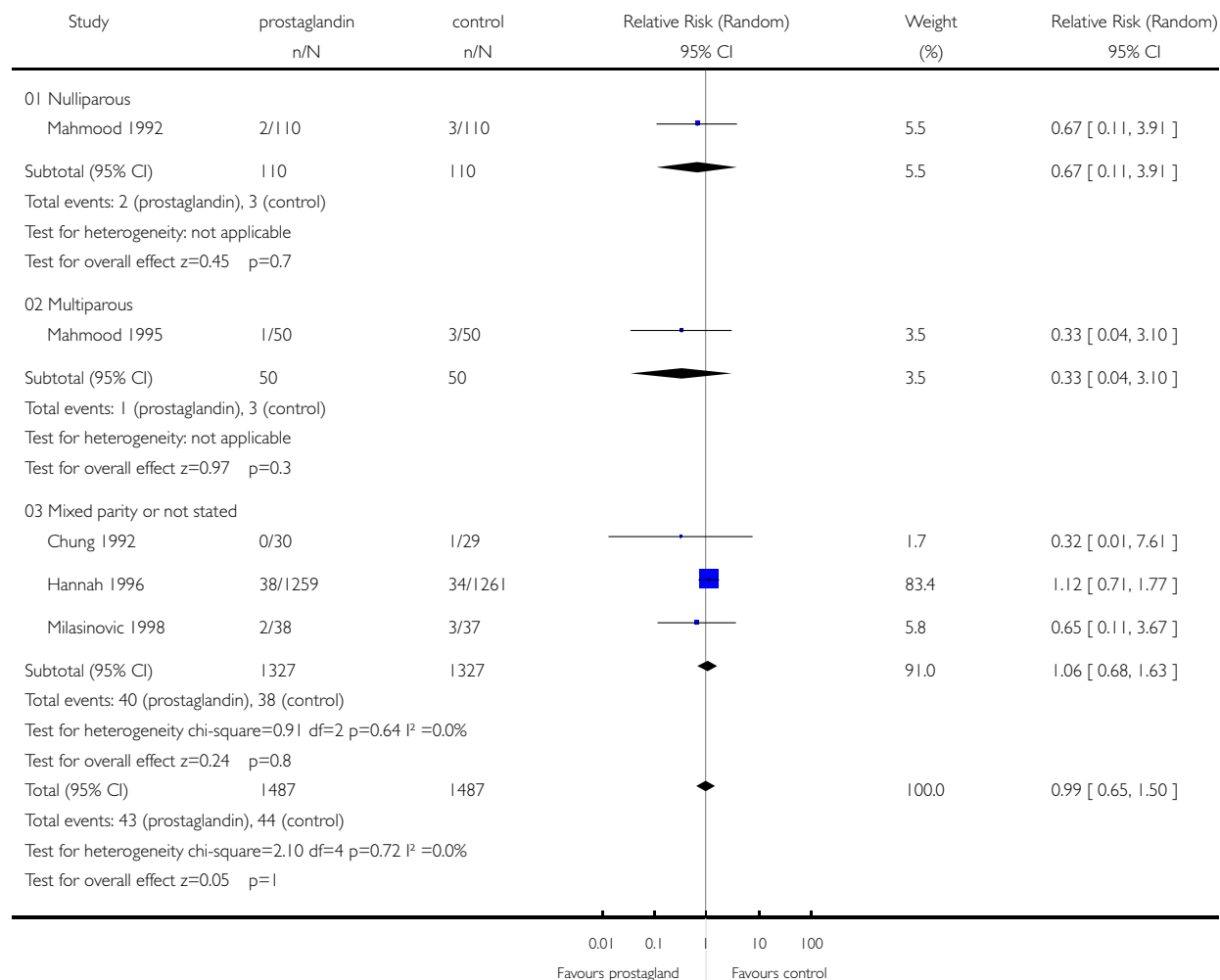


# **Analysis 04.18. Comparison 04 Prostaglandin versus expectant management/placebo: by parity, Outcome 18 Neonatal infection**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 04 Prostaglandin versus expectant management/placebo: by parity

Outcome: 18 Neonatal infection

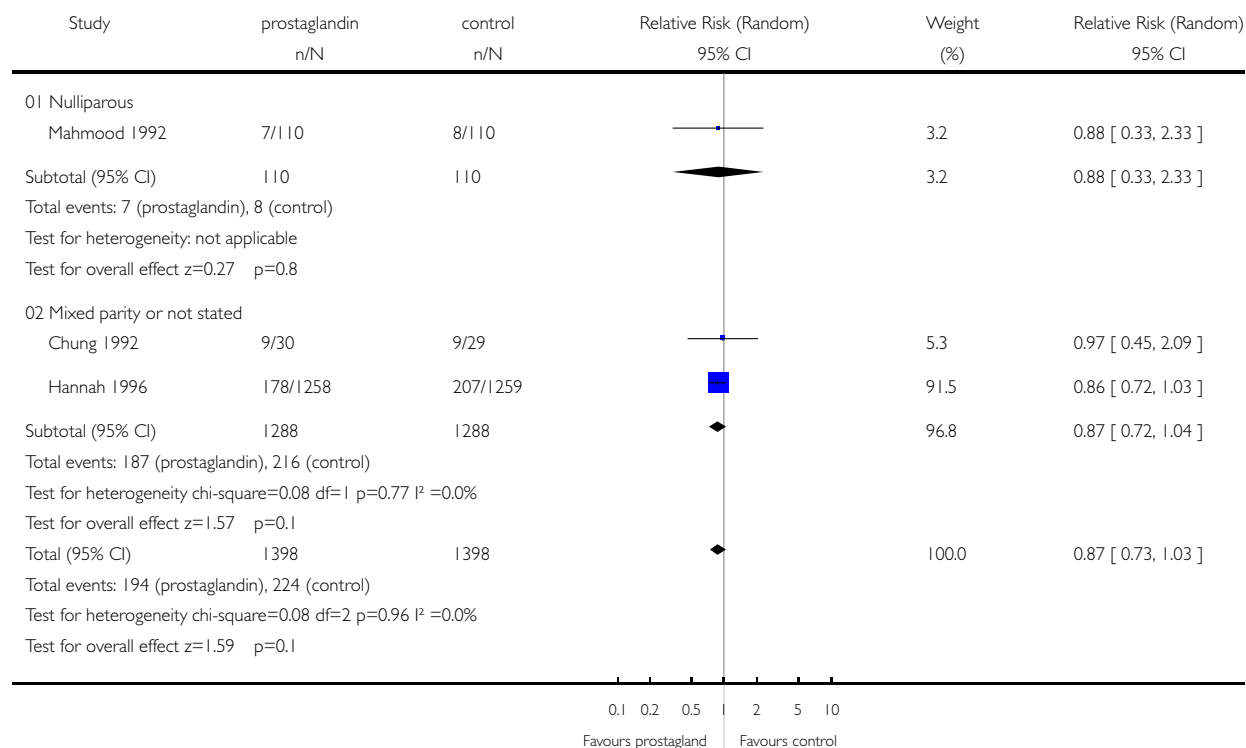


# **Analysis 04.19. Comparison 04 Prostaglandin versus expectant management/placebo: by parity, Outcome 19 Neonatal intensive care unit or special care nursery admission**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 04 Prostaglandin versus expectant management/placebo: by parity

Outcome: 19 Neonatal intensive care unit or special care nursery admission

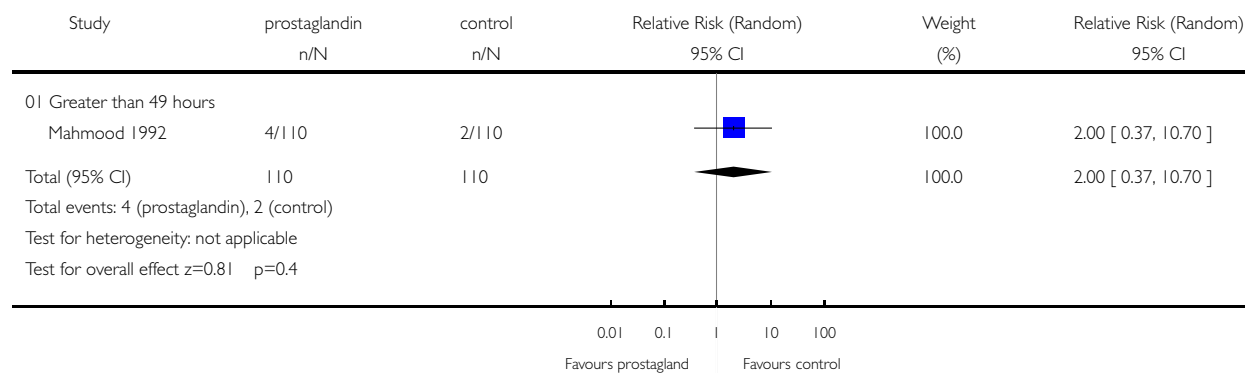


**Analysis 04.20. Comparison 04 Prostaglandin versus expectant management/placebo: by parity, Outcome 20**  
**Length of stay in neonatal intensive care unit**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 04 Prostaglandin versus expectant management/placebo: by parity

Outcome: 20 Length of stay in neonatal intensive care unit

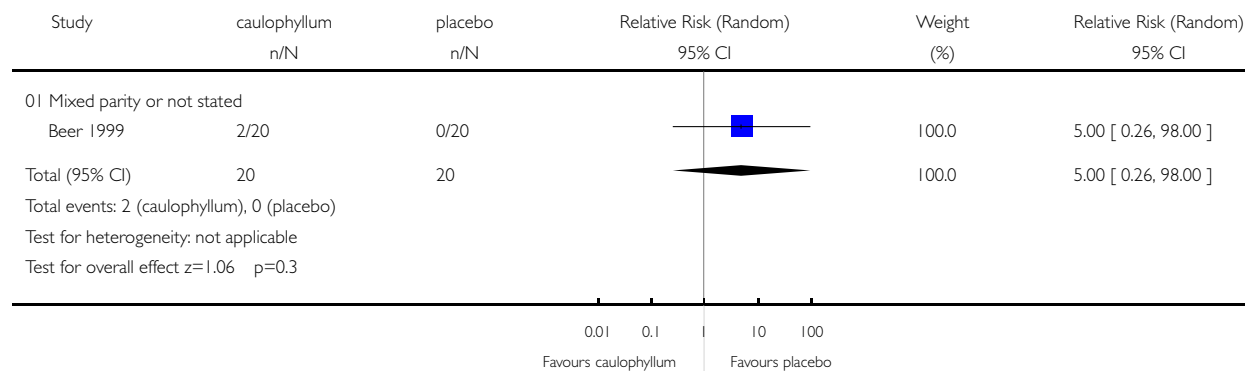


### Analysis 05.01. Comparison 05 Caulophyllum versus placebo: by parity, Outcome 01 Caesarean section

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 05 Caulophyllum versus placebo: by parity

Outcome: 01 Caesarean section

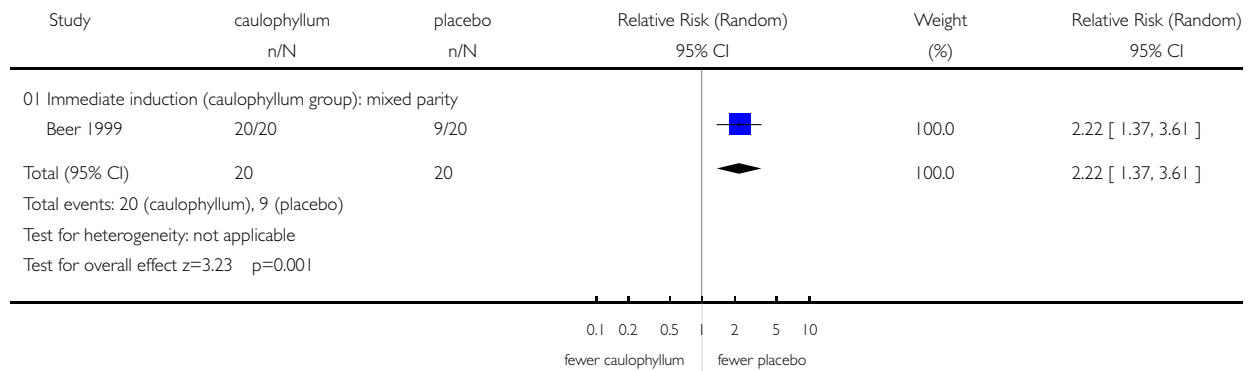


## Analysis 05.02. Comparison 05 Caulophyllum versus placebo: by parity, Outcome 02 Induction of labour

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 05 Caulophyllum versus placebo: by parity

Outcome: 02 Induction of labour

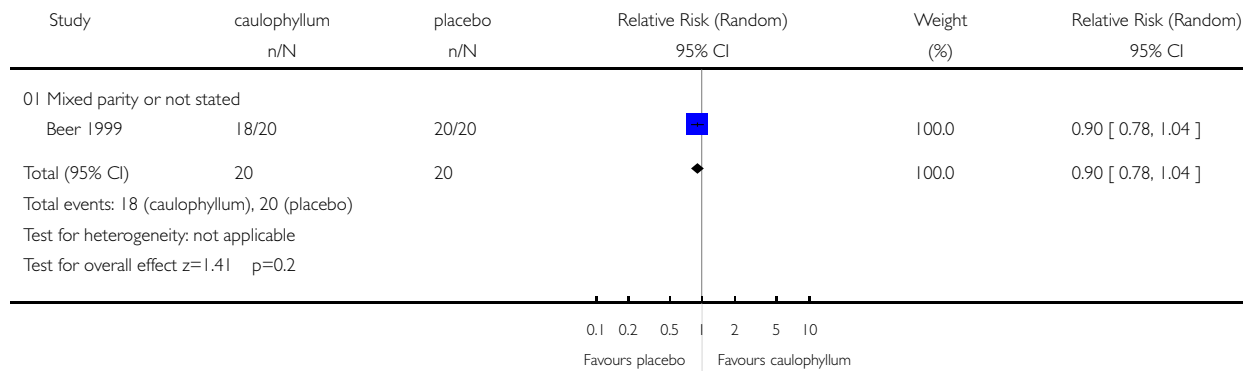


### Analysis 05.03. Comparison 05 Caulophyllum versus placebo: by parity, Outcome 03 Vaginal birth

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 05 Caulophyllum versus placebo: by parity

Outcome: 03 Vaginal birth

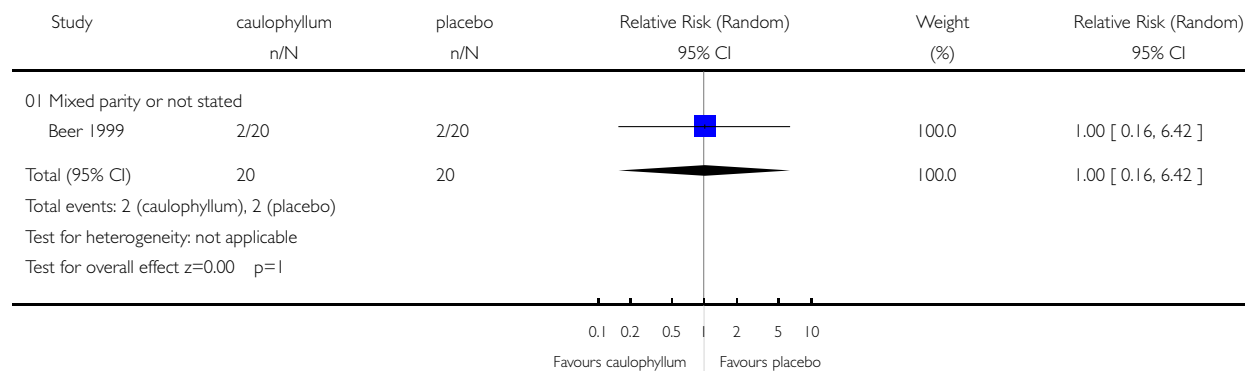


#### Analysis 05.04. Comparison 05 Caulophyllum versus placebo: by parity, Outcome 04 Operative vaginal birth

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 05 Caulophyllum versus placebo: by parity

Outcome: 04 Operative vaginal birth

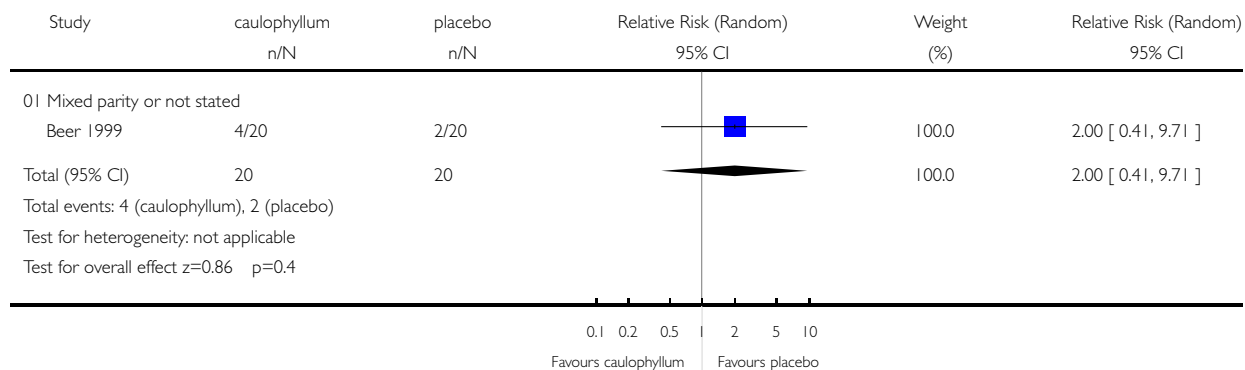


### Analysis 05.05. Comparison 05 Caulophyllum versus placebo: by parity, Outcome 05 Use of epidural anaesthesia

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 05 Caulophyllum versus placebo: by parity

Outcome: 05 Use of epidural anaesthesia

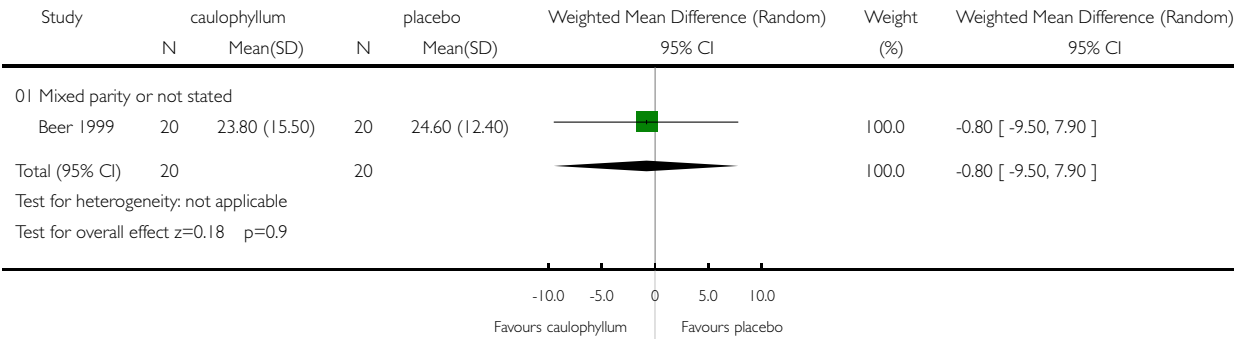


**Analysis 05.06. Comparison 05 Caulophyllum versus placebo: by parity, Outcome 06 Time from rupture of membranes to birth (hours)**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 05 Caulophyllum versus placebo: by parity

Outcome: 06 Time from rupture of membranes to birth (hours)

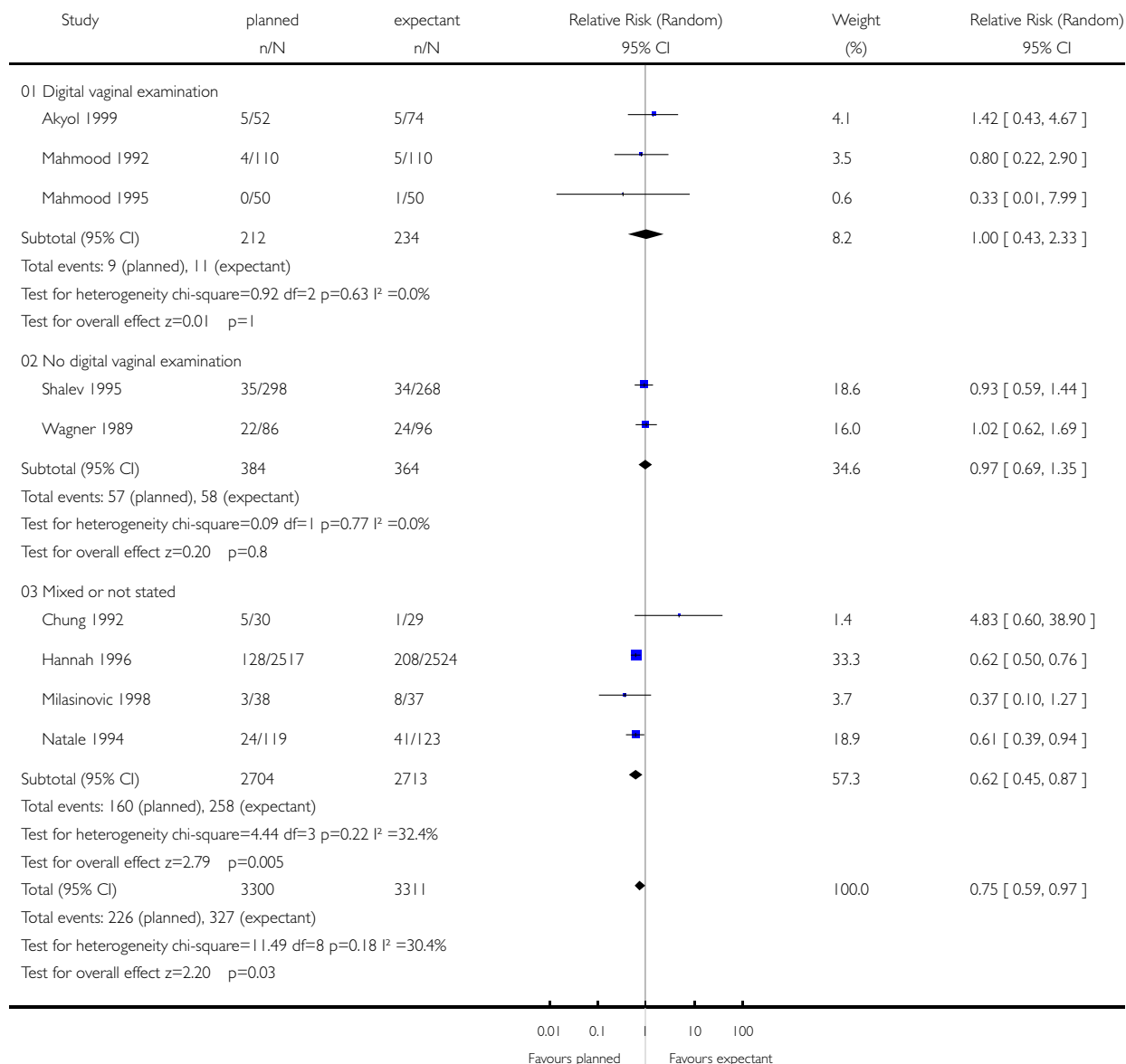


## Analysis 06.01. Comparison 06 Digital vaginal exam: planned versus expectant management, Outcome 01 Chorioamnionitis

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 06 Digital vaginal exam: planned versus expectant management

