

Medical versus surgical methods for first trimester termination of pregnancy (Review)

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TABLE OF CONTENTS

ABSTRACT	1
PLAIN LANGUAGE SUMMARY	2
BACKGROUND	2
OBJECTIVES	3
CRITERIA FOR CONSIDERING STUDIES FOR THIS REVIEW	3
SEARCH METHODS FOR IDENTIFICATION OF STUDIES	3
METHODS OF THE REVIEW	3
DESCRIPTION OF STUDIES	4
METHODOLOGICAL QUALITY	4
RESULTS	4
DISCUSSION	5
AUTHORS' CONCLUSIONS	6
POTENTIAL CONFLICT OF INTEREST	6
ACKNOWLEDGEMENTS	6
SOURCES OF SUPPORT	6
REFERENCES	6
TABLES	7
Characteristics of included studies	7
Characteristics of excluded studies	9
ADDITIONAL TABLES	10
Table 01. Acceptability (preferences for a future abortion)	10
ANALYSES	10
Comparison 01. Prostaglandin vs vacuum aspiration	10
Comparison 02. Prostaglandin vs D&C	11
Comparison 03. Mifepristone vs vacuum aspiration	11
Comparison 04. Mifepristone vs D&C	12
Comparison 05. Mifepristone and prostaglandin vs vacuum aspiration	12
Comparison 06. Mifepristone and prostaglandin vs D&C	13
Comparison 07. Methotrexate vs vacuum aspiration	13
Comparison 08. Methotrexate vs D&C	14
Comparison 09. Methotrexate and prostaglandin vs vacuum aspiration	14
Comparison 10. Methotrexate and prostaglandin vs D&C	15
INDEX TERMS	15
COVER SHEET	15
GRAPHS AND OTHER TABLES	17
Analysis 01.01. Comparison 01 Prostaglandin vs vacuum aspiration, Outcome 01 Abortion not completed with intended method	17
Analysis 01.02. Comparison 01 Prostaglandin vs vacuum aspiration, Outcome 02 Ongoing pregnancy	18
Analysis 01.03. Comparison 01 Prostaglandin vs vacuum aspiration, Outcome 03 Pelvic Infection	19
Analysis 01.10. Comparison 01 Prostaglandin vs vacuum aspiration, Outcome 10 Duration of bleeding	19
Analysis 02.10. Comparison 02 Prostaglandin vs D&C, Outcome 10 Duration of bleeding	20
Analysis 03.01. Comparison 03 Mifepristone vs vacuum aspiration, Outcome 01 Abortion not completed with the intended method	20
Analysis 03.02. Comparison 03 Mifepristone vs vacuum aspiration, Outcome 02 Ongoing pregnancy	21
Analysis 03.03. Comparison 03 Mifepristone vs vacuum aspiration, Outcome 03 Pelvic Infection	22
Analysis 03.06. Comparison 03 Mifepristone vs vacuum aspiration, Outcome 06 Uterine perforation	22
Analysis 03.10. Comparison 03 Mifepristone vs vacuum aspiration, Outcome 10 Duration of bleeding	23
Analysis 04.10. Comparison 04 Mifepristone vs D&C, Outcome 10 Duration of bleeding	24
Analysis 05.05. Comparison 05 Mifepristone and prostaglandin vs vacuum aspiration, Outcome 05 Blood loss	24
Analysis 05.10. Comparison 05 Mifepristone and prostaglandin vs vacuum aspiration, Outcome 10 Duration of bleeding	25

Analysis 05.13. Comparison 05 Mifepristone and prostaglandin vs vacuum aspiration, Outcome 13 Pain resulting from the procedure	26
Analysis 05.14. Comparison 05 Mifepristone and prostaglandin vs vacuum aspiration, Outcome 14 Vomiting	27
Analysis 05.15. Comparison 05 Mifepristone and prostaglandin vs vacuum aspiration, Outcome 15 Diarrhoea	28
Analysis 06.10. Comparison 06 Mifepristone and prostaglandin vs D&C, Outcome 10 Duration of bleeding	28
Analysis 07.10. Comparison 07 Methotrexate vs vacuum aspiration, Outcome 10 Duration of bleeding	29
Analysis 08.10. Comparison 08 Methotrexate vs D&C, Outcome 10 Duration of bleeding	29
Analysis 09.01. Comparison 09 Methotrexate and prostaglandin vs vacuum aspiration, Outcome 01 Abortion not completed with intended method	30
Analysis 09.10. Comparison 09 Methotrexate and prostaglandin vs vacuum aspiration, Outcome 10 Duration of bleeding	31
Analysis 09.13. Comparison 09 Methotrexate and prostaglandin vs vacuum aspiration, Outcome 13 Pain resulting from the procedure	31
Analysis 10.10. Comparison 10 Methotrexate and prostaglandin vs D&C, Outcome 10 Duration of bleeding	32

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This record should be cited as:

Say L, Kulier R, Gülmezoglu M, Campana A. Medical versus surgical methods for first trimester termination of pregnancy. *Cochrane Database of Systematic Reviews* 2002, Issue 4. Art. No.: CD003037. DOI: 10.1002/14651858.CD003037.pub2.

This version first published online: 21 October 2002 in Issue 4, 2002.

Date of most recent substantive amendment: 20 July 2002

ABSTRACT

Background

Induced abortions are very commonly practiced interventions worldwide. A variety of medical abortion methods have been introduced during the last decade in addition to existing surgical methods. In this review we systematically searched for and combined all evidence from randomised controlled trials comparing surgical with medical abortion.

Objectives

To evaluate medical methods in comparison to surgical methods for first-trimester abortion with respect to efficacy, side effects and acceptability.

Search strategy

The Cochrane Controlled Trials Register, MEDLINE (with the Cochrane 3-stage search strategy)(1966-2000) and Popline (1970-2000) were systematically searched. There were no language preferences in searching. Reference lists of retrieved papers were searched. Experts in WHO/HRP were contacted.

Selection criteria

Randomised trials of any surgical abortion method compared with any medical abortion method in the first trimester.

Data collection and analysis

Trial quality was assessed and data extraction was made independently by two reviewers.

Main results

Six studies mostly with small sample sizes, comparing 4 different interventions (prostaglandins alone, mifepristone alone, and mifepristone/misoprostol and methotrexate/misoprostol versus vacuum aspiration) were included. Results are sometimes based on one trial only.

Prostaglandins vs vacuum aspiration: the rate of abortions not completed with the intended method was statistically significant higher in the prostaglandin group (2.7, 95% CI 1.1 to 6.8) compared to surgery. There are no data on the most commonly medical (mifepristone/misoprostol) and surgical abortion available to be included in the review.

Duration of bleeding was longer in the medical abortion groups compared to vacuum aspiration. There was only one major complication (uterine perforation) in one trial in the surgical group. There was no difference between the groups for ongoing pregnancies at the time of follow-up or pelvic infections. No data on acceptability, side effects or women's satisfaction with the procedure were available for inclusion in the review.

Authors' conclusions

The results are derived from relatively small trials. Prostaglandins used alone seems to be less effective and more painful compared to surgical first-trimester abortion. However, there is inadequate evidence to comment on the acceptability and side effects of medical compared to surgical first-trimester abortions. There is a need for trials to address the efficacy of currently used methods and women's preferences more reliably.

PLAIN LANGUAGE SUMMARY

Medical methods for early termination of pregnancy can be safe and effective.

There are several different surgical techniques for early termination of pregnancy (abortion in the first three months). Several drugs can also be prescribed alone or in combination to terminate early pregnancy. This is called medical abortion, and uses the hormones prostaglandins and/or mifepristone (an antiprogesterone often called RU486), and/or methotrexate. The review of trials found that medical methods for abortion in early pregnancy can be safe and effective, with the most evidence of effectiveness for a combination of mifepristone and misoprostol (a prostaglandin). Almost all of the trials were done in well-resourced hospitals where women returned for check-up.

BACKGROUND

Induced abortions have been performed world-wide since ancient times. It is estimated that about 53 million abortions are performed each year (WHO 1997, Henshaw 1999). It is estimated that one third of all abortions are performed under unsafe conditions leading to 13% of all maternal deaths (Mundigo 1999, Singh 1998). The majority of these deaths occur in developing countries where pregnancy terminations are either illegal or legal but not available and accessible.

Morbidity due to safe surgical abortion with a sufficiently skilled practitioner depends on gestational age, the method of termination, age and parity. The lowest major complication rate is when the procedure is performed at 49 to 56 days of amenorrhea. Complication rates increase with increasing age and parity (WHO 1997). The major complication rate of dilatation and curettage (D&C) is 2.3 times higher than with vacuum aspiration (Grimes 1979). The complications of surgical abortion are infection, cervical laceration, incomplete evacuation, uterine perforation, haemorrhage and complications due to anaesthesia. It has been suggested but not confirmed that unsafe procedures are associated with future infertility, miscarriages and low birth weight in subsequent pregnancies in addition to the complications above.

In the last decade, attempts to develop alternative abortion methods have largely focused on medical methods. Some authors think they might provide good alternatives to unsafe procedures and would increase the access to services (Blanchard 1999, Blumenthal 1991). Other authors, while acknowledging that medical abortion procedures do increase a woman's range of options, nevertheless point out that these procedures will not be a panacea for limited access to services (Grimes 1997). Currently, 20% of early first-trimester abortions in England, 30% of those in France and 60% of those in Scotland are carried out medically (Gupta 1998, Thong 1992).

Medical methods used for abortion are prostaglandins, mifepristone alone, mifepristone with prostaglandins and methotrexate with prostaglandins. Mifepristone has been licensed in France and China since 1988, in the United Kingdom since 1991 and in Sweden since 1992. The recommended dose regimen by the

manufacturer is 600 mg oral mifepristone followed by a vaginal prostaglandin. But a variety of different regimens have been used. Difficulties of producing and distributing mifepristone in other countries urged researchers to search for alternative medical methods. The clinical application of intramuscular methotrexate to treat early extrauterine pregnancies led to its use in intrauterine gestations (Grimes 1997). Misoprostol alone regimens have been widely used to induce abortion informally especially in South America (Blanchard 1999). The use of methotrexate with misoprostol was first introduced by Creinin in 1993 (Grimes 1997). Failed abortion is an infrequent but important complication of medical methods. Both methotrexate and misoprostol may lead to fetal anomalies if the pregnancy persists (Grimes 1997).

Side effects of medical methods are moderate to heavy bleeding, pain, nausea, vomiting and diarrhoea changing in severity due to the protocols and gestational age. They involve a longer duration of time from initiation until termination and more observed blood loss when compared to surgical procedures. Surgical procedure is a mechanical event done at a specific time and medical procedure is a process entailing a series of noticeable times; when the woman takes the various drugs, when she observes symptoms and when the expulsion occurs (Winikoff 1996).

In a study from the UK, the most frequent reason for choosing the medical method was to avoid some aspects of the operative process, particularly the anaesthetic (61%). Thirty two per cent of women chose it for the process being simpler and natural. Those who chose the surgical procedure generally wanted to avoid the awareness and involvement in the process of termination (49%) and were concerned about the pain (16%) or emotional impact (14%) of the medical termination. The fact that medical methods were more rapidly accessible was for many women an important factor to opt for this method (Slade 1998).

Wiebe evaluated the methotrexate-misoprostol regimen from users' perspectives. For women who chose the medical procedure, expected pain (39.3%) and fear of surgery (44.7%) were most important. In their written comments, many women also mentioned that it felt better emotionally to terminate the pregnancy as early as possible (Wiebe 1993).

Unsafe abortion is a public health problem worldwide. One way of reducing the number of unsafe procedures is to increase safe choices for pregnancy termination. In this review we systematically searched for and combined all evidence from randomised controlled trials comparing surgical with medical abortion.

OBJECTIVES

To assess medical compared to surgical methods with respect to efficacy, side effects and acceptability for first-trimester abortion.

CRITERIA FOR CONSIDERING STUDIES FOR THIS REVIEW

Types of studies

All randomised controlled trials comparing surgical with medical procedures for first-trimester abortion.

Types of participants

Women undergoing abortion in the first trimester of pregnancy were eligible. The upper limit of gestational age for first trimester was defined as 14 completed cardinal weeks of pregnancy (98 days from the first day of the last menstrual period).

Types of intervention

Any type of surgical abortion method (vacuum aspiration, MVA or dilatation & curettage) versus any type of medical abortion method (mifepristone, misoprostol, mifepristone with a prostaglandin or methotrexate with misoprostol or comparisons of other similar preparations).

Types of outcome measures

Primary outcomes

1. Abortion not completed with intended method
2. Ongoing pregnancy
3. Pelvic infection
5. Blood transfusion
6. Blood loss (measured or clinically relevant drop in haemoglobin)
7. Uterine perforation
8. Cervical injury
9. Rehospitalisation

Secondary outcomes

1. Hospital stay >24 hours
2. Duration of bleeding
3. Non-routine uterotonic use postoperatively
4. Non-routine antibiotic use postoperatively
5. Pain resulting from the procedure (reported by the women or measured by use of analgesics)
6. Vomiting
7. Diarrhoea
8. Women's dissatisfaction with the procedure

SEARCH METHODS FOR IDENTIFICATION OF STUDIES

See: methods used in reviews.

