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[Intervention Review]

Interventions for treating trichomoniasis in women

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ABSTRACT

Background

Around 120 million women worldwide suffer from *Trichomonas vaginalis* vaginitis every year. The infection is sexually transmitted and is believed to facilitate HIV transmission.

Objectives

To assess the effects of various treatment strategies for trichomoniasis in women.

Search methods

We searched the Cochrane Central Register of Controlled Trials , MEDLINE, and EMBASE. Trials were also identified from reference lists of reviews, through pharmaceutical companies, and by informal discovery. Only published data were used in this review. Date of the most recent search: November, 2002.

Selection criteria

Randomised or quasi-randomised trials of different treatment strategies in women with trichomoniasis. Different antitrichomonal drugs or doses were eligible, as were comparisons of treatment with no treatment or placebo.

Data collection and analysis

Trial quality was assessed and data extracted by two reviewers independently using standard criteria.

Main results

Fifty-four trials were included. Nitroimidazole drugs seem to be effective in achieving parasitological cure in short term follow up. Partner treatment can be effective in decreasing longer term reinfection rates.

Authors' conclusions

Parasitological cure can be achieved by single oral dose of nitroimidazole. Further research should focus on developing effective partner treatment strategies to prevent reinfections and reduce trichomoniasis prevalence.

PLAIN LANGUAGE SUMMARY

Nitroimidazole drugs are effective in the treatment of trichomoniasis in women.

Trichomoniasis is a sexually transmitted infection that affects about 120 million women worldwide every year. This review examines the effectiveness of various treatments and found that oral nitroimidazole drugs are effective in treating trichomoniasis in women.

BACKGROUND

Trichomonas vaginalis vaginitis is one of the most common sexually transmitted diseases, with around 120 million women worldwide estimated to suffer from trichomoniasis every year (WHO 1994). It has been shown to be a common infection in some communities in developing countries (WHO 1994).

Trichomoniasis infection is characterised by green-yellow frothy vaginal discharge, pain on sexual intercourse, vulvovaginal soreness and itching, and pain on urination. However, many women with trichomoniasis have no symptoms (asymptomatic). Clinical diagnosis is not specific and laboratory confirmation is necessary. The parasite can be found in vaginal secretions, glands (both Bartholin's gland and Skene's gland), and the urethra. The wet mount smear is a cheap and quick diagnostic method but its sensitivity depends on the experience of the examiner and the amount of parasites in the vagina. Standard culture, transport/culture kits, enzyme immunoassay, nucleic acid amplification, and immunofluorescence methods are also available.

T. vaginalis vaginitis requires prompt and effective treatment. Metronidazole and other nitroimidazole drugs (such as ornidazole, tinidazole, nimorazole, and carnidazole) have been used as antitrichomonal agents for more than 30 years. Despite their widespread use, resistance has been relatively rare and generally managed by either higher doses or other nitroimidazoles. Clotrimazole, povidone-iodine, and nonoxynol-9 have been used as local intravaginal applications. Although oral medication is generally preferred, because of the presence of infection in the vaginal glands and urethra, therapeutic blood concentrations are also achieved with local (vaginal or rectal) application of metronidazole. The usual dose of metronidazole is a 2 g single dose or 250 mg three times daily for seven days. However, there are many variations of dose and duration of treatment with metronidazole and other nitroimidazoles. Repeat testing at 5-7 days and at around 30 days may be done to evaluate the immediate success of the treatment and the short term recurrence rate respectively. In clinical practice, however, repeat testing is rarely done unless treatment failure is suspected.

Treatment strategies aim to treat infected women and ensure that sexual partners are also treated. Recurrence of infection is thought to be mainly caused by reinfection from a partner or failure to complete the treatment course. In addition to the morbidity caused by the infection, a main concern about the high prevalence of trichomoniasis is the possibility that reproductive tract infections (ulcerative or non-ulcerative) increase the transmission rate of HIV. If this is so with trichomoniasis, high prevalence rates of the infection in some populations means the infection may be important in facilitating HIV transmission.

This review attempts to evaluate the evidence with regard to the most effective treatment strategy for T. vaginalis vaginitis in women.

OBJECTIVES

To compare the effectiveness of various treatment strategies for trichomoniasis in women who are not pregnant.

METHODS

Criteria for considering studies for this review

Types of studies

- Any trial where an attempt is made to allocate different forms of trichomoniasis treatment by a random or quasi-random method was considered for inclusion.

Types of participants

- Symptomatic or asymptomatic women, including adolescents, with confirmed (by a laboratory technique) *Trichomonas vaginalis* vaginitis. The setting where participants were enrolled (such as gynaecology outpatient, sexually transmitted disease or family planning clinic) was noted, as were other indicators of risk status (e.g. commercial sex workers).
- Exclusion criteria: trials during pregnancy; trials in men; prophylactic interventions; interventions aimed at symptomatic relief only.

Types of interventions

- Any treatment versus no treatment
- Short (single dose, repeat doses up to 1-2 days) versus longer (5-10 day) treatment
- Systemic versus local treatment
- Partner treatment versus no treatment
- Different partner treatment strategies (giving the medication to the women or seeing and counselling partners individually)
- Comparison of two different agents
- Comparison of different doses of the same agent

Types of outcome measures

- Parasitological cure
- Clinical cure (clearance of discharge, soreness, itching)
- Side effects and complications of treatment

Search methods for identification of studies

Electronic literature search of MEDLINE and EMBASE. Standard three-stage Cochrane search strategy was used for the MEDLINE search from 1966 to 2002 with the following disease terms: *Trichomonas vaginalis* (explode/all subheadings); *Trichomonas vaginitis* (explode/all subheadings); *Trichomonas* infections (explode/all subheadings); Trichomon*, Trichomon*, in title or abstract.
EMBASE was searched from 1980 to 2002 using "trichomonas" and "treatment" as search terms. African Index Medicus was searched to 1996. The specialised register of the Cochrane Infectious Diseases Group and the reference lists of identified trials and current reviews were searched. Manufacturers of metronidazole and tinidazole in the UK were contacted.
Letters were sent to authors of reviews on trichomoniasis treatment and staff at the Centers for Disease Control and Prevention (Sexually Transmitted Disease Control Programme) were contacted.
The Cochrane Central Register of Controlled Trials was searched in each successive issue of *The Cochrane Library* using the search term trichomon* . The latest search was in November 2002.
No study was excluded on the basis of the language in which it was written.

Data collection and analysis

All trials identified were considered for inclusion and are referenced in this review. Trials with objectives other than treatment of trichomoniasis in women where no indication of any kind of random allocation could be found were excluded without further evaluation. Authors were contacted if there were doubts about randomisation or the data were not in a suitable form for analysis. The risk of bias in eligible trials was evaluated in terms of allocation concealment, generation of the allocation sequence, blinding, and inclusion of all randomised participants according to the Cochrane Infectious Diseases Group guidelines.
In addition to prespecified outcomes, the following characteristics of trials were extracted:

- Country
- Characteristics of the study population
- Exclusion criteria
- Partner treatment measures
- Loss to follow up
- Women excluded from analyses
- Diagnostic procedures used

Data were extracted independently from a random sample of trials that met the inclusion criteria (n = 4). This was done by an editor in the Infectious Diseases Group and compared with the data entered by the reviewer as part of routine quality monitoring. In the most recent update of this review duplicate data extraction has been done by the two reviewers for the newly included trials.
Treatment with a single dose, or two doses 12 to 48 hours apart, were regarded as "short" treatment regimens. Others ranging from 5 to 10 days were regarded as "long" treatment regimens.
In trials with multiple arms comparing different dosages of the same drug, these arms have been reduced to two for analysis purposes (e.g. metronidazole 1 g or less versus metronidazole greater than 1 g).

RESULTS

Description of studies

Fifty-four studies are included in this review. Ten of these were conducted in developing countries in Asia and Africa. Details are given in the table of 'Characteristics of included studies'. This review excluded treatment during pregnancy. There were few studies which combined pregnant and non-pregnant women; when it was not possible to obtain separate data these studies were excluded (see 'Characteristics of excluded studies').
Of the trials included in this review the majority (40/54) compared different antitrichomonal drugs and/or different doses. Other treatment strategies included short versus long treatment (four trials), vaginal versus oral plus vaginal treatment (one trial), oral versus oral plus vaginal treatment (four trials), oral versus vaginal treatment (two trials), partner treatment versus no treatment (one trial), and comparison with a no treatment group (six trials). Some trials had more than one arm with different treatments versus control (i.e. no treatment). In all short versus long treatment trials metronidazole was used in the long treatment arm, compared to short treatment with metronidazole in two (Hager 1980, Thin 1979), ornidazole in one (Nygaard 1977). and tinidazole in one (Aimakhu 1975).

Study populations were heterogeneous. Women attending emergency departments, venereal disease clinics, gynaecology outpatient clinics, cancer screening clinics, prisons, and private practices were recruited in different trials.

All trials used at least one laboratory method for diagnosis.

Partner treatment measures are generally mentioned briefly. One trial (Lyng 1981) randomised partners of women with trichomoniasis to treatment or placebo. Others, in general, did not focus on partner treatment as part of the intervention although most attempted to treat the partners if they were available.

Some trials used extensive exclusion criteria such as the presence of other sexually transmitted diseases, poor general health, any other illnesses, and presumed promiscuity. This created rather atypical study populations. These were generally dose comparison trials possibly motivated by pharmaceutical companies. On the other hand, trials which looked at treating women who came for care (Hager 1980, Chunge 1992, Tidwell 1994) as well as others, had either high losses to follow up or exclusions which resulted in small proportions of enrolled women remaining for analysis. These women were also more likely to have concurrent sexually transmitted diseases. High losses to follow up, exclusions, and concurrent infections and treatments raise questions about the comparability of study groups within trials and the possibility of bias should be kept in mind when interpreting the results.

Risk of bias in included studies

Of 54 trials, 16 were classified as category A for allocation concealment, 30 as category B, and 8 as category C. Trials were given a quality score of A if they used secure concealment methods such as central randomisation, or sealed, opaque, envelopes. Inadequately concealed trials, such as those with open randomisation methods, received a score of C. Trials in category B described allocation as randomised but gave no further details on how allocation concealment was done. Some of these trials were reported as double blind. Since no further details were provided these trials were classified as randomised, allocation concealment unclear.

Trials were generally small and only two that met the inclusion criteria had comparator arms containing more than 100 patients (Forster 1963, Saeed 1976).

The small dose/drug comparison trials had very few losses to follow up, while trials which studied higher risk women (venereal disease, emergency clinics) had higher loss to follow up rates (11-62%). In the Hager trial, where short and long treatment regimens were compared, only 38% of the 468 women attended the follow up visit.

Only 13 trials (13/54) specifically reported that outcome assessment was blinded. It was not possible to ascertain whether outcome assessment was blinded in the others.

Effects of interventions

Treatment versus no treatment

Forster 1963 conducted a placebo controlled trial where the intervention groups were given oral metronidazole alone, or oral combined with vaginal metronidazole, over 10 days. At six weeks follow up there was a parasitological failure rate of 6% (18/287) in the treatment group. *Trichomonas* was still detected in 78% (111/142) of women in the placebo group.

Two trials (Gorlero 1992, Gorlero 1994) compared two different doses of fenticonazole vaginal ovules with a placebo group. Fenticonazole was given as a single dose in the first trial and as two doses on consecutive days in the second trial. Follow up parasitological examination was between days 4 and 7. The two different dose arms in each trial were grouped together for this comparison. Treatment resulted in a significantly higher number of women with parasitological cure (53/105 v 8/51). Of note is the relatively low overall cure rate with treatment (50%).

One trial (Csonka 1963) compared metronidazole with no treatment, two other trials (Rees 1974, Mati 1974) compared tinidazole with no treatment, while another trial (Lean 1972) compared metronidazole, tinidazole, and placebo. All these studies showed evidence of effective parasitological cure by nitroimidazoles.

Short versus longer duration of treatment

Two trials (Thin 1979, Hager 1980) compared a single 2 g oral dose of metronidazole with 5-7 day course of metronidazole. Parasitological cure was achieved in 88% and 92% of women with short and long treatments, respectively. Side effects were mainly gastrointestinal (nausea, vomiting) and more frequent with the single dose (15% vs 7%). Although the Hager trial was relatively large (468 women enrolled), only 38% attended the follow up visit.

Hager 1980 also compared failure rates in subgroups of women who said that their partners took the treatment versus those whose partners did not, and those who admitted to sexual intercourse (they were advised against it) versus those who did not. No difference was found in either comparison (7-21 days after treatment). However, high loss to follow up raises concern about the comparability of the two groups.

Two studies (Aimakhu 1975, Nygaard 1977) compared a standard one week course of metronidazole with short course tinidazole and ornidazole, respectively.

Overall, short treatment was comparable to long treatment in terms of no parasitological cure (RR 1.12, 95% CI 0.58 to 2.16). Side effects however, especially nausea/vomiting and dizziness, were significantly more frequent with short treatment.

Oral versus intravaginal treatment

Two trials (Tidwell 1994, DuBouchet 1998) compared oral versus intravaginal treatment. Tidwell enrolled only culture-positive women which (as they had to be called back) resulted in the loss of one third of eligible women. DuBouchet also lost 27% of participants by the first follow up visit, and 44% by the second follow up visit. Data from the first follow up visit were used. Our analysis showed that oral treatment was more successful in achieving parasitological cure.

One trial (Forster 1963) compared oral metronidazole treatment with oral and intravaginal treatment together (both long term) and found the combined regimen more effective.

Oral versus oral plus intravaginal treatment

Four trials (Chung 1978, Diwald 1971, Forster 1963, Gummerus 1983) compared oral versus oral plus intravaginal treatment. All of the trials except one (Diwald 1971) found combined oral and intravaginal treatment more effective.

Partner treatment versus no partner treatment

One trial (Lyng 1981) randomised partners of women with trichomoniasis (who received standard treatment with tinidazole 2 g) to treatment (tinidazole 2 g single dose) or placebo. Although there was no difference in parasitological results at the first follow up, significantly more women (3/59 vs 14/59) whose partners received placebo were *Trichomonas* positive by the second follow up at around two months compared with women whose partners were treated. History of intercourse did not affect the results.

No trials were identified that examined other different partner treatment strategies such as seeing or counselling partners individually.

Drug/dose comparisons

A number of small trials compared the effectiveness of different doses of the same drug, or compared various nitroimidazole drugs with each other.

Metronidazole was compared with tinidazole in eight studies (Anjaneyulu 1977, Begum 1980, Gabriel 1982, Garud 1978, Lean 1972, O-Prasertsawat 1992, Rao 1978, Sandvei 1979). Except for one study (Lean 1972), all compared short regimens of each drug. There were no parasitological failures in two of the trials; however, our meta-analysis results indicate a statistically significant higher treatment failure rate (RR 3.24, 95% CI 1.66 to 6.32), higher clinical failure rate (RR 3.81, 95% CI 1.83 to 7.90), and higher side effect rate (RR 1.65, 95% CI 1.35 to 2.02) with metronidazole. These results should be interpreted with caution as blind assessment of outcomes was reported in only one of the eight trials (Gabriel 1982). There was no statistical difference in parasitological or clinical outcomes in this trial.

Six trials compared tinidazole with ornidazole (Hillstroem 1977, Chaisilwattana 1980, Serup 1978, Chunge 1992, Sesti 1990, Sandvei 1979). These trials showed no difference in parasitological cure, and the one trial that reported on clinical cure showed no difference. The ornidazole group had a higher incidence of side effects, most notably fatigue (RR 0.18, 95% CI 0.05 to 0.58).

In most trials single dose treatment with any nitroimidazole drug resulted in parasitological cure rates above 90%. Although rarely severe, side effects seem to be relatively common and dose related.

Two trials (Spence 1997, Austin 1982) compared different doses of short treatment metronidazole. One trial (Austin 1982) compared 1 g with 2 g, whereas the other (Spence 1997) compared 0.5 g, 1 g, 1.5 g, and 2 g. For the purpose of this review meta-analysis was conducted comparing high (1.5 g or more) with low (1 g or less) dose treatment regimens. Lower dose treatment was found to be inferior to high dose (or rather standard dose) metronidazole in terms of failure to achieve parasitological cure (RR 2.97, 95% CI 1.92 to 4.59) with similar rates of side effects. Laboratory assessments were blinded in both trials.

DISCUSSION

Strength of the evidence

This review includes multiple small trials that examine parasitological outcomes in comparisons of effectiveness between different nitroimidazole drugs, different doses, and different regimens. Such variation among the trials lend significant heterogeneity to the meta-analysis, and results should be cautiously interpreted.

Only two trials had comparison groups of more than 100 women. Only one trial examined broader aspects of effective care in trichomoniasis by evaluating the effectiveness of partner treatment in reducing persistent infection.

Treatment effectiveness

The included trials showed that almost any nitroimidazole drug given as a single dose or over a longer period results in parasitological cure in 90% of cases. Oral single dose treatment with any nitroimidazole seems to be effective in achieving short term parasitological cure, but is associated with more frequent side effects than either longer oral or intravaginal treatment. Intravaginal treatment showed parasitological cure rates around 50% which is unacceptably low. The data on symptomatic relief from intravaginal treatment compared with oral treatment are not consistent. However, the trial by Bremond (Bremond 1987), which was excluded from the review because the focus was on symptomatic relief rather than parasitological cure, showed significant benefit from locally applied anti-inflammatory treatment.