Outcome: 01 Chorioamnionitis

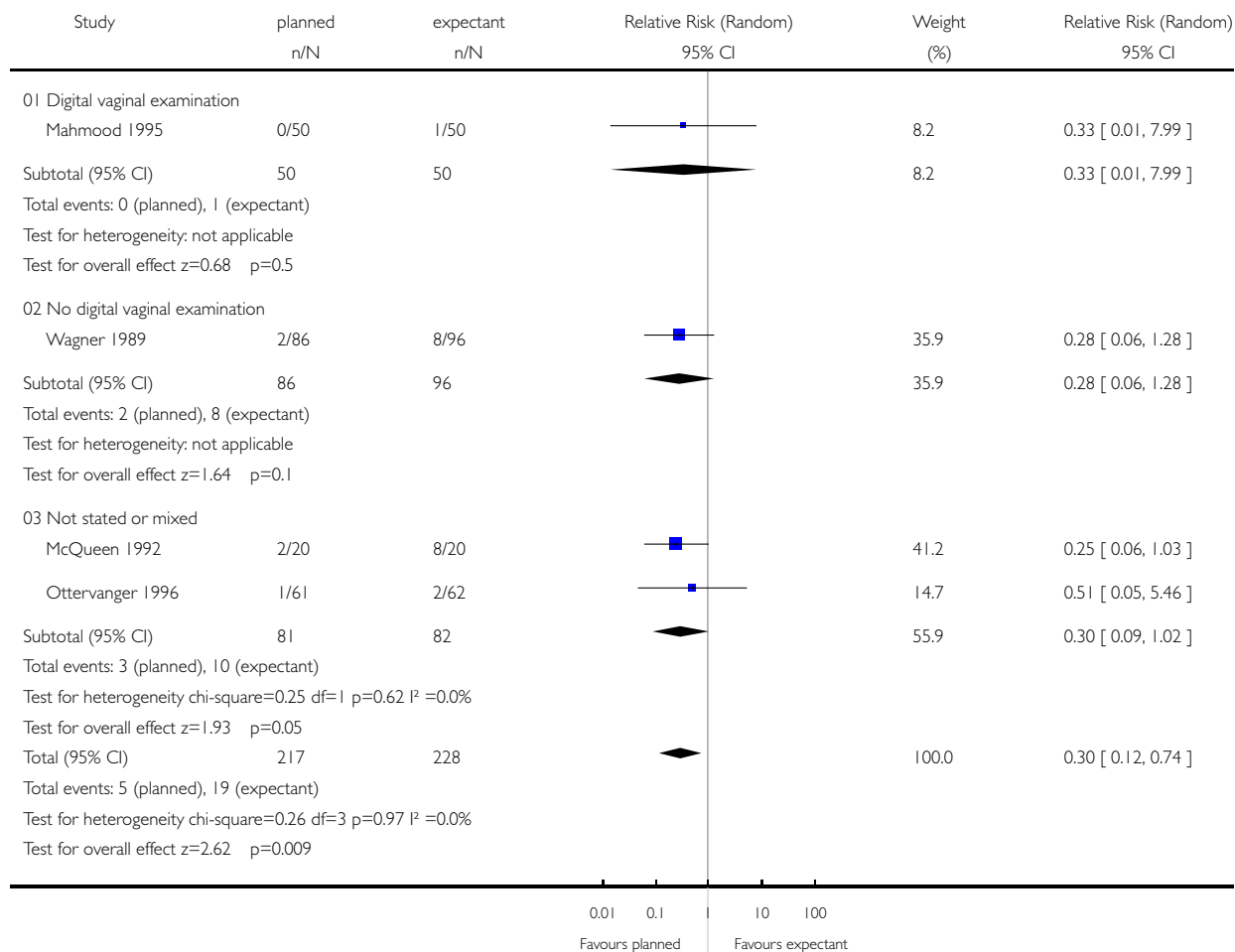


## Analysis 06.02. Comparison 06 Digital vaginal exam: planned versus expectant management, Outcome 02 Endometritis

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 06 Digital vaginal exam: planned versus expectant management

Outcome: 02 Endometritis

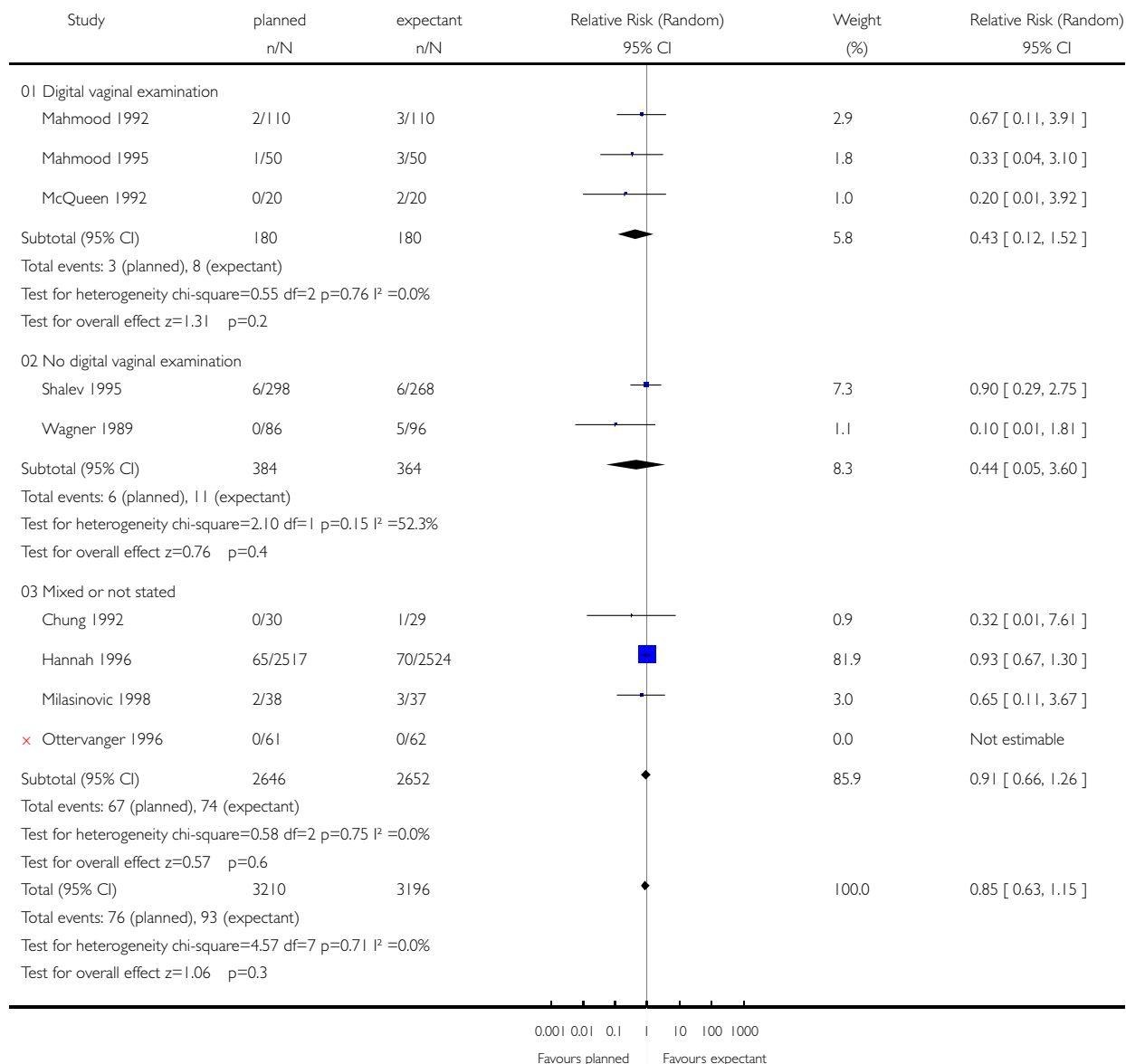


### Analysis 06.03. Comparison 06 Digital vaginal exam: planned versus expectant management, Outcome 03 Neonatal infection

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 06 Digital vaginal exam: planned versus expectant management

Outcome: 03 Neonatal infection

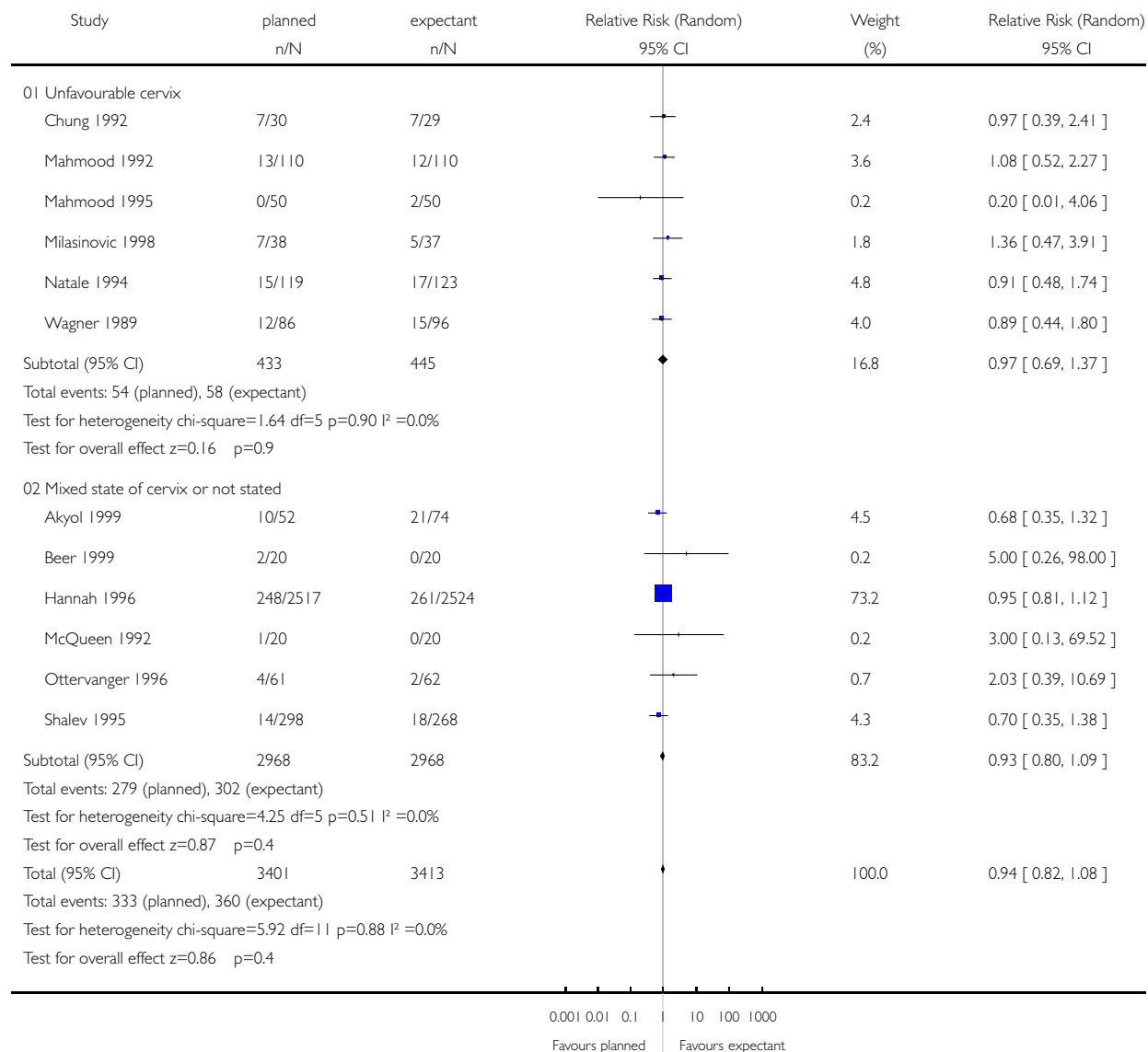


# **Analysis 07.01. Comparison 07 Unfavourable/favourable cervix: planned versus expectant management; Outcome 01 Caesarean section**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 07 Unfavourable/favourable cervix: planned versus expectant management:

Outcome: 01 Caesarean section

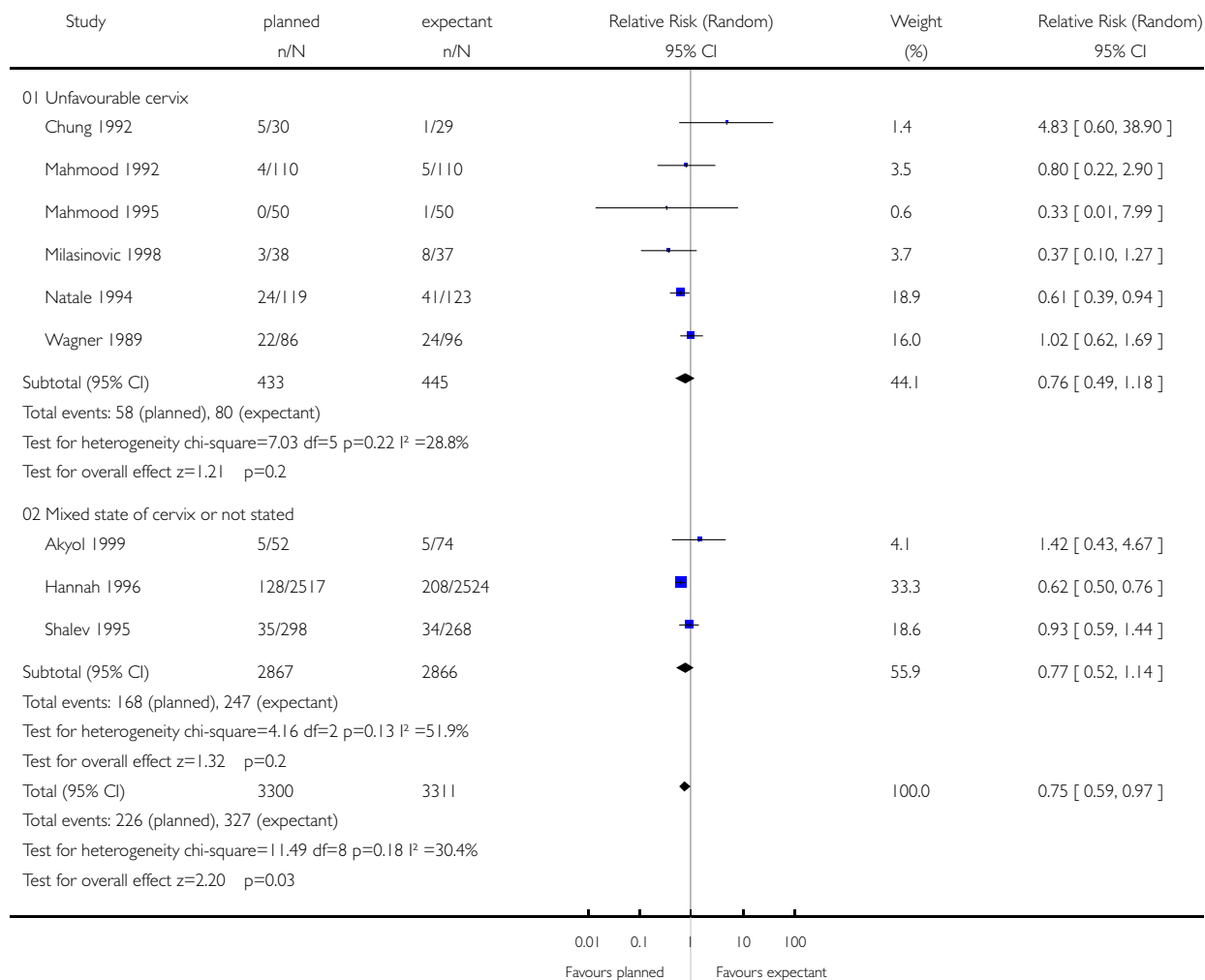


## Analysis 07.02. Comparison 07 Unfavourable/favourable cervix: planned versus expectant management;, Outcome 02 Chorioamnionitis

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 07 Unfavourable/favourable cervix: planned versus expectant management:

Outcome: 02 Chorioamnionitis

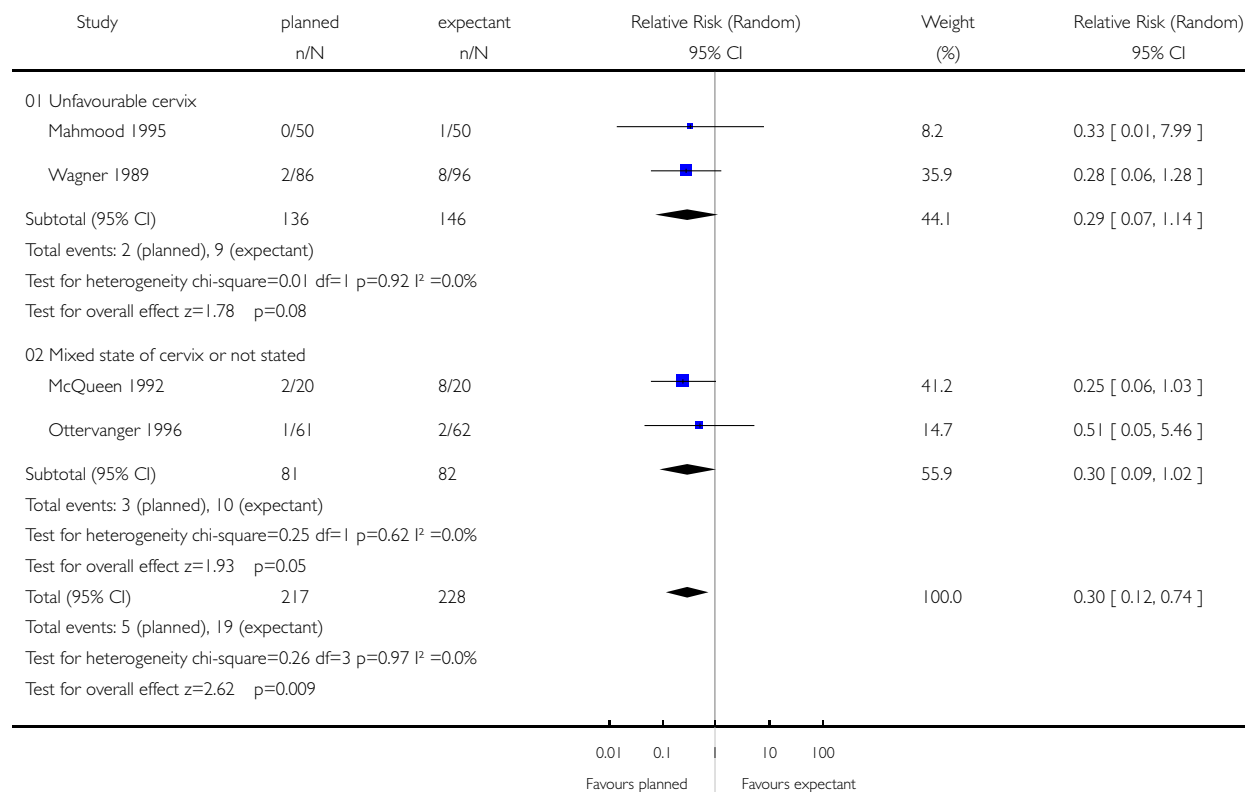


### Analysis 07.03. Comparison 07 Unfavourable/favourable cervix: planned versus expectant management:, Outcome 03 Endometritis

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 07 Unfavourable/favourable cervix: planned versus expectant management:

Outcome: 03 Endometritis

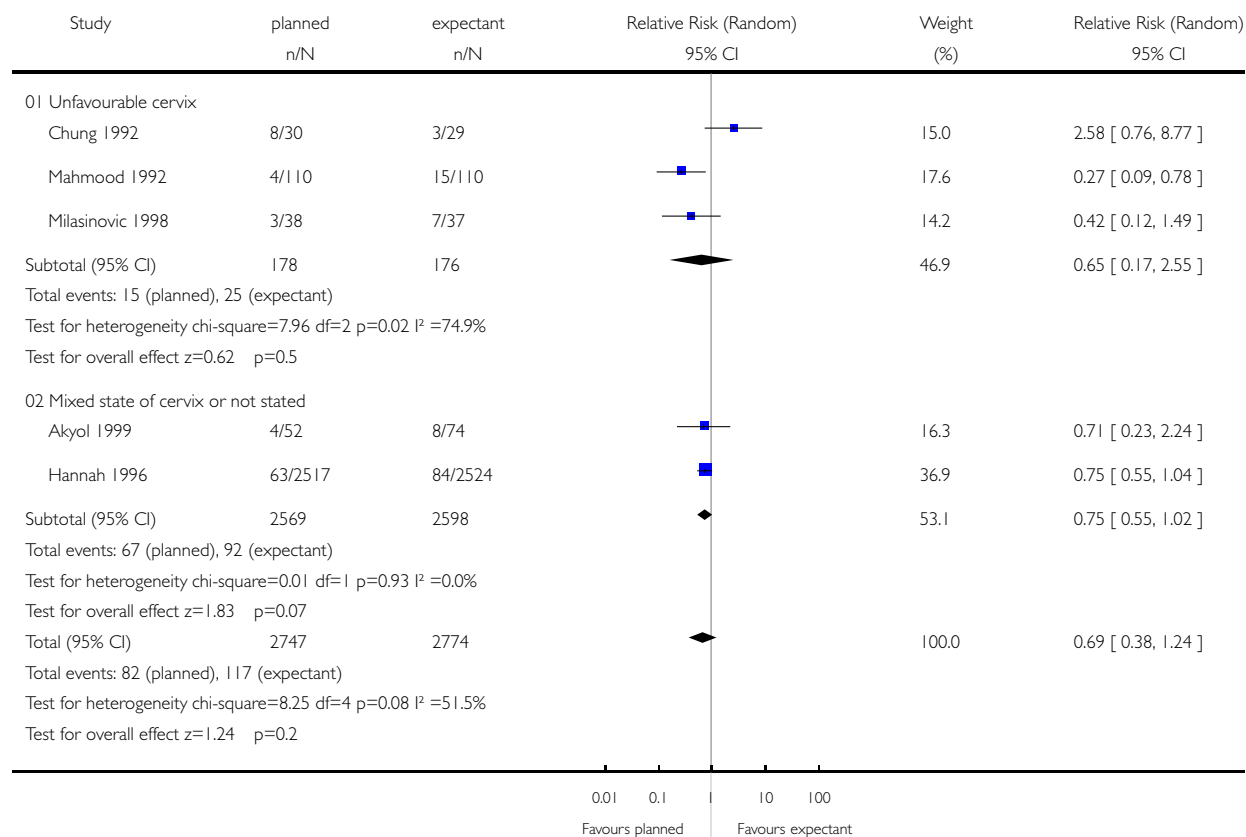


# **Analysis 07.04. Comparison 07 Unfavourable/favourable cervix: planned versus expectant management; Outcome 04 Postpartum fever**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 07 Unfavourable/favourable cervix: planned versus expectant management:

Outcome: 04 Postpartum fever

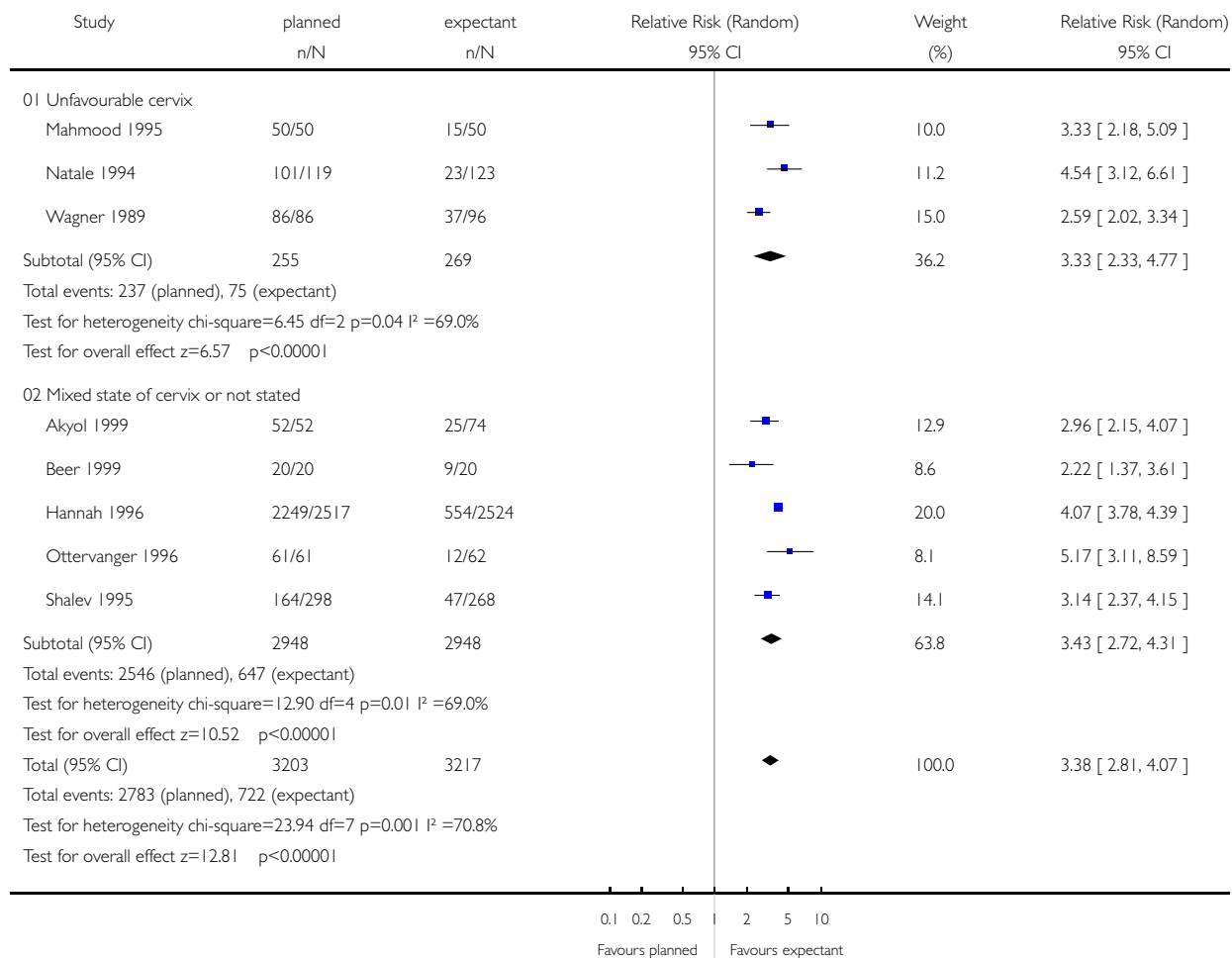


# **Analysis 07.05. Comparison 07 Unfavourable/favourable cervix: planned versus expectant management; Outcome 05 Induction of labour**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 07 Unfavourable/favourable cervix: planned versus expectant management:

Outcome: 05 Induction of labour

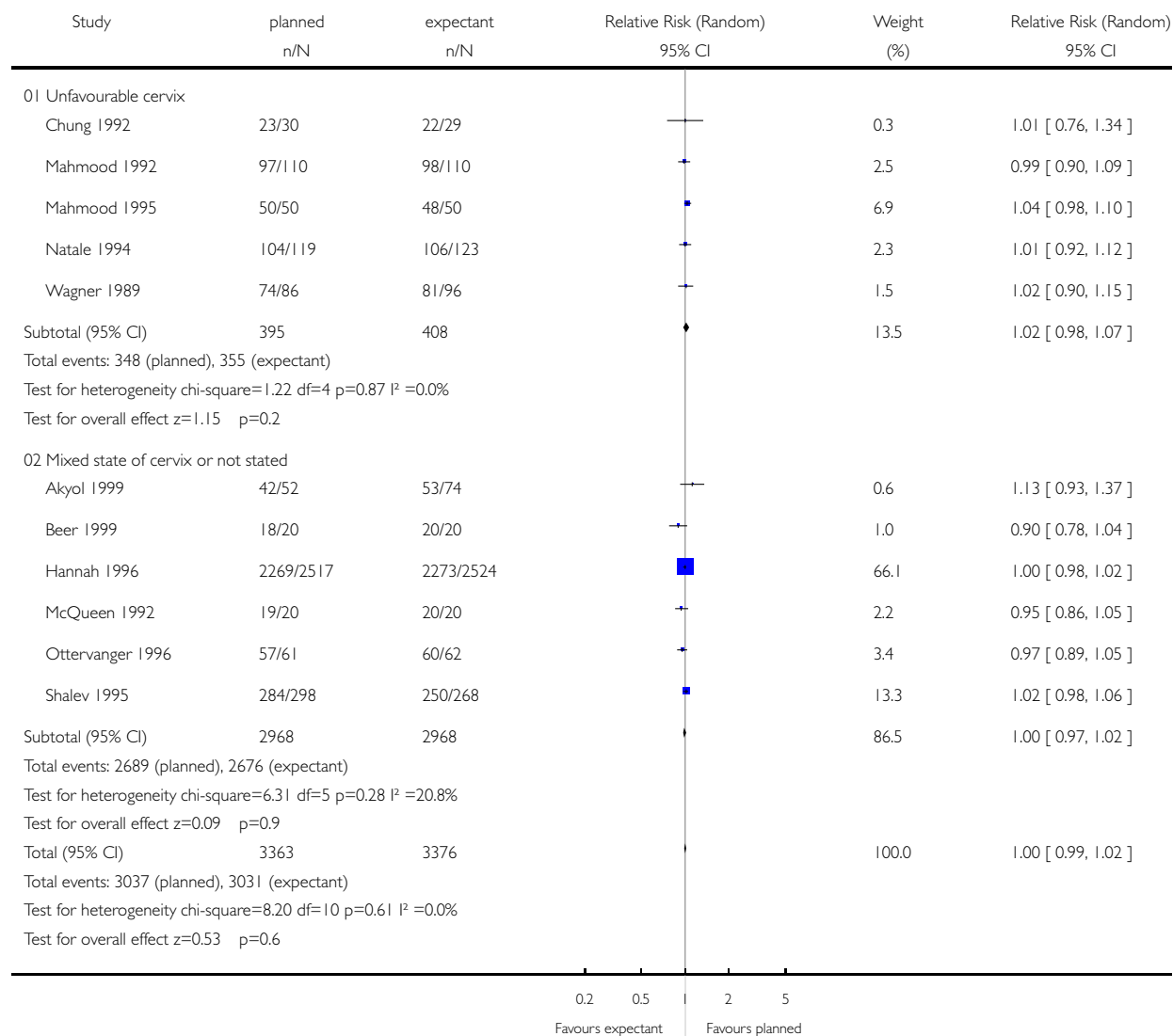


# **Analysis 07.06. Comparison 07 Unfavourable/favourable cervix: planned versus expectant management; Outcome 06 Vaginal birth**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 07 Unfavourable/favourable cervix: planned versus expectant management:

Outcome: 06 Vaginal birth

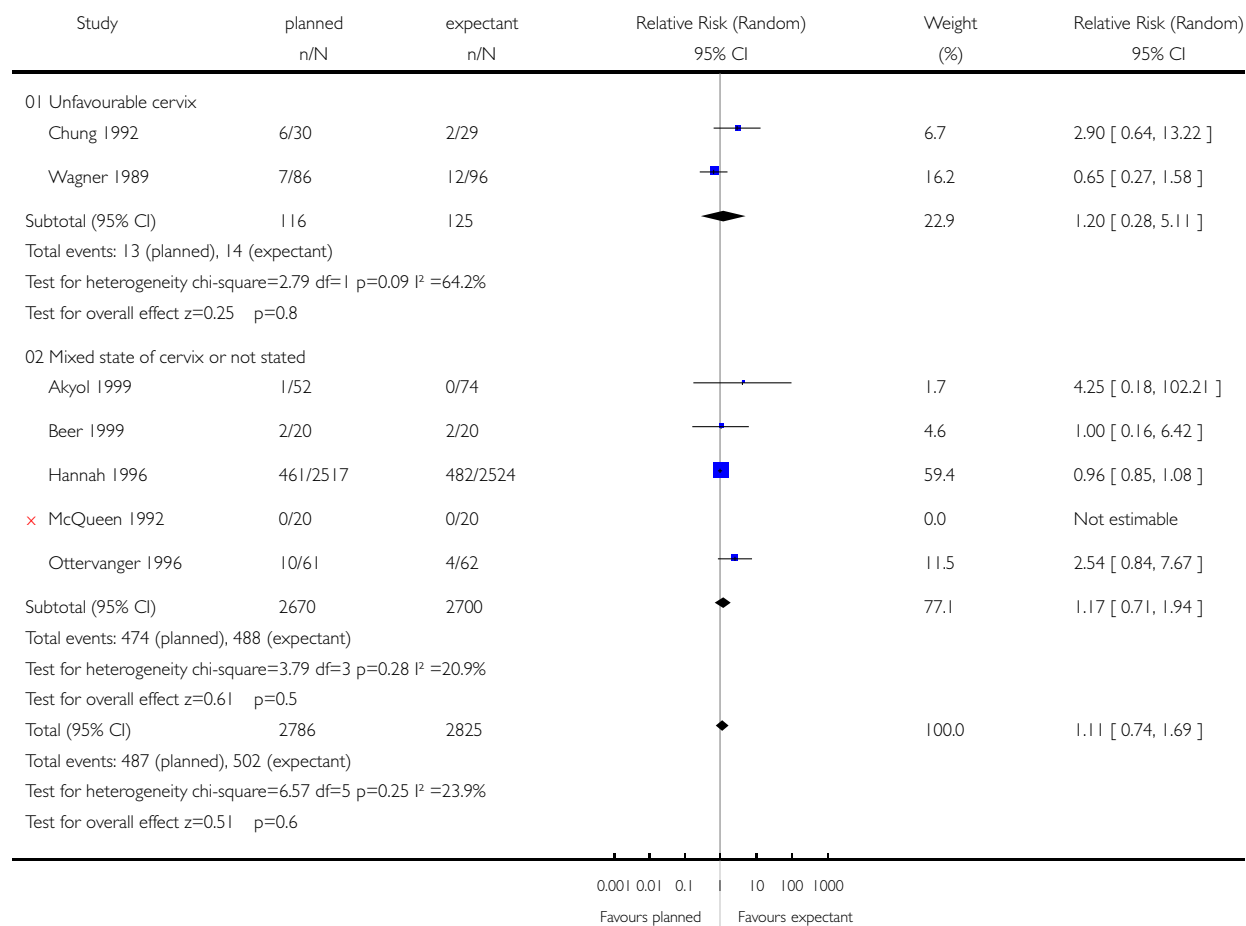


# **Analysis 07.07. Comparison 07 Unfavourable/favourable cervix: planned versus expectant management; Outcome 07 Operative vaginal birth**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 07 Unfavourable/favourable cervix: planned versus expectant management:

Outcome: 07 Operative vaginal birth

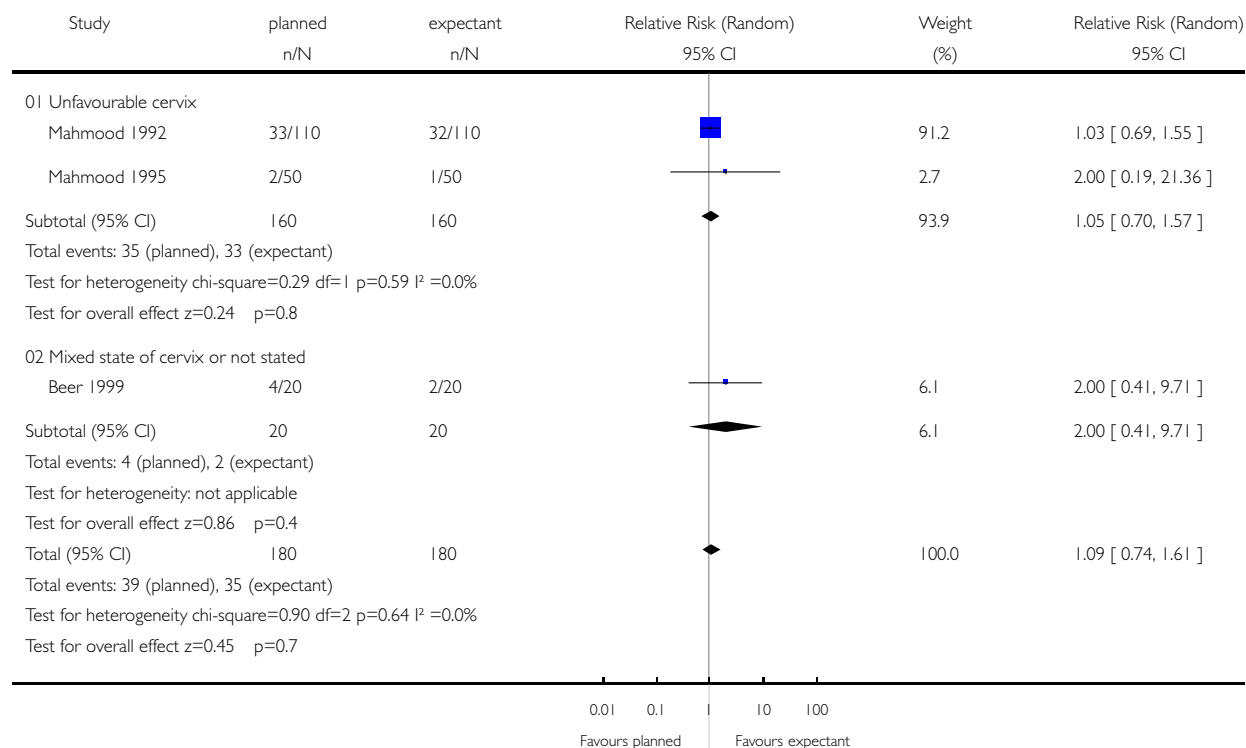


**Analysis 07.08. Comparison 07 Unfavourable/favourable cervix: planned versus expectant management; Outcome 08 Use of epidural anaesthesia**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 07 Unfavourable/favourable cervix: planned versus expectant management:

Outcome: 08 Use of epidural anaesthesia

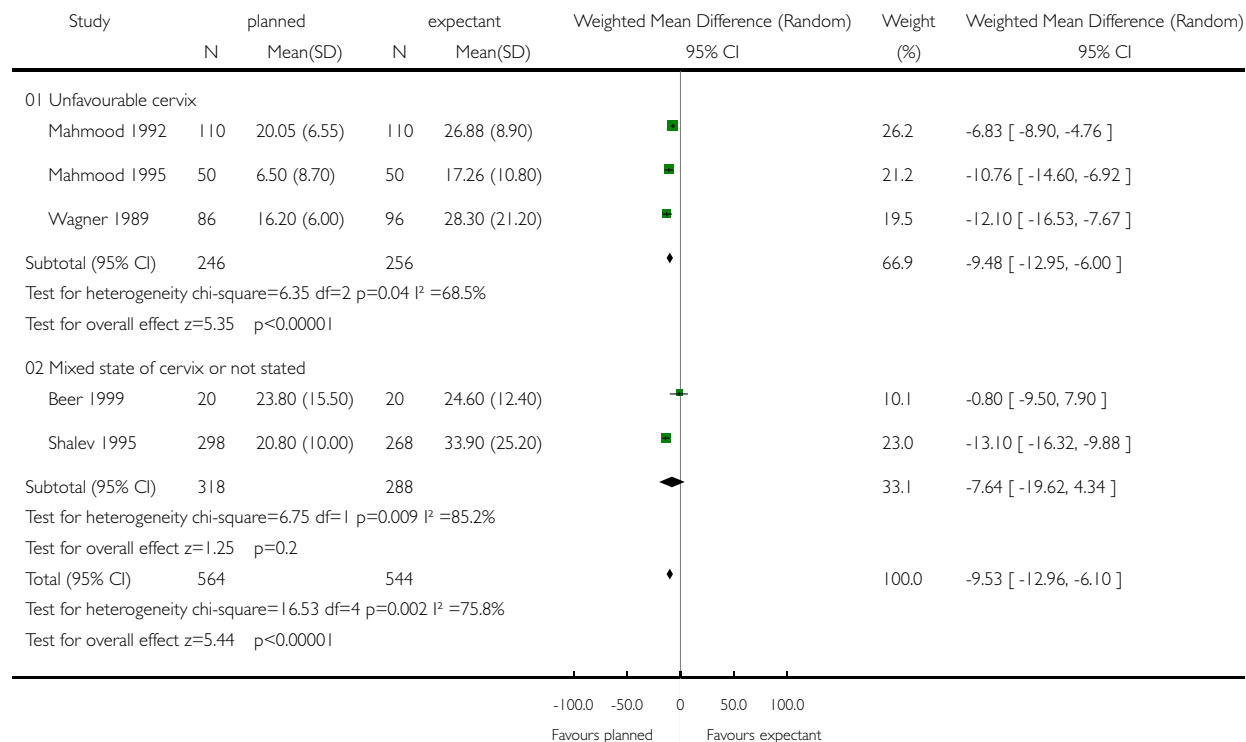


**Analysis 07.09. Comparison 07 Unfavourable/favourable cervix: planned versus expectant management; Outcome 09 Time of rupture of membranes to birth (hours)**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 07 Unfavourable/favourable cervix: planned versus expectant management:

Outcome: 09 Time of rupture of membranes to birth (hours)

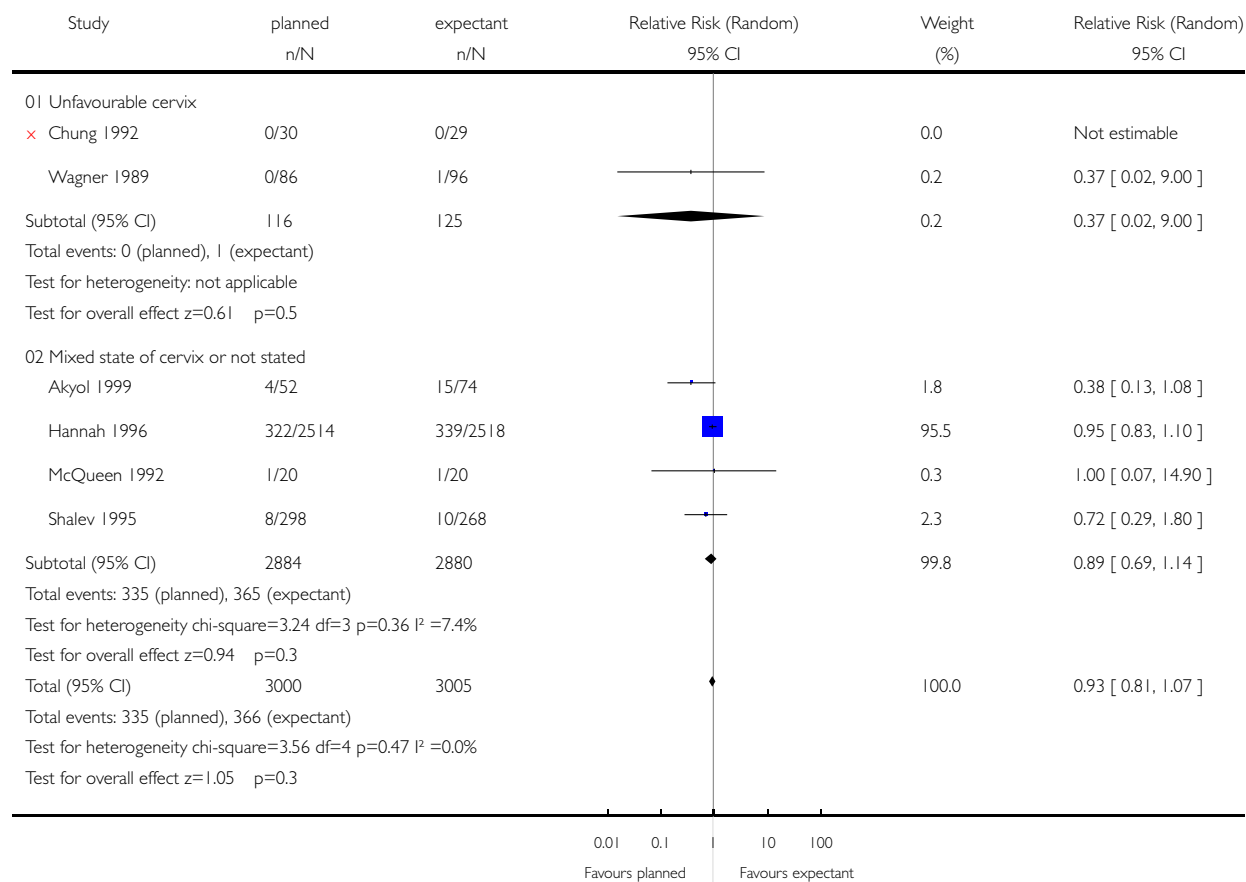


# **Analysis 07.10. Comparison 07 Unfavourable/favourable cervix: planned versus expectant management; Outcome 10 Apgar score < 7 at 5 minutes**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 07 Unfavourable/favourable cervix: planned versus expectant management:

Outcome: 10 Apgar score < 7 at 5 minutes

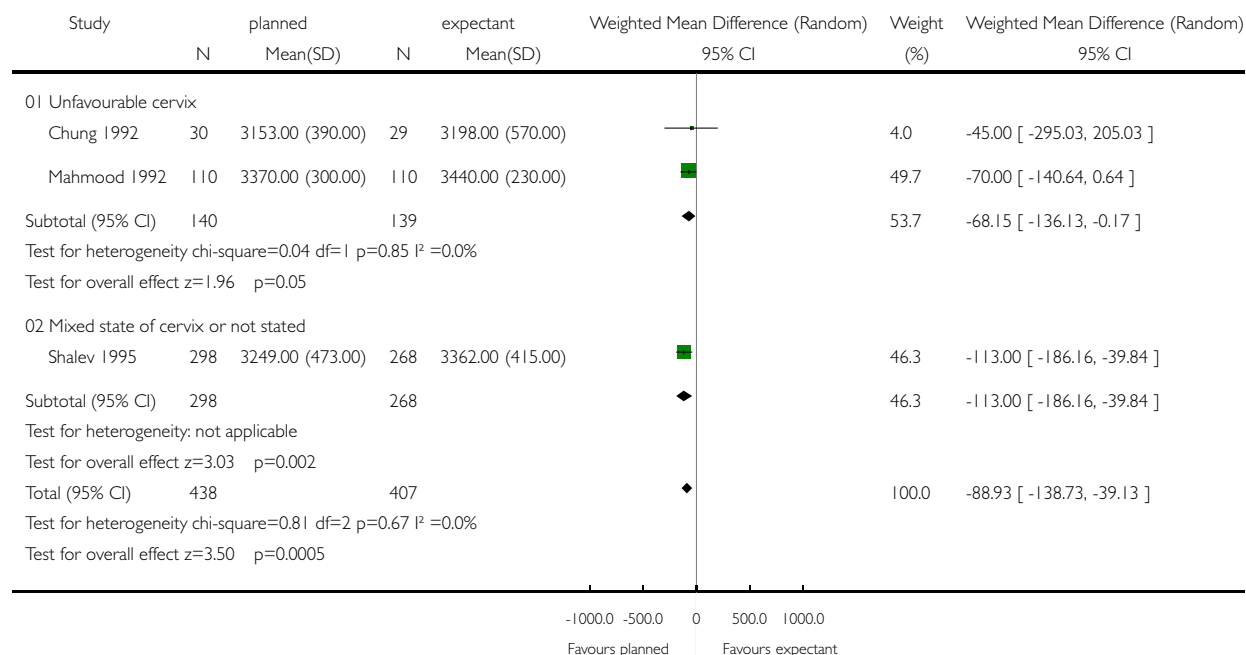


# **Analysis 07.11. Comparison 07 Unfavourable/favourable cervix: planned versus expectant management; Outcome 11 Birthweight**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 07 Unfavourable/favourable cervix: planned versus expectant management:

Outcome: 11 Birthweight

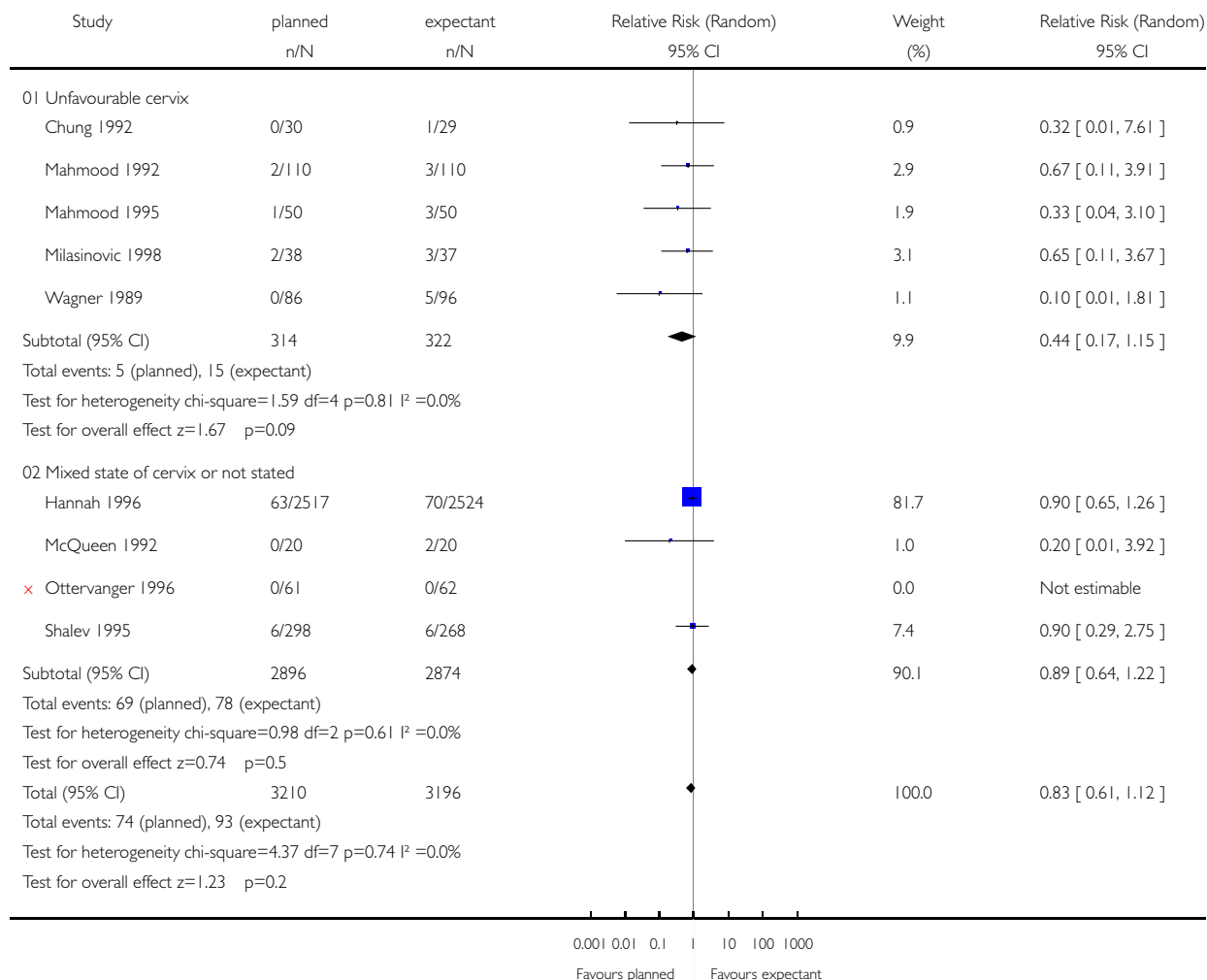


## Analysis 07.12. Comparison 07 Unfavourable/favourable cervix: planned versus expectant management; Outcome 12 Neonatal infection

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 07 Unfavourable/favourable cervix: planned versus expectant management:

Outcome: 12 Neonatal infection

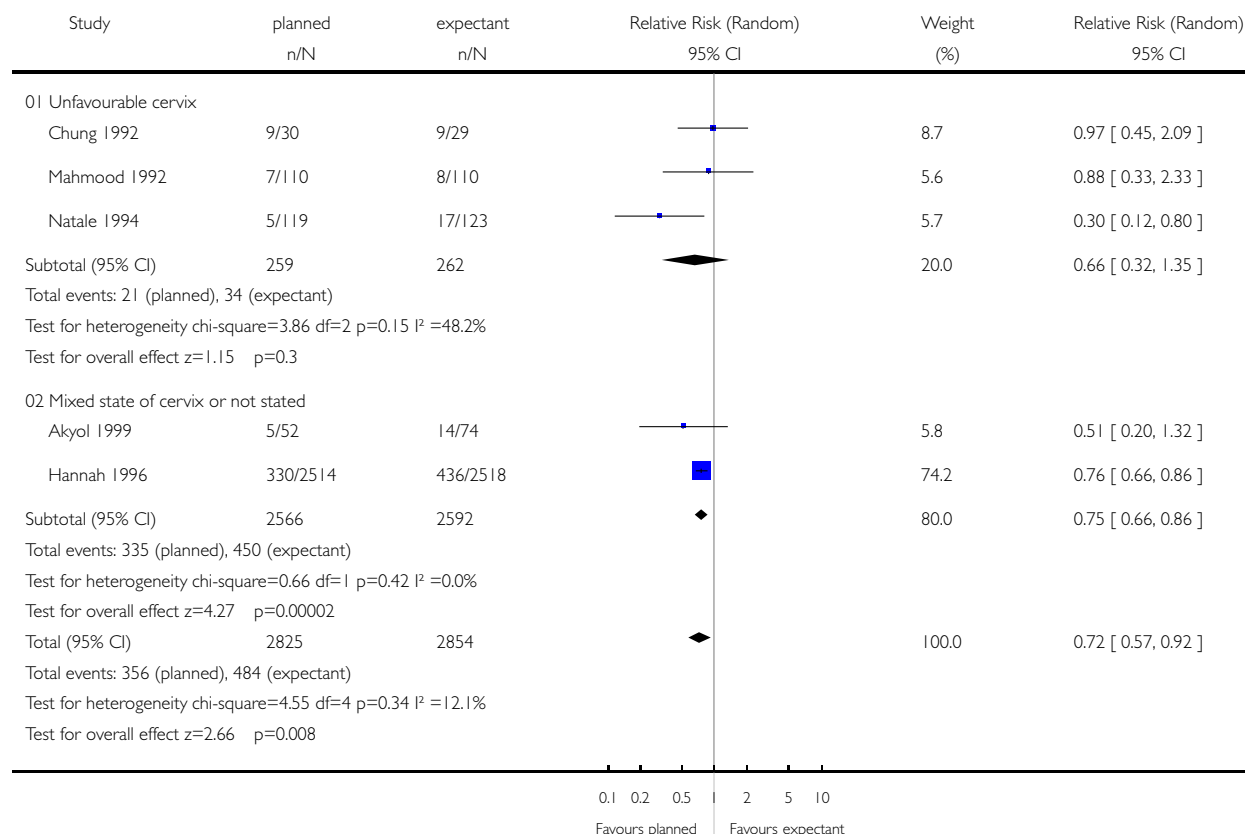


**Analysis 07.13. Comparison 07 Unfavourable/favourable cervix: planned versus expectant management;, Outcome 13 Neonatal intensive care unit or special care nursery admission**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 07 Unfavourable/favourable cervix: planned versus expectant management:

Outcome: 13 Neonatal intensive care unit or special care nursery admission

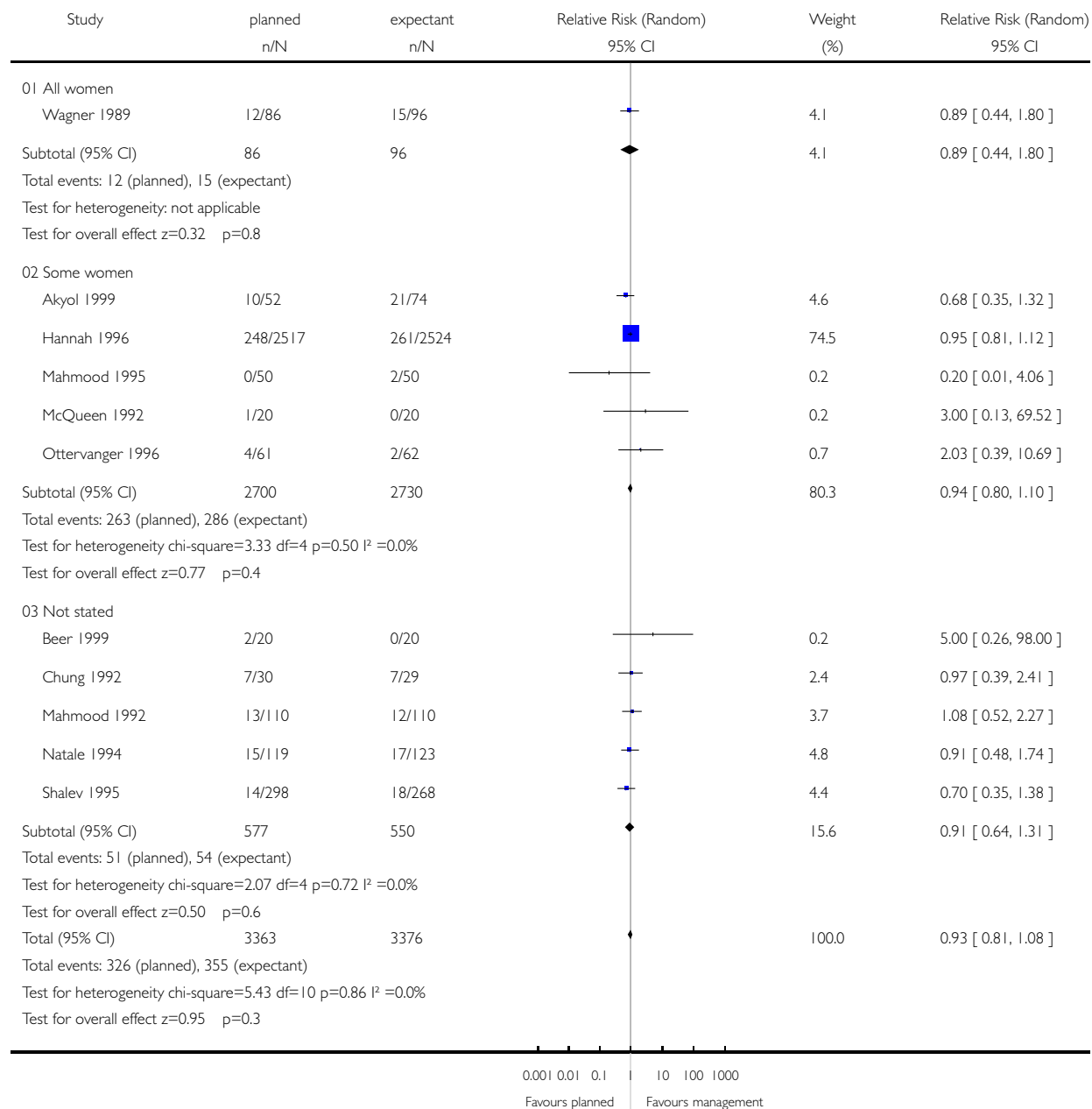


# **Analysis 08.01. Comparison 08 Maternal antibiotic prophylaxis: planned versus expectant management, Outcome 01 Caesarean section**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 08 Maternal antibiotic prophylaxis: planned versus expectant management

Outcome: 01 Caesarean section

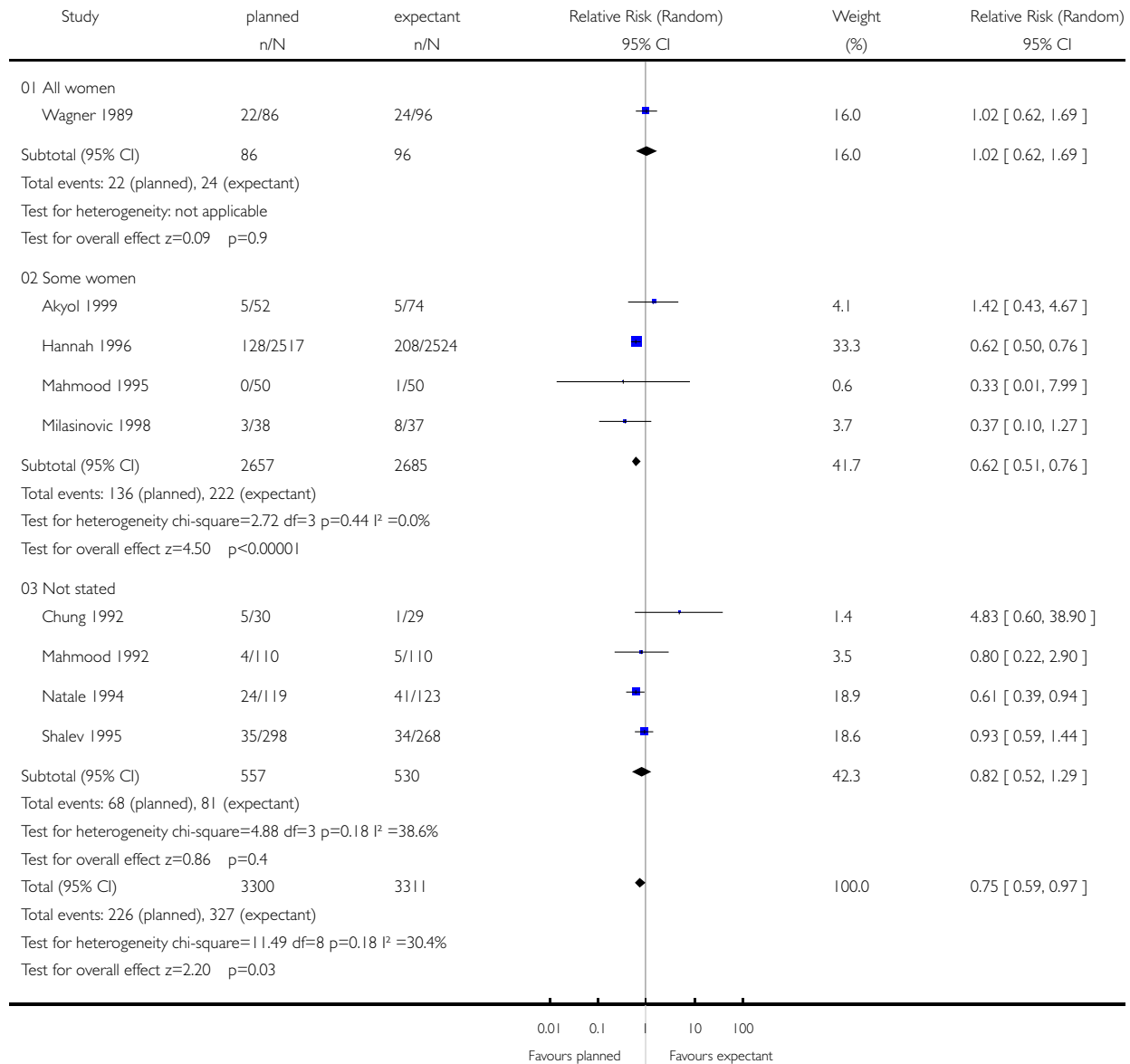


## Analysis 08.02. Comparison 08 Maternal antibiotic prophylaxis: planned versus expectant management, Outcome 02 Chorioamnionitis

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 08 Maternal antibiotic prophylaxis: planned versus expectant management

Outcome: 02 Chorioamnionitis

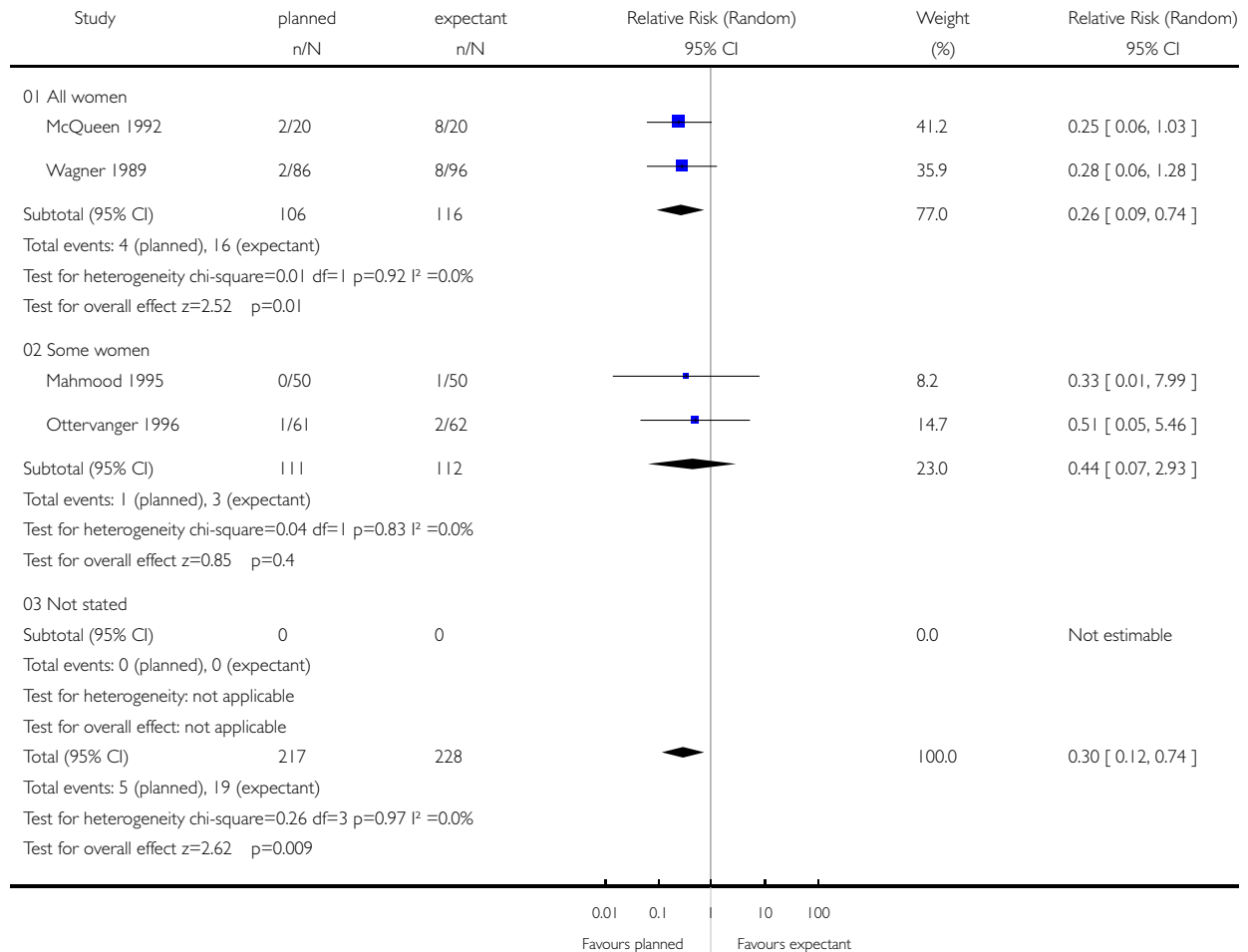


### Analysis 08.03. Comparison 08 Maternal antibiotic prophylaxis: planned versus expectant management, Outcome 03 Endometritis

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 08 Maternal antibiotic prophylaxis: planned versus expectant management