The Cochrane Controlled Trials Register, MEDLINE (with the Cochrane 3-stage search strategy)(1966-2000) and Popline (1970-2000) were systematically searched. Reference lists of retrieved papers were searched. Experts in WHO/HRP were contacted. The following keywords were used: (abortion OR pregnancy termination OR termination of pregnancy) AND (first trimester OR early) AND (vacuum aspiration OR suction OR dilatation and curettage OR D&C OR mifepristone OR misoprostol OR methotrexate OR dinoprost* OR carboprost OR sulprostone OR gemeprost OR meteneprost OR lilopristone OR onapristone OR epostane OR oxytocin OR RU 486 OR mifegyne)

METHODS OF THE REVIEW

The selection of trials for inclusion in the review was performed independently by two reviewers after employing the search strategy described previously. There were no language preferences in the review. Trials under consideration were evaluated for appropriateness for inclusion and methodological quality without consideration of their results. A quality score for concealment of allocation was assigned to each trial, using the criteria described in the Cochrane Handbook:

- (A) adequate concealment of the allocation
- (B) unclear whether adequate concealment of the allocation
- (C) inadequate concealment of allocation (includes quasi-randomised studies)

Only trials scoring A or B were included in the review.

A form was designed to facilitate the process of data extraction which was performed by two of the reviewers independently. In case of discrepancies between reviewers in either the decision of inclusion/exclusion of studies or in data extraction, this was resolved by consensus.

Whether or not an "intention-to-treat" analysis was done in the primary study was examined. Trials were not excluded based on an arbitrary cut-off limit regarding losses to follow-up. Trials were excluded if there are unexplained imbalances in different groups at follow-up and available outcome data.

Data were processed by Revman software. Subgroup analyses were planned for early and late first-trimester abortions as the performance of some methods may differ with gestational age. Pregnancies with up to 63 days of pregnancy (< 9 weeks) were defined as early and those with more than 63 days of pregnancy (>= 9 weeks) were defined as late first trimester pregnancies.

Failure to achieve complete abortion was defined as failure to complete the abortion with the intended method used.

DESCRIPTION OF STUDIES

Five trials conducted in Sweden (Rosen 1984), Denmark (Legarth 1991), the UK (Henshaw 1994), the USA (Creinin 2000), the UK (Ashok 2002) and one multicentre trial (WHO 1987) were included in the review. One trial conducted in Sweden (Rosen 1979) was excluded.

Rosen (Rosen 1984) compared surgical abortion with medical in the hospital and medical at home in 53 women ≤ 49 days of amenorrhoea. Women were interviewed by trained psychologists before and after the intervention.

Twelve centres from India, Vietnam, Slovenia, Zambia, China, Sweden and Hungary were involved in the WHO (WHO 1987) trial. Women who have had amenorrhoea up to 49 days were recruited and randomised into two groups without confirmation of pregnancy. Pregnancy tests were obtained on the day of treatment and pregnant women were analysed separately.

Legarth (Legarth 1991), randomised 50 women, pregnant in the first trimester, to Mifepristone 600mg orally or surgical abortion. The study was conducted at a University Hospital in Denmark. Beta-HCG levels were taken one week after the intervention to confirm complete abortion.

Henshaw (Henshaw 1994) conducted a partially randomised trial which let some of the participants to be allocated to their preferred method and randomised the ones willing to be randomised. The complete abortion and complication rates were analysed combining the data from the randomised and non-randomised women. The authors claimed that they had combined the data of randomised and non-randomised groups as there had been no significant difference between the women who preferred to undergo any particular intervention and those who were randomised to that method in that outcome. We have contacted the authors to provide the efficacy and complication data separately for the randomised groups and awaited their reply. For the side effects data, we used only the randomised groups' results which have been analysed separately for the randomised and non-randomised groups in the original study.

Creinin (Creinin 2000) enrolled women up to 49 days of amenorrhoea to receive either methotrexate/misoprostol or undergo surgical abortion. All participants were given USD 200 at their final follow-up visit.

Ashok (Ashok 2002) study involved late first trimester (10-13 weeks of amenorrhoea) pregnancy terminations. The design was a patient-preference design and allocated women to their preferred methods first and then randomised those who did not have a strong

preference for either method. The results for efficacy were presented together for randomised and non-randomised (preferred either medical or surgical) groups and it was not possible to separate the results for each group. We, therefore included the results only for complications and side-effects which were presented separately for randomised and non-randomised groups.

See table for the characteristics of included trials for more details.

METHODOLOGICAL QUALITY

Five trials received concealment allocation score A: Legarth 1991, Henshaw 1994, WHO 1987 Creinin 2000 and Ashok 2002.

In the study by Rosen (Rosen 1984) the allocation concealment was not clear (B).

Henshaw (Henshaw 1994) calculated for a sample size of 360. However, only 195 women were randomised.

Creinin (Creinin 2000) initially planned to include 100 participants, but as the recruitment of 50 women took 24 months, it was decided to complete the study with those 50 women (25 randomised into each group). The 35% power to detect their hypothesised difference is a weakness of this study.

See table for the characteristics of included trials section for more details.

RESULTS

Six trials with four different comparisons were included in the review.

Prostaglandins versus vacuum aspiration: abortion was not completed with the intended method in more women in the prostaglandin group compared to vacuum aspiration (OR 2.7, 95% CI 1.1 to 6.8) (Rosen 1984, WHO 1987) and duration of bleeding was longer in the medical compared to surgical group (WHO 1987) (WMD 5.2, 95% CI 5.0 to 5.4). Both results were statistically significant. Ongoing pregnancy at follow-up (Rosen 1984, WHO 1987) and pelvic infection (WHO 1987) did not show statistically significant differences between the 2 groups (OR 0.6, 95% CI 0.2 to 1.8) and (OR 2.2, 95% CI 0.6 to 7.3).

Mifepristone versus vacuum aspiration: There are no statistically significant differences for the following outcomes in this comparison reported by one trial with a small sample size (Legarth 1991): abortion not completed with intended method (OR 3.6, 95% CI 0.7 to 20.1), ongoing pregnancy (there was no case in either group), pelvic infection (OR 0.1, 95% CI 0.0 to 2.6), uterine perforation (OR 0.3, 95% CI 0.0 to 8.2).

Mifepristone and prostaglandin versus vacuum aspiration: Two trials are included in this comparison, one including women with less than 63 weeks of amenorrhoea (Henshaw 1994) and the

other including women with 10-13 weeks of amenorrhoea (Ashok 2002). Henshaw trial found no statistically significant differences for blood loss between the 2 groups (WMD 1.9, 95% CI 0.1 to 3.8). Duration of bleeding was longer in the medical group compared to surgical (WMD 2.9, 95% CI 1.9 to 4.0). The study involving women with late first trimester pregnancy (Ashok 2002) reported a significant difference in duration of bleeding, being longer in the medical group (WMD 3.0, 95% CI 1.6 to 4.4). This study reported statistically significant differences in side effects in terms of vomiting (OR 10.54, 95% CI 5.77 to 19.23), diarrhoea (OR 15.87, 95% CI 7.38 to 34.15), and pain following the procedure (OR 4.75, 95% CI 1.56 to 14.39) being more in the medical group.

Methotrexate and prostaglandin versus vacuum aspiration: One trial, with a small sample size, is included in this comparison (Creinin 2000). Duration of bleeding was longer (WMD 6.0, 95% CI 2.9 to 9.1) and pain (as measured by taking additional pain killers) was more frequent in the medical group (OR 153, 95% CI 8.1 to 2883.4). However, results are presented with large confidence intervals. There was no statistically significant difference for not completing the abortion with the intended method between both groups (OR 4.6, 95% CI 0.5 to 44.2).

DISCUSSION

In the six studies there were four different types of medical interventions and results of the review are often based on one trial only. The efficacy rates were ranging between 76% and 97.2% for medical and between 94 and 100% for surgical abortions in the individual trials. However, trials included in this review describe medical methods that are less often used (e.g Misoprostol only or Methotrexate). The combination of Mifepristone followed by a prostaglandin is the most common used medical method for first-trimester abortion at the moment. We could identify two trials on this comparison which qualifies for inclusion into the review, one for early first trimester (Henshaw 1994) and the other for late first trimester (Ashok 2002) pregnancy terminations. The authors of both studies combined the data of the randomised and non-randomised group for most of the outcomes. More women in the vacuum aspiration group went for outpatient consultations and received more antibiotics during the follow-up period than the comparison group.

The lowest efficacy rate (76%) of the medical method compared to surgical is reported with the mifepristone-only regimen (Legarth 1991). A serious complication occurred in one women in the surgical group (uterine perforation).

More days of bleeding was generally experienced with medical interventions when compared to surgical interventions which may be an important issue for women in deciding for one or the other method. The difference in duration of bleeding seems to be higher in late first trimester pregnancy terminations.

It is difficult to compare the degree of pain between the surgical and non-surgical procedures because women in surgical groups have often received some form of analgesia as part of the procedure.

Reports on acceptability of the different methods give varying results (Additional table 01). Henshaw (Henshaw 1994) reports that more women in the medical group would opt for another termination method in future compared to the surgical group. Subgroup analyses revealed no significant difference between the two groups in terms of future preferences in women up to 49 days of gestation. The authors concluded that the increase of pain with the longer gestation might have led to the low acceptability among the women with longer gestations.

The only study involving late first trimester pregnancy termination (Ashok 2002) also reports a higher preference of women for the same method (79%) who had undergone surgical abortion compared to women who had undergone medical procedure (70%). The response rates for this outcome is very low in both groups, being lower in the medical (35%) than in the surgical group (53%). This could imply that even more women with medical methods might not opt for medical method for a future abortion in this late first trimester pregnancy group.

Creinin (Creinin 2000) found differences for future preferences in women with early first trimester pregnancies: 63% of women in the medical group stated they would choose the same method in the future whereas 92% of those in the surgical group stated they would choose their method for a future intervention. In one study (Rosen 1984); two out of three women said they would prefer the same procedure in case of a future abortion. The women who stated they would prefer the same method were the ones who had reported the same method as a preference in the pre-treatment questionnaires. The author concluded that this may be a strong factor for acceptability although the numbers were too small to make any firm conclusions.

The discrepancies between the acceptabilities of the medical methods may be due to the methods used. For the study in which self-administered vaginal suppositories were used (Rosen 1984), self administration may be a strong preference factor for a future intervention. The medical method of the study which leads to a relatively longer duration for complete abortion (Creinin 2000) may lead to the lower acceptability of the intervention when compared to the other study (Henshaw 1994) that used another regimen leading to a shorter duration of the procedure.

Medical and surgical methods of pregnancy termination have distinct advantages and disadvantages. Therefore the decision to prefer one procedure over the other necessarily carries trade-offs. The limited evidence suggests that in the first trimester, vacuum aspiration is more effective when compared to prostaglandin alone and is associated with shorter duration of bleeding and less pain.

AUTHORS' CONCLUSIONS

Implications for practice

Prostaglandin used alone seems to be less effective and more painful compared to vacuum aspiration for first-trimester abortion. Duration of bleeding seems to be longer with medical methods and women should therefore be counselled accordingly. Also, medical methods may be more painful.

Implications for research

The trials included have small sample sizes. There is a need for trials to address the efficacy, especially of currently used methods, and women's preferences more reliably.

POTENTIAL CONFLICT OF INTEREST

None known.

ACKNOWLEDGEMENTS

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SOURCES OF SUPPORT

External sources of support

- No sources of support supplied

Internal sources of support

- HRP-UNDP/UNFPA/WHO/World Bank Special Programme in Human Reproduction, Geneva, SWITZERLAND
- Department of Obstetrics and Gynaecology, University of Geneva SWITZERLAND
- Woman and Child Health Training and Research Centre, Medical Faculty of Istanbul TURKEY
- Department of Obstetrics and Gynaecology, Centre for Reproductive Biology, University of Edinburgh UK

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TABLES

Characteristics of included studies

Study	Ashok 2002
Methods	Partially randomised trial (subjects who had strong preferences for any method were allocated to their preferred methods, others were allocated randomly to medical or surgical groups. Randomisation was prepared by the trial statistician using a randomised block design and sealed opaque envelopes were used.
Participants	A total of 486 women, 10-13 weeks of gestational age. 202 randomised to medical, 198 randomised to surgical, 86 allocated to their preferred groups.
Interventions	1. Medical intervention: Oral mifepristone 200 mg followed by vaginal misoprostol 800 microgram 36-48 h later, if no products passed, a further two doses of misoprostol (400 micrograms) were given either orally or vaginally at 3 h intervals. 2. Surgical intervention: Vacuum aspiration under general anaesthesia, all primigravid women underwent cervical preparation with 800 micrograms misoprostol vaginally 3 h prior to surgery. Follow-up eaw with a questionnaire 2-3 weeks later.
Outcomes	Efficacy (combined in randomised and non-randomised groups), pain, (a visual scale), nausea, vomiting, hot flushes, dizziness, diarrhoea. At the follow-up, duration/severity of bleeding, pain/analgesia use, time taken off work.
Notes	
Allocation concealment	A – Adequate

Characteristics of included studies (Continued)

Study	Creinin 2000
Methods	Randomisation was performed by a source outside of the study according to a random number table. Sealed, opaque, sequentially numbered envelopes were used to conceal the allocation.
Participants	50 healthy women with ≤ 49 days of gestation requesting abortion with no pre-treatment preferences for the method, 25 were randomised to surgical, 25 to medical group; similar baseline characteristics between the groups.
Interventions	1. Medical intervention: 50 mg methotrexate (4*12.5 mg capsules) was taken in front of one of the researchers. 4 tablets of 200 microgram misoprostol were given with instructions to place them into the vagina on day 6 or 7. All women were instructed to use ibuprofen or acetaminophen tablets initially and prescribed narcotic if necessary. They were not instructed to lie down after misoprostol administration, and they were advised to return to the clinic on day 8; if a gestational sac was seen in the ultrasound scan, a clinician administered a repeat dose of misoprostol 800 microgram intravaginally. All women returned on day 7 and 15 for follow up 2. Surgical intervention: Manual vacuum aspiration with an IPAS syringe and a 7-mm cannula. A sharp curettage was used after the aspiration. Ibuprofen 800 mg 15 to 30 min before the procedure were given. Intracervical block was applied. Women were observed for a minimum of 30 min after the procedure. All participants returned on day 15 for follow-up.
Outcomes	Complete abortion rate, pain, amount/duration of bleeding (using a visual analog scale-VAS), choice for future abortion, time needed to provide care for each group
Notes	
Allocation concealment	A – Adequate

Study	Henshaw 1994
Methods	Partially randomised trial (subjects who were willing to be allocated to any method were randomised into two groups, who declined, selected their own methods) Randomisation was made by consecutive, sealed opaque envelopes containing random numbers generated by computer, unknown to the study co-ordinator.
Participants	A total of 363 women, ≤ 63 days of gestation requested abortion; 96 were randomised to surgical, 99 to medical method, 95 chose surgical method, 73 chose medical method. Baseline characteristics were similar between the 2 groups.
Interventions	1. Medical intervention: Oral mifepristone 600 mg followed by gemeprost 1 mg pessary 48 hours later. 2. Surgical intervention: Vacuum aspiration under general anaesthesia, all primigravid women underwent cervical preparation with a single gemeprost 1 mg vaginal pessary Follow-up was after 2 weeks, family doctors were asked to complete a questionnaire 8 weeks later
Outcomes	Pain, vaginal bleeding (using total vaginal bleeding score-TVB, in terms of duration/severity, haemoglobin levels, other symptoms (nausea, diarrhoea, vomiting, headache, tiredness; using an other symptom score; evaluated by a questionnaire based on a menstrual distress questionnaire, complete abortion rate, women's preferences for the method before the abortion, acceptability judged two weeks after abortion by recording the method women would opt to undergo in future and by semantic differential rating technique
Notes	
Allocation concealment	A – Adequate

Study	Legarth 1991
Methods	Randomised into two groups. Sealed opaque envelopes were used to conceal the allocation. No information on the sequence of the numbers. Separate randomisation for primigravida and multigravidas.