It is not possible to conclude that tinidazole is superior to metronidazole from the evidence reviewed. Outcome assessments were blinded in only one study that showed no difference between the two drugs. One argument in favour of tinidazole has been its longer half-life in the body, hence possibly longer duration of effect when compared to metronidazole.

Partner treatment

Although effective clinical treatments exist, *Trichomonas vaginalis* vaginitis is still one of the most common sexually transmitted diseases. Reinfection by partners appears to be a major problem, and the one trial that examined partner treatment showed that this intervention reduced reinfection significantly. One other trial, which examined differential cure rates by a history of whether the partner had been treated, showed no difference. The latter data, however, are based on reported treatment history, are not from randomised comparisons, and have been gathered from short term follow up studies.

Drug resistance

Another problem that may not be as widespread as reinfection is drug resistance. Metronidazole is probably the most widely used nitroimidazole for trichomoniasis, and several case reports of resistance have been published although the true extent of this is not known.

Applicability

Effective treatment of trichomoniasis is important internationally, but particularly important in some developing countries where HIV transmission is high and resources for health care are scarce. The results suggest that reinfection is common if partners are not treated. Since many women in developing countries attend clinics alone it is not clear whether giving the medication to the woman to take to her partner is effective or not. Partner notification, on the other hand, can be time consuming, expensive, and difficult to achieve. These problems are similar for all sexually transmitted diseases, but the mild symptoms and non-specific symptoms of *Trichomonas* infection in men means that compliance with partner treatment is less likely. Another problem that confronts all sexually transmitted disease control strategies is that those groups at greatest risk of these diseases (including commercial sex workers, users of commercial sex workers, and people with multiple concurrent sexual partners) are often difficult to follow up.

By looking at the number of trials published in recent years, enthusiasm for research in the treatment of trichomoniasis seems to be low. This is most probably because of the successful short term parasitological cure that is achieved by drug treatment. However, T. vaginitis remains one of the most common sexually transmitted diseases, and the possibility of an increase in HIV transmission because of vaginitis makes it even more important to investigate effective strategies to decrease the prevalence of the disease.

AUTHORS' CONCLUSIONS

Implications for practice

Nitroimidazoles seem to be effective in achieving short term parasitological cure. Single dose treatment is adequate but patients should be warned about the side effects; compliant patients may be offered a longer treatment regimen with less risk of side effects. Women with severe symptoms may benefit from intravaginal nitroimidazoles or anti-inflammatory agents in addition to oral treatment. Every effort should be made to treat partners.

Implications for research

From the limited evidence reviewed here there seems to be little difference between drugs.

Strategies to ensure effective partner treatment for the reduction of disease prevalence should be investigated. Future trials should be designed appropriately for this purpose. It is difficult and probably unrealistic to expect women and their partners to attend long term follow up, which makes immediate partner treatment strategies more important. Such trials need to be conducted in settings where infected women are most likely to be seen, such as sexually transmitted disease clinics or gynaecology outpatient clinics. The challenge is to test strategies to increase partner treatment, with longer follow up to evaluate the success of treatment in those settings. Trials could usefully investigate giving partner treatment to women compared with tracing partners by letter, telephone or through extension workers. Using financial incentives to encourage follow up, such as paying for transport and health service fee exemption, could also be researched.

Although it is not a priority for health services research, a carefully conducted metronidazole versus tinidazole comparison with blind assessment of outcomes in settings where both drugs are used and available may be worthwhile. The sample size in such a trial should take into account that both drugs are likely to achieve high rates of parasitological cure and the difference between them would be rather small.

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* *Indicates the major publication for the study*

CHARACTERISTICS OF STUDIES

Characteristics of included studies *[ordered by study ID]*

Aimakhu 1975

Methods	Cards labelled with either drug in sealed envelopes were picked up by nurses from a basket No placebos were used. No mention of blind outcome assessment.
Participants	Pregnant (4) and non-pregnant (53) women with vaginal discharge in Ibadan, Nigeria were included in this study. However, only the data for non-pregnant women have been extracted Partners were treated if available. Abstinence from sexual intercourse was advised.
Interventions	Metronidazole 200 mg 3 times daily by mouth for 7 days versus tinidazole 5 x 400 mg capsules taken as single dose in clinic
Outcomes	Parasitological and clinical cure. Side effects.
Notes	Diagnosis by smear and confirmation by culture. Follow up on days 3, 5, and 15. Excluded 1 tinidazole and 3 metronidazole group women because wetmount diagnosis was not confirmed and 2 tinidazole and 1 metronidazole participants were lost to follow up

Anjaneyulu 1977

Methods	Consecutive women allocated in a balanced randomisation schedule No mention of blind outcome assessment.
Participants	100 women with vaginal discharge in Poona, India were included Most partners were treated. Those receiving antitrichomonal treatment in the past 4 weeks were ineligible
Interventions	Metronidazole 2 g (5 x 400 mg tabs) by mouth single dose versus tinidazole 2 g (4 x 500 mg tabs) by mouth single dose
Outcomes	Parasitological and clinical cure. Side effects.
Notes	Diagnosis by wetmount. Follow up on days 4, 8, and 12. No exclusions or loss to follow up reported.

Antonelli 2000

Methods	Sequentially numbered opaque envelopes containing medications No placebo use. Outcome assessment was blinded.
Participants	46 women with motile trichopmonads on wet mount at gynecology clinic in North Carolina, USA
Interventions	Metronidazole 2 g (5 x 400 mg tabs) versus Nonoxynol-9 450 mg per vagina (3 x 150mg suppositories) suppositories per vagina
Outcomes	Parasitological cure.
Notes	Diagnosis by wet mount. Follow up 6-22 days after treatment. Study terminated after results of first 46 patients because of poor clinical response with nonoxynol 9 suppositories 26% (12 patients) loss to follow up. Data from 1 patient missing

Austin 1982

Methods	Series of random numbers prepared by the pharmacy. Laboratory assessments were blinded. Method of allocation concealment not stated.
Participants	186 women with vaginal discharge attending sexually transmitted disease (STD) clinics and family planning clinics in Ontario, Canada Partners were treated if seen. Abstinence from intercourse was advised.
Interventions	Metronidazole 1g versus 2 g, both given as single, oral dose
Outcomes	Parasitological and clinical cure. Side effects.
Notes	Diagnosis by wetmount confirmed by culture. Follow up weekly. Loss to follow up 23/186 (12.4%). No post- randomisation exclusions reported.

Barnes 1957

Methods	Alternate allocation.
Participants	Women with trichomoniasis in England.
Interventions	Aminitrozole, 100 mg three times daily by mouth for 10 days + aci-gel versus aci-gel only Aci-gel is a buffered vaginal jelly with a pH of 4.0 given twice daily
Outcomes	Parasitological cure.

Barnes 1957 (*Continued*)

Notes	Diagnosis by wetmount and culture. Loss to follow up rate was 23% (14/60).

Begum 1980

Methods	Randomisation table. No mention of blinding.
Participants	69 women with trichomoniasis in Dacca and Sylhet, Bangladesh Most partners were treated. Exclusion criteria: pregnancy, overt hepatic dysfunction.
Interventions	Tinidazole 2 g by mouth single dose versus metronidazole 1 g by mouth twice a day for 2 days
Outcomes	Parasitological and clinical cure. Side effects.
Notes	Diagnosis by smear and symptomology. Follow up on post-treatment days 7, 14, and 21. No mention of dropouts.

Block 1972

Methods	Randomisation done, description not given. Double blind trial. Preparations in neutral packaging.
Participants	100 women with trichomoniasis in Sweden. Most partners were treated. Exclusion criteria: concurrent infection with other pathogen found
Interventions	Nifuratel 200 mg by mouth 3 times a day for 7 days plus 250 mg intravaginally daily for 10 days, versus metronidazole 200 mg by mouth 3 times a day for 7 days plus 500 mg intravaginally daily for 10 days
Outcomes	Parasitological and clinical cure. Side effects.
Notes	Diagnosis by smear and symptomology. Follow up 14 days after treatment (patients found positive receive another treatment with the same regimen and are examined again after 14 days) 12% loss to follow up in nifuratel group, 3% in metronidazole group

Chaisilwattana 1980

Methods	Randomised, double blind. Sealed pre-numbered treatment packs were provided by the drug company The method of randomisation is not stated. Code was broken after all trial procedures were finished implying blinded outcome assessment
Participants	Women at reproductive age with trichomoniasis attending a venereal disease clinic in Bangkok, Thailand
Interventions	Tinidazole 2 g versus ornidazole 1.5 g, both given as a single oral dose The male partners also received similarly coded corresponding medication
Outcomes	Parasitological and clinical cure. Side effects.
Notes	Diagnosis by wetmount. Loss to follow up rate was 11% (13/120). More than half of patients had chronic or recurrent vaginitis

Chaudhuri 1980

Methods	Random allocation, double blind, coded treatment packs were used No mention of blind outcome assessment.
Participants	Women with trichomoniasis in Rotterdam, Holland.
Interventions	Carnidazole versus tinidazole, both 2 g, single oral dose. Partners received same treatment and an instruction leaflet was given to all patients recommending condom use for 2 weeks and alcohol abstinence
Outcomes	Parasitological cure after 1 and 2 weeks. Side effects.
Notes	Diagnosis by wetmount. Side effects reported for all (patients and partners). Five patients did not attend the first follow up, all were seen at 2 weeks, no exclusions reported

Chung 1978

Methods	Patients allocated at random to 3 groups. No further details provided.
Participants	109 patients with trichomoniasis seen at gynaecology outpatient clinics in two hospitals in Seoul and Hong Kong No partner treatment was employed although instructions for using a condom were given
Interventions	Ornidazole 2 g single dose by mouth versus ornidazole 1 g by mouth plus 0.5 g vaginal tablet short course (24 h) versus ornidazole 1 g by mouth, short course (24 h)
Outcomes	Clinical and parasitological cure. Side effects.

Chung 1978 (*Continued*)

Notes	Diagnosis by wetmount. Follow up on day 3 and after the first menstruation after treatment Loss to follow up 37.7% after 3 days and 88.1% after menses.

Chunge 1992

Methods	Patients were randomised into 5 groups. No details of the procedure given, placebos were not used.
Participants	Symptomatic women attending a family planning clinic and a female outpatient clinic in Kenya who agreed to take the medications in the clinic and to come back for follow up were enrolled Women with obvious clinical problems were excluded.
Interventions	The women were divided into 5 groups: Group 1: Nimorazole 2 g, oral single dose. Group 2: Nimorazole 3 g, oral single dose. Group 3: Nimorazole 4 g, oral in two doses 24 hours apart Group 4: Tinidazole 2 g, oral single dose Group 5: Ornidazole 1.5 g, oral single dose. Advice on coital abstinence was withheld on purpose to find out those who had sex between the treatment and follow up visit
Outcomes	Parasitological cure on day 3. Clinical cure (defined as absence of any 3 of the initial symptoms that were present). Side effects.
Notes	Diagnosis by wetmount smear. 121 out of 153 women came for follow up on day 3 (21% loss to follow up) A further 49 women were excluded from analysis because they had sexual intercourse during the study period Results reported for 47% of all women enrolled.

Csonka 1963

Methods	Randomly allocated tablets put in identical, numbered packets, with key to code kept by hospital pharmacy Double blind, placebo used.
Participants	67 women with trichomoniasis in England. Exclusion criteria: prostitutes and women thought to be promiscuous
Interventions	Metronidazole 200 mg three times a day for 10 days versus placebo
Outcomes	Parasitological cure.
Notes	Diagnosis by smear. Follow up to three months after treatment. Loss to follow up - 10 women: 7 in placebo group, 3 in metronidazole group

Diwald 1971

Methods	Randomised following a list of random numbers. Double blind. Unclear whether lab assessments were blinded.
Participants	50 women with trichomoniasis, in Steyr, Austria. Partners received active treatment in both groups.
Interventions	Tinidazole 150 mg by mouth twice daily + tinidazole 150 mg vaginal tablet once daily, for 5 days versus tinidazole 150 mg by mouth twice daily + placebo vaginal tablets for 5 days
Outcomes	Parasitological and clinical cure. Side effects.
Notes	Diagnosis by wetmount and culture (in 37/50 cases). Follow up on day 7. No loss to follow up reported.

DuBouchet 1997

Methods	Random allocation in order of study entry, based on table of random numbers Open label study. No placebos were used.
Participants	168 women with trichomoniasis from Brooklyn, Charlottesville, and Baltimore, USA Patients were advised to use condoms to prevent reinfection and to refer partners for treatment Exclusion criteria: pregnancy or suspected pregnancy, hypersensitivity to imidazoles, central nervous system (CNS) disease, severe hepatic disease, blood dyscrasias, using oral anticoagulants, treatment for trichomoniasis in preceding 4 weeks, inability to complete treatment between menstrual periods
Interventions	Metronidazole 2 g by mouth single dose versus two 100 mg clotrimazole vaginal tablets once a day for 7 days versus AVC vaginal suppository (containing 1.05 g sulfanilamide, 14 mg aminacrine hydrochloride, and 140 mg allantoin) twice a day for 7 days
Outcomes	Parasitological and clinical cure. Side effects.
Notes	Diagnosis by smear, culture, and symptomatic score. Follow up 2-3 and 4-6 weeks after treatment. Patients dropped from the study were replaced with patients who received the same treatment Exclusion from analysis (35 women): failure to return for first follow up visit (19), invalid spacing of visits (5), discontinuance of drug because of adverse reactions (2), other protocol violations (9) 168 women enrolled, 133 (79%) evaluable for efficacy.

DuBouchet 1998

Methods	Randomised, open label pilot study. Randomised based on table of random numbers.
Participants	56 women with trichomoniasis in USA. Patients were urged to abstain from intercourse during treatment and their partners were to use condoms until completion of the study Male partners were offered treatment. Exclusion criteria: women under 18, pregnant women, women with candidiasis at diagnosis, lactation, intrauterine device (IUD) in situ, menstruation at time of diagnosis
Interventions	0.75% metronidazole gel, 5 g intravaginally, two times a day for 7 days, versus 250 mg oral metronidazole three times a day for 7 days
Outcomes	Parasitological cure.
Notes	Diagnosis by smear and culture Follow up 5-7 days and 21-28 days after completion of treatment Exclusion from analysis: 8 patients dropped for not meeting entry criteria, 2 lost to follow up, 3 did not return for follow up within the allotted time period

Eriksson 1976

Methods	Randomised in groups of 10. The investigator did not know the group allocation but no further details reported No mention of blind outcome assessment.
Participants	Women attending a venereal disease clinic in Stockholm, Sweden Pregnant women were excluded. Partner treatment was usually not possible.
Interventions	Metronidazole 200 mg 3 times a day for 7 days versus nimorazole 300 mg twice daily for 7 days
Outcomes	Parasitological and clinical cure. Side effects.
Notes	Diagnosis was by culture and wetmount in the first half and by culture only in the second half of the study Loss to follow up was 3/53 (5.6%) in the metronidazole group and 6/59 (10.2%) in the nimorazole group No post-randomisation exclusions reported.

Evans 1970

Methods	Randomly allocated consecutive women in a double blind way. No placebos were used and because one treatment was oral and intravaginal and the other oral only, blinding was until the time of allocation
Participants	Women attending sexually transmitted disease clinic in London, England No mention of any partner treatment attempt.

Evans 1970 (*Continued*)

Interventions	Metronidazole 200 mg by mouth three times daily for 7 days versus nifuratel 200 mg by mouth three times daily for 7 days + one 250 mg vaginal pessary for 10 nights
Outcomes	Parasitological and clinical cure. Side effects.
Notes	Diagnosis by wetmount in most cases and with culture and smear in some Loss to follow up 17% (19/115).

Evans 1971

Methods	Consecutive women randomly allocated to two treatment groups in a double blind way No mention of blind outcome assessment.
Participants	Women attending a sexually transmitted disease clinic in London, England
Interventions	Metronidazole 200 mg by mouth three times daily for 7 days versus nitrimidazine 250 mg tablets by mouth, twice daily for 6 days
Outcomes	Parasitological and clinical cure. Side effects.
Notes	Diagnosis by wetmount Loss to follow up 26/142 (18%) and an additional 2 women were excluded because the diagnosis was based on cervical smears rather than wetmount technique

Forster 1963

Methods	Randomisation from a table of random numbers, drugs numbered consecutively and placed in sealed envelopes Placebos were used for similar route schedules (i.e. oral and intravaginal) separately Combined oral and vaginal treatment and placebos had two envelopes, containing each treatment stapled together Outcome assessments were blinded.
Participants	Women attending a cancer detection clinic in Puerto Rico who had *Trichomonas* identified in their cervical and vaginal smears were eligible Mean age of women was 40, and 70% were between 30-49. Eligible women were sent reminders and responders were included if they were wetmount positive
Interventions	There were 4 study groups. All groups received metronidazole or placebo according to the following regimes: Oral drug 250 mg three times daily for 10 days. Vaginal drug 500 mg once daily for 10 days in addition to oral drug as above. Oral placebo. Oral and vaginal placebo.
Outcomes	Parasitological cure after 2 weeks, 6 weeks, and 3 months. Clinical cure.