Outcome: 03 Endometritis

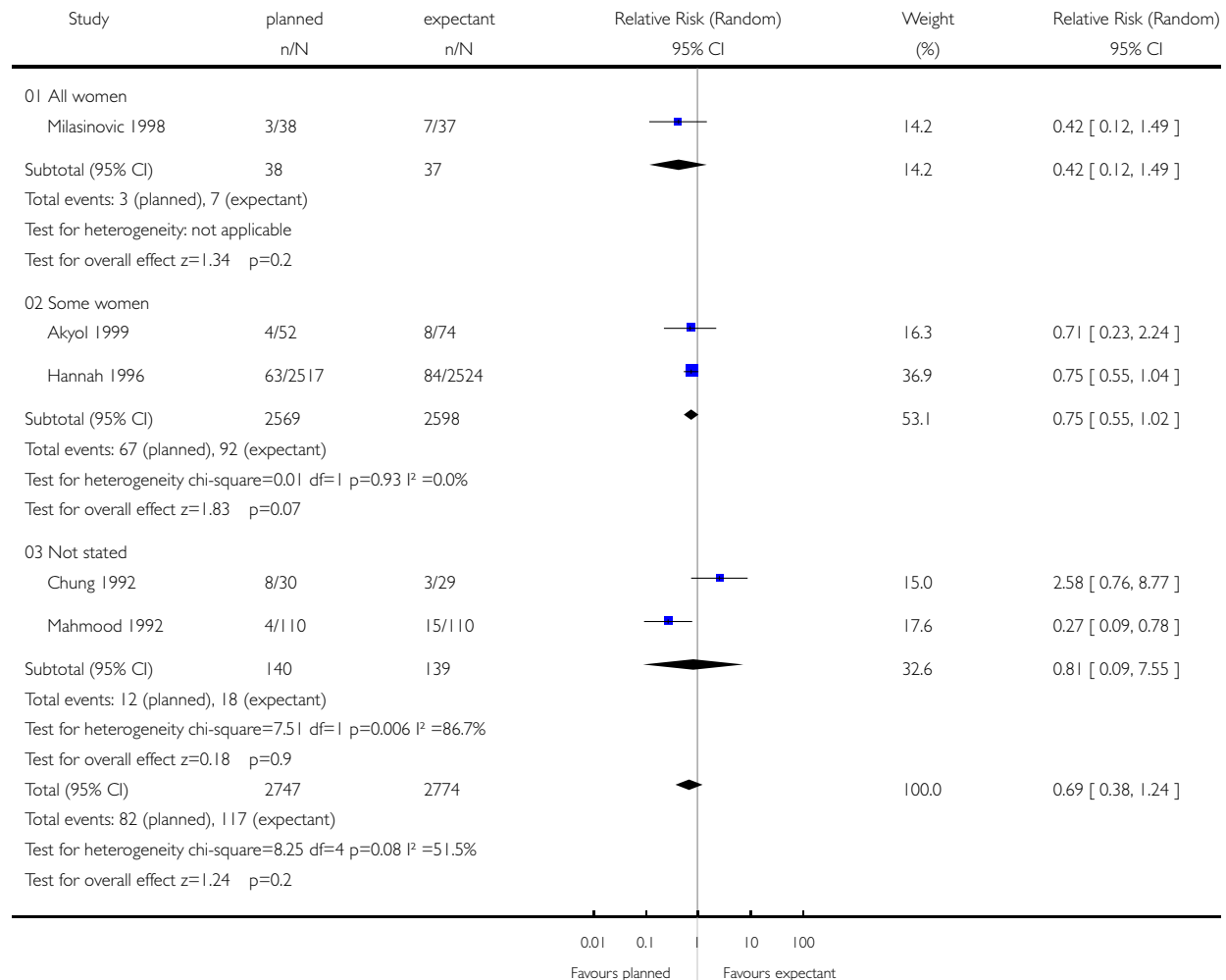


# **Analysis 08.04. Comparison 08 Maternal antibiotic prophylaxis: planned versus expectant management, Outcome 04 Postpartum fever**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 08 Maternal antibiotic prophylaxis: planned versus expectant management

Outcome: 04 Postpartum fever

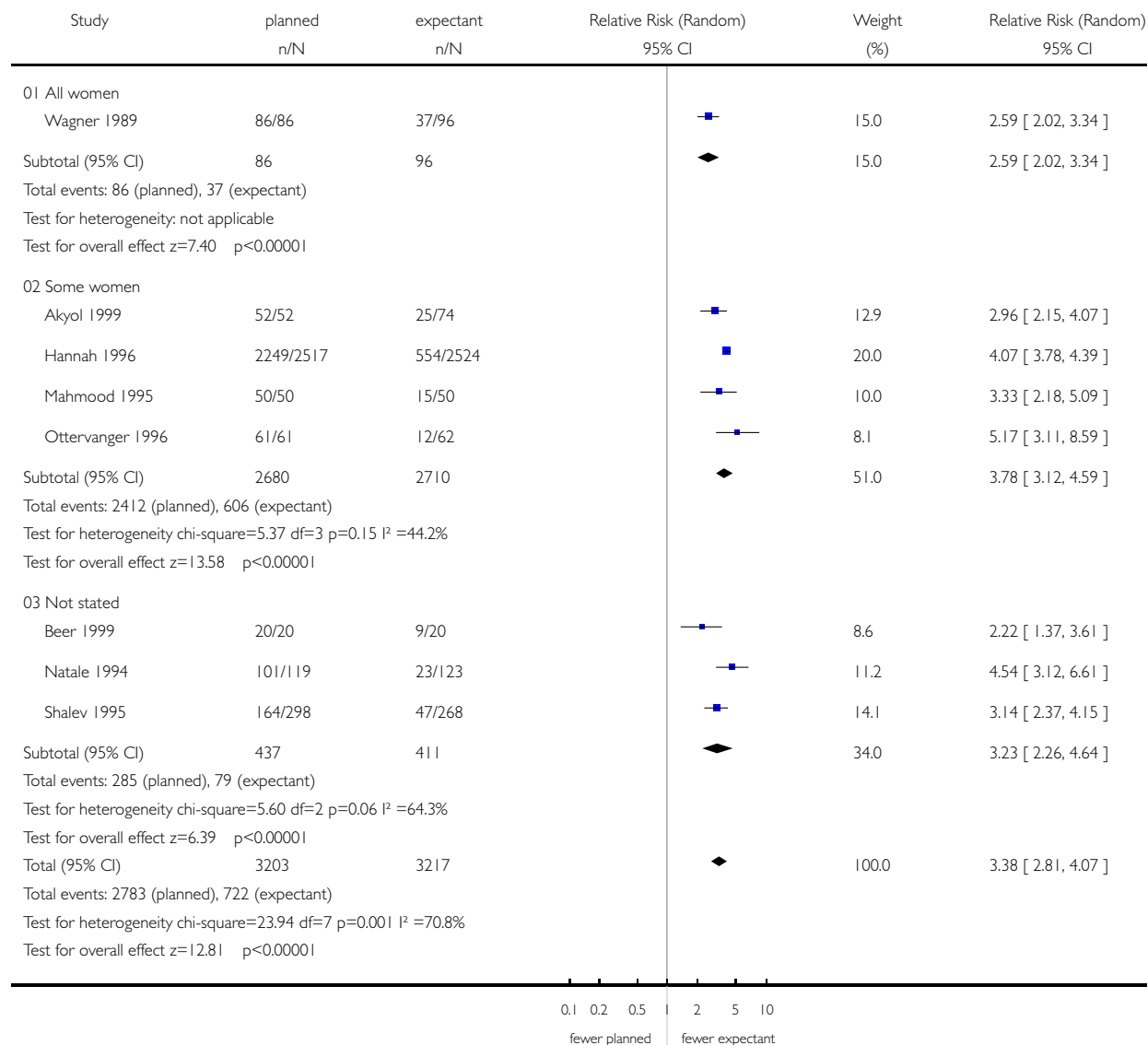


# **Analysis 08.05. Comparison 08 Maternal antibiotic prophylaxis: planned versus expectant management, Outcome 05 Induction of labour**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 08 Maternal antibiotic prophylaxis: planned versus expectant management

Outcome: 05 Induction of labour

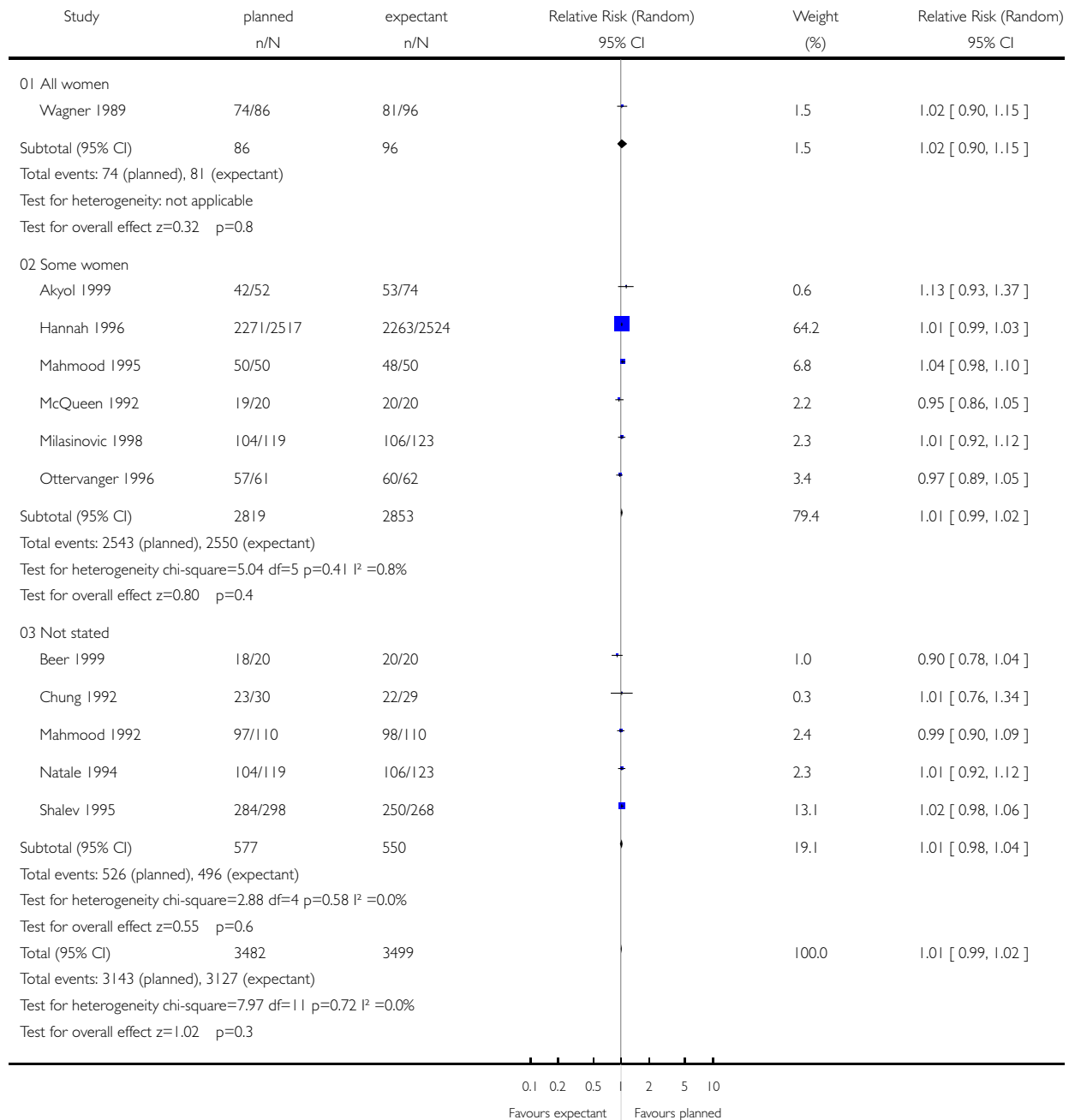


# **Analysis 08.06. Comparison 08 Maternal antibiotic prophylaxis: planned versus expectant management, Outcome 06 Vaginal birth**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 08 Maternal antibiotic prophylaxis: planned versus expectant management

Outcome: 06 Vaginal birth

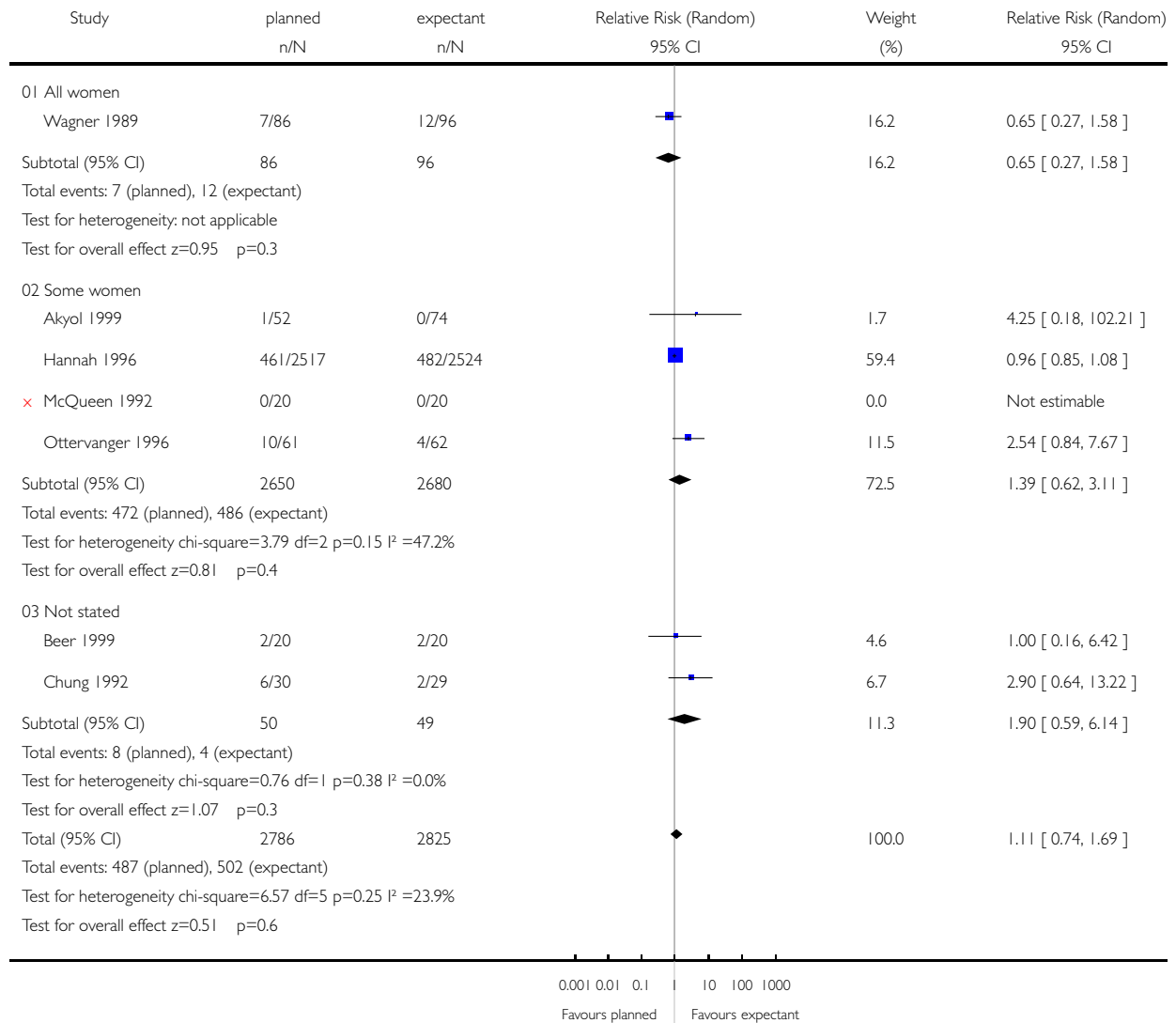


# **Analysis 08.07. Comparison 08 Maternal antibiotic prophylaxis: planned versus expectant management, Outcome 07 Operative vaginal birth**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 08 Maternal antibiotic prophylaxis: planned versus expectant management

Outcome: 07 Operative vaginal birth

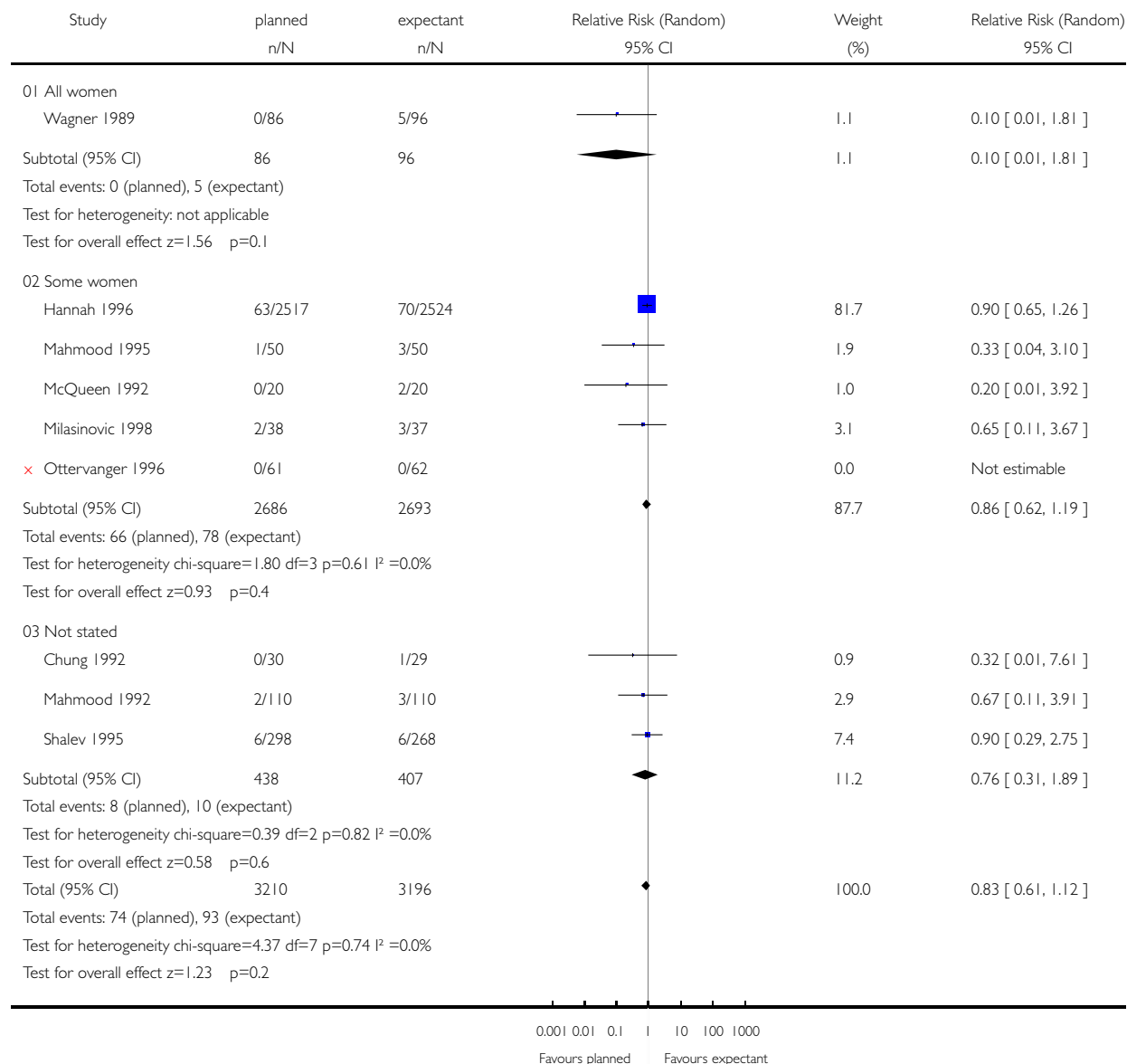


# **Analysis 08.08. Comparison 08 Maternal antibiotic prophylaxis: planned versus expectant management, Outcome 08 Neonatal infection**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 08 Maternal antibiotic prophylaxis: planned versus expectant management

Outcome: 08 Neonatal infection

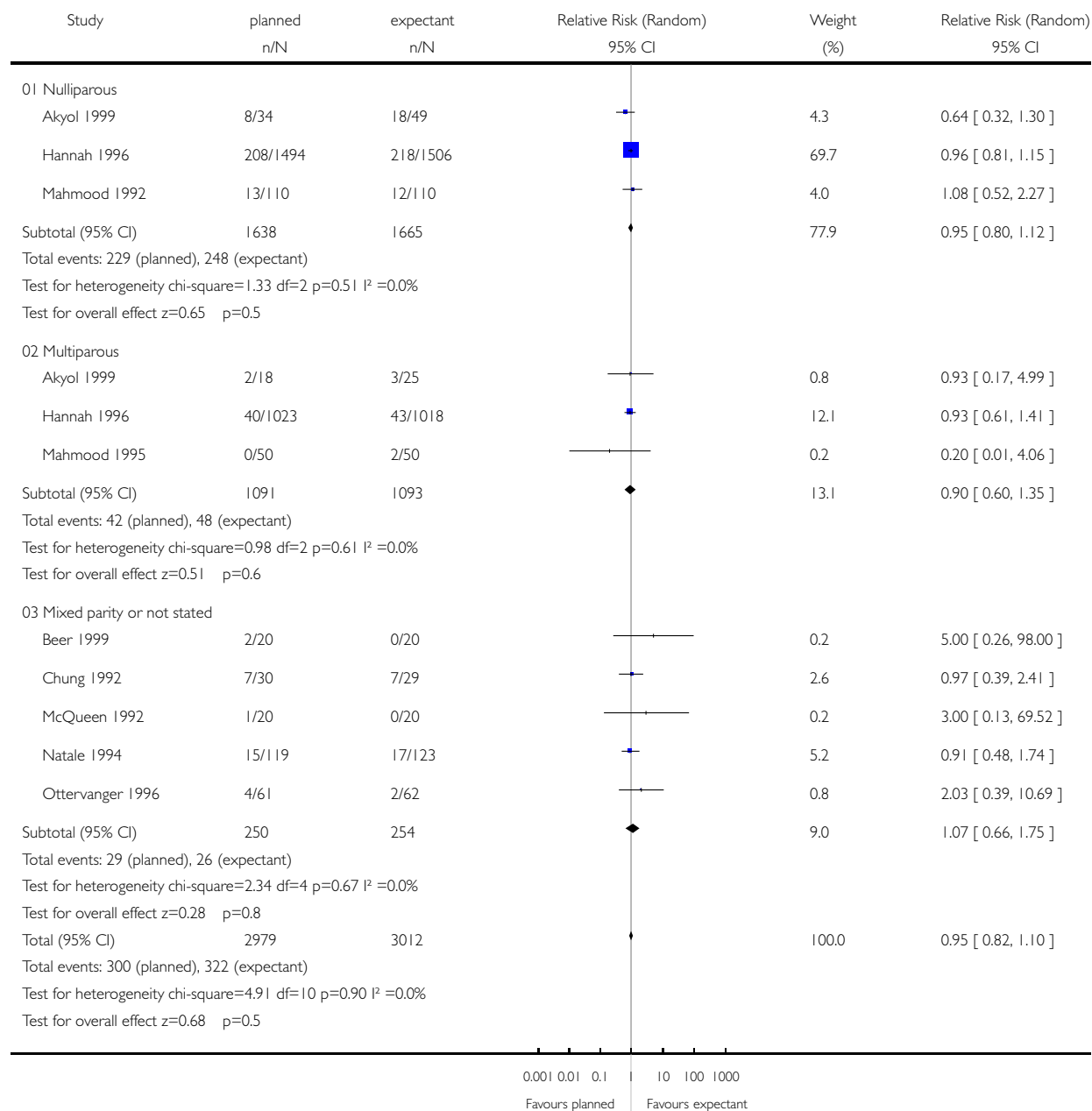


# **Analysis 09.01. Comparison 09 Quality (excluding trials with inadequate allocation concealment): planned versus expectant management, Outcome 01 Caesarean section**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 09 Quality (excluding trials with inadequate allocation concealment): planned versus expectant management