Participants	50 healthy women with less than 43 days of amenorrhoea
Interventions	1. Medical intervention: Oral mifepristone 600 mg was taken at home. 2. Surgical intervention: Vacuum aspiration under general anaesthesia. All women received 1 mg intravenous methylergometrine. Acetaminophene was prescribed to use in the case of need
Outcomes	Complete abortion rate, complication rates, self-reported bleeding, self-reported pain, haemoglobin levels, any symptom that could have been due to side effects and complications
Notes	
Allocation concealment	A – Adequate

Study	Rosen 1984
Methods	Randomised into three groups. Patient's case number was paired with treatment in a randomised order. No information about the concealment of the allocation.
Participants	53 women, ≤ 49 days of amenorrhea, having had at least one full term pregnancy and a healthy status
Interventions	1. Medical intervention: Two vaginal suppositories containing either 50 or 60 mg of 9-methylene-PGE ₂ administered at 6-h intervals at home. The women stayed in bed for one h after the insertion. 2. Medical intervention: Two vaginal suppositories containing either 50 or 60 mg of 9-methylene-PGE ₂ administered at 6-h intervals in the hospital. The women stayed in bed for one h after the insertion. 3. Surgical intervention: Vacuum aspiration was performed with a Karman cannula, size 5 or 6, following an intravenous injection of diazepam and fentanyl and local anaesthesia. The women stayed in the hospital for four hours. Two interviews were made immediately before the first medical examination and at the follow-up visit
Outcomes	Complete abortion, continuing pregnancy, duration of bleeding, vomiting, diarrhoea, analgesic injection, preference for a future abortion
Notes	
Allocation concealment	B – Unclear

Study	WHO 1987
Methods	Randomised controlled trial. Computer-generated random numbers (no information on the sequence of numbers) and sealed, opaque envelopes for concealment of allocation.
Participants	473 women, ≤ 49 days of amenorrhoea, with at least one previous pregnancy. 419 of them were confirmed to be pregnant later and included in the analysis
Interventions	1. Medical intervention: Intramuscular injections of 0.5 mg PGE ₂ methyl sulfonylamide three times at 3-h intervals. 2. Surgical intervention: Vacuum aspiration, usually under local anaesthesia Three follow-up visits at 1, 2 and 6-8 weeks after treatment
Outcomes	Complete abortion, continuing pregnancy, duration and amount of bleeding, vomiting, diarrhoea, analgesic injection
Notes	
Allocation concealment	A – Adequate

Characteristics of excluded studies

Study	Reason for exclusion
Rosen 1979	Accomplishment of randomisation is not defined clearly. The exact number of women in each group is not clear although a total of 77 women were included in the study. The acceptability part includes only the first 30 women of each group with complete abortion.

ADDITIONAL TABLES

Table 01. Acceptability (preferences for a future abortion)

Study	Surgical group prefer surgical method in the future (%)	Surgical group prefer medical method in the future (%)	Medical group prefer surgical method in the future (%)	Medical group prefer medical method in the future (%)
Rosen 1984	no data	36%	no data	64%
Henshaw 1993	87%	2%	22%	74%
Creinin 2000	92%	8%	37%	63%
Ashok 2002	79%	no data	no data	70%

ANALYSES

Comparison 01. Prostaglandin vs vacuum aspiration

Outcome title	No. of studies	No. of participants	Statistical method	Effect size
01 Abortion not completed with intended method	2	472	Odds Ratio (Fixed) 95% CI	2.67 [1.06, 6.75]
02 Ongoing pregnancy	2	472	Odds Ratio (Fixed) 95% CI	0.55 [0.16, 1.84]
03 Pelvic Infection	1	419	Odds Ratio (Fixed) 95% CI	2.17 [0.64, 7.33]
04 Blood transfusion	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
05 Blood loss	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
06 Uterine perforation	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
07 Cervical Injury	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
08 Rehospitalisation	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
09 Hospital stay >24 hours	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
10 Duration of bleeding	1	419	Weighted Mean Difference (Fixed) 95% CI	5.20 [4.98, 5.42]
11 Non-routine uterotonic use postoperatively	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
12 Non-routine antibiotic use postoperatively	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
13 Pain resulting from the procedure (number needed additional analgesic injection)	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
14 Vomiting	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
15 Diarrhoea	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
16 Women's dissatisfaction with the procedure	0	0	Odds Ratio (Fixed) 95% CI	Not estimable

Comparison 02. Prostaglandin vs D&C

Outcome title	No. of studies	No. of participants	Statistical method	Effect size
01 Abortion not completed with intended method	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
02 Ongoing pregnancy	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
03 Pelvic infection	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
04 Blood transfusion	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
05 Blood loss (measured or clinically relevant drop in haemoglobin)	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
06 Uterine perforation	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
07 Cervical Injury	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
08 Rehospitalisation	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
09 Hospital stay >24 hours	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
10 Duration of bleeding	0	0	Weighted Mean Difference (Fixed) 95% CI	Not estimable
11 Blood transfusion	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
12 Non-routine antibiotic use postoperatively	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
13 Pain resulting from the procedure	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
14 Vomiting	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
15 Diarrhoea	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
16 Women's dissatisfaction with the procedure	0	0	Odds Ratio (Fixed) 95% CI	Not estimable

Comparison 03. Mifepristone vs vacuum aspiration

Outcome title	No. of studies	No. of participants	Statistical method	Effect size
01 Abortion not completed with the intended method	1	50	Odds Ratio (Fixed) 95% CI	3.63 [0.66, 20.11]
02 Ongoing pregnancy	1	50	Odds Ratio (Fixed) 95% CI	Not estimable
03 Pelvic Infection	1	50	Odds Ratio (Fixed) 95% CI	0.13 [0.01, 2.58]
04 Blood transfusion	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
05 Blood loss (measured or clinically relevant drop in haemoglobin)	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
06 Uterine perforation	1	50	Odds Ratio (Fixed) 95% CI	0.32 [0.01, 8.25]
07 Cervical Injury	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
08 Rehospitalisation	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
09 Hospital stay >24 hours	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
10 Duration of bleeding	0	0	Weighted Mean Difference (Fixed) 95% CI	Not estimable
11 Non-routine uterotonic use postoperatively	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
12 Non-routine antibiotic use postoperatively	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
13 Pain resulting from the procedure	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
14 Vomiting	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
15 Diarrhoea	0	0	Odds Ratio (Fixed) 95% CI	Not estimable

16 Women's dissatisfaction with the procedure	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
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Comparison 04. Mifepristone vs D&C

Outcome title	No. of studies	No. of participants	Statistical method	Effect size
01 Abortion not completed with intended method	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
02 Ongoing pregnancy	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
03 Pelvic Infection	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
04 Blood transfusion	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
05 Blood loss (measured or clinically relevant drop in haemoglobin)	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
06 Uterine perforation	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
07 Cervical Injury	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
08 Rehospitalisation	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
09 Hospital stay >24 hours	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
10 Duration of bleeding	0	0	Weighted Mean Difference (Fixed) 95% CI	Not estimable
11 Non-routine uterotonic use postoperatively	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
12 Non-routine antibiotic use postoperatively	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
13 Pain resulting from the procedure	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
14 Vomiting	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
15 Diarrhoea	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
16 Women's dissatisfaction with the procedure	0	0	Odds Ratio (Fixed) 95% CI	Not estimable

Comparison 05. Mifepristone and prostaglandin vs vacuum aspiration

Outcome title	No. of studies	No. of participants	Statistical method	Effect size
01 Abortion not completed with intended method	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
02 Ongoing pregnancy	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
03 Pelvic Infection	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
04 Blood transfusion	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
05 Blood loss	1	195	Weighted Mean Difference (Fixed) 95% CI	1.90 [0.05, 3.75]
06 Uterine perforation	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
07 Cervical Injury	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
08 Rehospitalisation	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
09 Hospital stay >24 hours	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
10 Duration of bleeding	2	424	Weighted Mean Difference (Fixed) 95% CI	2.94 [2.10, 3.78]
11 Non-routine uterotonic use postoperatively	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
12 Non-routine antibiotic use postoperatively	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
13 Pain resulting from the procedure	1	366	Odds Ratio (Fixed) 95% CI	4.75 [1.56, 14.39]
14 Vomiting	1	366	Odds Ratio (Fixed) 95% CI	10.54 [5.77, 19.23]

15 Diarrhoea	1	366	Odds Ratio (Fixed) 95% CI	15.87 [7.38, 34.15]
16 Women's dissatisfaction with the procedure	0	0	Odds Ratio (Fixed) 95% CI	Not estimable

Comparison 06. Mifepristone and prostaglandin vs D&C

Outcome title	No. of studies	No. of participants	Statistical method	Effect size
01 Abortion not completed with intended method	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
02 Ongoing pregnancy	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
03 Pelvic Infection	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
04 Blood transfusion	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
05 Blood loss (measured or clinically relevant drop in haemoglobin)	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
06 Uterine perforation	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
07 Cervical Injury	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
08 Rehospitalisation	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
09 Hospital stay >24 hours	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
10 Duration of bleeding	0	0	Weighted Mean Difference (Fixed) 95% CI	Not estimable
11 Non-routine uterotonic use postoperatively	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
12 Non-routine antibiotic use postoperatively	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
13 Pain resulting from the procedure	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
14 Vomiting	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
15 Diarrhoea	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
16 Women's dissatisfaction with the procedure	0	0	Odds Ratio (Fixed) 95% CI	Not estimable

Comparison 07. Methotrexate vs vacuum aspiration

Outcome title	No. of studies	No. of participants	Statistical method	Effect size
01 Abortion not completed with intended method	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
02 Ongoing pregnancy	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
03 Pelvic Infection	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
04 Blood transfusion	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
05 Blood loss (measured or clinically relevant drop in haemoglobin)	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
06 Uterine perforation	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
07 Cervical Injury	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
08 Rehospitalisation	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
09 Hospital stay >24 hours	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
10 Duration of bleeding	0	0	Weighted Mean Difference (Fixed) 95% CI	Not estimable
11 Non-routine uterotonic use postoperatively	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
12 Non-routine antibiotic use postoperatively	0	0	Odds Ratio (Fixed) 95% CI	Not estimable

13 Pain resulting from the procedure	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
14 Vomiting	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
15 Diarrhoea	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
16 Women's dissatisfaction with the procedure	0	0	Odds Ratio (Fixed) 95% CI	Not estimable

Comparison 08. Methotrexate vs D&C

Outcome title	No. of studies	No. of participants	Statistical method	Effect size
01 Abortion not completed with intended method	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
02 Ongoing pregnancy	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
03 Pelvic Infection	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
04 Blood transfusion	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
05 Blood loss (measured or clinically relevant drop in haemoglobin)	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
06 Uterine perforation	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
07 Cervical Injury	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
08 Rehospitalisation	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
09 Hospital stay >24 hours	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
10 Duration of bleeding	0	0	Weighted Mean Difference (Fixed) 95% CI	Not estimable
11 Non-routine uterotonic use postoperatively	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
12 Non-routine antibiotic use postoperatively	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
13 Pain resulting from the procedure	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
14 Vomiting	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
15 Diarrhoea	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
16 Women's dissatisfaction with the procedure	0	0	Odds Ratio (Fixed) 95% CI	Not estimable

Comparison 09. Methotrexate and prostaglandin vs vacuum aspiration

Outcome title	No. of studies	No. of participants	Statistical method	Effect size
01 Abortion not completed with intended method	1	50	Odds Ratio (Fixed) 95% CI	4.57 [0.47, 44.17]
02 Ongoing pregnancy	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
03 Pelvic Infection	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
04 Blood transfusion	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
05 Blood loss (measured or clinically relevant drop in haemoglobin)	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
06 Uterine perforation	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
07 Cervical Injury	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
08 Rehospitalisation	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
09 Hospital stay >24 hours	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
10 Duration of bleeding	1	50	Weighted Mean Difference (Fixed) 95% CI	6.00 [2.94, 9.06]