Forster 1963 (*Continued*)

	Side effects.
Notes	Diagnosis and enrolment by wetmount smear. Loss to follow up was 35/450 at 2 weeks, 21/450 at 6 weeks, and 42/450 at 3 months. Three in the drug and 4 in the placebo group had no follow up

Fugere 1983

Methods	Randomised from a table of random numbers. Placebos were not used but the trial was conducted in a double blind fashion No mention of blind outcome assessment.
Participants	Symptomatic and asymptomatic women with trichomoniasis in Montreal, Canada Women with serious medical disorders, gonorrhoea or syphilis or who had been treated with metronidazole in the last 3 months were excluded
Interventions	Ornidazole was given as a single, oral dose of 0.5 g or 1.0 g or 1.5 g to three groups, respectively Women were given information about the nature of the disease, advised to either refrain from coitus or use a condom and were given a bottle of metronidazole tablets with instructions for the partner They were also advised to abstain from using douches, creams, and vaginal jellies
Outcomes	Presence of infection at days 7-12 and around day 30. Side effects.
Notes	Trial enrolment was according to wetmount smear results but samples were also collected for culture, urine microscopy, and Papanicolaou smears

Gabriel 1982

Methods	Random allocation to two groups. Placebos were not used, however investigators were blind to the group allocation during the course of the study and for outcome assessments Follow up at 2 weeks.
Participants	Non-pregnant women with vaginal discharge who could attend a follow up visit after 2 weeks were eligible Trial conducted in a venereal disease clinic in London, England
Interventions	Metronidazole 2 g (400 g tabs x 5) versus tinidazole 2 g (500g x 4) as single dose by mouth
Outcomes	Parasitological and clinical cure. Side effects.
Notes	Diagnosis by wetmount and culture. Loss to follow up 6/46 and 7/49 in the metronidazole and tinidazole groups, respectively

Garud 1978

Methods	Women randomly allocated to two groups. No further details given. No mention of blind outcome assessment.
Participants	Women with vaginal discharge attending gynaecological outpatient departments in Bombay, India Partners treated in most cases. Abstinence from sexual intercourse was advised.
Interventions	Metronidazole 2 g by mouth single dose versus tinidazole 2 g by mouth single dose
Outcomes	Parasitological and clinical cure. Side effects.
Notes	Diagnosis by wetmount and culture. Follow up on days 6, 14 and 21. Loss to follow up 24/90 (27%) in whole group. No exclusions reported.

Gjonnaess 1969

Methods	Random division into groups. No mention of blinding. Method of allocation concealment not stated.
Participants	95 women with trichomoniasis in Norway. Most partners were treated.
Interventions	Nifuratel 200 mg by mouth three times a day for 7 days plus a 250 mg vaginal tablet once a day for 10 days versus nifuratel 200 mg by mouth three times a day for 10 days plus a 250 mg vaginal tablet once a day for 10 days
Outcomes	Parasitological cure during follow up and during first 4 months following therapy. Side effects.
Notes	Diagnosis by smear. Patients were re-treated (with 200 mg nifuratel three times a day for 10 days plus a 250 mg vaginal tablet twice daily for 10 days) if trichomonads were found during follow up Follow up 10 days after end of therapy. 5 patients lost to follow up, no breakdown into treatment groups

Gorlero 1992

Methods	Random allocation to three groups. No details of randomisation procedure given. Placebos were used for the no-treatment group. No mention of blind outcome assessment.
Participants	Women with trichomoniasis, >18 years, in Italy. Exclusion criteria: patients with serious metabolic or systemic disorders and women who were treated for vaginal

Gorlero 1992 (*Continued*)

	infections in the last 4 weeks
Interventions	Three groups: Fenticonazole, 600 mg single intravaginal ovule versus fenticonazole 1000 mg single intravaginal ovule versus placebo No mention of any partner treatment or notification.
Outcomes	Presence of infection on day 4. Clinical cure was assessed by the women (w) and physicians (p) separately using a semi-quantitative scale (symptoms (w)/vaginal erythema and oedema (p): none, mild, moderate, severe). Side effects.
Notes	Diagnosis was made by wetmount smear. All women were asked to come for a second follow up visit on day 8; those who were *Trichomonas* positive on day 4 were given an additional 600 mg ovule regardless of their allocated group No mention of exclusions or loss to follow up.

Gorlero 1994

Methods	Randomised, double blind, ran parallel in two centres. Placebos were used. No mention of blind outcome assessment.
Participants	Women with trichomoniasis, aged 18-70 years, in Italy. Women with serious systemic disorders and who received vaginitis treatment in the last 2 weeks were excluded Presence of another infectious agent was also a reason for exclusion
Interventions	Three groups: Group 1: Fenticonazole 600 mg intravaginal ovule on days 1 & 2 followed by placebo on days 3 & 4. Group 2: Fenticonazole 1000 mg intravaginal ovule on days 1 & 2 followed by placebo on days 3 & 4. Group 3: Placebo ovules for four days. No mention of any partner treatment or notification measures
Outcomes	Presence of infection on day 7. Clinical cure. Side effects.
Notes	Diagnosis was made by wetmount smear. Of the 61 women enrolled, 2 withdrew and 1 stopped because of side effects resulting in 3 exclusions

Gummerus 1983

Methods	Random allocation of participants. No further information is given.
Participants	45 women with trichomoniasis. All husbands were treated.
Interventions	Tinidazole 2 g orally as a single dose versus tinidazole 2 g single dose + 500 mg vaginally every night for 7 days

Gummerus 1983 (*Continued*)

Outcomes	Parasitological cure on day 14. Side effects.
Notes	Diagnosis made by culture and wet smear. Follow up 2 weeks after treatment. No mention of losses to follow up.

Hager 1980

Methods	Method of randomisation not specified. Placebos were used, the trial was conducted in a double blind fashion No mention of blind outcome assessment.
Participants	Symptomatic women attending a venereal disease clinic in Georgia, USA Women younger than 18 years, who had missed a period and who were treated for trichomoniasis in the last month were excluded
Interventions	Single dose versus 7 day regimen. Single dose regimen: Metronidazole 2 g (8 x 250 mg tabs) followed by one placebo tablet three times daily for 7 days. Seven day regimen: Eight placebo tablets followed by one metronidazole tablet three times daily for 7 days Each women was given 2 g metronidazole for partner treatment and were asked to abstain from coitus and alcohol during the treatment period
Outcomes	Parasitological cure 7-21 days after completing therapy. Side effects.
Notes	Diagnosis was based on wetmount and culture. Participants were given standard treatments for any other sexually transmitted disease identified Neisseria gonorrhoea was identified in 14% and 18% of single dose and 7 day groups respectively Overall loss to follow up was 62% (292/468).

Hayward 1976

Methods	Alternate allocation.
Participants	105 women attending a venereal disease clinic in Bournemouth, England Abstinence from sexual intercourse advised. Partners treated when they were available.
Interventions	Metronidazole 400 mg immediately followed by 4, 12 hourly doses of 400 mg (2 g) versus nimorazole 750 mg stat followed by 3, 12 hourly doses of 750 mg (3 g), oral
Outcomes	Parasitological and clinical cure. Side effects.
Notes	Diagnosis by wetmount confirmed by culture. Follow up at days 7, 14, and 28.

Hayward 1976 (*Continued*)

	Loss to follow up and exclusion because of not taking drugs appropriately (1 in each group) accounted for 15/53 (28%) and 18/52 (35%) with metronidazole and nimorazole respectively Excluded: those with less than 3 visits or attended follow ups for less than 28 days

Hillstroem 1977

Methods	Random numbers used to generate two groups. Each treatment was separately packed, numbered and women were enrolled consecutively Placebos were used and outcome assessments were blinded.
Participants	Women with trichomoniasis attending two gynaecology outpatient and one venereal disease clinic in Sweden Women who had recently been treated for other sexually transmitted diseases (STDs) were also included Age range was 14-71 years.
Interventions	Ornidazole 1.5 g versus tinidazole 2 g, both given as a single oral dose Of the sexual partners, 27/45 and 25/43 received treatment.
Outcomes	Parasitological cure on day 7 and 30. Side effects.
Notes	Enrolment was by wetmount smear but all women also had cultures No exclusions or loss to follow up reported.

Iannino 1975

Methods	No description of how groups were randomised. No mention of blinding.
Participants	29 women with trichomoniasis.
Interventions	Metronidazole 500 mg, intravaginally, 1 tablet per day versus Methyl-Patricin 25,000 units, intravaginally, 1 tablet per day
Outcomes	Parasitological cure.
Notes	Diagnosis by smear. Follow up on post-treatment day 2 to 4.

Korner 1978

Methods	Randomisation from a list of random numbers. Double blind, placebos were used. Outcome assessments were blinded.
Participants	Women with trichomoniasis, attending general practice clinics in Copenhagen, Denmark Women with liver, blood diseases, who could not attend follow up visits and who were known to be promiscuous were excluded

Korner 1978 (*Continued*)

Interventions	Ornidazole, 1 g (500 mg tabs x 2) + 2 placebo tabs versus ornidazole 2 g (500 mg tabs x 4) Women were given an extra pack of tablets to take to their partners with written instructions
Outcomes	Parasitological cure on day 7. Side effects.
Notes	Diagnosis was made by wetmount and culture. Culture negative patients (18 and 16 in the 1 g and 2 g groups, respectively) were excluded from further analysis except for side effects Loss to follow up was 6 and 1 in the 1 g and 2g groups.

Lean 1972

Methods	Randomised, double blind. Identical capsules were used for the two treatment groups and the placebo group Outcome assessments were blinded.
Participants	50 non-pregnant women with vaginal discharge in Singapore were included Women with neurological diseases were excluded.
Interventions	Metronidazole versus tinidazole versus placebo all administered 200 mg 3 times daily for 10 days
Outcomes	Parasitological and clinical cure. Side effects.
Notes	Diagnosis by dark ground microscopy. Follow up examinations on day 5, day 10, 3rd week and 4th week No losses to follow up. 45/50 remained in hospital for the first 5 days, the remainder were hospitalised for the whole course

Lyng 1981

Methods	Allocation on a random basis. Active or placebo treatments were given in coded boxes. No mention of blind outcome assessment.
Participants	Partners of women who had trichomoniasis were randomised to treatment and control groups The trial was conducted in Copenhagen, Denmark.
Interventions	To the partners: Tinidazole 2 g oral, single dose versus placebo All women received standard treatment.
Outcomes	Parasitological cure on days 7-14 and around day 30. Side effects.
Notes	Diagnosis was made by culture. Loss to follow up rate was 8% (12/149) in the first and 11% (14/132) in the second follow up

Mahony 1975

Methods	Containers only identifiable by numbers were given to women and their partners (separately marked) where possible Neither the nurse administering the treatment nor the women could identify the treatment arms Outcome assessments were blinded.
Participants	Patients attending "special clinics" (venereal disease) in south east England
Interventions	Single dose, 2 g metronidazole versus nimorazole. Partners offered concomitantly coded treatment if they were available
Outcomes	Parasitological cure. Side effects.
Notes	Diagnosis by wetmount. 12/93 (13%) lost to follow up.

Manth 1989

Methods	Patients were randomly assigned to two groups, method of randomisation not mentioned, double blind trial Placebos not used. No mention of blind outcome assessment.
Participants	Symptomatic women with trichomoniasis. Patients with serious medical disorders, poor general health, immunodeficient, and those considered unsuitable or unreliable were excluded Trial conducted in Europe.
Interventions	Fenticonazole intravaginal ovule 600 mg versus 1000 mg. No mention of partner treatment, notification, and other precautions
Outcomes	Parasitological cure on day 1or 2. Clinical cure was assessed semi- quantitatively (symptoms cleared, improved, unchanged, worsened). Side effects.
Notes	Diagnosis was made by wetmount smear. No loss to follow up.

Mati 1974

Methods	Randomised double blind. Paired (for partner treatment) numbered envelopes containing either active or placebo were given to the women No mention of blind outcome assessment.
Participants	31 non-pregnant women attending gynaecology outpatient clinics in Nairobi, Kenya No advice on sexual intercourse was given during the course of the study
Interventions	Tinidazole 2 g single dose (4 tablets) by mouth versus 4 yeast tablets as single dose

Mati 1974 (*Continued*)

Outcomes	Clinical and parasitological cure. Side effects.
Notes	Diagnosis by wetmount. Follow up on day 7. No report of losses to follow up or post-randomisation exclusions

McClean 1972

Methods	Random, both the patient and prescriber blind to allocation. No further details given. No mention of blind outcome assessment. Follow up intended until 3 months.
Participants	Women with trichomoniasis in London, England.
Interventions	Metronidazole 400 mg twice daily for 5 days versus nitrimidazine 250 mg twice daily for 6 days
Outcomes	Parasitological and clinical cure. Side effects.
Notes	Diagnosis by wetmount smear. Loss to follow up was 16% (5 v 11 in metronidazole and nitrimidazine groups, respectively) and one patient who did not complete the treatment was excluded

Notowicz 1977

Methods	Alternate allocation.
Participants	Women with trichomoniasis, attending a venereal disease clinic in Rotterdam, Holland Thirty women (20%) were commercial sex workers.
Interventions	Carnidazole 2 g versus 1.5 g, oral single dose.
Outcomes	Parasitological cure after 1-3 weeks.
Notes	Diagnosis by wetmount and culture. Concomitant treatment was given to 49 women with gonorrhoea and one woman with syphilis Loss to follow up was 6.6% and 13.1% in the 2 g and 1.5 g groups, respectively.

Nygaard 1977

Methods	Random allocation to two groups. Blinding could not be maintained after allocation, however no details are given about how allocation concealment was done
Participants	119 Women attending general practices in Copenhagen, Denmark, who required a gynaecological examination were recruited Pregnancy, presumed promiscuity, and systemic disorders were reasons for exclusion
Interventions	Metronidazole 200 mg 3 times daily for 7 days versus ornidazole 500 mg 4 tablets by mouth as single dose Partner treatments were given to the women to take to their partners
Outcomes	Parasitological and clinical cure. Side effects.
Notes	Diagnosis by wetmount and culture. Only those verified by culture results were analysed Excluded wetmount positive culture negatives (10/53 in the metronidazole and 12/66 in the ornidazole groups) Only 1 woman in the ornidazole group was lost to follow up at 1 week, 8 in the ornidazole, and 3 in the metronidazole group were lost at 5 weeks

O-Prasertsawat 1992

Methods	Double blind randomised controlled trial. Patients were asked to choose a box that contained one of the drugs Outcome assessments were blinded.
Participants	Symptomatic women with trichomoniasis attending a gynaecology outpatient clinic in Bangkok, Thailand
Interventions	Metronidazole 1.6 g split into two doses versus tinidazole 2 g as a single oral dose Same treatments were given to the partners. They were also asked to refrain from coitus or to use condoms
Outcomes	Parasitological cure between 6-16 days after treatment. Clinical improvement (self-assessed by the women). Side effects.
Notes	Both wetmount smear and culture were used for diagnosis. Dropout rate was 16.3% (13/67) in the metronidazole and 18.8% (15/65) in the tinidazole groups

Rao 1978

Methods	Allocation according to a randomisation schedule. No further details reported. No mention of blind outcome assessment.
Participants	60 non-pregnant women with vaginal discharge, without gonorrhoea or candidiasis, and no history of antitrichomonal treatment in the past 2 weeks Sexual intercourse abstinence was advised. Partners were treated when possible. Trial conducted in Mangalore, India.

Rao 1978 (*Continued*)

Interventions	Metronidazole 2 g (400 mg x 5 tabs) versus tinidazole 2 g (500 mg x 4 tabs) both given as single oral dose
Outcomes	Parasitological and clinical cure. Side effects.
Notes	Diagnosis by wetmount. Follow up on days 4, 8, and 12. One patient in tinidazole group was lost to follow up.

Rees 1974

Methods	Random allocation to one of two treatment groups. Outcome assessments were blinded.
Participants	29 prison women in Nairobi, Kenya. Pregnancy, coexistent disease, and unwillingness to participate were reasons for exclusion
Interventions	Tinidazole 2 g (5 x 400 mg tablets) single dose by mouth versus placebo (ascorbic acid 5 x 25 mg tablets) single dose by mouth
Outcomes	Parasitological and clinical cure. Side effects.
Notes	Diagnosis by wetmount. Follow up at days 4, 5, 7, and at 2 months. Excluded 9/29 because transfer to another prison, discharge or reluctance to carry on with examinations. Only 6 women in each group were examined at 2 months

Roncuzzi 1972

Methods	Simple randomisation using numbered sealed envelopes containing the instructions for therapy No mention of blinding. Follow up less than one month and greater than one month after treatment
Participants	68 women with trichomoniasis in Italy. Partners were not treated. Exclusion criteria: women who were pregnant or suspected to be pregnant
Interventions	Metronidazole 600 mg every 24 hours for 7 days versus nimorazole 750 mg every 12 hours for 4 days versus nimorazole 1000 mg every 12 hours for 3 days
Outcomes	Parasitological cure
Notes	Diagnosis by smear. Loss to follow up at less than 1 month after treatment: none; greater than one month after treatment: 11 in metronidazole group, 9 in nimorazole 750 mg group, 7 in nimorazole 1000 mg group

Roy 1975

Methods	Alternate allocation.
Participants	218 consecutive women attending a venereal disease clinic in Bournemouth, England Abstinence from sexual intercourse was advised.
Interventions	Metronidazole 200 mg 3 times daily by mouth for 7 days versus nimorazole 250 mg 12 hourly for 6 days Contact slips were issued for male partners of all women requesting them to attend the clinic within 24 hours and they were given the same treatment if they attended
Outcomes	Parasitological and clinical cure. Side effects.
Notes	Diagnosis by wetmount and culture. Follow up on days 7, 14, 28, and 42. Loss to follow up 21/218 (9.6%) in total with 9/109 in metronidazole and 12/109 in nimorazole groups

Saeed 1976

Methods	Consecutive women attending the clinic were enrolled by alternate allocation
Participants	Women attending veneral disease clinic in Bournemouth, England
Interventions	Metronidazole 400 mg tablets 12 hourly for 48 hours versus nimorazole 250 mg tablets 12 hourly for 48 hours Women were advised against sexual intercourse and asked to bring their partners to the clinic the next day. Additional female contacts of male partners were sent contact slips. Reminders and social worker contact were attempted for women who did not attend follow up visits
Outcomes	Parasitological cure around days 7-9, 14-21, and 21-35. Side effects.
Notes	Diagnosis was made by wetmount and/or culture. Diagnostic tests for candida, syphilis, and gonorrhoea were also carried out Of the 333 cases followed up, 208 had other sexually transmitted diseases as well Loss to follow up rate was 11.4% (43/376).