Outcome: 01 Caesarean section

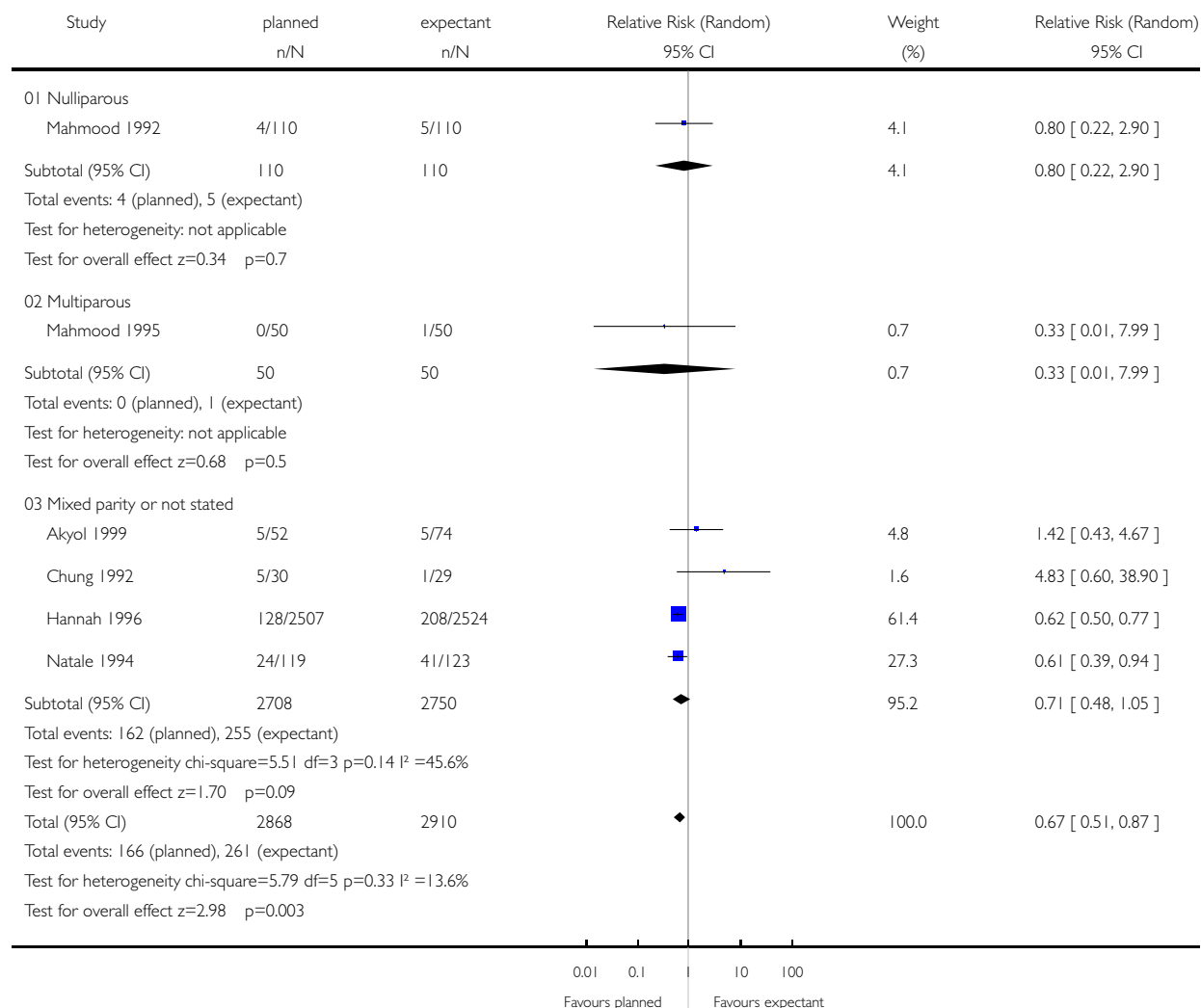


## Analysis 09.02. Comparison 09 Quality (excluding trials with inadequate allocation concealment): planned versus expectant management, Outcome 02 Chorioamnionitis

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 09 Quality (excluding trials with inadequate allocation concealment): planned versus expectant management

Outcome: 02 Chorioamnionitis

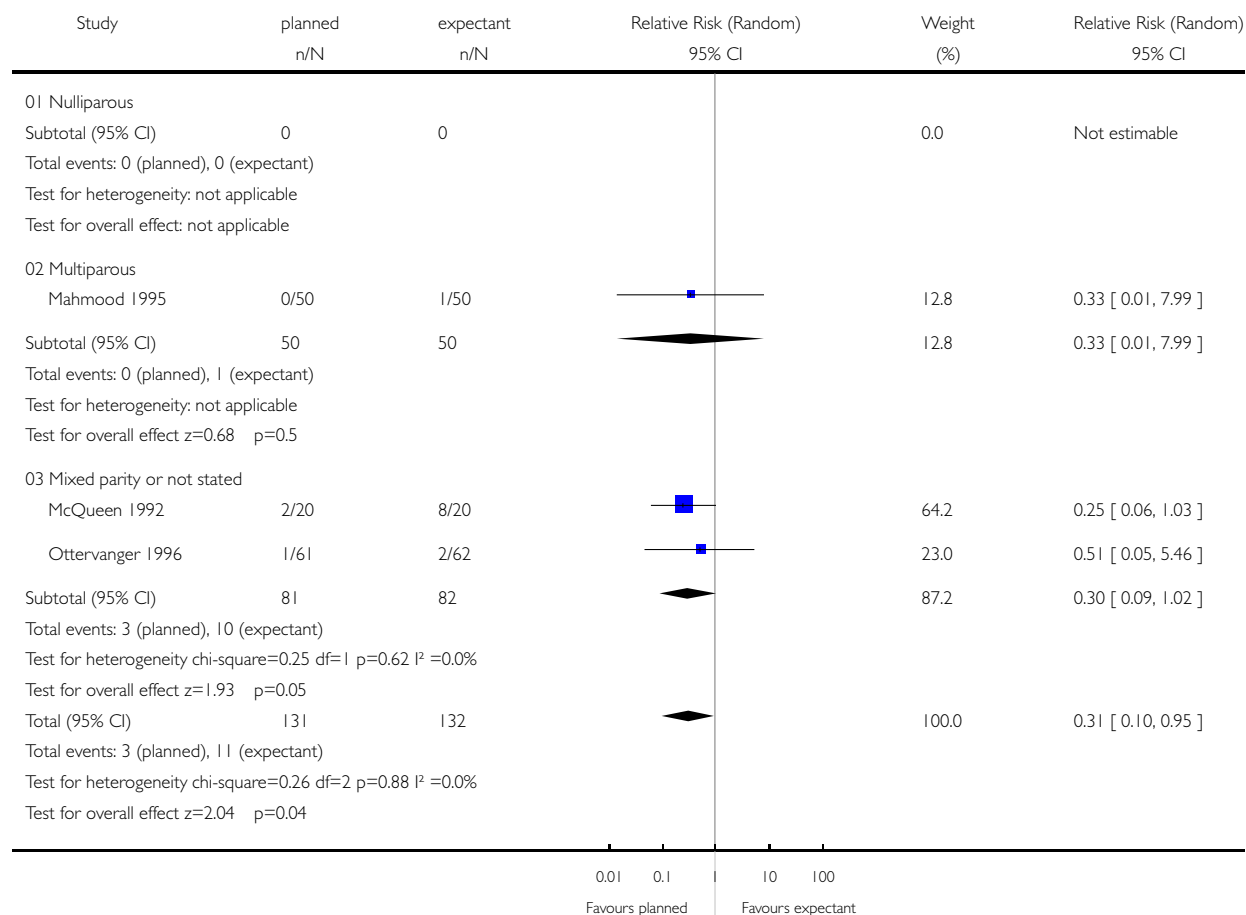


### Analysis 09.03. Comparison 09 Quality (excluding trials with inadequate allocation concealment): planned versus expectant management, Outcome 03 Endometritis

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 09 Quality (excluding trials with inadequate allocation concealment): planned versus expectant management

Outcome: 03 Endometritis

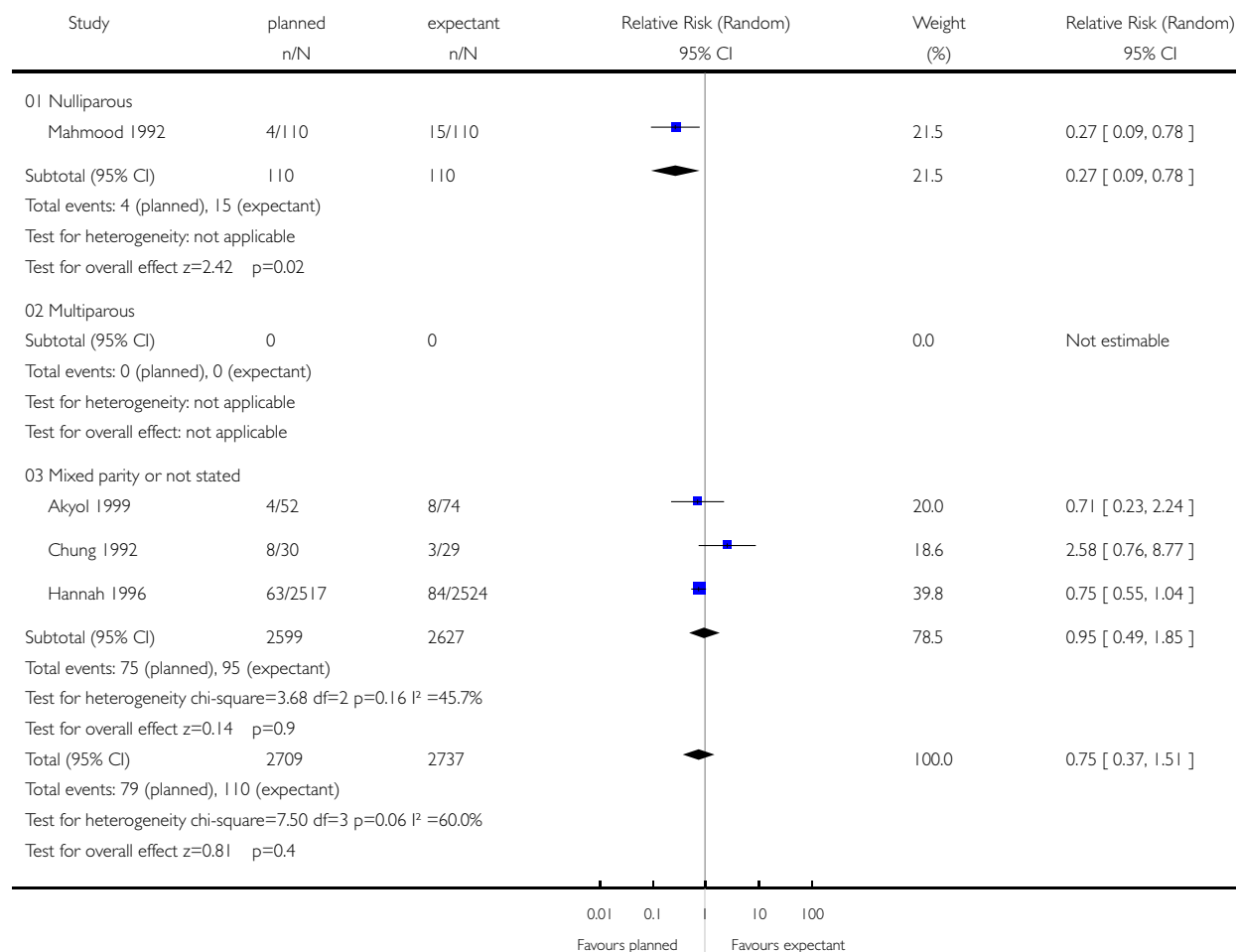


# **Analysis 09.04. Comparison 09 Quality (excluding trials with inadequate allocation concealment): planned versus expectant management, Outcome 04 Postpartum fever**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 09 Quality (excluding trials with inadequate allocation concealment): planned versus expectant management

Outcome: 04 Postpartum fever

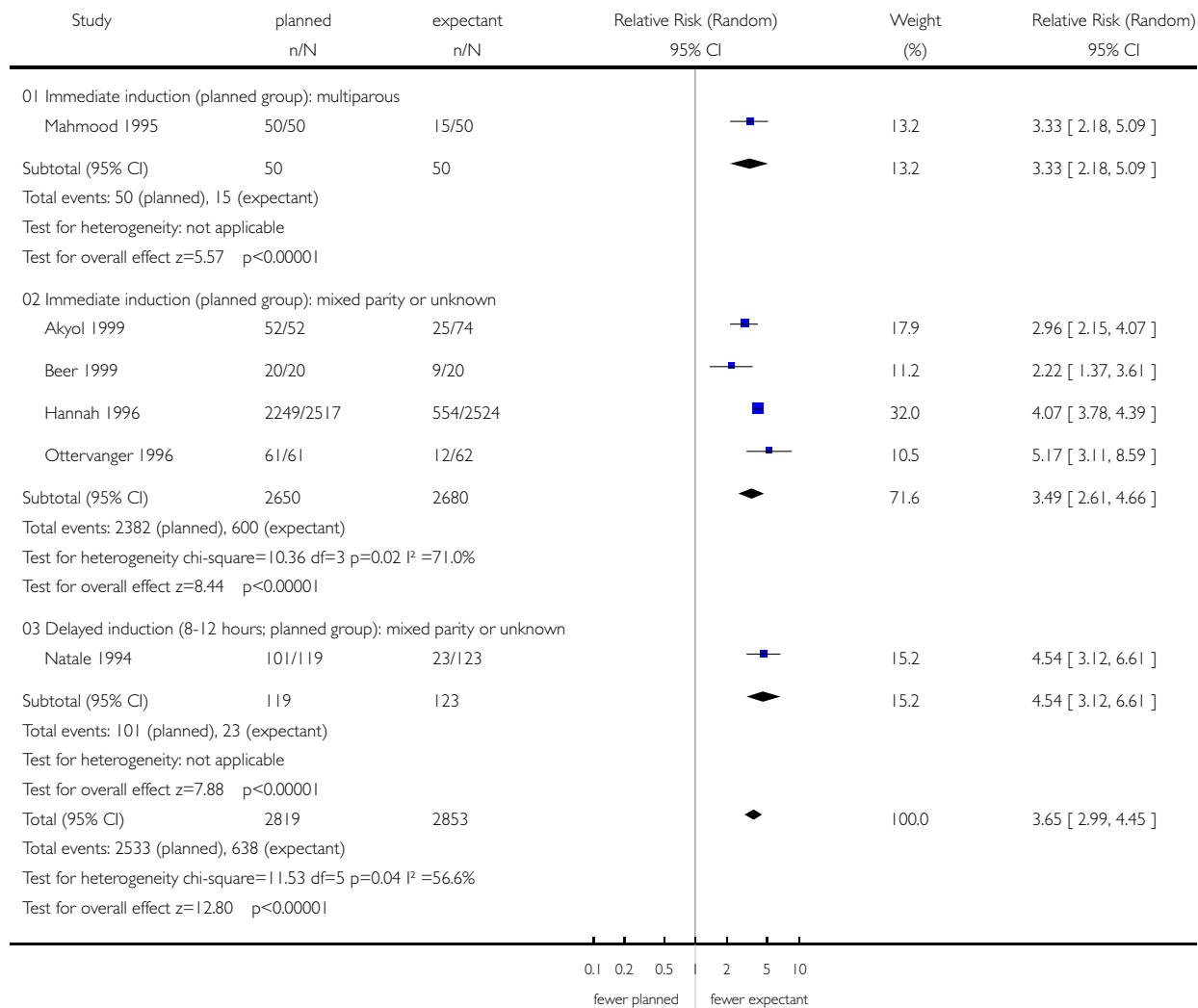


# **Analysis 09.05. Comparison 09 Quality (excluding trials with inadequate allocation concealment): planned versus expectant management, Outcome 05 Induction of labour**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 09 Quality (excluding trials with inadequate allocation concealment): planned versus expectant management

Outcome: 05 Induction of labour

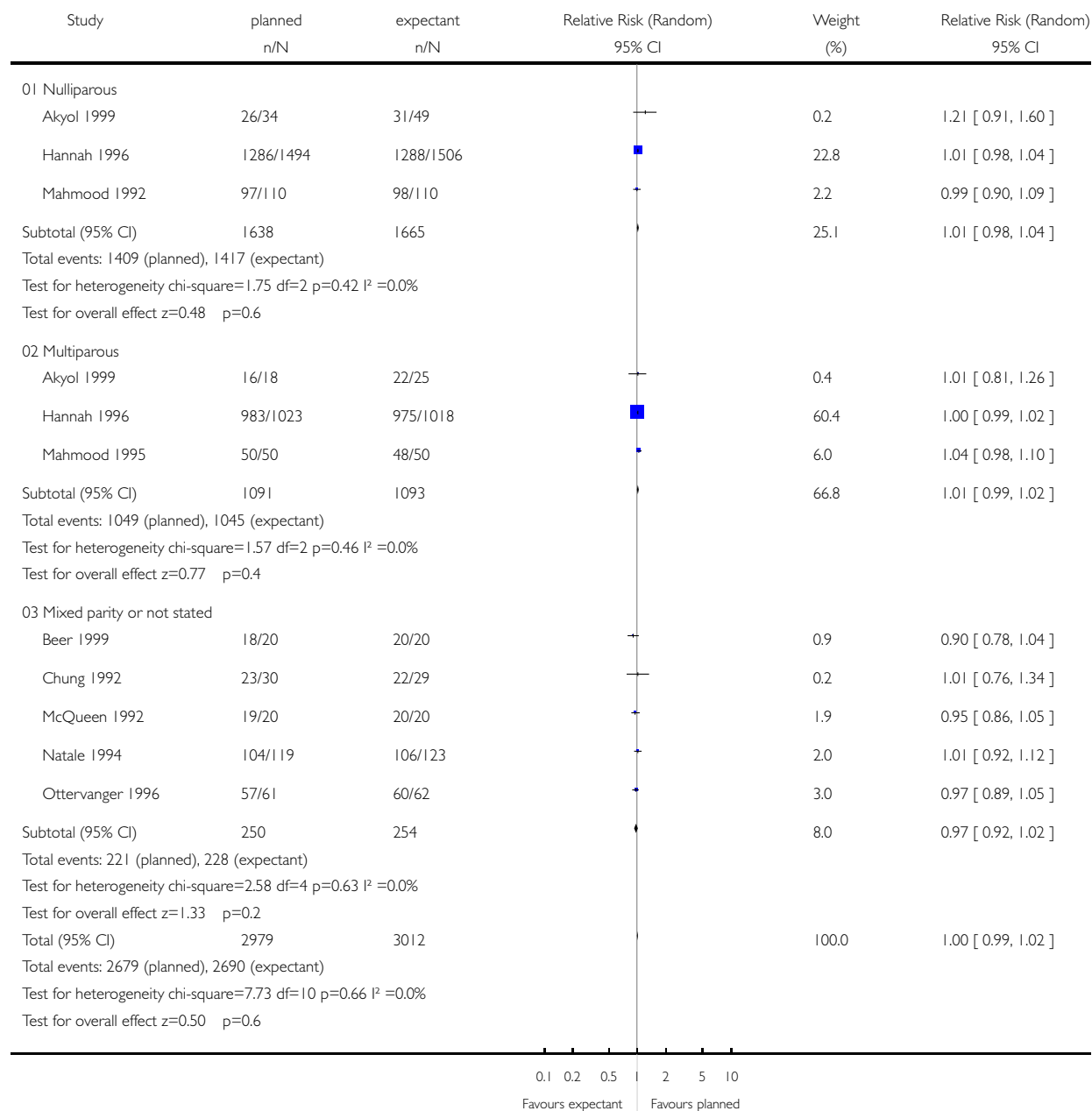


# **Analysis 09.06. Comparison 09 Quality (excluding trials with inadequate allocation concealment): planned versus expectant management, Outcome 06 Vaginal birth**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 09 Quality (excluding trials with inadequate allocation concealment): planned versus expectant management

Outcome: 06 Vaginal birth

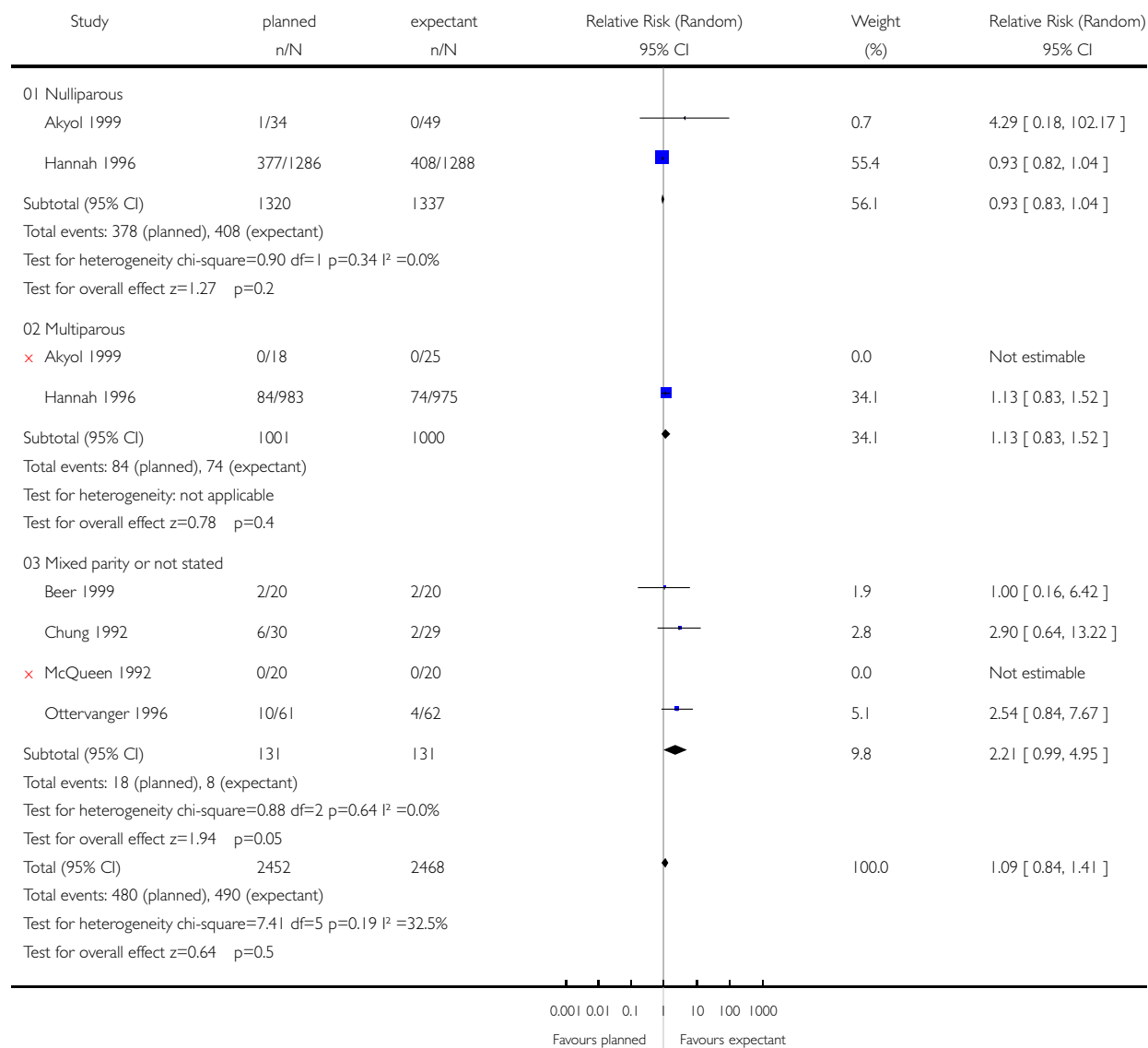


# **Analysis 09.07. Comparison 09 Quality (excluding trials with inadequate allocation concealment): planned versus expectant management, Outcome 07 Operative vaginal birth**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 09 Quality (excluding trials with inadequate allocation concealment): planned versus expectant management