11 Non-routine uterotonic use postoperatively	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
12 Non-routine antibiotic use postoperatively	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
13 Pain resulting from the procedure	1	50	Odds Ratio (Fixed) 95% CI	153.00 [8.12, 2883.29]
14 Vomiting	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
15 Diarrhoea	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
16 Women's dissatisfaction with the procedure	0	0	Odds Ratio (Fixed) 95% CI	Not estimable

Comparison 10. Methotrexate and prostaglandin vs D&C

Outcome title	No. of studies	No. of participants	Statistical method	Effect size
01 Abortion not completed with intended method	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
02 Ongoing pregnancy	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
03 Pelvic Infection	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
04 Blood transfusion	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
05 Blood loss (measured or clinically relevant drop in haemoglobin)	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
06 Uterine perforation	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
07 Cervical Injury	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
08 Rehospitalisation	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
09 Hospital stay >24 hours	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
10 Duration of bleeding	0	0	Weighted Mean Difference (Fixed) 95% CI	Not estimable
11 Non-routine uterotonic use postoperatively	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
12 Non-routine antibiotic use postoperatively	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
13 Pain resulting from the procedure	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
14 Vomiting	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
15 Diarrhoea	0	0	Odds Ratio (Fixed) 95% CI	Not estimable
16 Women's dissatisfaction with the procedure	0	0	Odds Ratio (Fixed) 95% CI	Not estimable

INDEX TERMS

Medical Subject Headings (MeSH)

Abortifacient Agents; Abortion, Induced [*methods]; Pregnancy Trimester, First; Randomized Controlled Trials; Vacuum Extraction, Obstetrical

MeSH check words

Female; Humans; Pregnancy

COVER SHEET

Title Medical versus surgical methods for first trimester termination of pregnancy

Medical versus surgical methods for first trimester termination of pregnancy (Review)
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15

Authors	Say L, Kulier R, Gülmezoglu M, Campana A
Contribution of author(s)	RK, MG and LS had the idea and contributed to the text. AC read and made comments on the review.
Issue protocol first published	2001/2
Review first published	2002/4
Date of most recent amendment	24 August 2005
Date of most recent SUBSTANTIVE amendment	20 July 2002
What's New	Information not supplied by author
Date new studies sought but none found	20 October 2004
Date new studies found but not yet included/excluded	Information not supplied by author
Date new studies found and included/excluded	Information not supplied by author
Date authors' conclusions section amended	Information not supplied by author
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DOI	10.1002/14651858.CD003037.pub2
Cochrane Library number	CD003037
Editorial group	Cochrane Fertility Regulation Group
Editorial group code	HM-FERTILREG

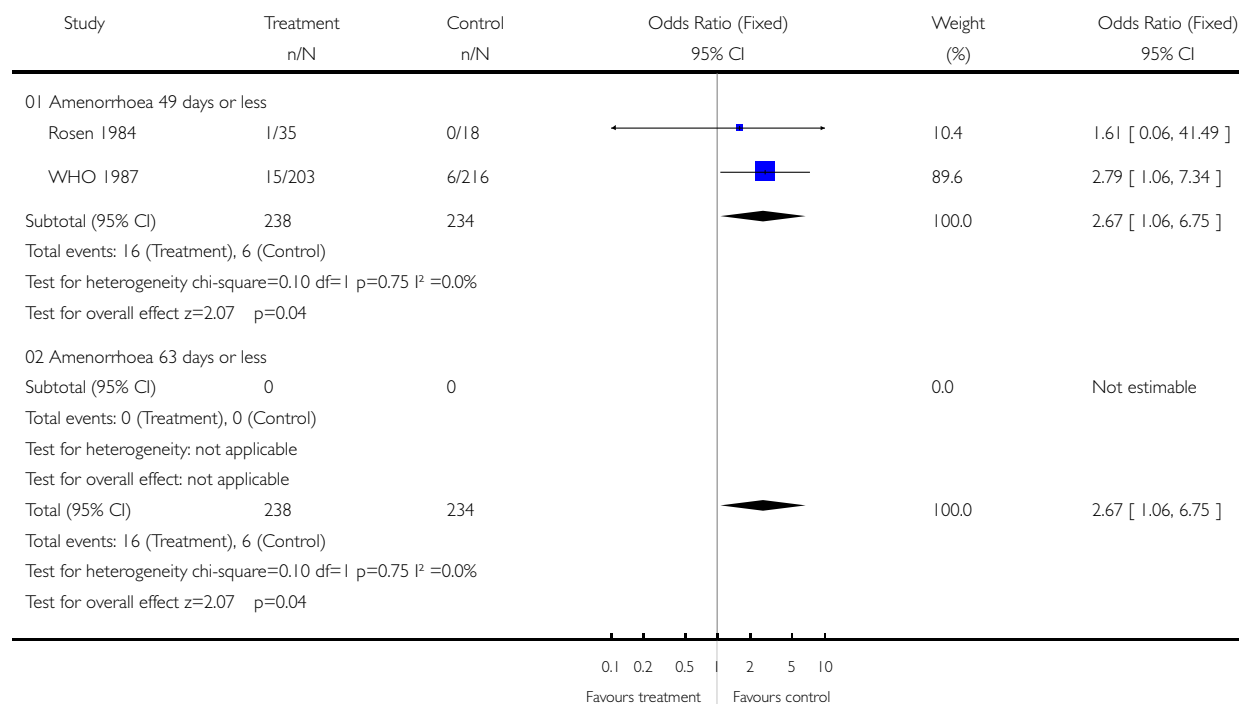
GRAPHS AND OTHER TABLES

Analysis 01.01. Comparison 01 Prostaglandin vs vacuum aspiration, Outcome 01 Abortion not completed with intended method

Review: Medical versus surgical methods for first trimester termination of pregnancy

Comparison: 01 Prostaglandin vs vacuum aspiration

Outcome: 01 Abortion not completed with intended method

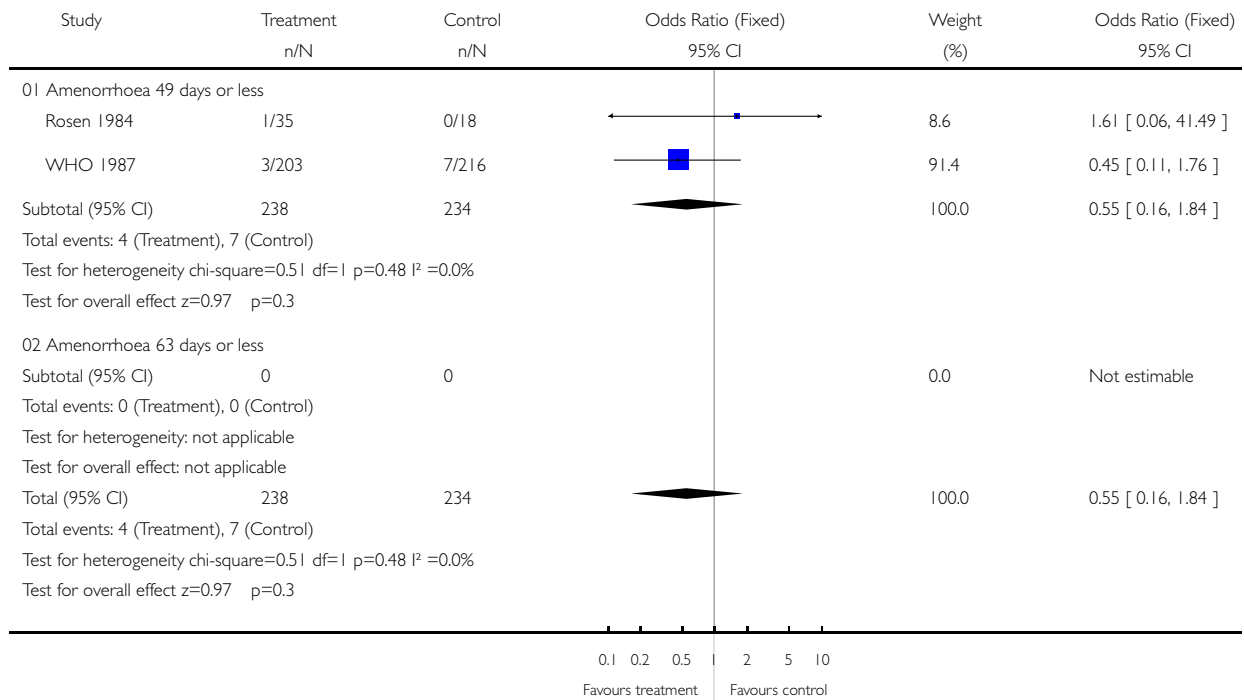


Analysis 01.02. Comparison 01 Prostaglandin vs vacuum aspiration, Outcome 02 Ongoing pregnancy

Review: Medical versus surgical methods for first trimester termination of pregnancy

Comparison: 01 Prostaglandin vs vacuum aspiration

Outcome: 02 Ongoing pregnancy

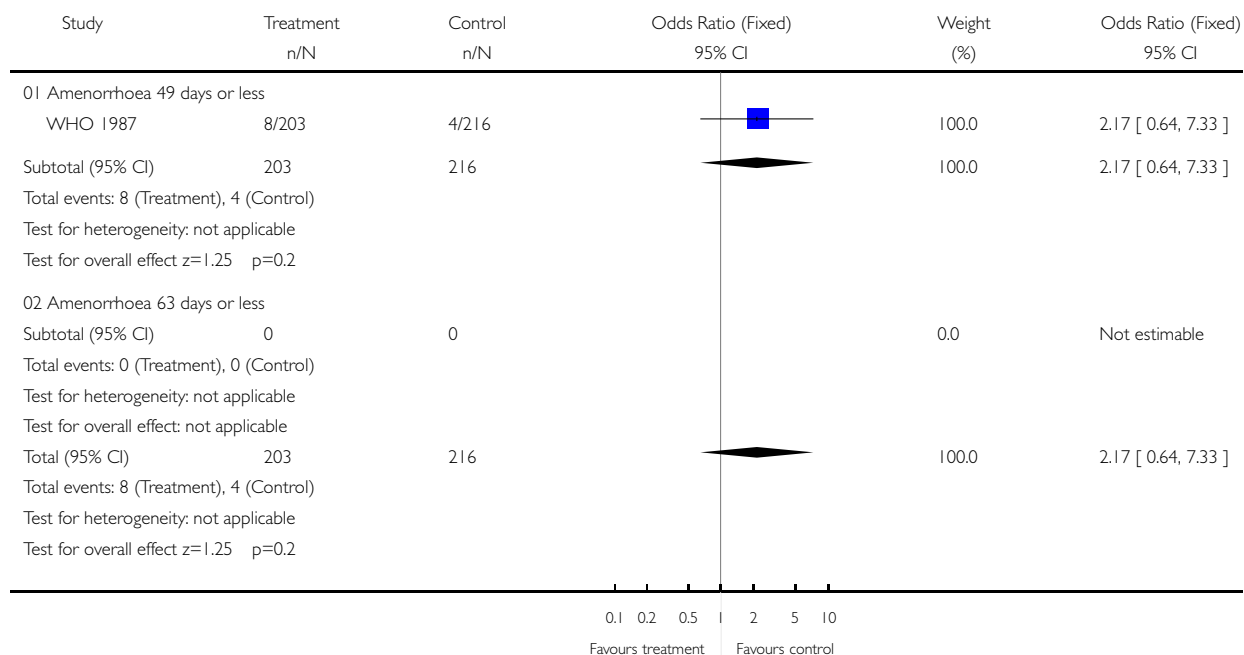


Analysis 01.03. Comparison 01 Prostaglandin vs vacuum aspiration, Outcome 03 Pelvic Infection

Review: Medical versus surgical methods for first trimester termination of pregnancy

Comparison: 01 Prostaglandin vs vacuum aspiration

Outcome: 03 Pelvic Infection

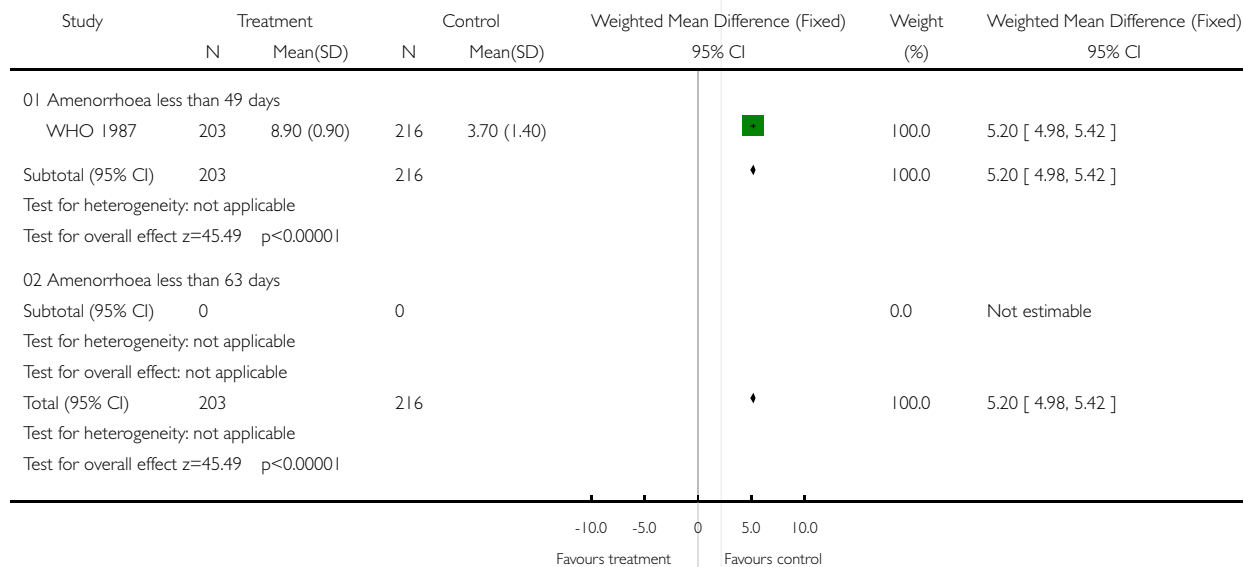


Analysis 01.10. Comparison 01 Prostaglandin vs vacuum aspiration, Outcome 10 Duration of bleeding