Sandvei 1979

Methods	Randomised by a table of random numbers. Placebos were not used but it was a double blind trial. No mention of blind outcome assessment. Method of allocation concealment not stated.
Participants	Symptomatic women with trichomoniasis, between 13-57 years, in Norway Those living too far to attend follow up were excluded.
Interventions	Metronidazole 2 g versus tinidazole 2 g versus ornidazole 2 g. All were given oral as a single dose Same medication with written instructions for the partner.

Sandvei 1979 (*Continued*)

Outcomes	Parasitological cure on day 3 and around 4 weeks. Side effects.
Notes	Diagnosis by wetmount and culture. Cultures for candida and gonorrhoea were also taken. Side effects were reported in all persons who took the drug (including the partners) Loss to follow up was 2/25, 1/25, and 0/25 in the metronidazole, tinidazole, and ornidazole groups, respectively on day 3 and 7/25, 6/25, and 6/25 after 4 weeks

Schnell 1974

Methods	Randomised, double blind. No other details given. No mention of blind outcome assessment.
Participants	Women with trichomoniasis in Germany.
Interventions	Intravaginal, metronidazole (250 mg) versus clotrimazole (100 mg), both for 6 days to be inserted in the evenings Partners were treated with metronidazole.
Outcomes	Parasitological cure after 2 and 4 weeks. Clinical cure.
Notes	Both wetmount and culture were used for initial diagnosis and follow ups Loss to follow up was 8% v 4% (metronidazole and clotrimazole) at 2 weeks, and 23% and 36% after 4 weeks Treatment failures after 2 weeks were given oral and vaginal metronidazole. It is not clear whether they were included in 4 weeks follow up results

Serup 1978

Methods	Randomised, double blind, random number tables used, no placebos No mention of blind outcome assessment.
Participants	Women with trichomoniasis, most (33/47) were admitted to the hospital for various gynaecological problems The trial took place in Copenhagen, Denmark. Patients with known liver disorders, neurological and haematological disorders were excluded
Interventions	Single, oral 2 g dose of tinidazole versus ornidazole. Partners were given corresponding treatments.
Outcomes	Parasitological cure. Side effects.
Notes	Both wetmount and culture methods were used. Of the 47 patients enrolled in the trial, 7 were excluded because of negative culture results and 4 were lost to follow up

Sesti 1990

Methods	Patients randomly divided into two treatment groups, no further details given No mention of blind outcome assessment.
Participants	Women with trichomoniasis in Rome, Italy.
Interventions	Tinidazole 2 g oral single dose + tinidazole 150 mg and nystatine 100.000 IU ovule for 7 days versus ornidazole 2 g oral single dose + ornidazole 500 mg ovule single dose Corresponding oral treatments given to the partners.
Outcomes	No parasitological cure (2 weeks). Side effects.
Notes	Diagnosis by wetmount. No mention of exclusions or loss to follow up.

Spence 1997

Methods	Randomised by table of random numbers, identical packs numbered consecutively Double blind, placebos were used. Outcome assessments were blinded.
Participants	167 women attending an inner city sexually transmitted disease (STD) clinic in Philadelphia, USA
Interventions	Metronidazole 0.5 g v 1 g v 1.5 g v 2 g, all administered as single, oral dose All women received 4 tablets (active and placebo according to the dose)
Outcomes	Parasitological and clinical cure. Side effects.
Notes	Diagnosis by wetmount. Follow up 7-10 days after treatment. Loss to follow up was 18/41 (44%), 15/44 (34%), 15/42 (36%), and 18/37 (49%) in the 0.5, 1, 1.5, and 2 g groups, respectively (overall 66/164, 40%). Women lost to follow up were similar in baseline demographic characteristics to those attending follow up examinations Excluded 3 women (2 with 2 g and 1 with 0.5 g dose) who vomited after ingestion of the medication

Thin 1979

Methods	Randomised, double blind, placebos used. Individual, numbered treatment packs were randomly arranged to be given to patients Outcome assessments were blinded.
Participants	Women with trichomoniasis who could attend follow up visits after 2 weeks in London, England
Interventions	Single dose versus five day regimen: Single dose regimen: Metronidazole 2 g (5 x 400 mg tabs) followed by placebo for 5 days (1 tablet twice daily). Five day regimen: 5 placebo tablets as a single dose followed by metronidazole 400 mg tabs twice daily for 5 days No partner treatment or notification measures are mentioned. It is not clear whether the women were advised against

Thin 1979 (*Continued*)

	coitus during the treatment period or not
Outcomes	Parasitological cure on day 7 and day 14. Side effects.
Notes	Both wetmount smear and culture were used for diagnosis. Loss to follow up on day 14 was 46% and 31% in the single dose and 5 day groups, respectively

Tidwell 1994

Methods	Random number table used to prepare consecutively numbered, sealed envelopes containing the medication Placebos were used. Outcome assessments were blinded.
Participants	Women, 15-65 years old, seen in the emergency department (Jackson, USA) with a diagnosis of trichomoniasis
Interventions	Metronidazole 2 g vaginal cream + oral placebo versus metronidazole 2 g oral + vaginal placebo Partners were offered treatment with a single 2 g dose of metronidazole Women were asked to abstain from coitus and alcohol until follow up
Outcomes	Parasitological cure on day 3-5. Clinical cure. Side effects.
Notes	Both wetmount smear and culture were done but patients were enrolled according to culture results All patients had cultures for *N. gonorrhea*, 20% and 14% were positive in the oral and vaginal groups, respectively Of the 305 patients tested for possible enrolment, 302 could be evaluated. 94 were positive and 61 of these could be enrolled (they needed to be called back) Loss to follow up was 7/61 (11.4%) and one was excluded because of bacterial overgrowth in culture

Tinkler 1974

Methods	Randomised, double blind but no placebos used. No mention of blind outcome assessment.
Participants	100 women attending Bristol Royal Infirmary, England. Exclusion criteria: women with more than one partner, who were thought insufficiently intelligent to understand the study, not reliable to take medications as prescribed, and those with partners unwilling to take concurrent medication Abstinence from sexual intercourse was advised.
Interventions	Metronidazole 200 mg 3 times daily for 7 days versus nimorazole 250 mg twice daily for 6 days, both by mouth
Outcomes	Parasitological and clinical cure. Side effects.
Notes	Diagnosis by dark field microscopy and culture. Follow up on days 8 and 14. Loss to follow up 4/100 and 7 others excluded for not taking drugs as prescribed

Wigfield 1975

Methods	Alternate allocation. No mention of blinding.
Participants	199 women with trichomoniasis in England. Some partners were treated. Patients were advised to avoid sexual intercourse. Exclusion criteria: pregnancy or suspected pregnancy.
Interventions	Nimorazole 3 g (two 500 mg tablets 12 hourly for three doses) versus metronidazole 4.2 g (one 200 mg tablet three times daily for 7 days)
Outcomes	Parasitological cure.
Notes	Diagnosis by smear. Follow up on completion of treatment and 3 more times at weekly intervals Loss to follow up: 23 in metronidazole group and 20 in nimorazole group

Characteristics of excluded studies *[ordered by study ID]*

Study	Reason for exclusion
Akinla 1975	No randomised or quasi-randomised comparisons were made.
Ali 1975	No randomised or quasi-randomised comparisons were made.
Andersen 1975	No randomised or quasi-randomised comparisons were made.
Apte 1978	No randomised or quasi-randomised comparisons were made.
Arnold 1974	No randomised or quasi-randomised comparisons were made.
Arya 1974	Women with both trichomoniasis and candidiasis were included in this trial
Aubert 1982	Women attending family planning clinics were offered either a single, 2 g or 250 mg three times daily for 7 days metronidazole treatment. There was no randomised comparison between the two groups
Aure 1974	Double blind trial comparing metronidazole with tinidazol. The trial is excluded because the data were reported per couple rather than individuals
Azevedo 1985	No randomised or quasi-randomised comparisons were made.
Bedoya 1974	No randomised or quasi-randomised comparisons were made.
Bertini de Oliveira	No randomised or quasi-randomised comparisons were made.

(*Continued*)

Bloch 1985	This trial was excluded because the data were not in a suitable form for analysis. Correspondence with the author revealed that the data were destroyed during a move. Women with trichomoniasis were randomly allocated to metronidazole 2 g oral tablets, benzoyl metronidazole suspension (2 g) or tinidazole (2 g) oral treatment. On day 7, 1.7%, 4.5%, and 1.7 % were *Trichomonas* positive respectively, on day 14, none of the metronidazole and 5.1 % of tinidazole groups were positive. The side effects were highest with metronidazole tablets (22.4 %) and lowest with metronidazole suspension (7.5 %)
Botero 1977	This clinical trial was excluded as there was no randomised or quasi-randomised comparison between women treated with metronidazole or panidazole for trichomoniasis
Bremond 1987	The objective of this randomised trial was symptomatic treatment of vaginitis. Women with trichomoniasis and candidiasis were randomised to benzydamine versus placebo in addition to standard treatment with tinidazole 2 g for *Trichomonas* and econazole for candida. Self assessment by the women showed that benzydamine + specific treatment was more effective than specific treatment alone in providing symptomatic relief
Burkett 1975	No randomised or quasi-randomised comparisons were made.
Catterall 1957	There were no randomised comparisons between groups treated with trichomycin and acetarsol
Cohen 1975	No randomised or quasi-randomised comparisons were made.
Csonka 1971	Fifty-four women attending sexually transmitted disease clinics were treated with a single 2 g dose of metronidazole. Subsequently, a group of 58 women treated with the 7 day regime were taken as a control group. There was no randomised comparison between the two groups
Davidson 1973	There was no randomised comparison group.
Dellenbach 1972	The study was conducted in two parts. In the first part, all women received tinidazole; in the second, women were randomly allocated to tinidazole oral or oral + vaginal suppository. The results, however, are reported together and it is not possible to separate the randomised part from the first part
Dellenbach 1974	No randomised or quasi-randomised comparisons were made.
Djahangiri 1976	No randomised or quasi-randomised comparisons were made.
Dubois 1970	No randomised or quasi-randomised comparisons were made.
Dunlop 1958	The data in this study were not available in a suitable form to be extracted. Eight patients were treated with 2-acetylamino-5-nitrothiazole and 5 control patients were given calcium lactate tablets. Outcomes were reported as number of vaginal smears positive or negative for trichomonads, and not as number of patients cured
Dykers 1978	No randomised or quasi-randomised comparisons were made.
Erb 1975	No randomised or quasi-randomised comparisons were made.
Feo 1961	There was no comparison group in this study.

(*Continued*)

Figueroa 1997	The data from this study was not in a suitable form for analysis
Ganju 1966	There was no indication that any randomised or quasi-randomised comparison were made between study groups. Women with trichomoniasis (pregnant and non-pregnant) were divided into four groups (metronidazole, hamycin, stovarsol vaginal compound, and placebo)
Giordano 1974	No randomised or quasi-randomised comparisons were made.
Goldman 1974	No randomised or quasi-randomised comparisons were made.
Goncalves 1987	This RCT was excluded because outcome of interest was symptomatic relief from *Trichomonas* and candida infections. Vinegar was compared to salicylic acid/boric acid/ammonium alum combination in hip bath in addition to specific therapy
Goodwin 1972	Randomised crossover study to investigate the disulfiram-like effects of flunidazole, a nitroimidazole structurally similar to metronidazole but lacking the metallic taste effect. The study was excluded because the objective was not the treatment of trichomoniasis. However, investigators could not substantiate the reported disulfiram-like effects of nitroimidazoles in this small study
Gyorik 1971	No randomised or quasi-randomised comparisons were made.
Heiss 1971	No randomised or quasi-randomised comparisons were made.
Helmy 1974	Allocation was not randomised in this study. Initially, consecutive women were given tinidazole and the third given metronidazole and later this was changed to alternation
Henderson 1975	No randomised or quasi-randomised comparisons were made.
Jones 1977	No randomised or quasi-randomised comparisons were made.
Karagiosov 1979	No randomised or quasi-randomised comparisons were made.
Kawamura 1978	No randomised or quasi-randomised comparisons were made. In the first recruitment period patients (male *Trichomonas* positive) were treated with tinidazole, in the second, with metronidazole
Kholodovskaya 1979	This study examined the pharmacokinetics of tinidazole versus metronidazole
Kim 1993	This study involved treatment of nongonococcal urethritis in males, and included diseases other than trichomoniasis
Kulseng-Hanssen 1975	No randomised or quasi-randomised comparisons were made.
Lanceley 1953	There were no randomised comparisons. Cultured *Trichomonas vaginalis* were inoculated in the urethra of 5 and culture media only to 5 other men
Liechti 1971	It was not possible to clarify whether the study was a true randomised controlled trial or not. The study involves several groups of patients with trichomoniasis treated with different doses of tinidazole, metronida-

(*Continued*)

	zole, and vaginal and oral route combinations. For groups concerning tinidazole oral versus oral + vaginal with two different doses (4 groups compared altogether) it is stated that the study was double blind. However there is no mention of randomisation and one group has significantly fewer number of participants compared to other three
Lotvin 1973	No randomised or quasi-randomised comparisons were made.
Lyon 1963	Women with trichomoniasis were given metronidazole in three different regimes (oral or intravaginal alone and in combination) but there were no randomised comparisons between the three groups
Magnier 1976	No randomised or quasi-randomised comparisons were made.
Marianowski 1976	No randomised or quasi-randomised comparisons were made.
Massa 1976	No randomised or quasi-randomised comparisons were made.
McCann 1972	Pregnant women were included in this trial and it was not possible to look at them separately. The trial was a randomised comparison of metronidazole and nitrimidazine, both given by mouth as "long"'treatments
Milek 1974	No randomised or quasi-randomised comparisons were made. Tinidazole, single, oral dose was tested in doses of 1.5 g, 1.6 g, 1.8 g and 2.0 g
Miller 1969	No randomised or quasi-randomised comparisons were made.
Mischer 1976	No randomised or quasi-randomised comparisons were made.
Moore 1979	There was no comparison group in this study.
Mukherjee 1979	There was no randomised comparison group.
Naguib 1975	No randomised or quasi-randomised comparisons were made.
Obel 1975	No randomised or quasi-randomised comparisons were made.
Ongom 1974	No randomised or quasi-randomised comparisons were made.
Ozbilgin 1974	No randomised or quasi-randomised comparisons were made.
Peeters 1974	The main reasons for excluding this trial was inclusion of pregnant women (n=1), and the aim was to investigate the effect of miconazole on the incidence of yeast infections occurring after trichomoniasis treatment. It was a randomised controlled trial in which the experiment group received metronidazole 250 mg tablets twice daily for 10 days + miconazole vaginal cream for once in the evening for 15 days while the control group received only metronidazole in the same way. In the metronidazole + miconazole group the number of + yeast cultures were 6 and 0, before and after the treatment, and in the metronidazole only group, all 3 of the yeast positive women remained positive. The parasitological cure rates were 100% in the combined treatment group and 90% (18/20) in the metronidazole only group

(*Continued*)

Pereyra 1972	This trial was excluded because three pregnant women were included in the study. The three pregnant women were treated with flunidazole, but their treatment outcomes were not noted
Phillips 1976	No randomised or quasi-randomised comparisons were made.
Plotho 1971	No randomised or quasi-randomised comparisons were made.
Porapakkham 1967	Although the allocation was reported as "random", this study was excluded because there was a large unexplained imbalance in the numbers of women allocated to metronidazole oral + vaginal and metronidazole oral only. Also pregnant women were included in the trial and data for them were not reported separately
Psaroudakis 1977	No randomised or quasi-randomised comparisons were made.
Quartararo 1974	No randomised or quasi-randomised comparisons were made.
Rainer 1974	No randomised or quasi-randomised comparisons were made.
Robinson 1965	This trial was excluded because it was not clear whether the comparisons had been made between randomised groups. The authors extended a series of metronidazole treated pregnant and non-pregnant women to include a group of women randomly allocated to a treatment and placebo. Consequently, there is an imbalance in the sample sizes of two groups and it is not possible to identify randomised groups in the tables presented
Ross 1973a	This study was excluded because it was not possible to separate pregnant from non-pregnant women. Alternate women with trichomoniasis were given 2 g metronidazole or 2 g nimorazole as single dose. Eleven of 75 in the metronidazole group and 6 of 73 were regarded as treatment failures
Ross 1973b	No randomised or quasi-randomised comparisons were made.
Rzempoluch 1976	This trial examined the treatment of mixed infections.
Rösemann 197	No randomised or quasi-randomised comparisons were made.
Salinas 1971	No randomised or quasi-randomised comparisons were made.
Sandront-Degee 1975	No randomised or quasi-randomised comparisons were made.
Schellen 1974	No randomised or quasi-randomised comparisons were made.
Schmoer 1974	No randomised or quasi-randomised comparisons were made.
Shutsky 1978	No randomised or quasi-randomised comparisons were made.
Sternadel 1974	No randomised or quasi-randomised comparisons were made.
Sternadel 1975	No randomised or quasi-randomised comparisons were made.