Outcome: 07 Operative vaginal birth

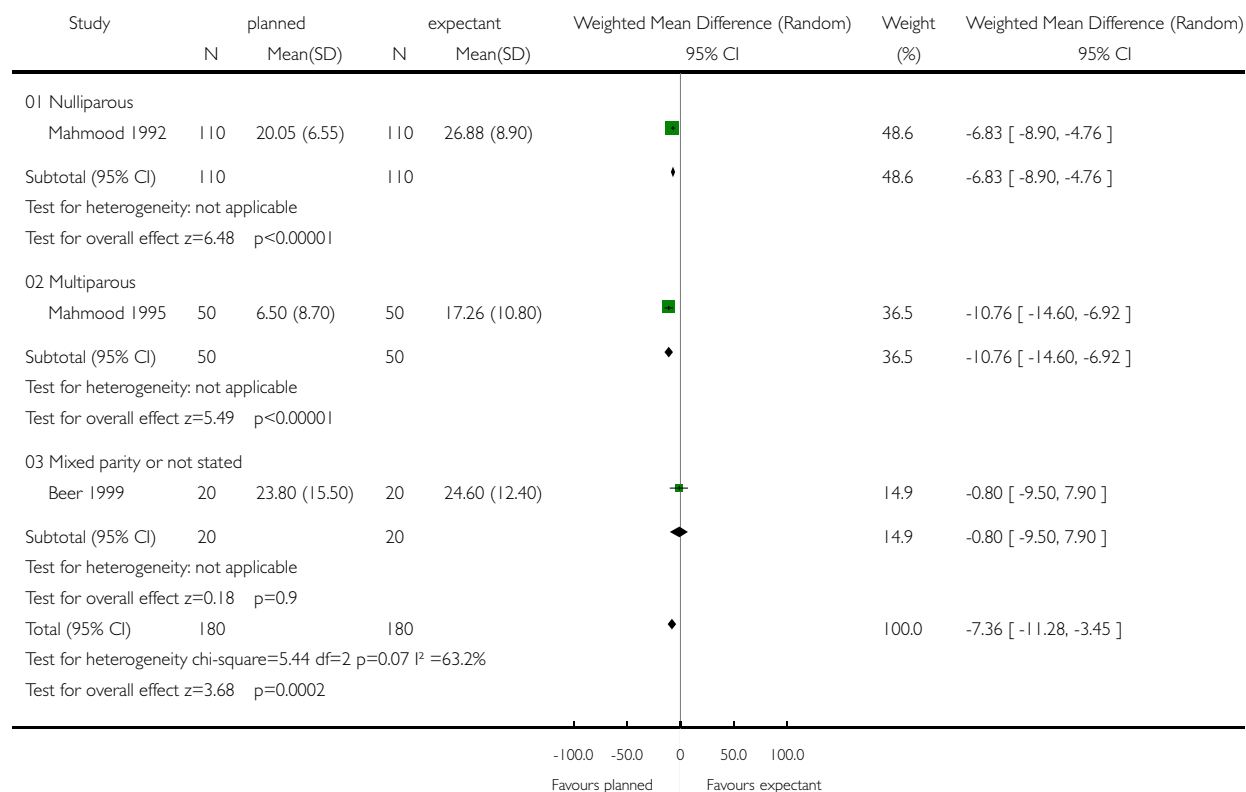


**Analysis 09.08. Comparison 09 Quality (excluding trials with inadequate allocation concealment): planned versus expectant management, Outcome 08 Time from rupture of membranes until birth (hours)**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 09 Quality (excluding trials with inadequate allocation concealment): planned versus expectant management

Outcome: 08 Time from rupture of membranes until birth (hours)

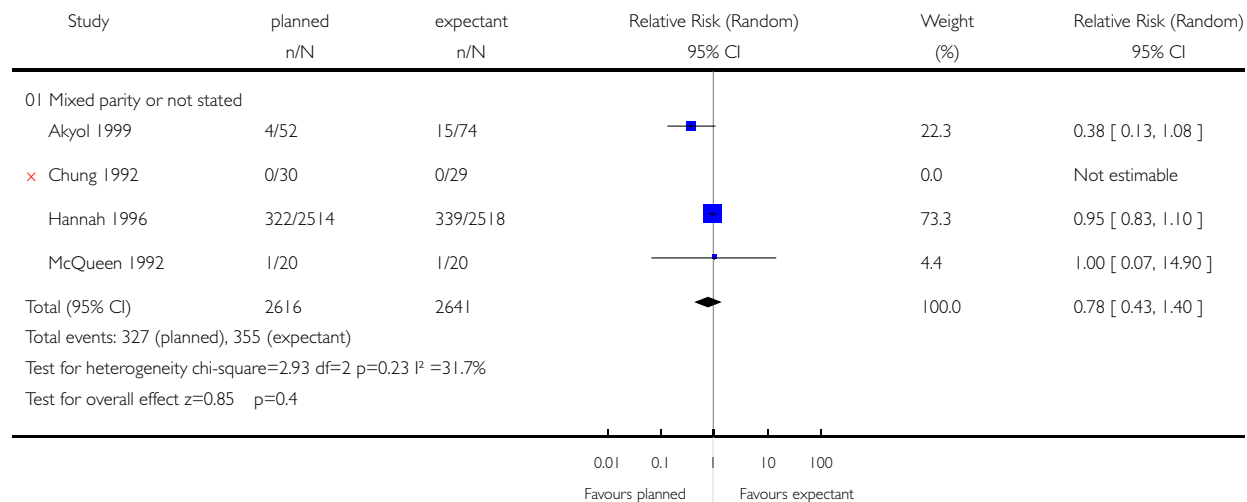


**Analysis 09.09. Comparison 09 Quality (excluding trials with inadequate allocation concealment): planned versus expectant management, Outcome 09 Apgar score < 7 at 5 minutes**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 09 Quality (excluding trials with inadequate allocation concealment): planned versus expectant management

Outcome: 09 Apgar score < 7 at 5 minutes

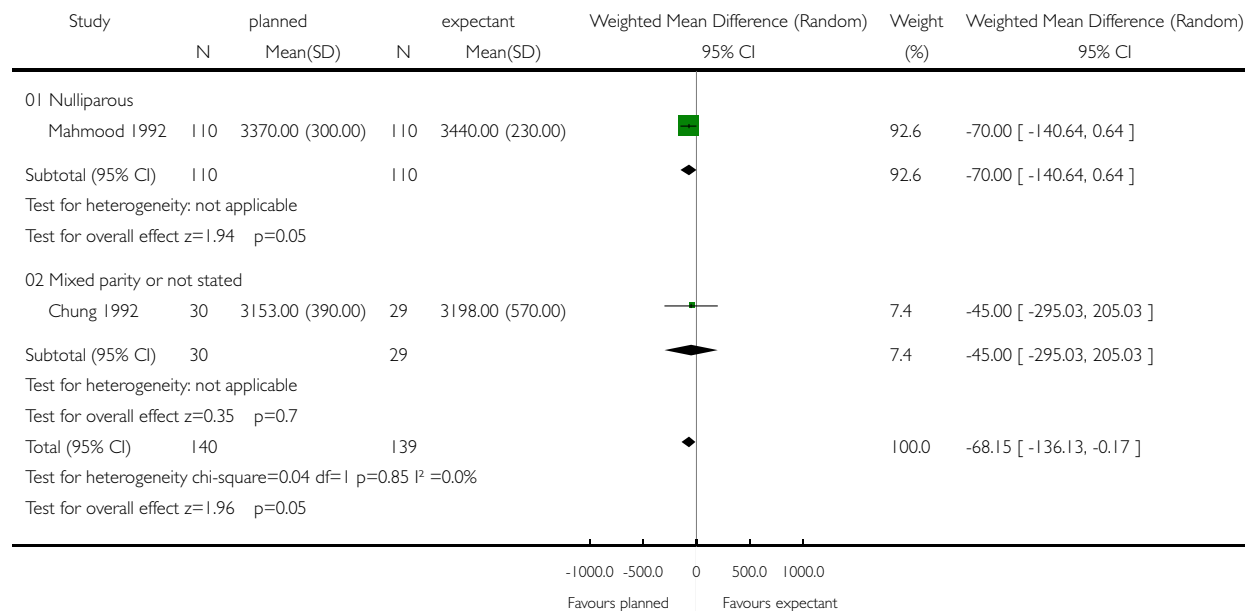


# **Analysis 09.10. Comparison 09 Quality (excluding trials with inadequate allocation concealment): planned versus expectant management, Outcome 10 Birthweight**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 09 Quality (excluding trials with inadequate allocation concealment): planned versus expectant management

Outcome: 10 Birthweight

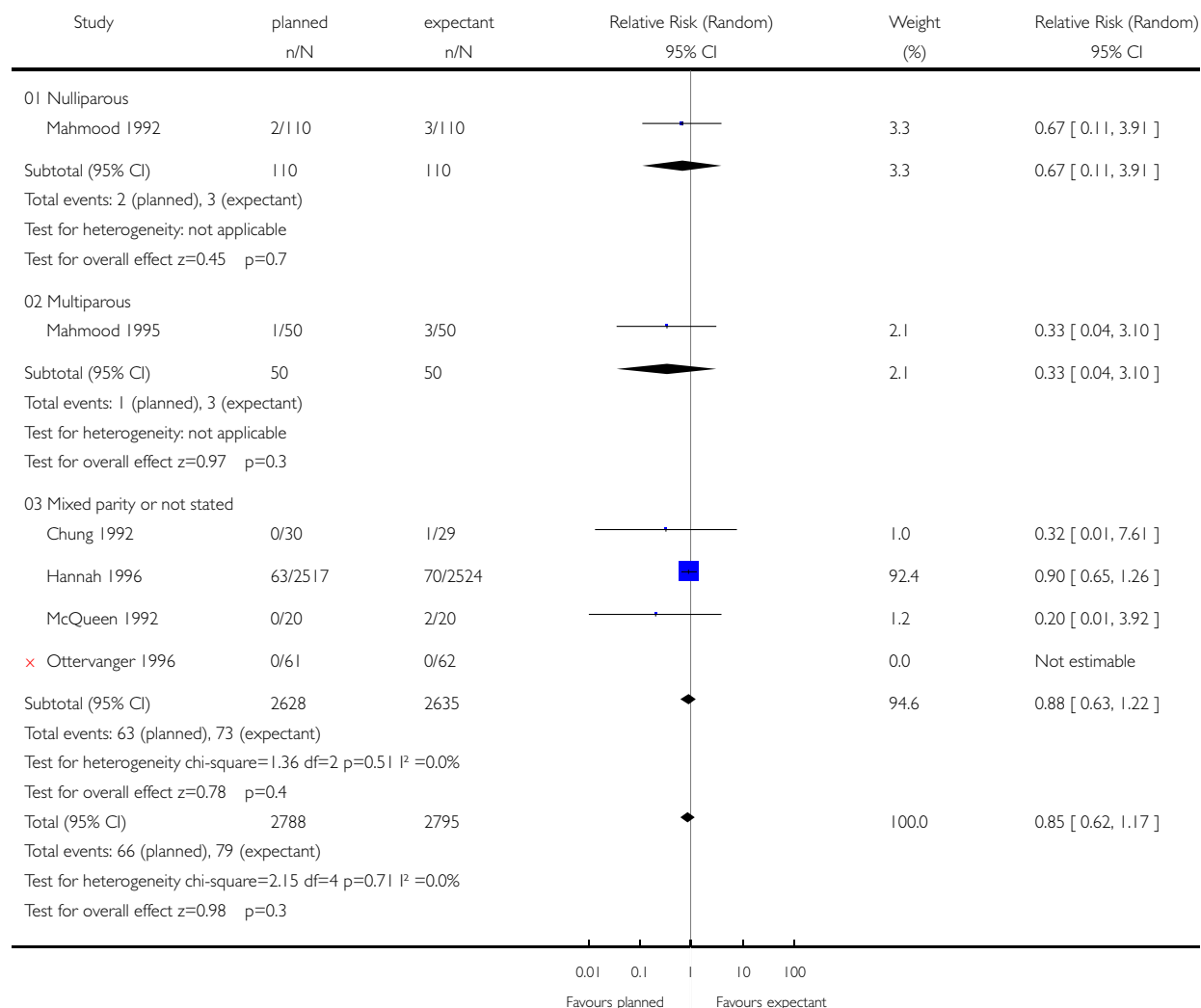


# **Analysis 09.11. Comparison 09 Quality (excluding trials with inadequate allocation concealment): planned versus expectant management, Outcome 11 Neonatal infection**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 09 Quality (excluding trials with inadequate allocation concealment): planned versus expectant management

Outcome: 11 Neonatal infection

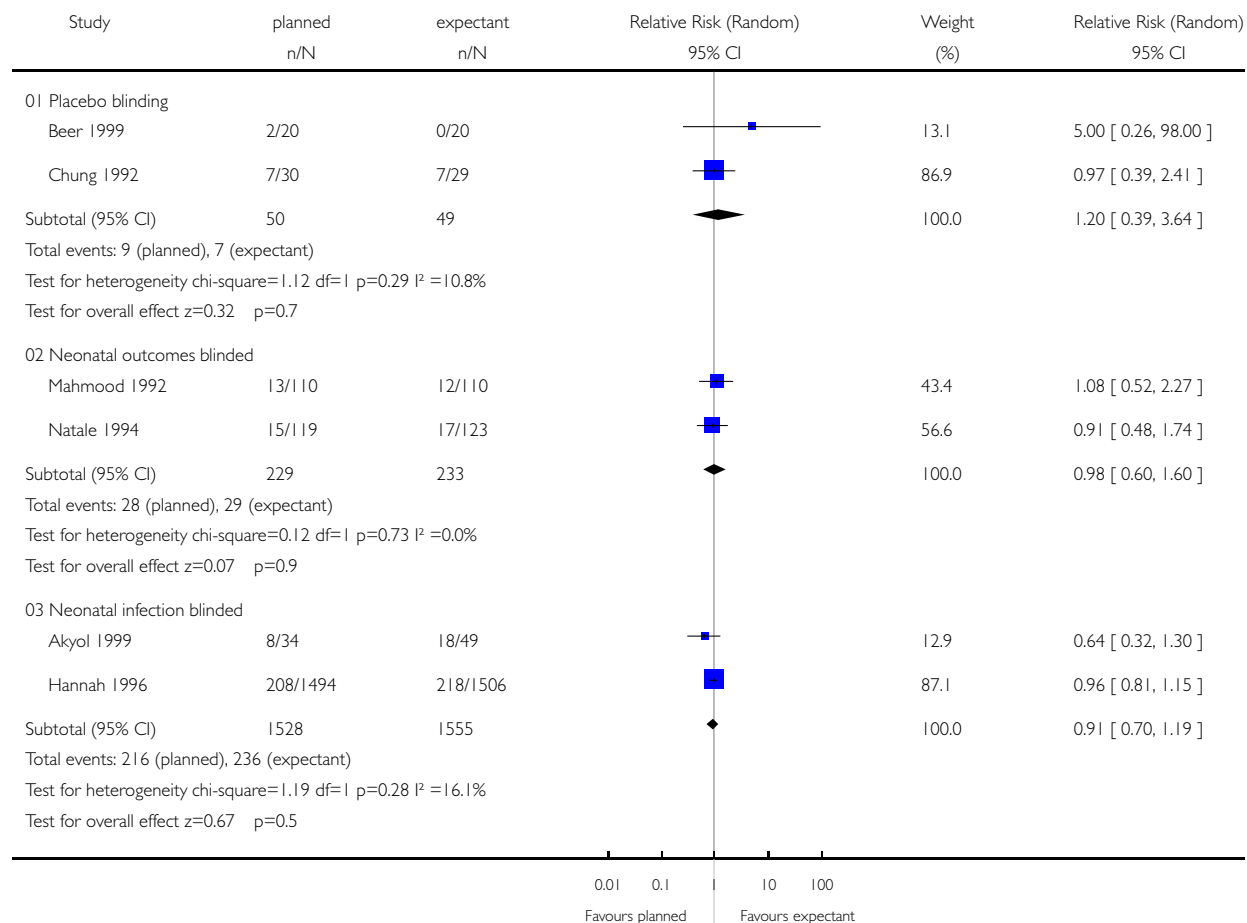


### Analysis 10.01. Comparison 10 Blinding: planned versus expectant management, Outcome 01 Caesarean section

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 10 Blinding: planned versus expectant management

Outcome: 01 Caesarean section

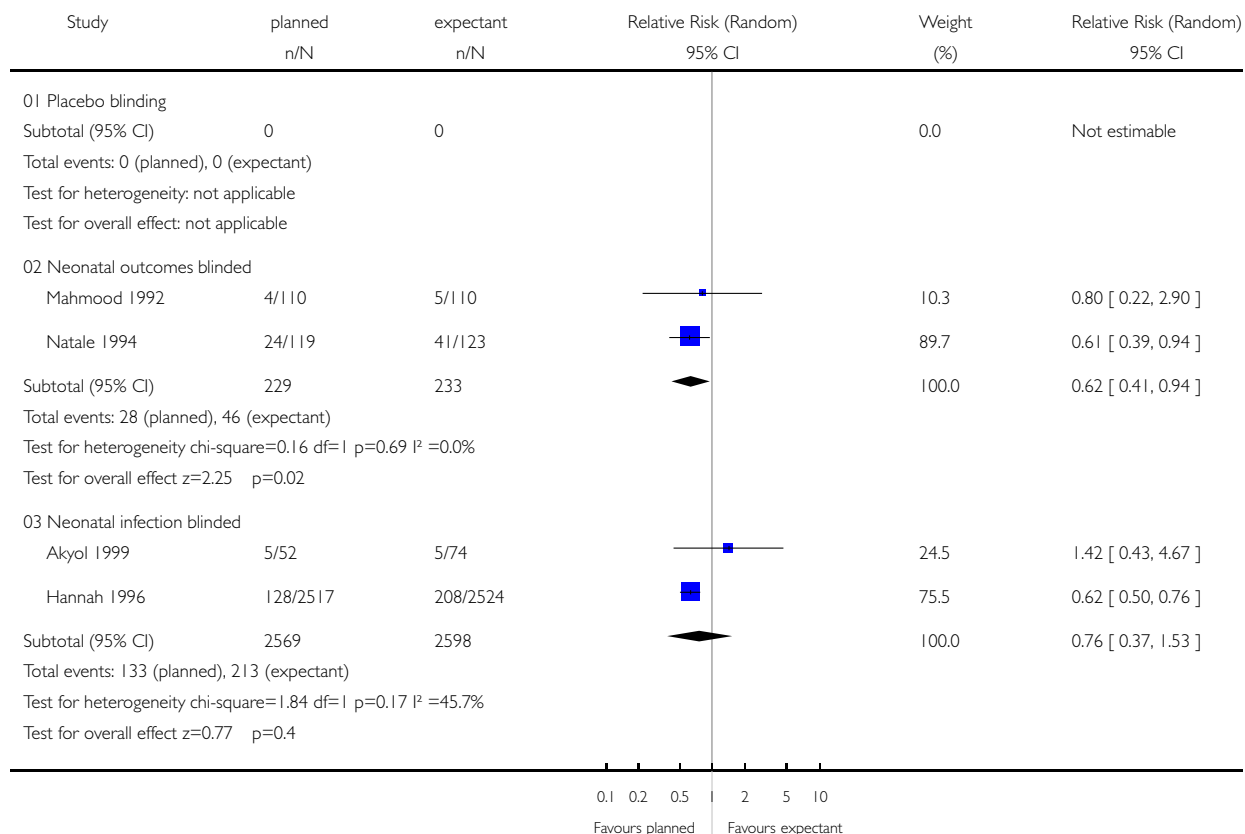


## Analysis 10.02. Comparison 10 Blinding: planned versus expectant management, Outcome 02 Chorioamnionitis

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 10 Blinding: planned versus expectant management