Review: Medical versus surgical methods for first trimester termination of pregnancy

Comparison: 01 Prostaglandin vs vacuum aspiration

Outcome: 10 Duration of bleeding

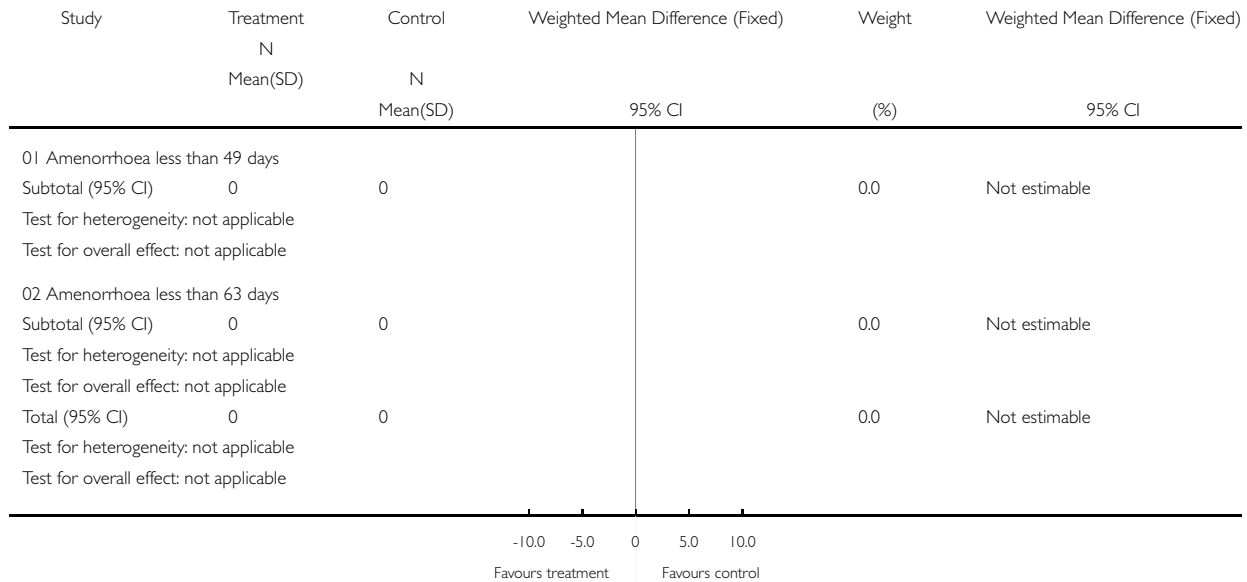


Analysis 02.10. Comparison 02 Prostaglandin vs D&C, Outcome 10 Duration of bleeding

Review: Medical versus surgical methods for first trimester termination of pregnancy

Comparison: 02 Prostaglandin vs D&C

Outcome: 10 Duration of bleeding

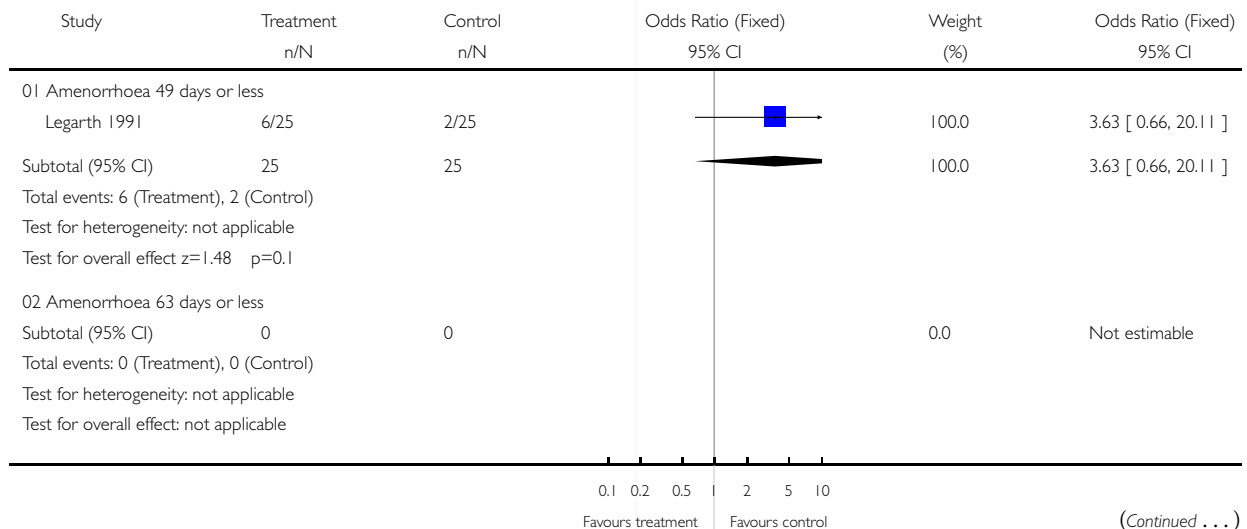


Analysis 03.01. Comparison 03 Mifepristone vs vacuum aspiration, Outcome 01 Abortion not completed with the intended method

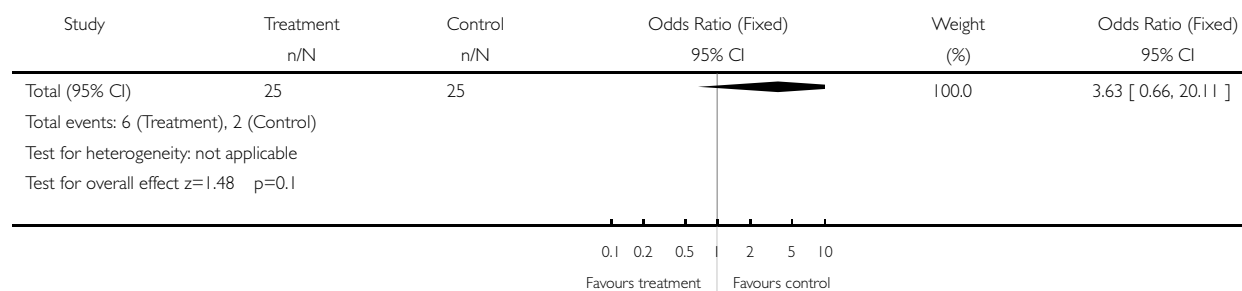
Review: Medical versus surgical methods for first trimester termination of pregnancy

Comparison: 03 Mifepristone vs vacuum aspiration

Outcome: 01 Abortion not completed with the intended method



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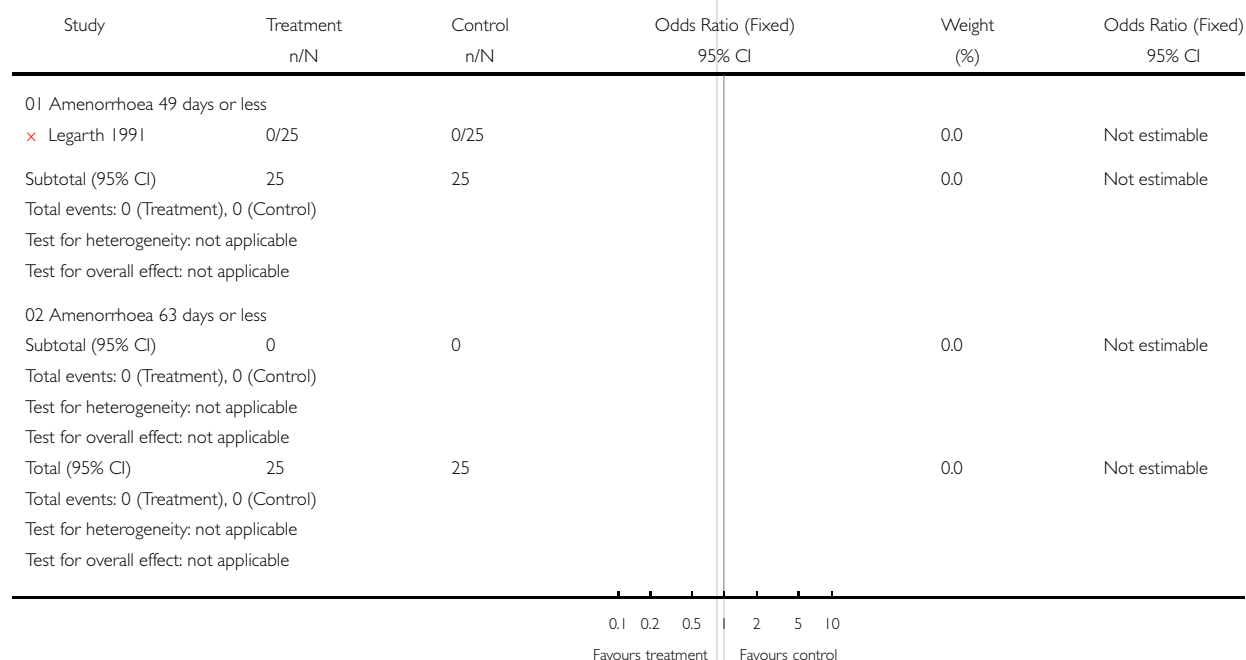


Analysis 03.02. Comparison 03 Mifepristone vs vacuum aspiration, Outcome 02 Ongoing pregnancy

Review: Medical versus surgical methods for first trimester termination of pregnancy

Comparison: 03 Mifepristone vs vacuum aspiration

Outcome: 02 Ongoing pregnancy

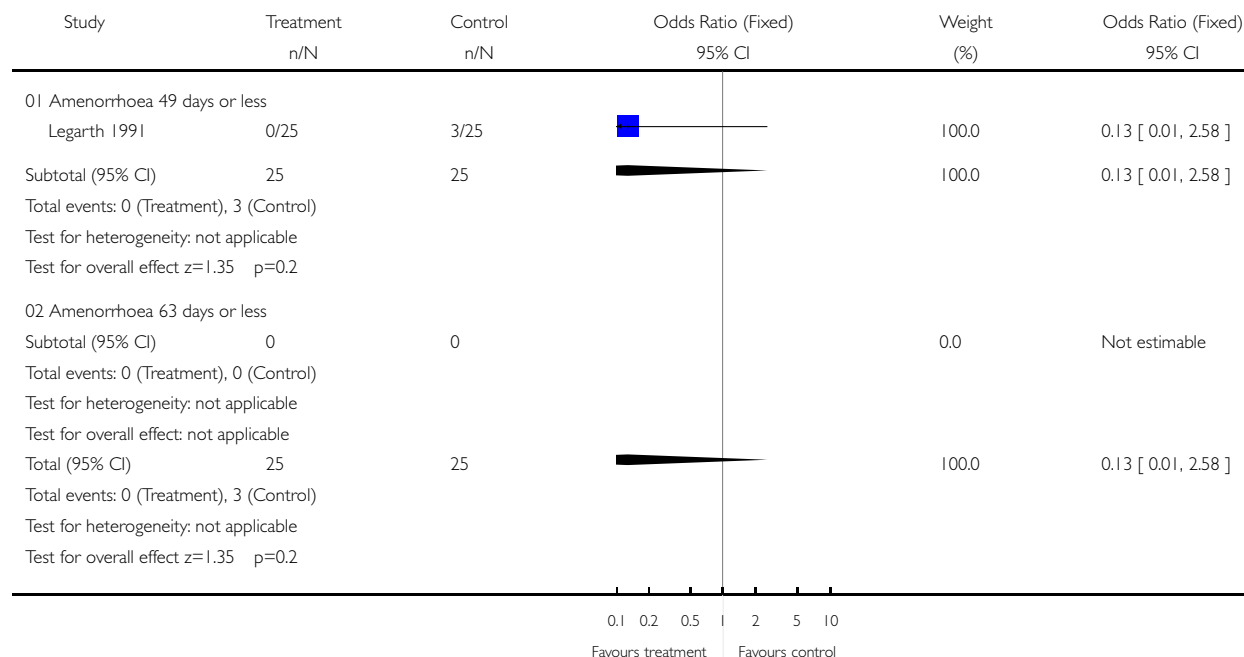


Analysis 03.03. Comparison 03 Mifepristone vs vacuum aspiration, Outcome 03 Pelvic Infection

Review: Medical versus surgical methods for first trimester termination of pregnancy

Comparison: 03 Mifepristone vs vacuum aspiration

Outcome: 03 Pelvic Infection

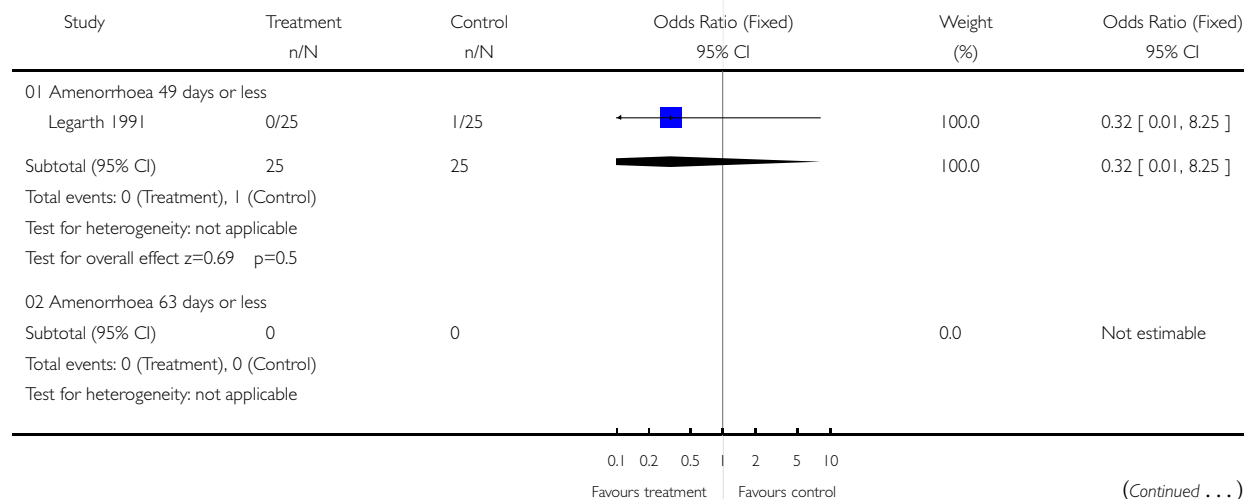


Analysis 03.06. Comparison 03 Mifepristone vs vacuum aspiration, Outcome 06 Uterine perforation