(*Continued*)

Swarz 1974a	No randomised or quasi-randomised comparisons were made.
Swarz 1974b	No randomised or quasi-randomised comparisons were made.
Thavabalan 1974	No randomised or quasi-randomised comparisons were made.
Tran Dinh De 1963	There was no randomised comparison between groups.
Turanova 1977	No randomised or quasi-randomised comparisons were made.
Underhill 1974	No randomised or quasi-randomised comparisons were made.
Vartiainen 1966	No randomised or quasi-randomised comparisons were made.
Wacha 1976	No randomised or quasi-randomised comparisons were made.
Wallin 1974	No randomised or quasi-randomised comparisons were made.
Ward 1976	No randomised or quasi-randomised comparisons were made.
Watt 1960	There was no comparison group in this study.
Weidenbach 1974	No randomised or quasi-randomised comparisons were made.
Weitgasser 1976	This trial is reported as double blind, but no mention of random allocation is made
Wladeck 1981	No randomised or quasi-randomised comparisons were made.
Woodcock 1972	Metronidazole was given 400 mg/day for 2 days when the researcher was on duty, 200 mg/day for 7 days when the researcher was off duty. There was thus no randomised comparison between the two groups
Zaremba 1980	No randomised or quasi-randomised comparisons were made.
Zwierz 1969	No randomised or quasi-randomised comparisons were made.

DATA AND ANALYSES

Comparison 1. Treatment versus no treatment

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 No parasitological cure (day 4 to 2 weeks)	6	672	Risk Ratio (M-H, Fixed, 95% CI)	0.19 [0.15, 0.23]
2 No parasitological cure (6 weeks)	1	429	Risk Ratio (M-H, Fixed, 95% CI)	0.08 [0.05, 0.13]
3 No parasitological cure (3 months)	2	465	Risk Ratio (M-H, Fixed, 95% CI)	0.17 [0.13, 0.22]
4 Side effects	4		Risk Ratio (M-H, Fixed, 95% CI)	Subtotals only
4.1 Any side effect	3	524	Risk Ratio (M-H, Fixed, 95% CI)	1.31 [0.96, 1.78]
4.2 Unpleasant taste	1	443	Risk Ratio (M-H, Fixed, 95% CI)	3.07 [1.09, 8.66]
4.3 Nausea	3	503	Risk Ratio (M-H, Fixed, 95% CI)	2.54 [1.14, 5.66]
4.4 Vomiting	3	503	Risk Ratio (M-H, Fixed, 95% CI)	1.13 [0.45, 2.83]
4.5 Headache	3	503	Risk Ratio (M-H, Fixed, 95% CI)	0.95 [0.46, 1.93]
4.6 Dizziness	2	472	Risk Ratio (M-H, Fixed, 95% CI)	0.68 [0.41, 1.12]

Comparison 2. Short versus long treatment

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 No parasitological cure	4	427	Risk Ratio (M-H, Fixed, 95% CI)	1.12 [0.58, 2.16]
2 Side effects	4		Risk Ratio (M-H, Fixed, 95% CI)	Subtotals only
2.1 Any side effect	4	458	Risk Ratio (M-H, Fixed, 95% CI)	2.70 [1.62, 4.49]
2.2 Nausea/vomiting	3	412	Risk Ratio (M-H, Fixed, 95% CI)	2.57 [1.22, 5.45]
2.3 Abdominal pain	2	294	Risk Ratio (M-H, Fixed, 95% CI)	0.63 [0.14, 2.80]
2.4 Skin rash	2	294	Risk Ratio (M-H, Fixed, 95% CI)	0.85 [0.12, 6.13]
2.5 Dizziness	3	412	Risk Ratio (M-H, Fixed, 95% CI)	10.17 [2.37, 43.54]
2.6 Headache	2	294	Risk Ratio (M-H, Fixed, 95% CI)	1.14 [0.26, 4.96]
2.7 Candidiasis after treatment	1	176	Risk Ratio (M-H, Fixed, 95% CI)	0.84 [0.44, 1.59]

Comparison 3. Oral versus intravaginal treatment

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 No parasitological cure	2	94	Risk Ratio (M-H, Fixed, 95% CI)	0.20 [0.07, 0.56]
2 Persistent itching	2	41	Risk Ratio (M-H, Fixed, 95% CI)	1.94 [0.68, 5.54]
3 Persistent discharge	1	36	Risk Ratio (M-H, Fixed, 95% CI)	1.34 [0.50, 3.61]
4 Persistent dysuria	2	33	Risk Ratio (M-H, Fixed, 95% CI)	9.38 [0.60, 146.87]

Comparison 4. Oral versus oral plus intravaginal

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 No parasitological cure (2 weeks)	4	426	Risk Ratio (M-H, Fixed, 95% CI)	3.00 [1.10, 8.16]
2 No parasitological cure (6 weeks)	1	287	Risk Ratio (M-H, Fixed, 95% CI)	2.55 [0.93, 6.96]
3 No parasitological cure (3 months)	1	274	Risk Ratio (M-H, Fixed, 95% CI)	1.75 [0.97, 3.14]

Comparison 5. Partner treatment versus no partner treatment

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 No parasitological cure (at average 10 days)	1	137	Risk Ratio (M-H, Fixed, 95% CI)	0.68 [0.12, 3.92]
2 No parasitological cure (at average 2 months)	1	118	Risk Ratio (M-H, Fixed, 95% CI)	0.21 [0.06, 0.71]
3 No parasitological cure with intercourse (at 2 months)	1	109	Risk Ratio (M-H, Fixed, 95% CI)	0.24 [0.07, 0.79]

Comparison 6. Metronidazole versus ornidazole

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 No parasitological cure (day 3)	1	48	Risk Ratio (M-H, Fixed, 95% CI)	5.42 [0.27, 107.20]
2 No parasitological cure (4 weeks)	1	37	Risk Ratio (M-H, Fixed, 95% CI)	2.11 [0.21, 21.32]
3 Side effects	1		Risk Ratio (M-H, Fixed, 95% CI)	Subtotals only
3.1 Any side effect	1	86	Risk Ratio (M-H, Fixed, 95% CI)	0.32 [0.14, 0.71]
3.2 Nausea/vomiting	1	86	Risk Ratio (M-H, Fixed, 95% CI)	5.0 [0.25, 101.18]
3.3 Fatigue	1	86	Risk Ratio (M-H, Fixed, 95% CI)	0.25 [0.06, 1.11]

3.4 Dizziness	1	86	Risk Ratio (M-H, Fixed, 95% CI)	0.07 [0.00, 1.13]

Comparison 7. Metronidazole versus nimorazole

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 No parasitological cure	8	1005	Risk Ratio (M-H, Fixed, 95% CI)	0.64 [0.41, 1.01]
2 Side effects	2		Risk Ratio (M-H, Fixed, 95% CI)	Subtotals only
2.1 Nausea/vomiting	2	422	Risk Ratio (M-H, Fixed, 95% CI)	1.63 [0.22, 12.19]
2.2 Dizziness	1	333	Risk Ratio (M-H, Fixed, 95% CI)	0.33 [0.01, 7.98]

Comparison 8. Metronidazole versus nifuratel

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 No parasitological cure	2	187	Risk Ratio (M-H, Fixed, 95% CI)	0.56 [0.30, 1.05]
2 Side effects	2		Risk Ratio (M-H, Fixed, 95% CI)	Subtotals only
2.1 Any side effect	2	187	Risk Ratio (M-H, Fixed, 95% CI)	1.22 [0.31, 4.87]
2.2 Allergic symptoms	1	91	Risk Ratio (M-H, Fixed, 95% CI)	4.69 [0.23, 95.00]
2.3 Nausea	1	91	Risk Ratio (M-H, Fixed, 95% CI)	2.81 [0.12, 67.27]

Comparison 9. Metronidazole versus tinidazole

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 No parasitological cure (3-21 days)	8	595	Risk Ratio (M-H, Fixed, 95% CI)	3.24 [1.66, 6.32]
2 No parasitological cure (4 weeks)	2	77	Risk Ratio (M-H, Fixed, 95% CI)	0.58 [0.13, 2.49]
3 No clinical improvement	5	426	Risk Ratio (M-H, Fixed, 95% CI)	3.81 [1.83, 7.90]
4 Side effects	7		Risk Ratio (M-H, Fixed, 95% CI)	Subtotals only
4.1 Any side effect	6	458	Risk Ratio (M-H, Fixed, 95% CI)	1.65 [1.35, 2.02]
4.2 Side effect requiring treatment	2	166	Risk Ratio (M-H, Fixed, 95% CI)	4.56 [0.79, 26.34]
4.3 Bitter taste	2	191	Risk Ratio (M-H, Fixed, 95% CI)	0.93 [0.57, 1.51]
4.4 Anorexia	2	191	Risk Ratio (M-H, Fixed, 95% CI)	1.64 [0.84, 3.22]
4.5 Nausea	4	342	Risk Ratio (M-H, Fixed, 95% CI)	1.50 [1.03, 2.17]
4.6 Vomiting	4	342	Risk Ratio (M-H, Fixed, 95% CI)	3.40 [1.42, 8.16]
4.7 Ataxia	1	132	Risk Ratio (M-H, Fixed, 95% CI)	2.43 [0.49, 12.06]
4.8 Dizziness	4	342	Risk Ratio (M-H, Fixed, 95% CI)	1.27 [0.59, 2.72]
4.9 Abdominal discomfort	1	69	Risk Ratio (M-H, Fixed, 95% CI)	0.73 [0.13, 4.08]

Comparison 10. Metronidazole versus nitrimidazine

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 No parasitological cure	2	197	Risk Ratio (M-H, Fixed, 95% CI)	0.50 [0.23, 1.09]
2 Side effects	2		Risk Ratio (M-H, Fixed, 95% CI)	Subtotals only
2.1 Any side effect	1	83	Risk Ratio (M-H, Fixed, 95% CI)	1.69 [0.33, 8.72]
2.2 Nausea	2	197	Risk Ratio (M-H, Fixed, 95% CI)	1.36 [0.23, 8.03]

Comparison 11. Intravaginal: metronidazole versus methyl patricin

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 No parasitological cure	1	29	Risk Ratio (M-H, Fixed, 95% CI)	1.6 [0.89, 2.86]

Comparison 12. Intravaginal: metronidazole versus lotrimazole

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 No parasitological cure (2 weeks)	1		Risk Ratio (M-H, Fixed, 95% CI)	Subtotals only
1.1 Wetmount	1	151	Risk Ratio (M-H, Fixed, 95% CI)	0.43 [0.22, 0.84]
1.2 Culture	1	151	Risk Ratio (M-H, Fixed, 95% CI)	0.75 [0.52, 1.08]

Comparison 13. Intravaginal: clotrimazole versus AVC suppositories

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 No parasitological cure (2-3 weeks)	1	88	Risk Ratio (M-H, Fixed, 95% CI)	1.17 [0.94, 1.47]
2 No parasitological cure (4-6 weeks)	1	88	Risk Ratio (M-H, Fixed, 95% CI)	1.09 [0.92, 1.30]
3 Any side effect	1		Risk Ratio (M-H, Fixed, 95% CI)	Subtotals only

Comparison 14. Tinidazole versus ornidazole

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 No parasitological cure (days 3-14)	6	347	Risk Ratio (M-H, Fixed, 95% CI)	1.11 [0.61, 2.01]
2 No parasitological cure (4 weeks)	2	120	Risk Ratio (M-H, Fixed, 95% CI)	3.07 [0.65, 14.53]
3 No clinical cure	1	27	Risk Ratio (M-H, Fixed, 95% CI)	0.93 [0.15, 5.67]
4 Side effects	4		Risk Ratio (M-H, Fixed, 95% CI)	Subtotals only
4.1 Nausea/vomiting	3	277	Risk Ratio (M-H, Fixed, 95% CI)	1.45 [0.49, 4.23]
4.2 Fatigue	4	313	Risk Ratio (M-H, Fixed, 95% CI)	0.18 [0.05, 0.58]
4.3 Dizziness	3	277	Risk Ratio (M-H, Fixed, 95% CI)	0.20 [0.04, 0.87]

Comparison 15. Tinidazole versus nimorazole

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 No parasitological cure	1	59	Risk Ratio (M-H, Fixed, 95% CI)	3.75 [1.51, 9.32]
2 No clinical cure	1	59	Risk Ratio (M-H, Fixed, 95% CI)	2.14 [0.40, 11.56]

Comparison 16. Tinidazole versus carnidazole

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 No parasitological cure (1 week)	1	72	Risk Ratio (M-H, Fixed, 95% CI)	5.57 [0.28, 112.12]
2 No parasitological cure (2 weeks)	1	77	Risk Ratio (M-H, Fixed, 95% CI)	5.13 [0.25, 103.43]
3 Any side effect	1		Risk Ratio (M-H, Fixed, 95% CI)	Subtotals only

Comparison 17. Ornidazole versus nimorazole

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 No parasitological cure	1	58	Risk Ratio (M-H, Fixed, 95% CI)	3.46 [1.34, 8.94]
2 No clinical cure	1	58	Risk Ratio (M-H, Fixed, 95% CI)	2.31 [0.43, 12.37]

Comparison 18. Metronidazole low dose (1g or less) versus standard dose (1.5g or more)

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 No parasitological cure (1-2 weeks)	2	261	Risk Ratio (M-H, Fixed, 95% CI)	2.97 [1.92, 4.59]
2 Side effects	2		Risk Ratio (M-H, Fixed, 95% CI)	Subtotals only
2.1 Any side effect	1	163	Risk Ratio (M-H, Fixed, 95% CI)	0.70 [0.24, 2.04]
2.2 Nausea/vomiting	2	261	Risk Ratio (M-H, Fixed, 95% CI)	1.69 [0.29, 9.90]
2.3 Bitter taste	1	163	Risk Ratio (M-H, Fixed, 95% CI)	0.37 [0.02, 8.99]

Comparison 19. Ornidazole 0.5-1g versus 1.5-2g

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 No parasitological cure	3	214	Risk Ratio (M-H, Fixed, 95% CI)	1.29 [0.38, 4.33]
2 No clinical cure	1	59	Risk Ratio (M-H, Fixed, 95% CI)	15.12 [0.95, 240.11]
3 Any side effect	2		Risk Ratio (M-H, Fixed, 95% CI)	Subtotals only

Comparison 20. Nimorazole dose comparisons

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 No parasitological cure	2		Risk Ratio (M-H, Fixed, 95% CI)	Subtotals only
1.1 750mg versus 1000mg	1	45	Risk Ratio (M-H, Fixed, 95% CI)	0.4 [0.04, 4.10]
1.2 2g versus 3-4g	1	45	Risk Ratio (M-H, Fixed, 95% CI)	10.0 [1.28, 78.12]
2 No clinical cure	1		Risk Ratio (M-H, Fixed, 95% CI)	Subtotals only
2.1 2g versus 3-4g	1	45	Risk Ratio (M-H, Fixed, 95% CI)	13.56 [0.75, 246.76]

Comparison 21. Carnidazole 1.5g versus 2g

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 No parasitological cure (1-3 weeks)	1	138	Risk Ratio (M-H, Fixed, 95% CI)	2.49 [1.16, 5.36]

Comparison 22. Intravaginal: fenticonazole 600 mg versus 1000 mg

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 No parasitological cure	3	124	Risk Ratio (M-H, Fixed, 95% CI)	1.48 [0.98, 2.23]

Comparison 23. Nifuratel 7 days versus 10 days

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 No parasitological cure	1	90	Risk Ratio (M-H, Fixed, 95% CI)	1.05 [0.57, 1.94]

Comparison 24. Oral metronidazole versus intravaginal clotrimazole

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 No parasitological cure (2-3 weeks)	1	90	Risk Ratio (M-H, Fixed, 95% CI)	0.11 [0.04, 0.27]
2 No parasitological cure (4-6 weeks)	1	90	Risk Ratio (M-H, Fixed, 95% CI)	0.23 [0.12, 0.41]
3 Any side effect	1		Risk Ratio (M-H, Fixed, 95% CI)	Subtotals only

Comparison 25. Oral metronidazole versus intravaginal AVC suppositories

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 No parasitological cure (2-3 weeks)	1	88	Risk Ratio (M-H, Fixed, 95% CI)	0.12 [0.05, 0.32]
2 No parasitological cure (4-6 weeks)	1	88	Risk Ratio (M-H, Fixed, 95% CI)	0.25 [0.13, 0.45]
3 Any side effect	1		Risk Ratio (M-H, Fixed, 95% CI)	Subtotals only

Comparison 26. Oral plus intravaginal versus intravaginal

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 No parasitological cure	1		Risk Ratio (M-H, Fixed, 95% CI)	Subtotals only
1.1 Oral Aminitrozole plus intravaginal Acigel versus intravaginal Acigel	1	46	Risk Ratio (M-H, Fixed, 95% CI)	0.59 [0.38, 0.94]

Comparison 27. Oral metronidazole versus intravaginal nonoxynol 9

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 No parasitological cure	1	33	Risk Ratio (M-H, Fixed, 95% CI)	0.04 [0.00, 0.57]

Analysis 1.1. Comparison 1 Treatment versus no treatment, Outcome 1 No parasitological cure (day 4 to 2 weeks).