Outcome: 02 Chorioamnionitis

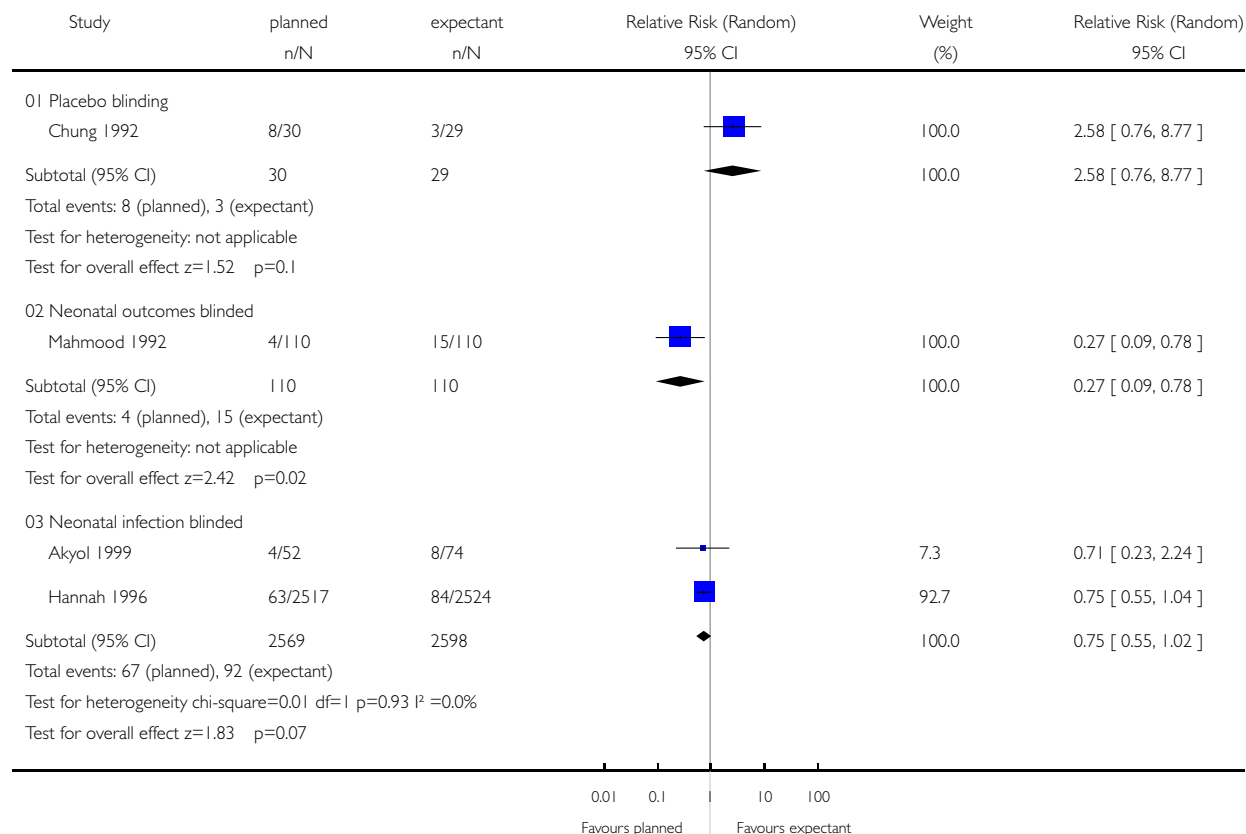


# **Analysis 10.04. Comparison 10 Blinding: planned versus expectant management, Outcome 04 Postpartum fever**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 10 Blinding: planned versus expectant management

Outcome: 04 Postpartum fever

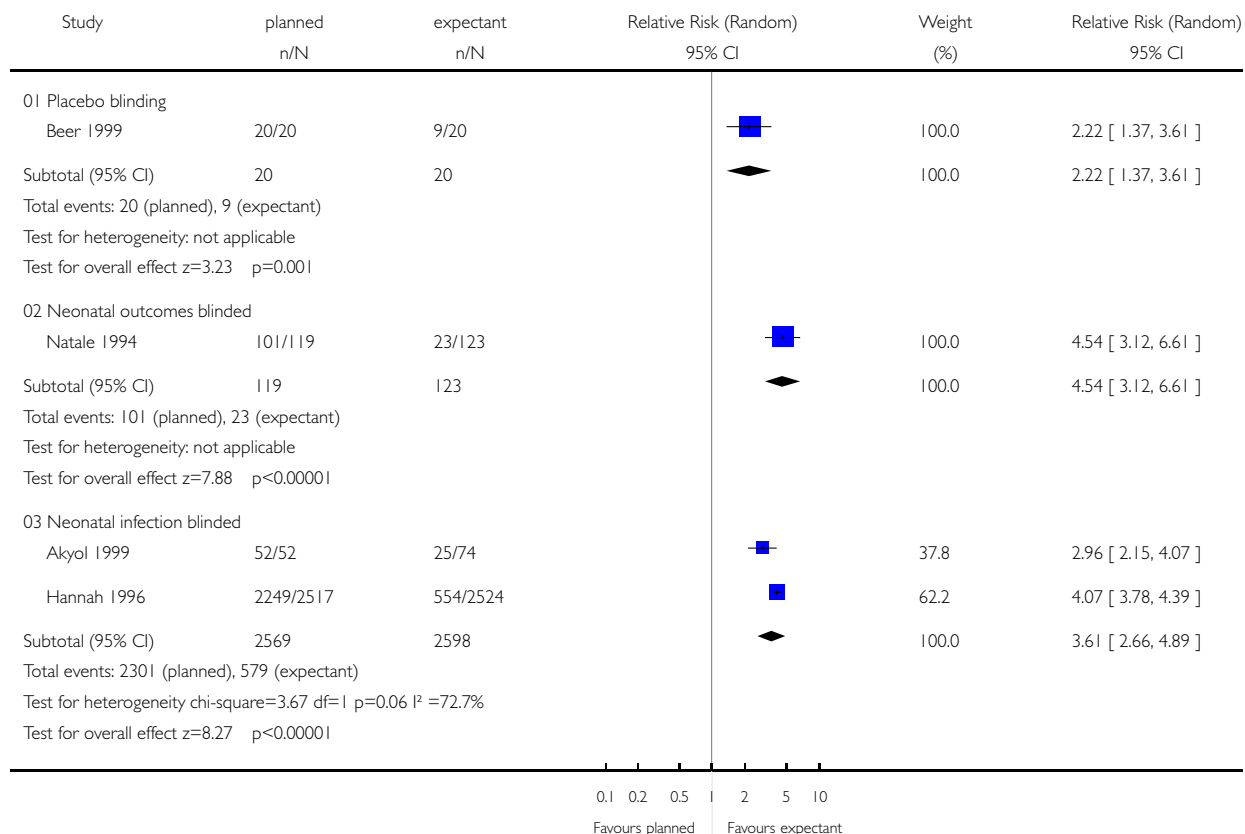


## Analysis 10.05. Comparison 10 Blinding: planned versus expectant management, Outcome 05 Induction of labour

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 10 Blinding: planned versus expectant management

Outcome: 05 Induction of labour

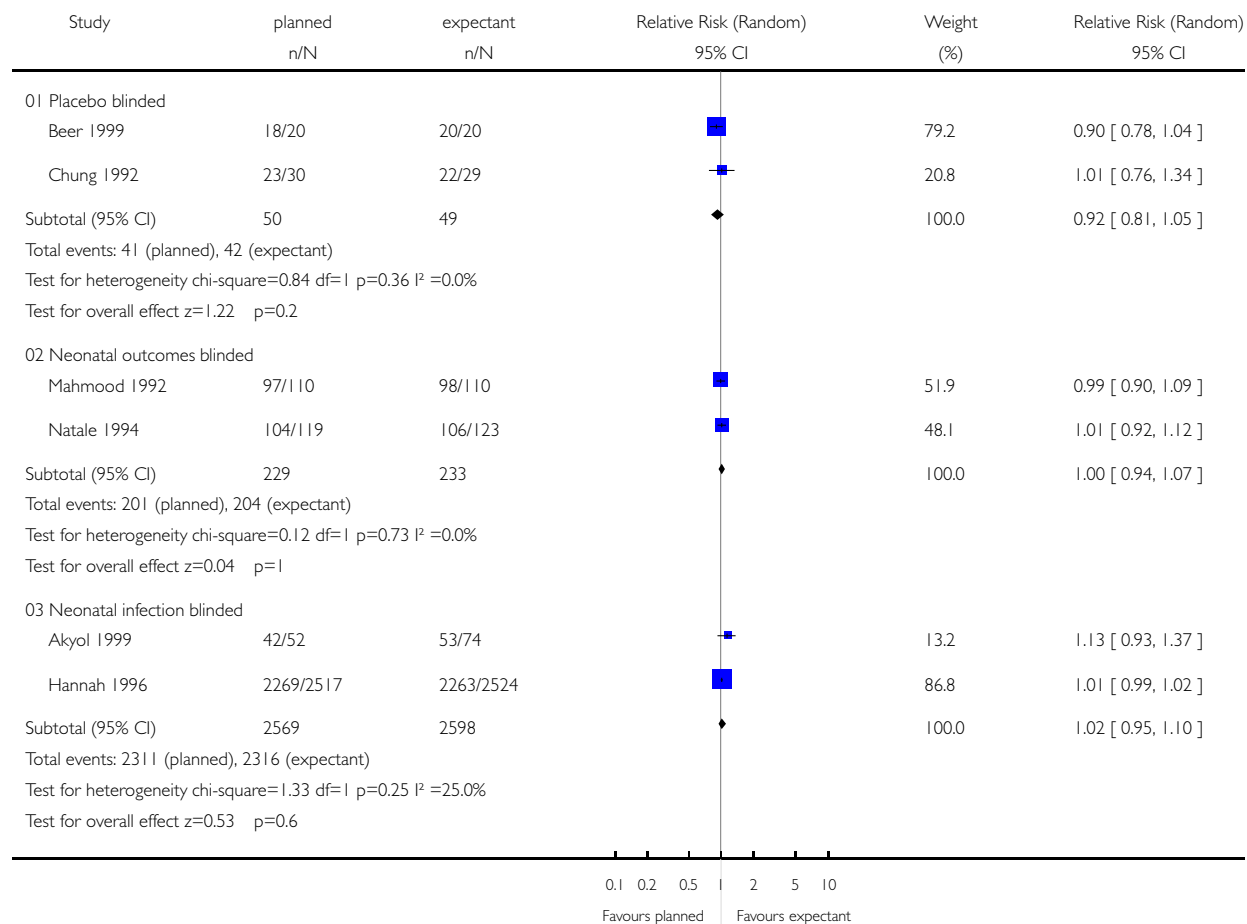


# **Analysis 10.06. Comparison 10 Blinding: planned versus expectant management, Outcome 06 Vaginal birth**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 10 Blinding: planned versus expectant management

Outcome: 06 Vaginal birth

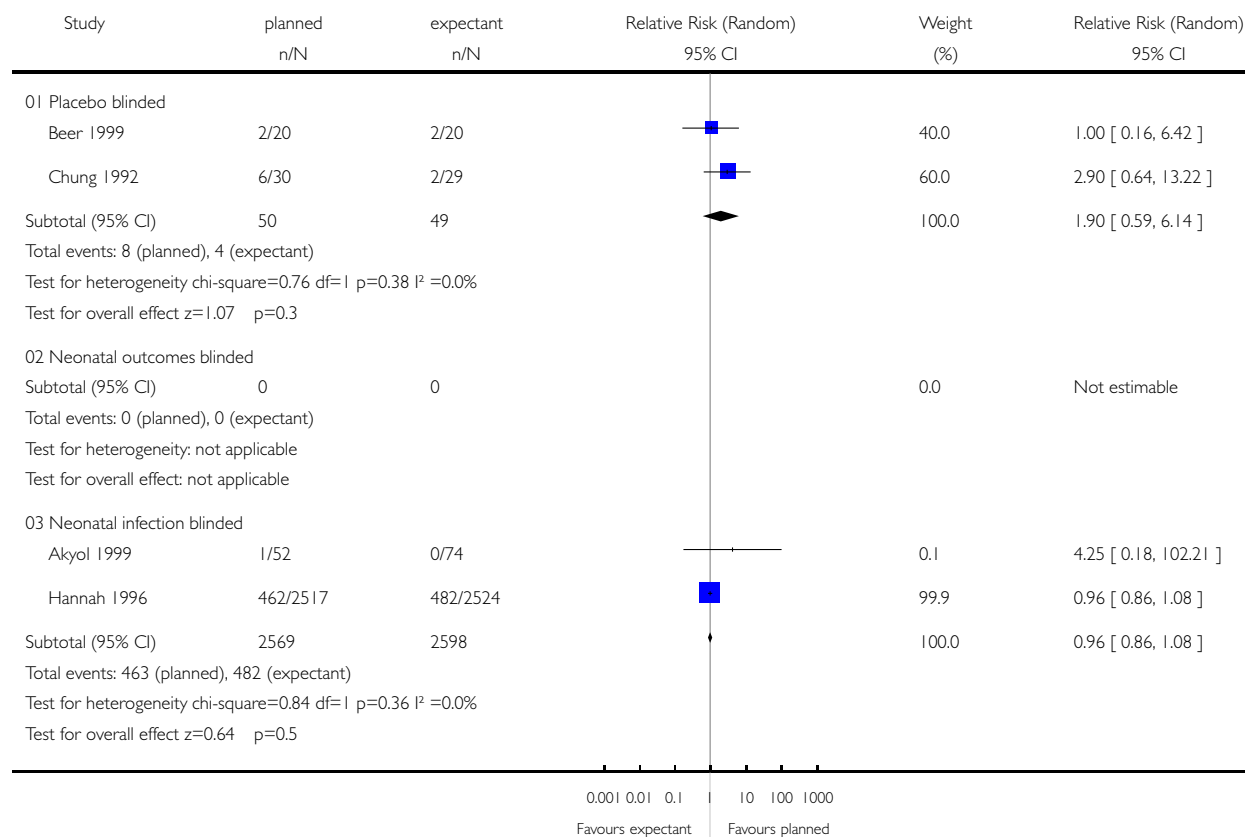


## Analysis 10.07. Comparison 10 Blinding: planned versus expectant management, Outcome 07 Operative vaginal birth

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 10 Blinding: planned versus expectant management

Outcome: 07 Operative vaginal birth

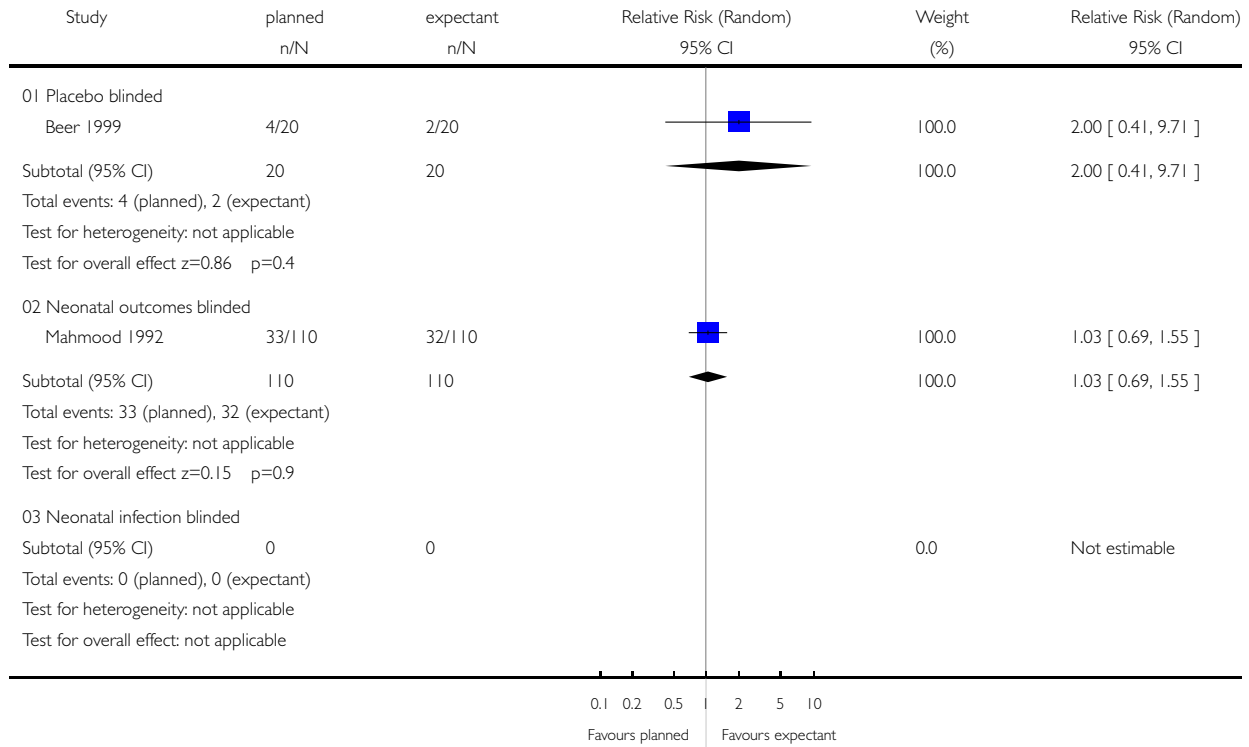


# **Analysis 10.08. Comparison 10 Blinding: planned versus expectant management, Outcome 08 Use of epidural anaesthesia**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 10 Blinding: planned versus expectant management

Outcome: 08 Use of epidural anaesthesia

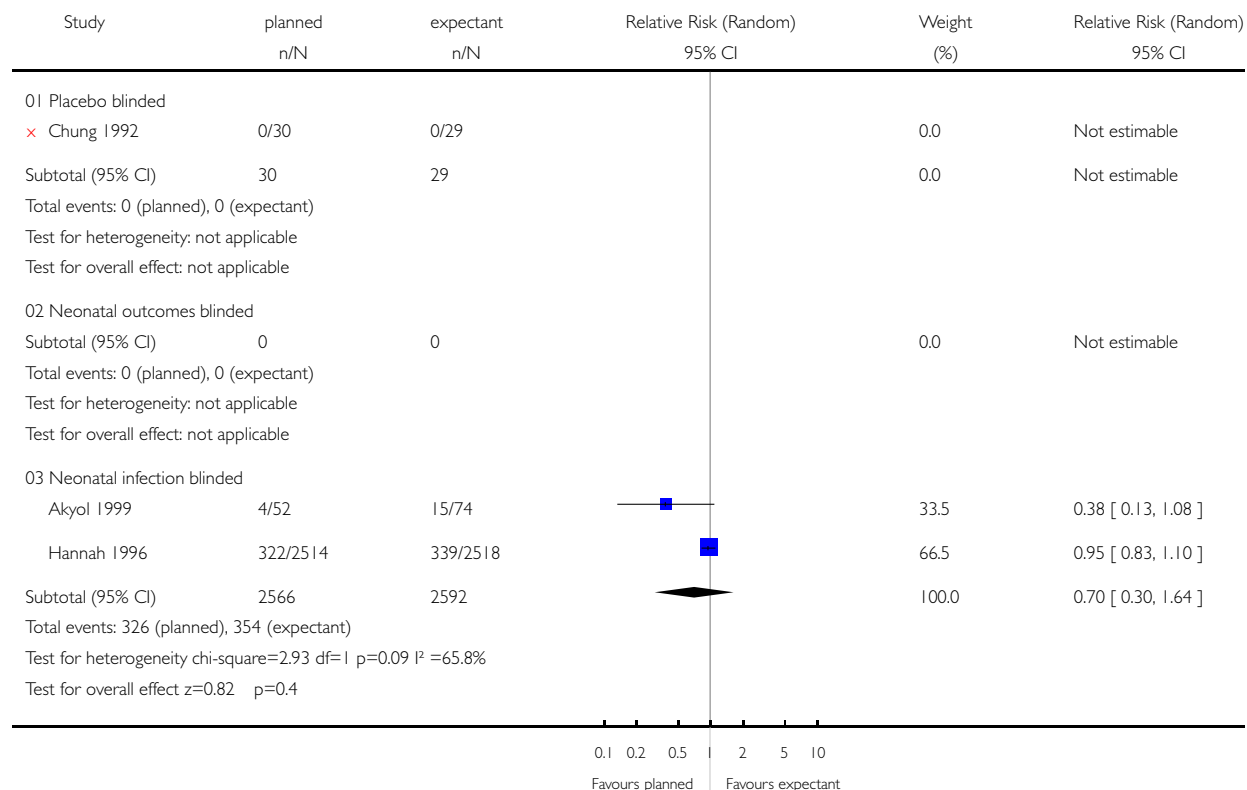


# **Analysis 10.09. Comparison 10 Blinding: planned versus expectant management, Outcome 09 Apgar score < 7 at 5 minutes**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 10 Blinding: planned versus expectant management

Outcome: 09 Apgar score < 7 at 5 minutes

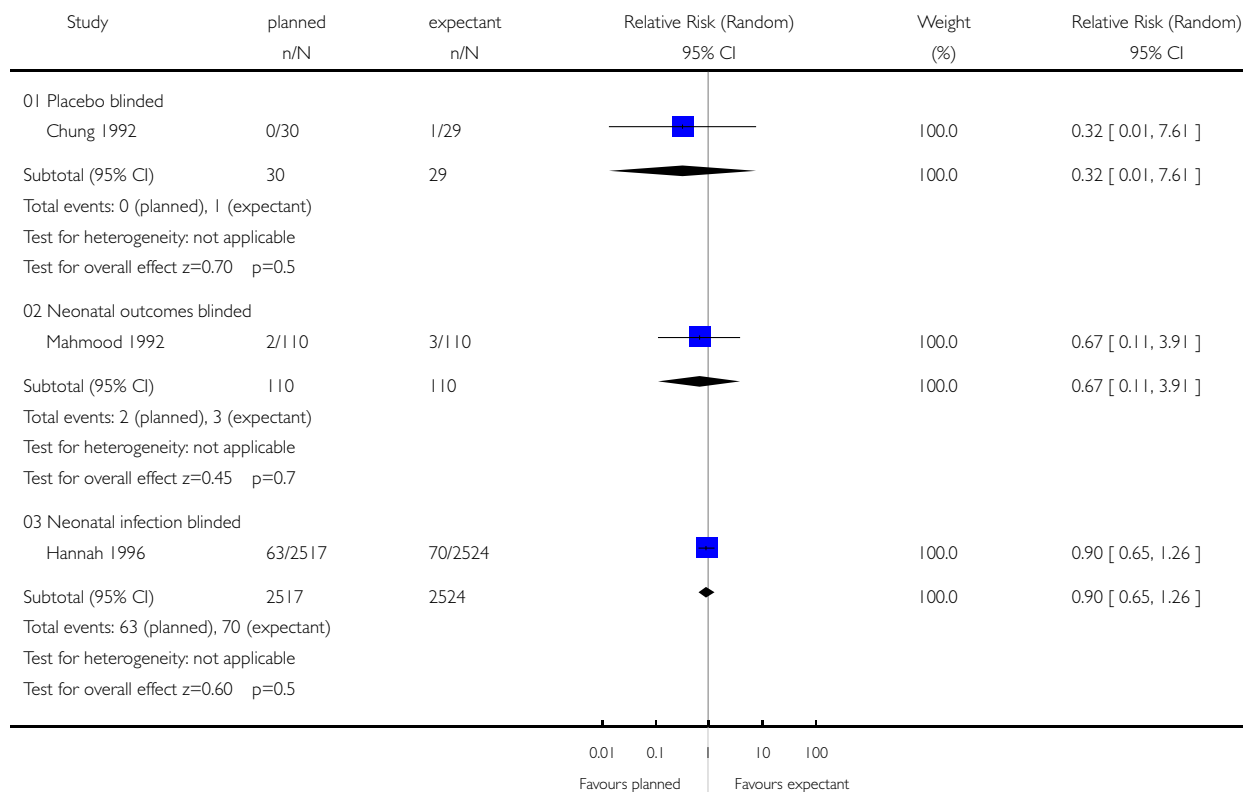


## Analysis 10.10. Comparison 10 Blinding: planned versus expectant management, Outcome 10 Neonatal infection

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 10 Blinding: planned versus expectant management

Outcome: 10 Neonatal infection



# **Analysis 10.11. Comparison 10 Blinding: planned versus expectant management, Outcome 11 Neonatal intensive care unit or special care nursery admission**

Review: Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more)

Comparison: 10 Blinding: planned versus expectant management

Outcome: 11 Neonatal intensive care unit or special care nursery admission