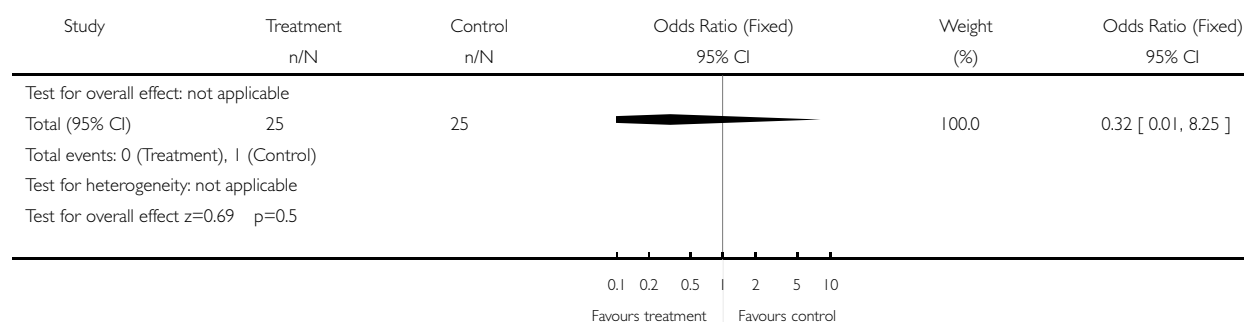
Review: Medical versus surgical methods for first trimester termination of pregnancy

Comparison: 03 Mifepristone vs vacuum aspiration

Outcome: 06 Uterine perforation



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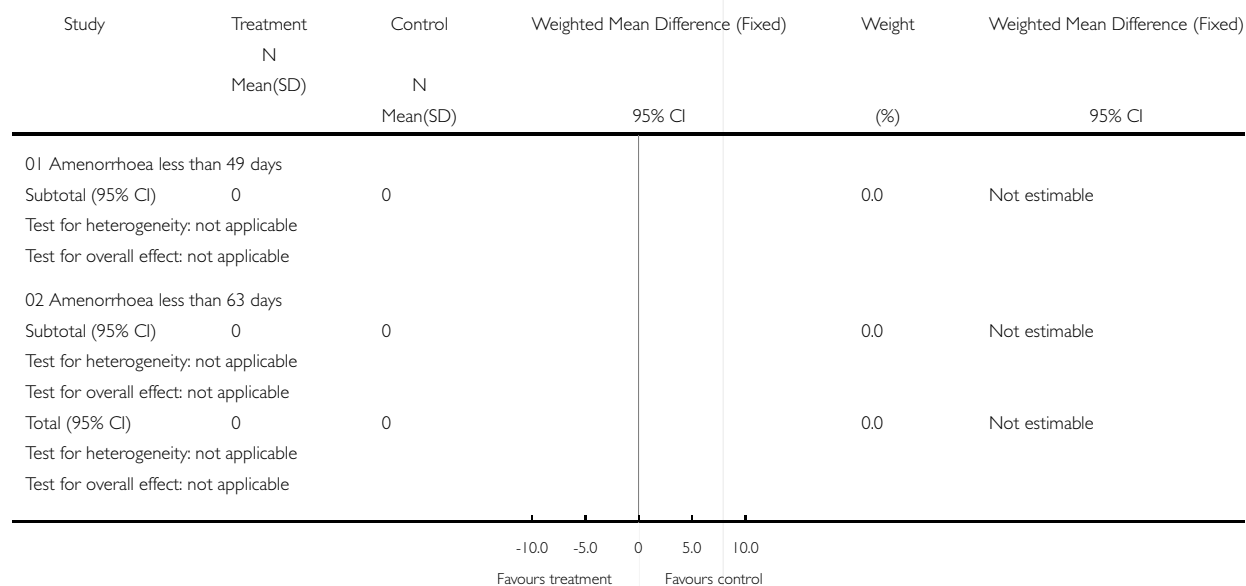


Analysis 03.10. Comparison 03 Mifepristone vs vacuum aspiration, Outcome 10 Duration of bleeding

Review: Medical versus surgical methods for first trimester termination of pregnancy

Comparison: 03 Mifepristone vs vacuum aspiration

Outcome: 10 Duration of bleeding

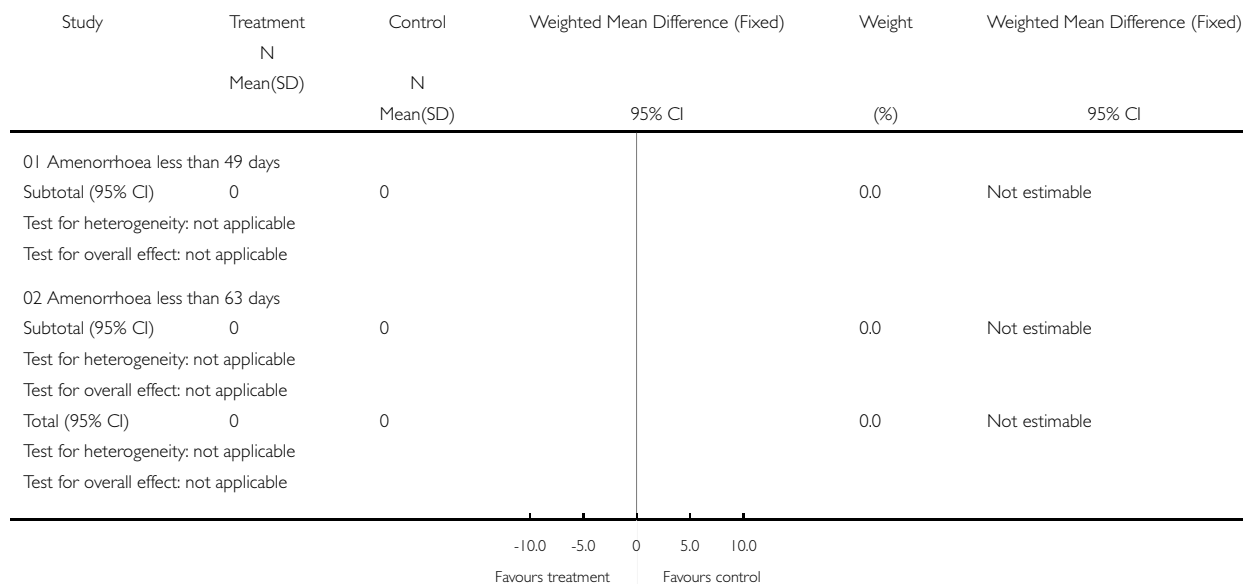


Analysis 04.10. Comparison 04 Mifepristone vs D&C, Outcome 10 Duration of bleeding

Review: Medical versus surgical methods for first trimester termination of pregnancy

Comparison: 04 Mifepristone vs D&C

Outcome: 10 Duration of bleeding

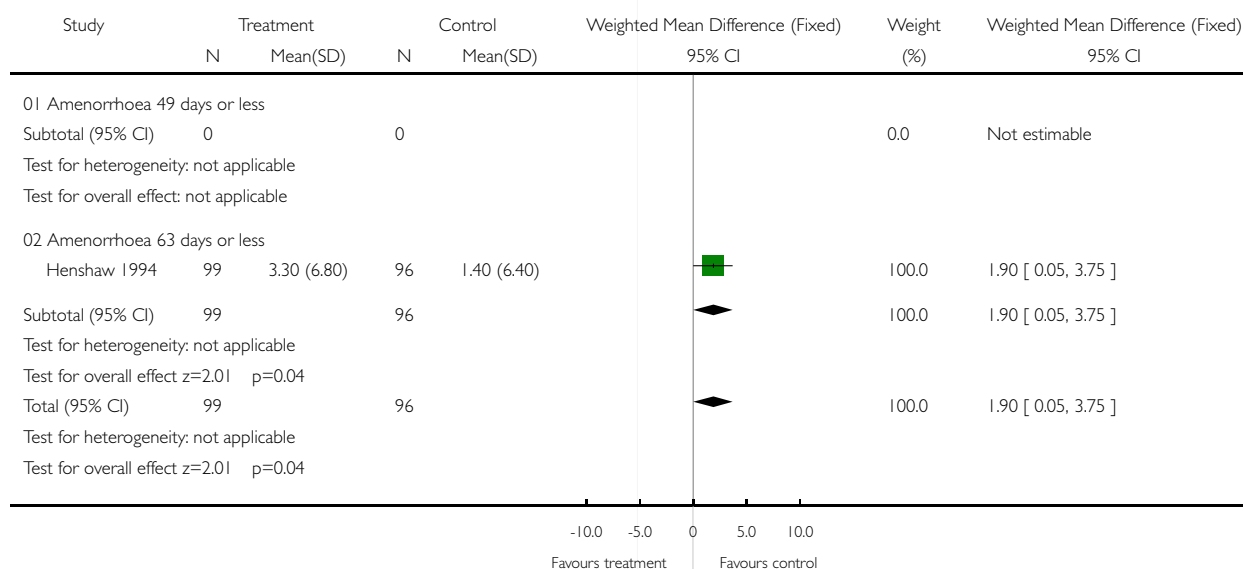


Analysis 05.05. Comparison 05 Mifepristone and prostaglandin vs vacuum aspiration, Outcome 05 Blood loss

Review: Medical versus surgical methods for first trimester termination of pregnancy

Comparison: 05 Mifepristone and prostaglandin vs vacuum aspiration

Outcome: 05 Blood loss

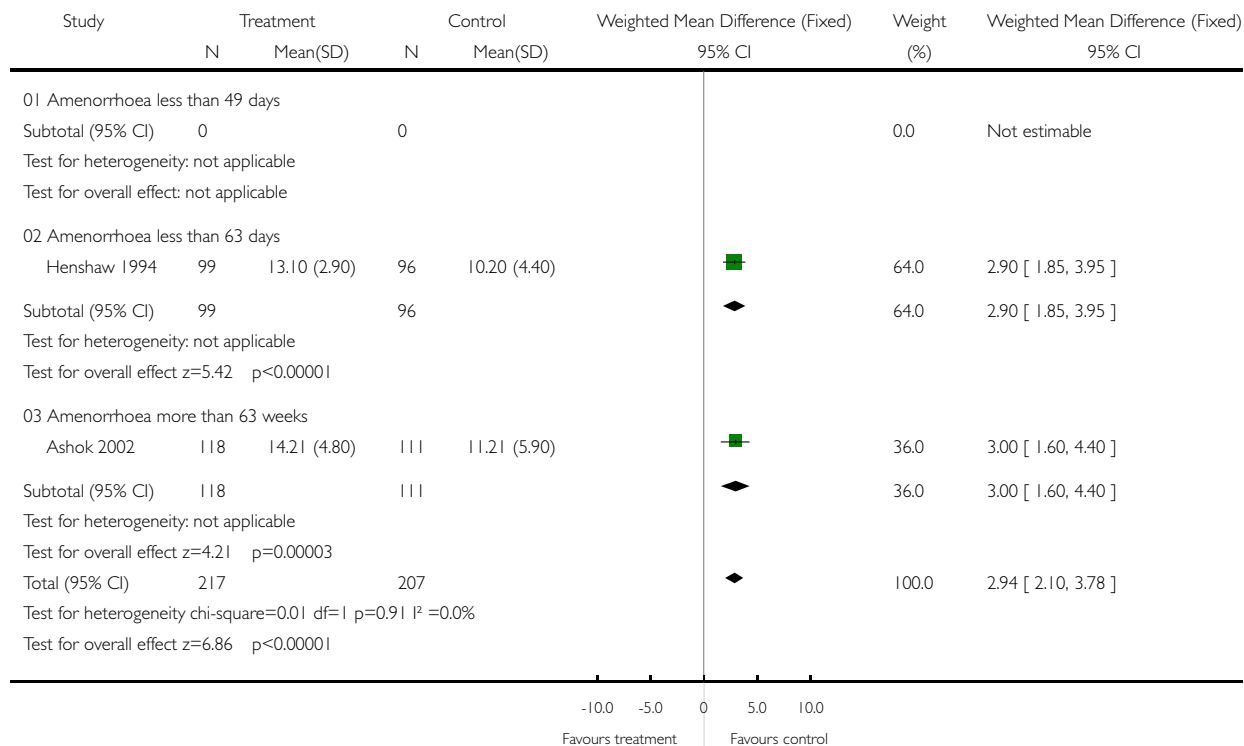


Analysis 05.10. Comparison 05 Mifepristone and prostaglandin vs vacuum aspiration, Outcome 10 Duration of bleeding

Review: Medical versus surgical methods for first trimester termination of pregnancy