Review: Interventions for treating trichomoniasis in women

Comparison: 1 Treatment versus no treatment

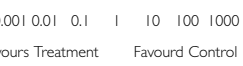
Outcome: 1 No parasitological cure (day 4 to 2 weeks)

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H,Fixed,95% CI	Weight	Risk Ratio M-H,Fixed,95% CI
Forster 1963	12/280	108/135		60.1 %	0.05 [0.03, 0.09]
Gorlero 1992	35/65	26/31		14.5 %	0.64 [0.49, 0.84]
Gorlero 1994	17/40	17/20		9.3 %	0.50 [0.33, 0.75]
Lean 1972	1/40	10/10		6.8 %	0.04 [0.01, 0.19]
Mati 1974	0/16	11/15		4.9 %	0.04 [0.00, 0.64]
Rees 1974	2/10	10/10		4.3 %	0.24 [0.08, 0.71]
Total (95% CI)	**451**	**221**		**100.0 %**	**0.19 [0.15, 0.23]**

Total events: 67 (Treatment), 182 (Control)

Heterogeneity: Chi^2 = 125.50, df = 5 (P<0.00001); I^2 =96%

Test for overall effect: Z = 14.57 (P < 0.00001)



Analysis 1.2. Comparison 1 Treatment versus no treatment, Outcome 2 No parasitological cure (6 weeks).

Review: Interventions for treating trichomoniasis in women

Comparison: 1 Treatment versus no treatment

Outcome: 2 No parasitological cure (6 weeks)

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H,Fixed,95% CI	Weight	Risk Ratio M-H,Fixed,95% CI
Forster 1963	18/287	111/142		100.0 %	0.08 [0.05, 0.13]
Total (95% CI)	**287**	**142**		**100.0 %**	**0.08 [0.05, 0.13]**
Total events: 18 (Treatment), 111 (Control)					
Heterogeneity: not applicable					
Test for overall effect: Z = 10.85 (P < 0.00001)					

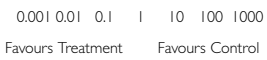
Analysis 1.3. Comparison 1 Treatment versus no treatment, Outcome 3 No parasitological cure (3 months).

Review: Interventions for treating trichomoniasis in women

Comparison: 1 Treatment versus no treatment

Outcome: 3 No parasitological cure (3 months)

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H,Fixed,95% CI	Weight	Risk Ratio M-H,Fixed,95% CI
Csonka 1963	3/28	27/29		14.4 %	0.12 [0.04, 0.34]
Forster 1963	42/274	117/134		85.6 %	0.18 [0.13, 0.23]
Total (95% CI)	**302**	**163**		**100.0 %**	**0.17 [0.13, 0.22]**
Total events: 45 (Treatment), 144 (Control)					
Heterogeneity: Chi^2 = 0.58, df = 1 (P = 0.45); I^2 =0.0%					
Test for overall effect: Z = 12.45 (P < 0.00001)					



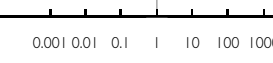
Analysis 1.4. Comparison 1 Treatment versus no treatment, Outcome 4 Side effects.

Review: Interventions for treating trichomoniasis in women

Comparison: 1 Treatment versus no treatment

Outcome: 4 Side effects

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H,Fixed,95% CI	Weight	Risk Ratio M-H,Fixed,95% CI
1 Any side effect					
Forster 1963	98/297	39/146		99.0 %	1.24 [0.90, 1.69]
Lean 1972	0/40	0/10			Not estimable
Mati 1974	4/16	0/15		1.0 %	8.47 [0.49, 145.11]
Subtotal (95% CI)	**353**	**171**		**100.0 %**	**1.31 [0.96, 1.78]**
Total events: 102 (Treatment), 39 (Control)					
Heterogeneity: Chi^2 = 1.78, df = 1 (P = 0.18); I^2 =44%					
Test for overall effect: Z = 1.69 (P = 0.092)					
2 Unpleasant taste					



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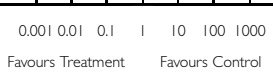
Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H,Fixed,95% CI	Weight	Risk Ratio M-H,Fixed,95% CI
Forster 1963	25/297	4/146		100.0 %	3.07 [1.09, 8.66]
Subtotal (95% CI)	**297**	**146**		**100.0 %**	**3.07 [1.09, 8.66]**
Total events: 25 (Treatment), 4 (Control)					
Heterogeneity: not applicable					
Test for overall effect: Z = 2.12 (P = 0.034)					
3 Nausea					
Forster 1963	28/297	4/146		59.7 %	3.44 [1.23, 9.63]
Mati 1974	2/16	0/15		5.7 %	4.71 [0.24, 90.69]
Rees 1974	2/15	3/14		34.6 %	0.62 [0.12, 3.19]
Subtotal (95% CI)	**328**	**175**		**100.0 %**	**2.54 [1.14, 5.66]**
Total events: 32 (Treatment), 7 (Control)					
Heterogeneity: Chi^2 = 3.35, df = 2 (P = 0.19); I^2 =40%					
Test for overall effect: Z = 2.28 (P = 0.023)					
4 Vomiting					
Forster 1963	5/297	3/146		52.6 %	0.82 [0.20, 3.38]
Mati 1974	2/16	0/15		6.7 %	4.71 [0.24, 90.69]
Rees 1974	3/15	3/14		40.6 %	0.93 [0.22, 3.88]
Subtotal (95% CI)	**328**	**175**		**100.0 %**	**1.13 [0.45, 2.83]**
Total events: 10 (Treatment), 6 (Control)					
Heterogeneity: Chi^2 = 1.16, df = 2 (P = 0.56); I^2 =0.0%					
Test for overall effect: Z = 0.26 (P = 0.80)					
5 Headache					
Forster 1963	10/297	9/146		88.6 %	0.55 [0.23, 1.31]
Mati 1974	1/16	0/15		3.8 %	2.82 [0.12, 64.39]
Rees 1974	5/15	1/14		7.6 %	4.67 [0.62, 35.17]
Subtotal (95% CI)	**328**	**175**		**100.0 %**	**0.95 [0.46, 1.93]**
Total events: 16 (Treatment), 10 (Control)					
Heterogeneity: Chi^2 = 4.37, df = 2 (P = 0.11); I^2 =54%					
Test for overall effect: Z = 0.15 (P = 0.88)					
6 Dizziness					
Forster 1963	30/297	22/146		96.6 %	0.67 [0.40, 1.12]
Rees 1974	1/15	1/14		3.4 %	0.93 [0.06, 13.54]
Subtotal (95% CI)	**312**	**160**		**100.0 %**	**0.68 [0.41, 1.12]**
Total events: 31 (Treatment), 23 (Control)					
Heterogeneity: Chi^2 = 0.06, df = 1 (P = 0.81); I^2 =0.0%					
Test for overall effect: Z = 1.50 (P = 0.13)					



Analysis 2.1. Comparison 2 Short versus long treatment, Outcome 1 No parasitological cure.

Review: Interventions for treating trichomoniasis in women

Comparison: 2 Short versus long treatment

Outcome: 1 No parasitological cure

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H,Fixed,95% CI	Weight	Risk Ratio M-H,Fixed,95% CI
Aimakhu 1975	0/21	0/25			Not estimable
Hager 1980	13/93	7/83		48.0 %	1.66 [0.69, 3.96]
Nygaard 1977	0/45	3/42		23.5 %	0.13 [0.01, 2.51]
Thin 1979	4/52	5/66		28.6 %	1.02 [0.29, 3.59]
Total (95% CI)	**211**	**216**		**100.0 %**	**1.12 [0.58, 2.16]**

Total events: 17 (Treatment), 15 (Control)

Heterogeneity: $Chi^2 = 2.83$, df = 2 (P = 0.24); $I^2 = 29\%$

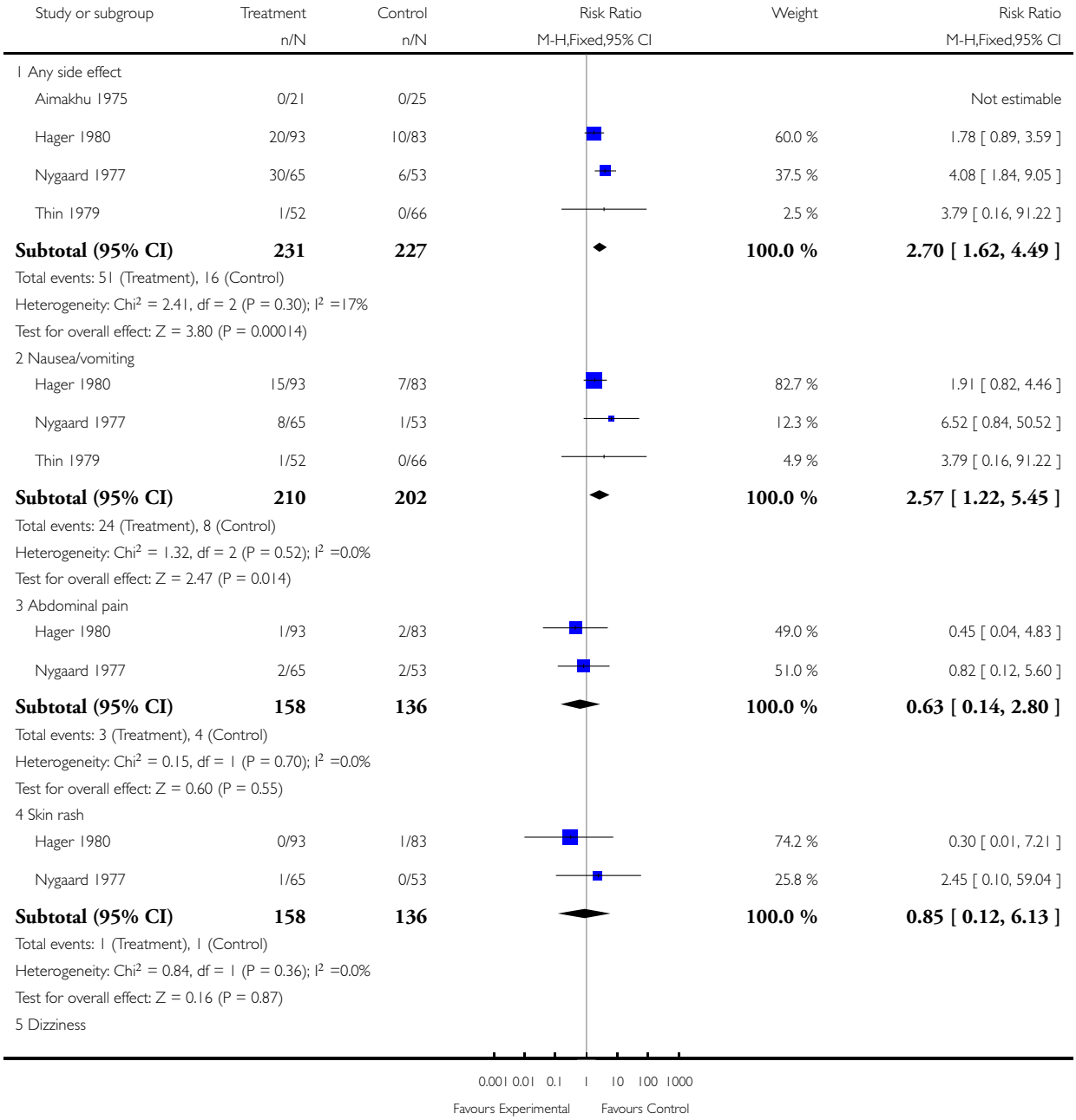
Test for overall effect: Z = 0.33 (P = 0.74)

Analysis 2.2. Comparison 2 Short versus long treatment, Outcome 2 Side effects.

Review: Interventions for treating trichomoniasis in women

Comparison: 2 Short versus long treatment

Outcome: 2 Side effects



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Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H,Fixed,95% CI	Weight	Risk Ratio M-H,Fixed,95% CI
Hager 1980	1/93	0/83		25.5 %	2.68 [0.11, 64.92]
Nygaard 1977	20/65	1/53		53.2 %	16.31 [2.26, 117.56]
Thin 1979	1/52	0/66		21.3 %	3.79 [0.16, 91.22]
Subtotal (95% CI)	**210**	**202**		**100.0 %**	**10.17 [2.37, 43.54]**
Total events: 22 (Treatment), 1 (Control)					
Heterogeneity: Chi^2 = 1.26, df = 2 (P = 0.53); I^2 =0.0%					
Test for overall effect: Z = 3.12 (P = 0.0018)					
6 Headache					
Hager 1980	3/93	0/83		16.1 %	6.26 [0.33, 119.34]
Nygaard 1977	0/65	2/53		83.9 %	0.16 [0.01, 3.34]
Subtotal (95% CI)	**158**	**136**		**100.0 %**	**1.14 [0.26, 4.96]**
Total events: 3 (Treatment), 2 (Control)					
Heterogeneity: Chi^2 = 2.87, df = 1 (P = 0.09); I^2 =65%					
Test for overall effect: Z = 0.18 (P = 0.86)					
7 Candidiasis after treatment					
Hager 1980	15/93	16/83		100.0 %	0.84 [0.44, 1.59]
Subtotal (95% CI)	**93**	**83**		**100.0 %**	**0.84 [0.44, 1.59]**
Total events: 15 (Treatment), 16 (Control)					
Heterogeneity: not applicable					
Test for overall effect: Z = 0.55 (P = 0.58)					

Analysis 3.1. Comparison 3 Oral versus intravaginal treatment, Outcome 1 No parasitological cure.

Review: Interventions for treating trichomoniasis in women

Comparison: 3 Oral versus intravaginal treatment

Outcome: 1 No parasitological cure

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H,Fixed,95% CI	Weight	Risk Ratio M-H,Fixed,95% CI
DuBouchet 1998	0/23	4/18		27.6 %	0.09 [0.01, 1.53]
Tidwell 1994	3/25	14/28		72.4 %	0.24 [0.08, 0.74]
Total (95% CI)	**48**	**46**		**100.0 %**	**0.20 [0.07, 0.56]**
Total events: 3 (Treatment), 18 (Control)					
Heterogeneity: Chi^2 = 0.42, df = 1 (P = 0.52); I^2 =0.0%					
Test for overall effect: Z = 3.05 (P = 0.0023)					

Analysis 3.2. Comparison 3 Oral versus intravaginal treatment, Outcome 2 Persistent itching.

Review: Interventions for treating trichomoniasis in women

Comparison: 3 Oral versus intravaginal treatment

Outcome: 2 Persistent itching

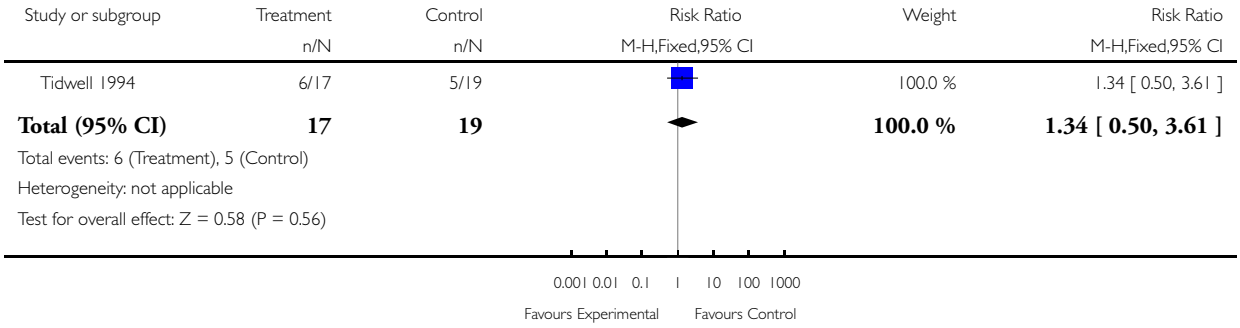
Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H,Fixed,95% CI	Weight	Risk Ratio M-H,Fixed,95% CI
DuBouchet 1998	1/8	3/7		79.1 %	0.29 [0.04, 2.21]
Tidwell 1994	6/11	1/15		20.9 %	8.18 [1.14, 58.60]
Total (95% CI)	**19**	**22**		**100.0 %**	**1.94 [0.68, 5.54]**
Total events: 7 (Treatment), 4 (Control)					
Heterogeneity: Chi^2 = 5.42, df = 1 (P = 0.02); I^2 =82%					
Test for overall effect: Z = 1.24 (P = 0.21)					

Analysis 3.3. Comparison 3 Oral versus intravaginal treatment, Outcome 3 Persistent discharge.

Review: Interventions for treating trichomoniasis in women

Comparison: 3 Oral versus intravaginal treatment

Outcome: 3 Persistent discharge

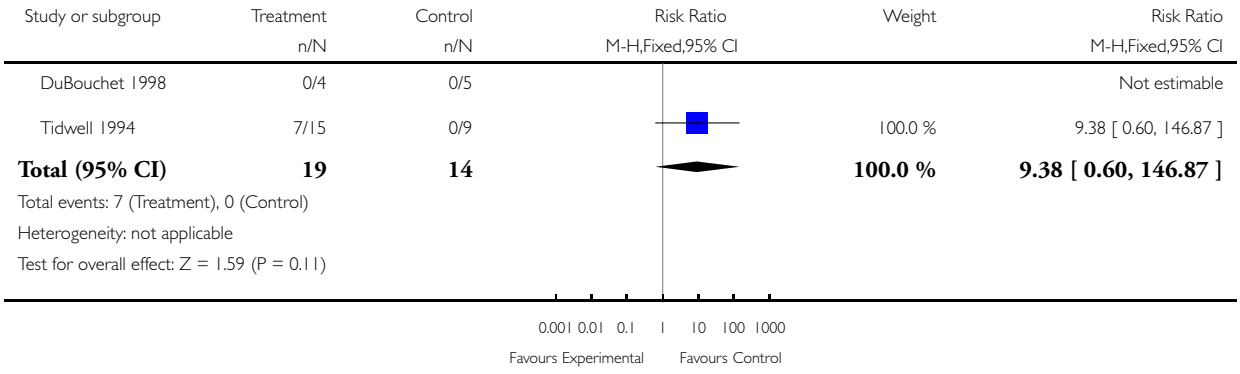


Analysis 3.4. Comparison 3 Oral versus intravaginal treatment, Outcome 4 Persistent dysuria.