Comparison: 05 Mifepristone and prostaglandin vs vacuum aspiration

Outcome: 10 Duration of bleeding

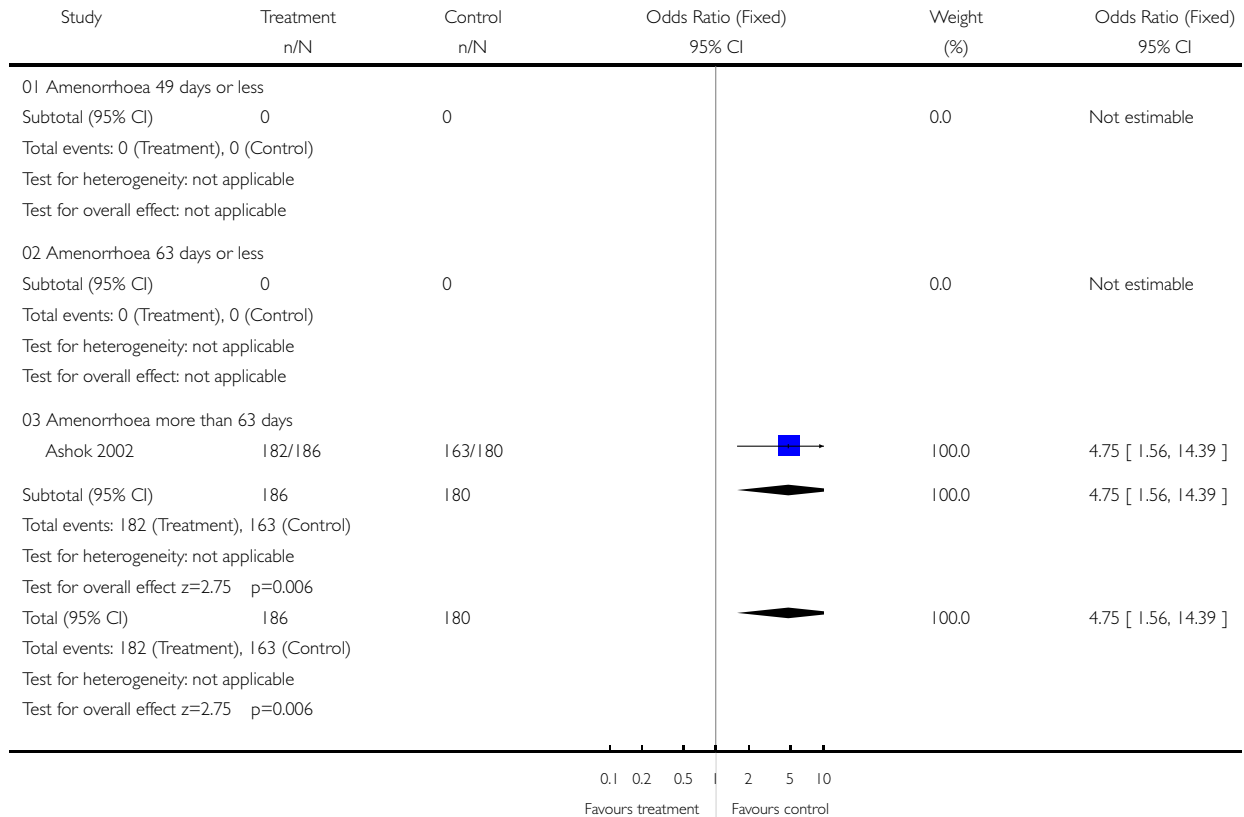


Analysis 05.13. Comparison 05 Mifepristone and prostaglandin vs vacuum aspiration, Outcome 13 Pain resulting from the procedure

Review: Medical versus surgical methods for first trimester termination of pregnancy

Comparison: 05 Mifepristone and prostaglandin vs vacuum aspiration

Outcome: 13 Pain resulting from the procedure

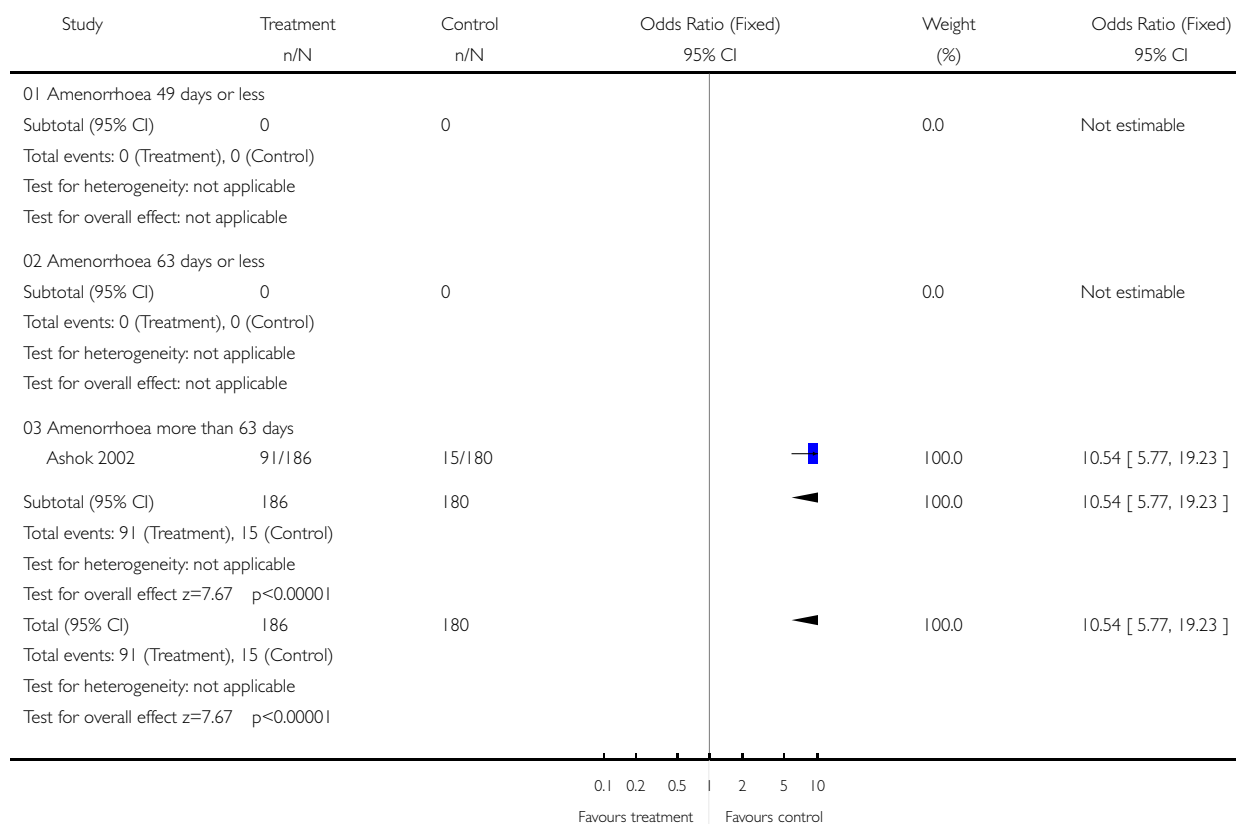


Analysis 05.14. Comparison 05 Mifepristone and prostaglandin vs vacuum aspiration, Outcome 14 Vomiting

Review: Medical versus surgical methods for first trimester termination of pregnancy

Comparison: 05 Mifepristone and prostaglandin vs vacuum aspiration

Outcome: 14 Vomiting

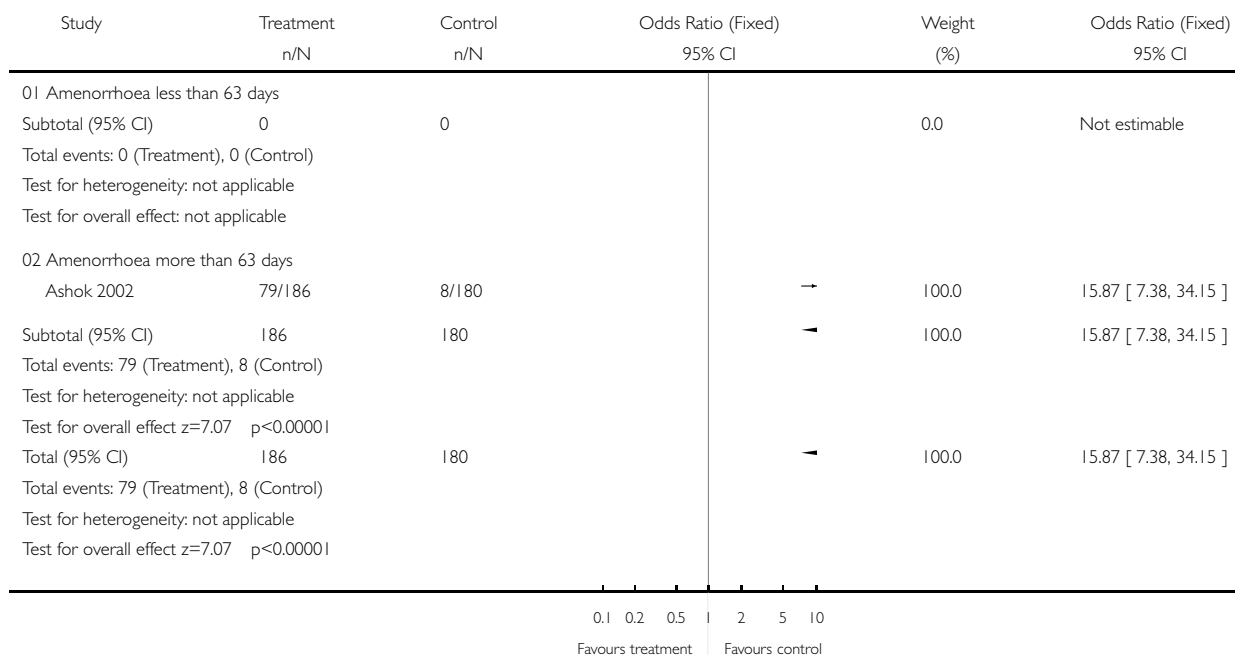


Analysis 05.15. Comparison 05 Mifepristone and prostaglandin vs vacuum aspiration, Outcome 15 Diarrhoea

Review: Medical versus surgical methods for first trimester termination of pregnancy

Comparison: 05 Mifepristone and prostaglandin vs vacuum aspiration

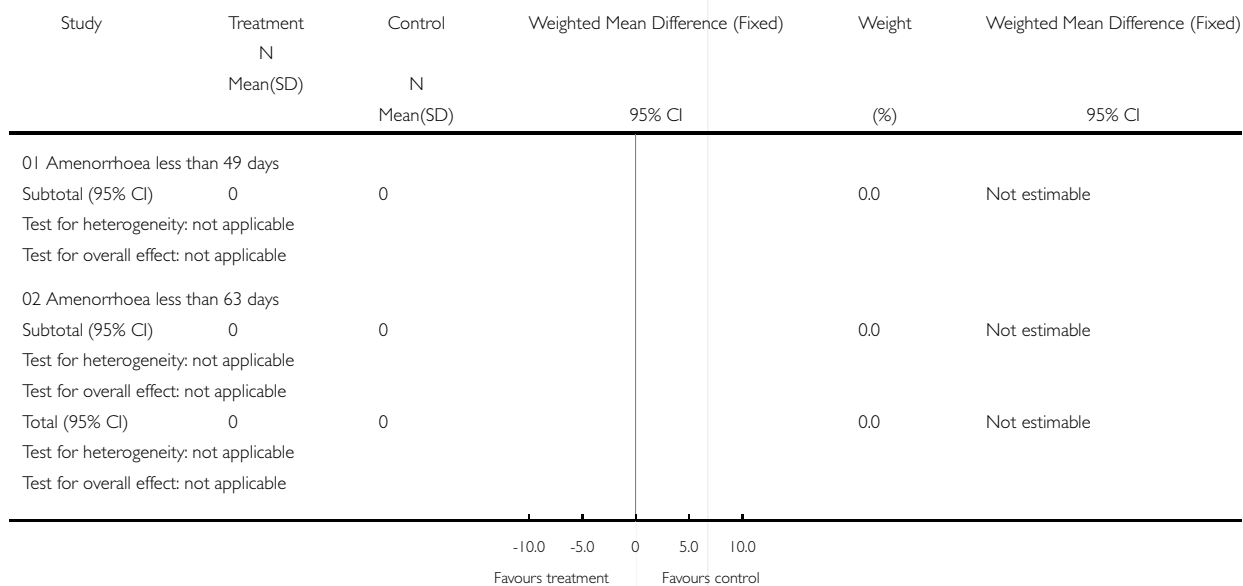
Outcome: 15 Diarrhoea

**Analysis 06.10. Comparison 06 Mifepristone and prostaglandin vs D&C, Outcome 10 Duration of bleeding**

Review: Medical versus surgical methods for first trimester termination of pregnancy

Comparison: 06 Mifepristone and prostaglandin vs D&C

Outcome: 10 Duration of bleeding

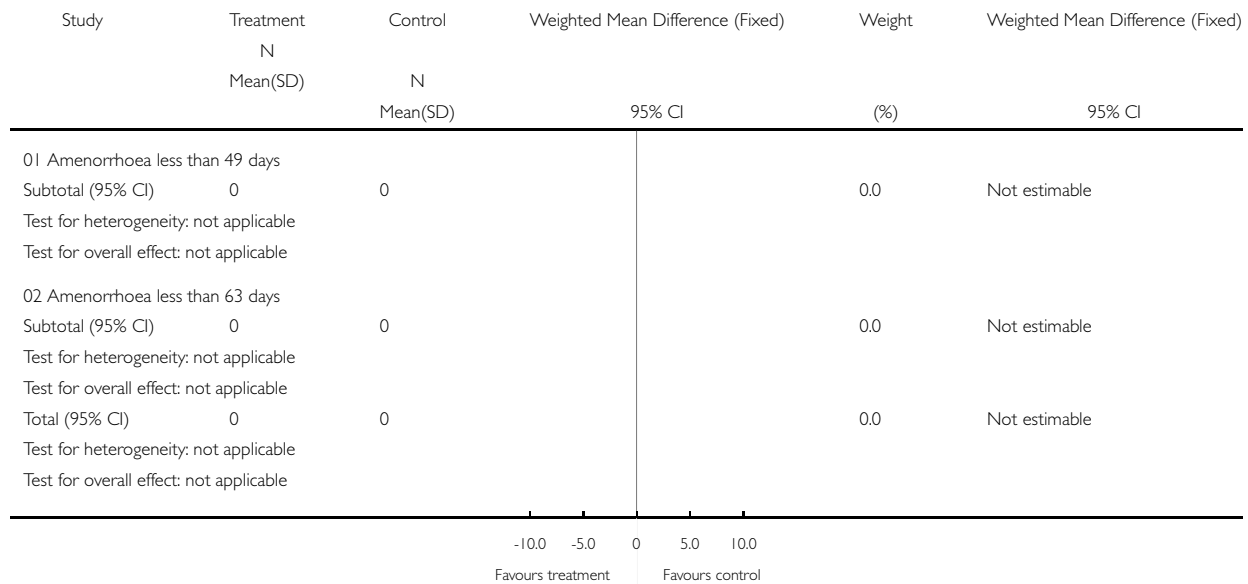


Analysis 07.10. Comparison 07 Methotrexate vs vacuum aspiration, Outcome 10 Duration of bleeding

Review: Medical versus surgical methods for first trimester termination of pregnancy

Comparison: 07 Methotrexate vs vacuum aspiration

Outcome: 10 Duration of bleeding

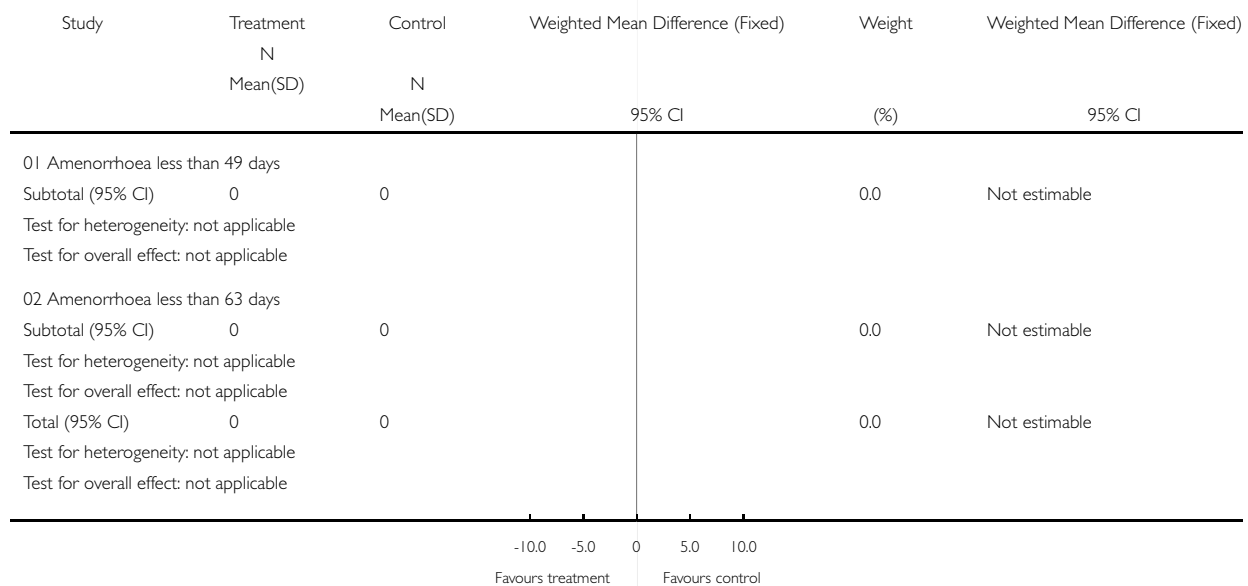


Analysis 08.10. Comparison 08 Methotrexate vs D&C, Outcome 10 Duration of bleeding

Review: Medical versus surgical methods for first trimester termination of pregnancy

Comparison: 08 Methotrexate vs D&C

Outcome: 10 Duration of bleeding

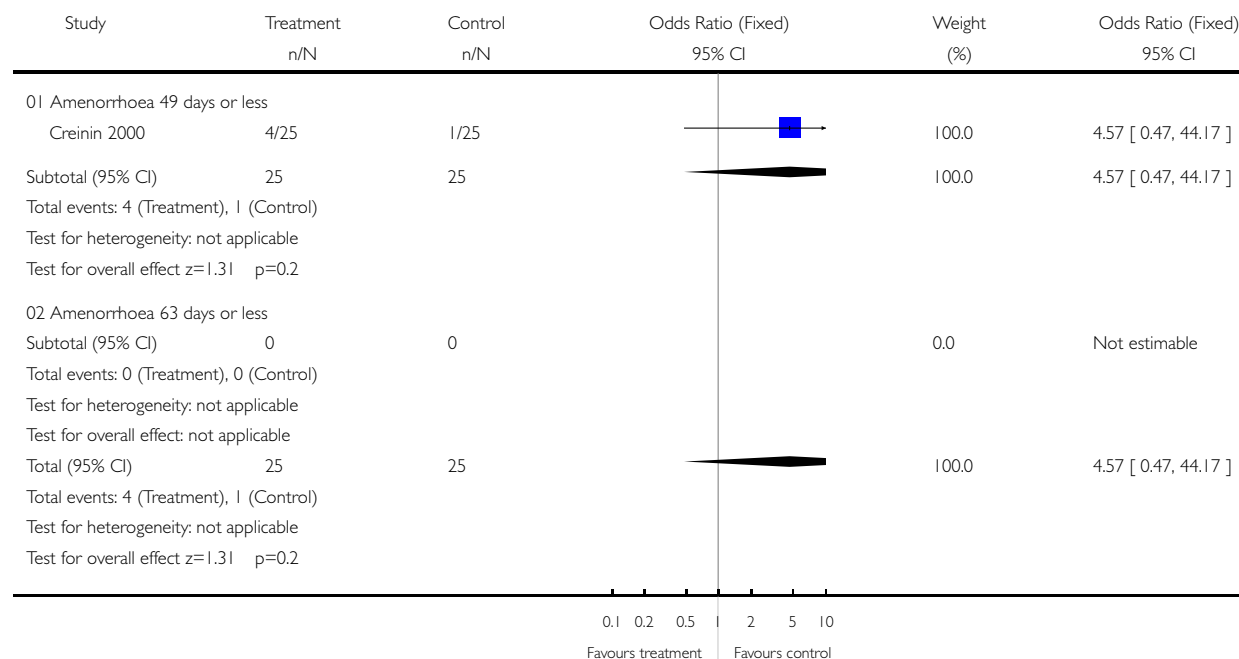


Analysis 09.01. Comparison 09 Methotrexate and prostaglandin vs vacuum aspiration, Outcome 01 Abortion not completed with intended method

Review: Medical versus surgical methods for first trimester termination of pregnancy

Comparison: 09 Methotrexate and prostaglandin vs vacuum aspiration

Outcome: 01 Abortion not completed with intended method

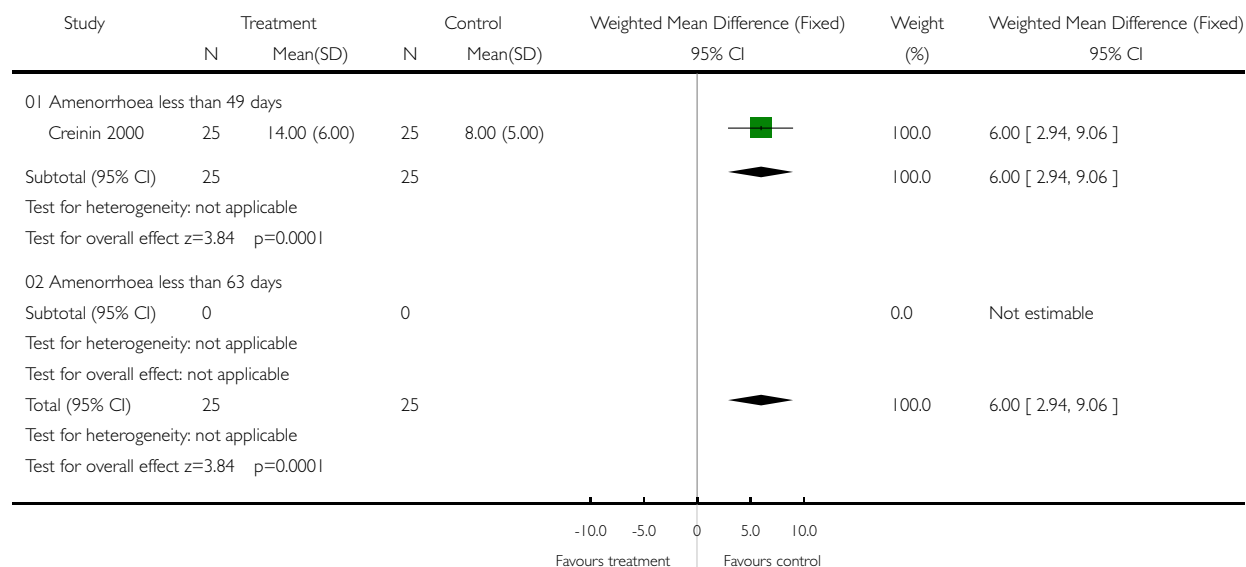


Analysis 09.10. Comparison 09 Methotrexate and prostaglandin vs vacuum aspiration, Outcome 10 Duration of bleeding

Review: Medical versus surgical methods for first trimester termination of pregnancy

Comparison: 09 Methotrexate and prostaglandin vs vacuum aspiration

Outcome: 10 Duration of bleeding

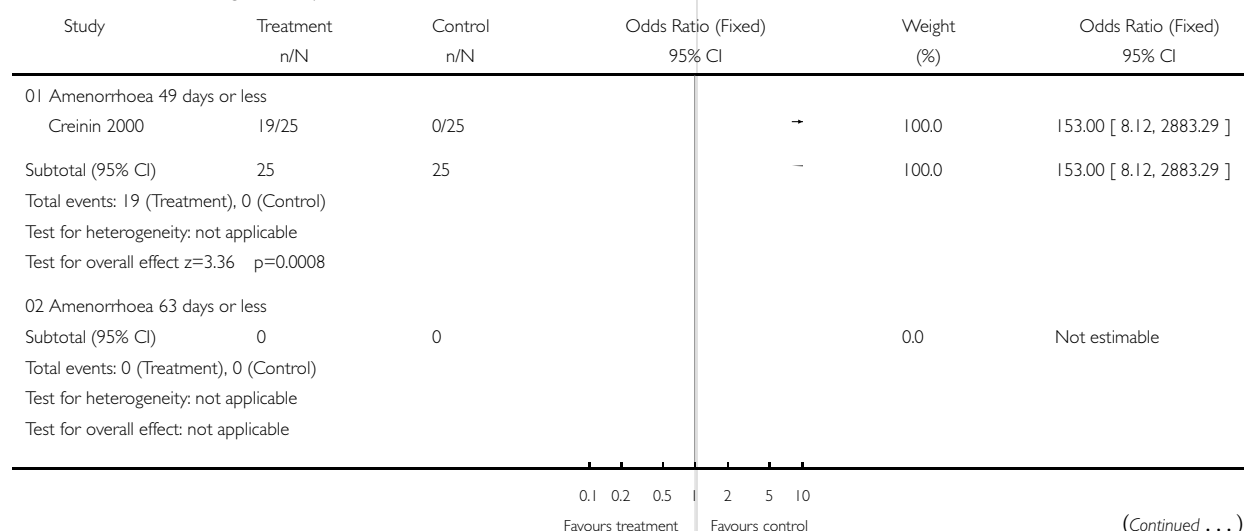


Analysis 09.13. Comparison 09 Methotrexate and prostaglandin vs vacuum aspiration, Outcome 13 Pain resulting from the procedure

Review: Medical versus surgical methods for first trimester termination of pregnancy

Comparison: 09 Methotrexate and prostaglandin vs vacuum aspiration

Outcome: 13 Pain resulting from the procedure



(Continued ...)

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Study	Treatment n/N	Control n/N	Odds Ratio (Fixed) 95% CI	Weight (%)	Odds Ratio (Fixed) 95% CI
Total (95% CI)	25	25		100.0	153.00 [8.12, 2883.29]
Total events: 19 (Treatment), 0 (Control)					
Test for heterogeneity: not applicable					
Test for overall effect $z=3.36$ $p=0.0008$					
<div> <div>0.1 0.2 0.5 1 2 5 10</div> <div>Favours treatment Favours control</div> </div>					

Analysis 10.10. Comparison 10 Methotrexate and prostaglandin vs D&C, Outcome 10 Duration of bleeding

Review: Medical versus surgical methods for first trimester termination of pregnancy

Comparison: 10 Methotrexate and prostaglandin vs D&C

Outcome: 10 Duration of bleeding

Study	Treatment N Mean(SD)	Control N Mean(SD)	Weighted Mean Difference (Fixed) 95% CI	Weight (%)	Weighted Mean Difference (Fixed) 95% CI
01 Amenorrhoea less than 49 days					
Subtotal (95% CI)	0	0		0.0	Not estimable
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
02 Amenorrhoea less than 63 days					
Subtotal (95% CI)	0	0		0.0	Not estimable
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
Total (95% CI)	0	0		0.0	Not estimable
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
<div> <div>-10.0 -5.0 0 5.0 10.0</div> <div>Favours treatment Favours control</div> </div>					