Review: Interventions for treating trichomoniasis in women

Comparison: 3 Oral versus intravaginal treatment

Outcome: 4 Persistent dysuria



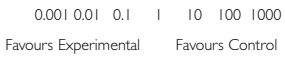
Analysis 4.1. Comparison 4 Oral versus oral plus intravaginal, Outcome 1 No parasitological cure (2 weeks).

Review: Interventions for treating trichomoniasis in women

Comparison: 4 Oral versus oral plus intravaginal

Outcome: 1 No parasitological cure (2 weeks)

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H,Fixed,95% CI	Weight	Risk Ratio M-H,Fixed,95% CI
Chung 1978	1/30	0/21		11.8 %	2.13 [0.09, 49.86]
Diwald 1971	0/24	1/26		29.1 %	0.36 [0.02, 8.43]
Forster 1963	10/143	2/137		41.2 %	4.79 [1.07, 21.47]
Gummerus 1983	3/20	1/25		17.9 %	3.75 [0.42, 33.36]
Total (95% CI)	**217**	**209**		**100.0 %**	**3.00 [1.10, 8.16]**
Total events: 14 (Treatment), 4 (Control)					
Heterogeneity: Chi^2 = 2.20, df = 3 (P = 0.53); I^2 =0.0%					
Test for overall effect: Z = 2.15 (P = 0.031)					



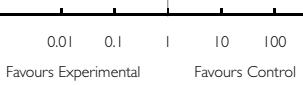
Analysis 4.2. Comparison 4 Oral versus oral plus intravaginal, Outcome 2 No parasitological cure (6 weeks).

Review: Interventions for treating trichomoniasis in women

Comparison: 4 Oral versus oral plus intravaginal

Outcome: 2 No parasitological cure (6 weeks)

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H,Fixed,95% CI	Weight	Risk Ratio M-H,Fixed,95% CI
Forster 1963	13/145	5/142		100.0 %	2.55 [0.93, 6.96]
Total (95% CI)	**145**	**142**		**100.0 %**	**2.55 [0.93, 6.96]**
Total events: 13 (Treatment), 5 (Control)					
Heterogeneity: not applicable					
Test for overall effect: Z = 1.82 (P = 0.068)					

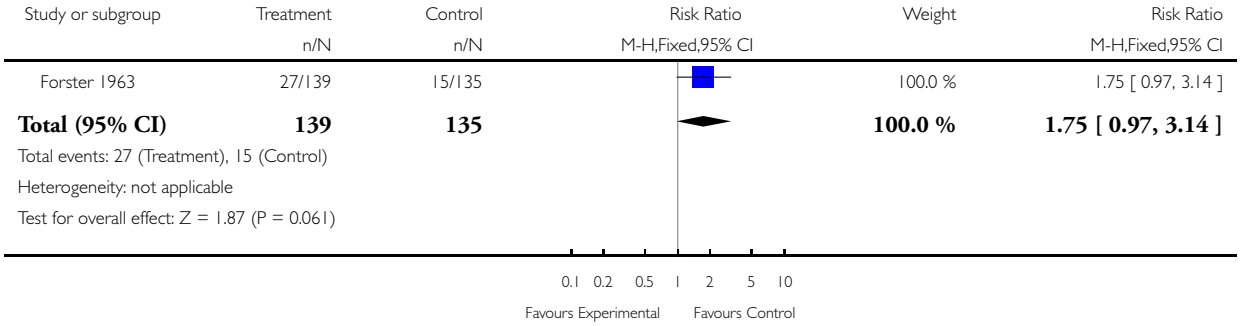


Analysis 4.3. Comparison 4 Oral versus oral plus intravaginal, Outcome 3 No parasitological cure (3 months).

Review: Interventions for treating trichomoniasis in women

Comparison: 4 Oral versus oral plus intravaginal

Outcome: 3 No parasitological cure (3 months)

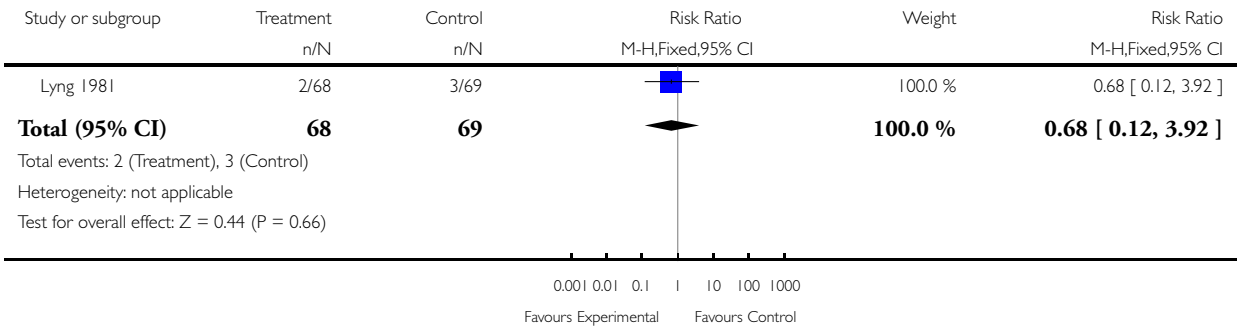


Analysis 5.1. Comparison 5 Partner treatment versus no partner treatment, Outcome 1 No parasitological cure (at average 10 days).

Review: Interventions for treating trichomoniasis in women

Comparison: 5 Partner treatment versus no partner treatment

Outcome: 1 No parasitological cure (at average 10 days)



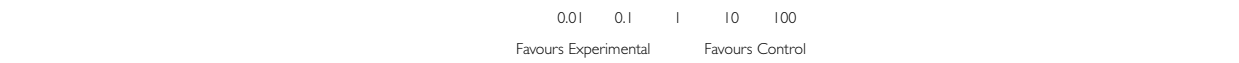
Analysis 5.2. Comparison 5 Partner treatment versus no partner treatment, Outcome 2 No parasitological cure (at average 2 months).

Review: Interventions for treating trichomoniasis in women

Comparison: 5 Partner treatment versus no partner treatment

Outcome: 2 No parasitological cure (at average 2 months)

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H,Fixed,95% CI	Weight	Risk Ratio M-H,Fixed,95% CI
Lyng 1981	3/59	14/59		100.0 %	0.21 [0.06, 0.71]
Total (95% CI)	**59**	**59**		**100.0 %**	**0.21 [0.06, 0.71]**
Total events: 3 (Treatment), 14 (Control)					
Heterogeneity: not applicable					
Test for overall effect: Z = 2.53 (P = 0.011)					



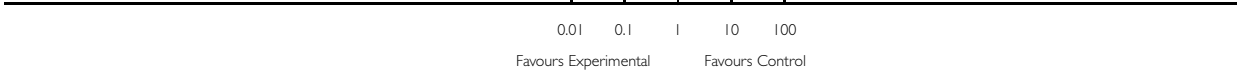
Analysis 5.3. Comparison 5 Partner treatment versus no partner treatment, Outcome 3 No parasitological cure with intercourse (at 2 months).

Review: Interventions for treating trichomoniasis in women

Comparison: 5 Partner treatment versus no partner treatment

Outcome: 3 No parasitological cure with intercourse (at 2 months)

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H,Fixed,95% CI	Weight	Risk Ratio M-H,Fixed,95% CI
Lyng 1981	3/56	12/53		100.0 %	0.24 [0.07, 0.79]
Total (95% CI)	**56**	**53**		**100.0 %**	**0.24 [0.07, 0.79]**
Total events: 3 (Treatment), 12 (Control)					
Heterogeneity: not applicable					
Test for overall effect: Z = 2.34 (P = 0.019)					

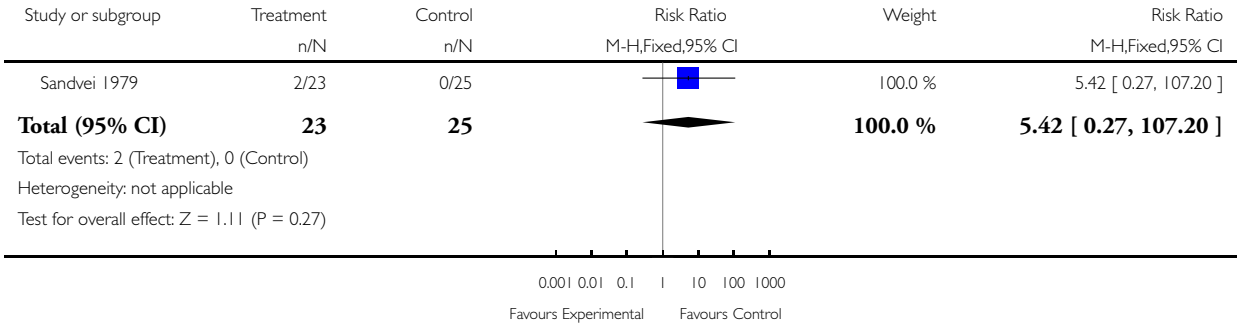


Analysis 6.1. Comparison 6 Metronidazole versus ornidazole, Outcome 1 No parasitological cure (day 3).

Review: Interventions for treating trichomoniasis in women

Comparison: 6 Metronidazole versus ornidazole

Outcome: 1 No parasitological cure (day 3)

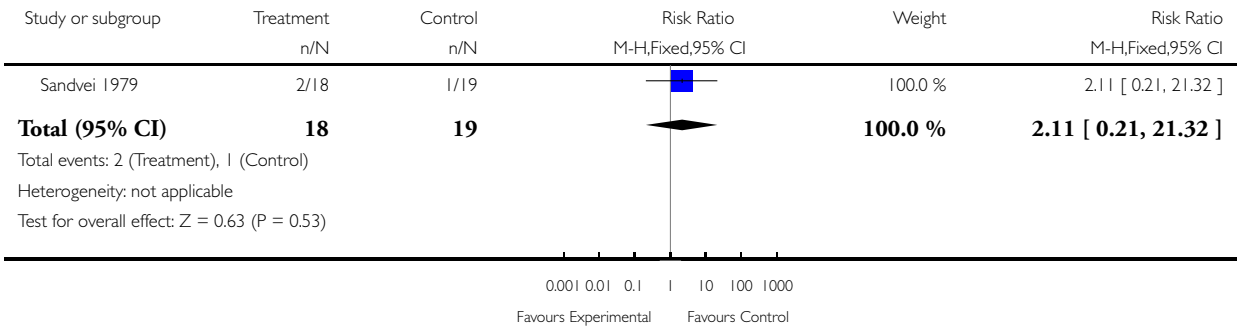


Analysis 6.2. Comparison 6 Metronidazole versus ornidazole, Outcome 2 No parasitological cure (4 weeks).

Review: Interventions for treating trichomoniasis in women

Comparison: 6 Metronidazole versus ornidazole

Outcome: 2 No parasitological cure (4 weeks)

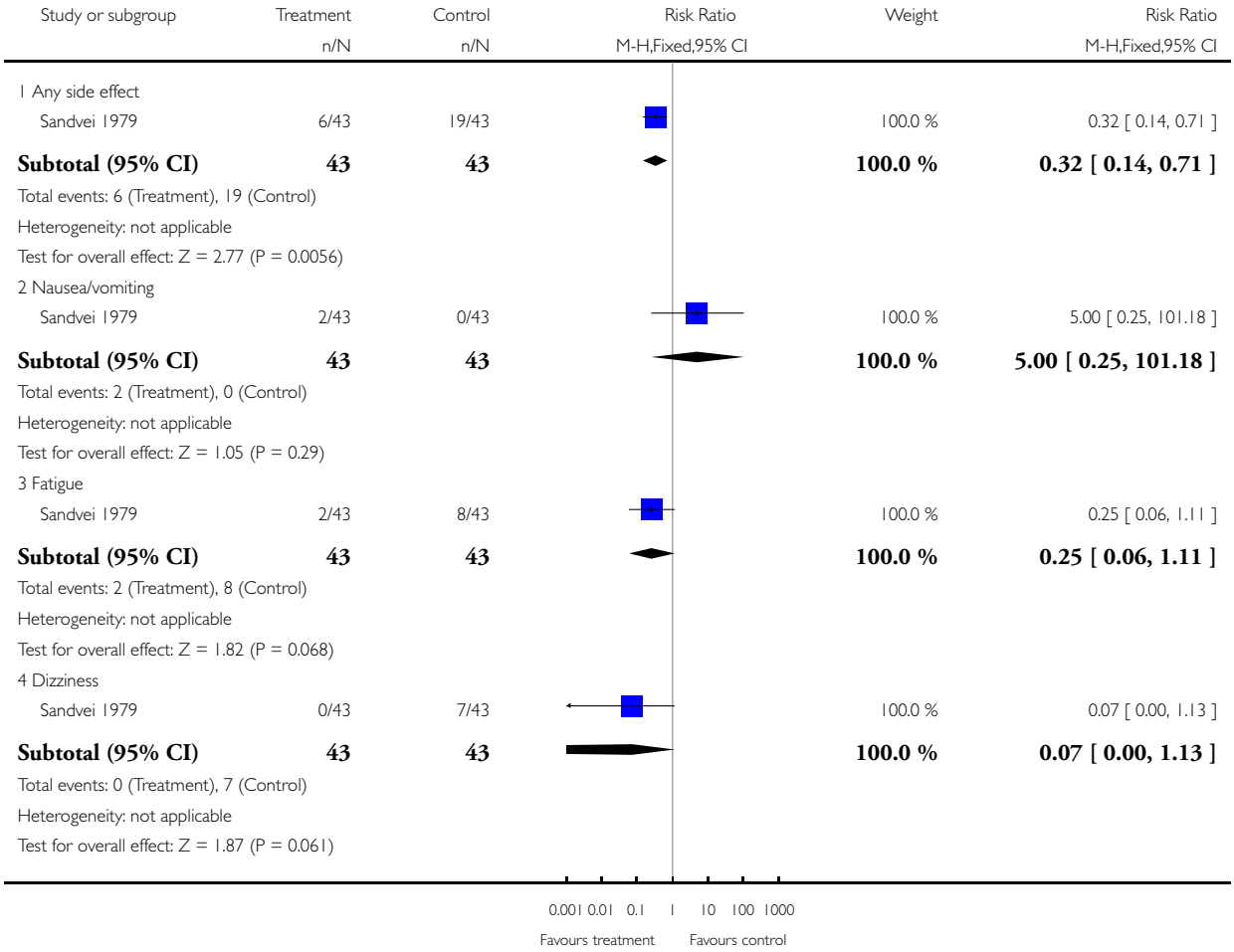


Analysis 6.3. Comparison 6 Metronidazole versus ornidazole, Outcome 3 Side effects.

Review: Interventions for treating trichomoniasis in women

Comparison: 6 Metronidazole versus ornidazole

Outcome: 3 Side effects



Analysis 7.1. Comparison 7 Metronidazole versus nimorazole, Outcome 1 No parasitological cure.

Review: Interventions for treating trichomoniasis in women

Comparison: 7 Metronidazole versus nimorazole

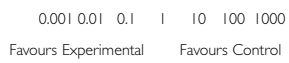
Outcome: 1 No parasitological cure

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H,Fixed,95% CI	Weight	Risk Ratio M-H,Fixed,95% CI
Eriksson 1976	2/50	5/53		11.2 %	0.42 [0.09, 2.09]
Hayward 1976	4/38	5/34		12.1 %	0.72 [0.21, 2.45]
Mahony 1975	3/44	4/34		10.4 %	0.58 [0.14, 2.42]
Roncuzzi 1972	2/23	1/25		2.2 %	2.17 [0.21, 22.40]
Roy 1975	5/100	17/97		39.7 %	0.29 [0.11, 0.74]
Saeed 1976	11/168	10/165		23.2 %	1.08 [0.47, 2.48]
Tinkler 1974	1/45	0/44		1.2 %	2.93 [0.12, 70.16]
Wigfield 1975	0/42	0/43			Not estimable
Total (95% CI)	**510**	**495**		**100.0 %**	**0.64 [0.41, 1.01]**

Total events: 28 (Treatment), 42 (Control)

Heterogeneity: Chi^2 = 6.51, df = 6 (P = 0.37); I^2 =8%

Test for overall effect: Z = 1.91 (P = 0.056)

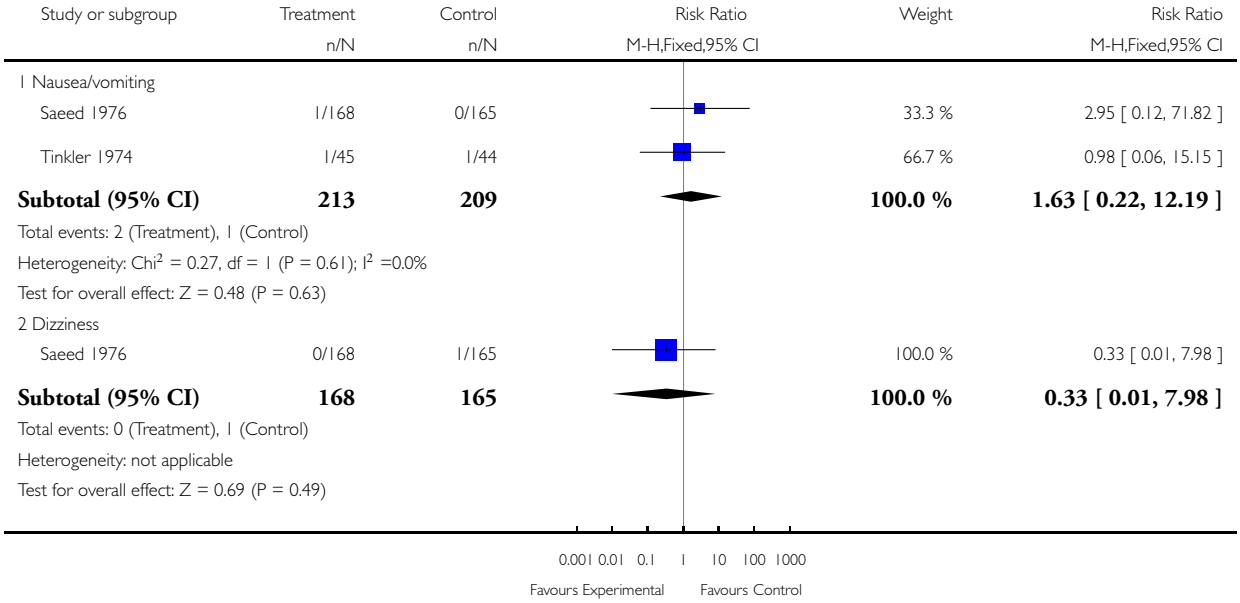


Analysis 7.2. Comparison 7 Metronidazole versus nimorazole, Outcome 2 Side effects.

Review: Interventions for treating trichomoniasis in women

Comparison: 7 Metronidazole versus nimorazole

Outcome: 2 Side effects



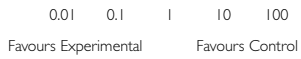
Analysis 8.1. Comparison 8 Metronidazole versus nifuratel, Outcome 1 No parasitological cure.

Review: Interventions for treating trichomoniasis in women

Comparison: 8 Metronidazole versus nifuratel

Outcome: 1 No parasitological cure

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H,Fixed,95% CI	Weight	Risk Ratio M-H,Fixed,95% CI
Block 1972	10/47	9/44		41.2 %	1.04 [0.47, 2.32]
Evans 1970	3/49	13/47		58.8 %	0.22 [0.07, 0.73]
Total (95% CI)	**96**	**91**		**100.0 %**	**0.56 [0.30, 1.05]**
Total events: 13 (Treatment), 22 (Control)					
Heterogeneity: Chi^2 = 4.64, df = 1 (P = 0.03); I^2 =78%					
Test for overall effect: Z = 1.81 (P = 0.070)					



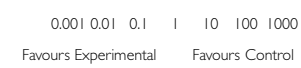
Analysis 8.2. Comparison 8 Metronidazole versus nifuratel, Outcome 2 Side effects.

Review: Interventions for treating trichomoniasis in women

Comparison: 8 Metronidazole versus nifuratel

Outcome: 2 Side effects

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H,Fixed,95% CI	Weight	Risk Ratio M-H,Fixed,95% CI
1 Any side effect					
Block 1972	3/47	0/44		14.4 %	6.56 [0.35, 123.53]
Evans 1970	1/49	3/47		85.6 %	0.32 [0.03, 2.97]
Subtotal (95% CI)	**96**	**91**		**100.0 %**	**1.22 [0.31, 4.87]**
Total events: 4 (Treatment), 3 (Control)					
Heterogeneity: Chi^2 = 2.65, df = 1 (P = 0.10); I^2 =62%					
Test for overall effect: Z = 0.28 (P = 0.78)					
2 Allergic symptoms					
Block 1972	2/47	0/44		100.0 %	4.69 [0.23, 95.00]



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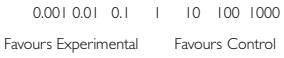
Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H,Fixed,95% CI	Weight	Risk Ratio M-H,Fixed,95% CI
Subtotal (95% CI)	**47**	**44**		**100.0 %**	**4.69 [0.23, 95.00]**
Total events: 2 (Treatment), 0 (Control)					
Heterogeneity: not applicable					
Test for overall effect: Z = 1.01 (P = 0.31)					
3 Nausea					
Block 1972	1/47	0/44		100.0 %	2.81 [0.12, 67.27]
Subtotal (95% CI)	**47**	**44**		**100.0 %**	**2.81 [0.12, 67.27]**
Total events: 1 (Treatment), 0 (Control)					
Heterogeneity: not applicable					
Test for overall effect: Z = 0.64 (P = 0.52)					



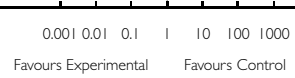
Analysis 9.1. Comparison 9 Metronidazole versus tinidazole, Outcome 1 No parasitological cure (3-21 days).

Review: Interventions for treating trichomoniasis in women

Comparison: 9 Metronidazole versus tinidazole

Outcome: 1 No parasitological cure (3-21 days)

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H,Fixed,95% CI	Weight	Risk Ratio M-H,Fixed,95% CI
Anjaneyulu 1977	18/50	3/50		29.2 %	6.00 [1.89, 19.10]
Begum 1980	4/33	1/36		9.3 %	4.36 [0.51, 37.08]
Gabriel 1982	1/40	2/42		19.0 %	0.53 [0.05, 5.57]
Garud 1978	6/30	1/36		8.9 %	7.20 [0.92, 56.54]
Lean 1972	0/20	0/20			Not estimable
O-Prasertsawat 1992	1/67	0/65		4.9 %	2.91 [0.12, 70.20]
Rao 1978	0/30	0/29			Not estimable
Sandvei 1979	2/23	3/24		28.6 %	0.70 [0.13, 3.79]
Total (95% CI)	**293**	**302**		**100.0 %**	**3.24 [1.66, 6.32]**
Total events: 32 (Treatment), 10 (Control)					
Heterogeneity: Chi^2 = 7.19, df = 5 (P = 0.21); I^2 =30%					
Test for overall effect: Z = 3.46 (P = 0.00055)					



Analysis 9.2. Comparison 9 Metronidazole versus tinidazole, Outcome 2 No parasitological cure (4 weeks).

Review: Interventions for treating trichomoniasis in women

Comparison: 9 Metronidazole versus tinidazole

Outcome: 2 No parasitological cure (4 weeks)

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H,Fixed,95% CI	Weight	Risk Ratio M-H,Fixed,95% CI
Lean 1972	0/20	1/20		33.9 %	0.33 [0.01, 7.72]
Sandvei 1979	2/18	3/19		66.1 %	0.70 [0.13, 3.73]
Total (95% CI)	**38**	**39**		**100.0 %**	**0.58 [0.13, 2.49]**

Total events: 2 (Treatment), 4 (Control)

Heterogeneity: $Chi^2 = 0.17$, df = 1 (P = 0.68); $I^2 = 0.0\%$

Test for overall effect: Z = 0.74 (P = 0.46)

Analysis 9.3. Comparison 9 Metronidazole versus tinidazole, Outcome 3 No clinical improvement.

Review: Interventions for treating trichomoniasis in women

Comparison: 9 Metronidazole versus tinidazole

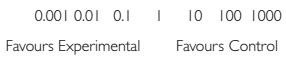
Outcome: 3 No clinical improvement

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H,Fixed,95% CI	Weight	Risk Ratio M-H,Fixed,95% CI
Anjaneyulu 1977	14/50	2/50		23.7 %	7.00 [1.68, 29.22]
Begum 1980	4/33	1/36		11.3 %	4.36 [0.51, 37.08]
Garud 1978	6/30	1/36		10.8 %	7.20 [0.92, 56.54]
O-Prasertsawat 1992	4/67	4/65		48.1 %	0.97 [0.25, 3.72]
Rao 1978	3/30	0/29		6.0 %	6.77 [0.37, 125.65]
Total (95% CI)	**210**	**216**		**100.0 %**	**3.81 [1.83, 7.90]**

Total events: 31 (Treatment), 8 (Control)

Heterogeneity: $Chi^2 = 5.21$, df = 4 (P = 0.27); $I^2 = 23\%$

Test for overall effect: Z = 3.59 (P = 0.00034)

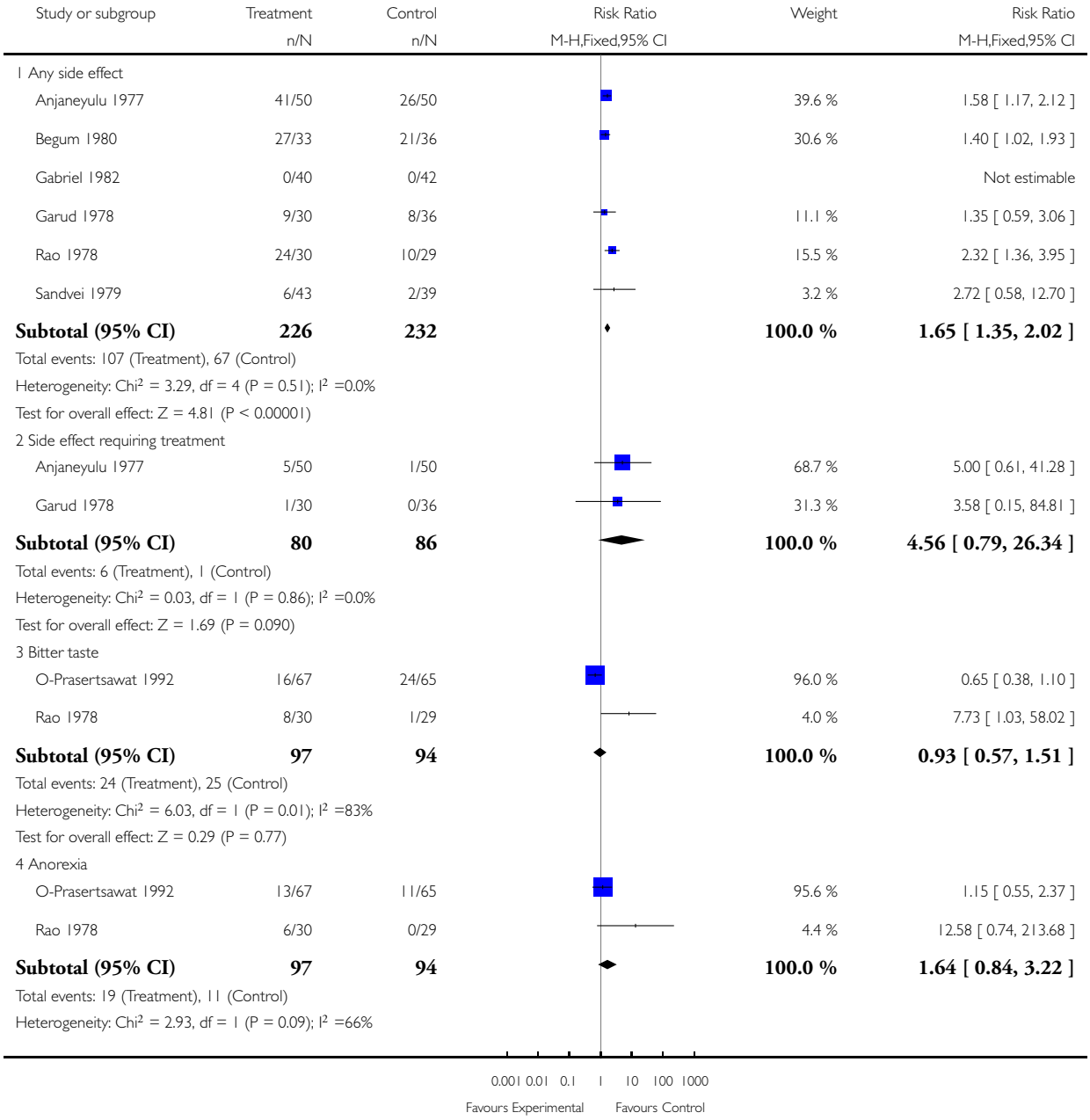


Analysis 9.4. Comparison 9 Metronidazole versus tinidazole, Outcome 4 Side effects.

Review: Interventions for treating trichomoniasis in women

Comparison: 9 Metronidazole versus tinidazole

Outcome: 4 Side effects



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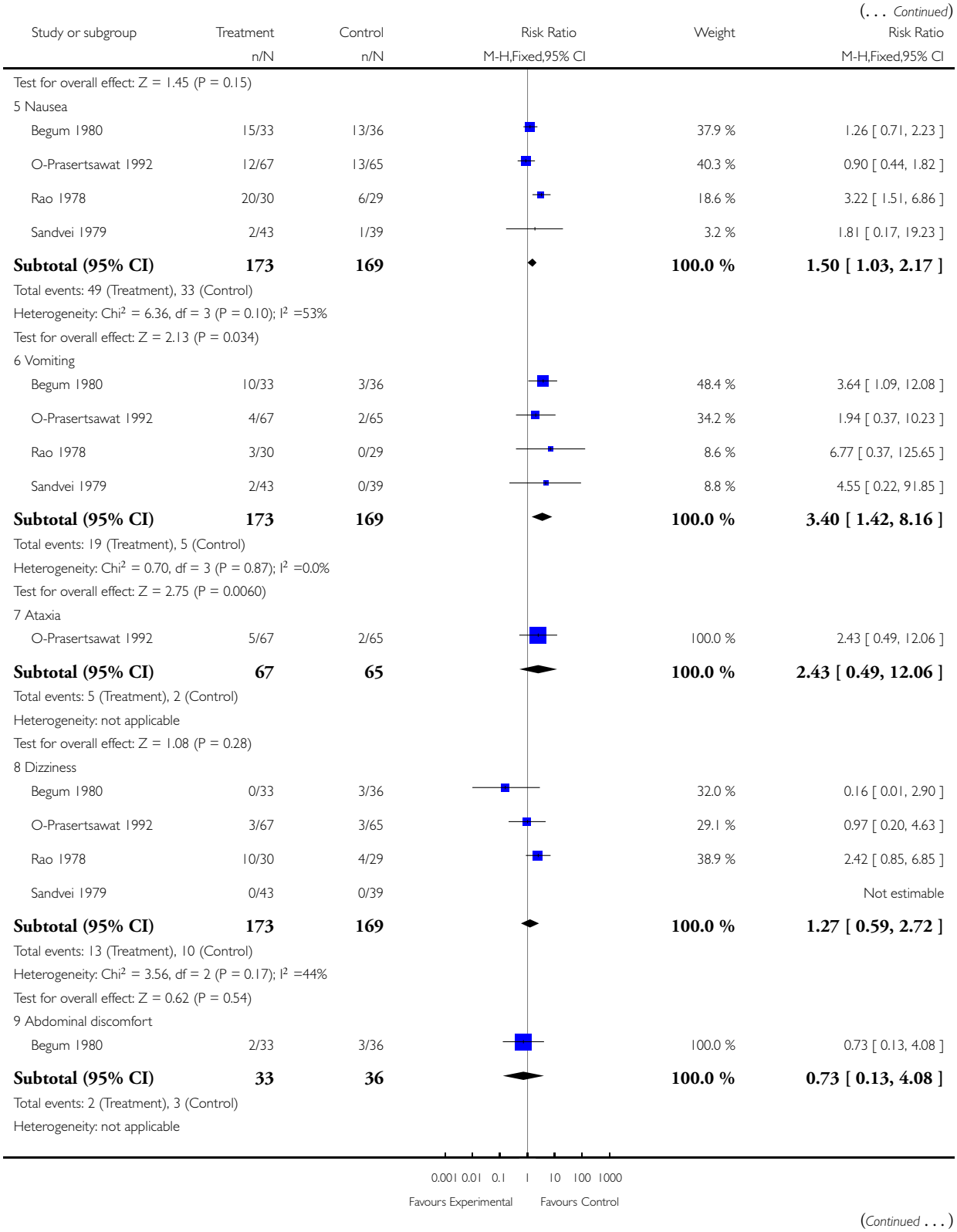

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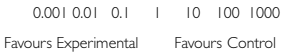
Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H,Fixed,95% CI	Weight	Risk Ratio M-H,Fixed,95% CI
Test for overall effect: Z = 0.36 (P = 0.72)					



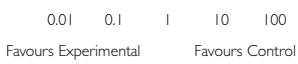
Analysis 10.1. Comparison 10 Metronidazole versus nitrimidazine, Outcome 1 No parasitological cure.

Review: Interventions for treating trichomoniasis in women

Comparison: 10 Metronidazole versus nitrimidazine

Outcome: 1 No parasitological cure

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H,Fixed,95% CI	Weight	Risk Ratio M-H,Fixed,95% CI
Evans 1971	1/57	9/57		54.2 %	0.11 [0.01, 0.85]
McClean 1972	8/45	7/38		45.8 %	0.97 [0.39, 2.42]
Total (95% CI)	**102**	**95**		**100.0 %**	**0.50 [0.23, 1.09]**
Total events: 9 (Treatment), 16 (Control)					
Heterogeneity: Chi^2 = 4.06, df = 1 (P = 0.04); I^2 =75%					
Test for overall effect: Z = 1.73 (P = 0.083)					

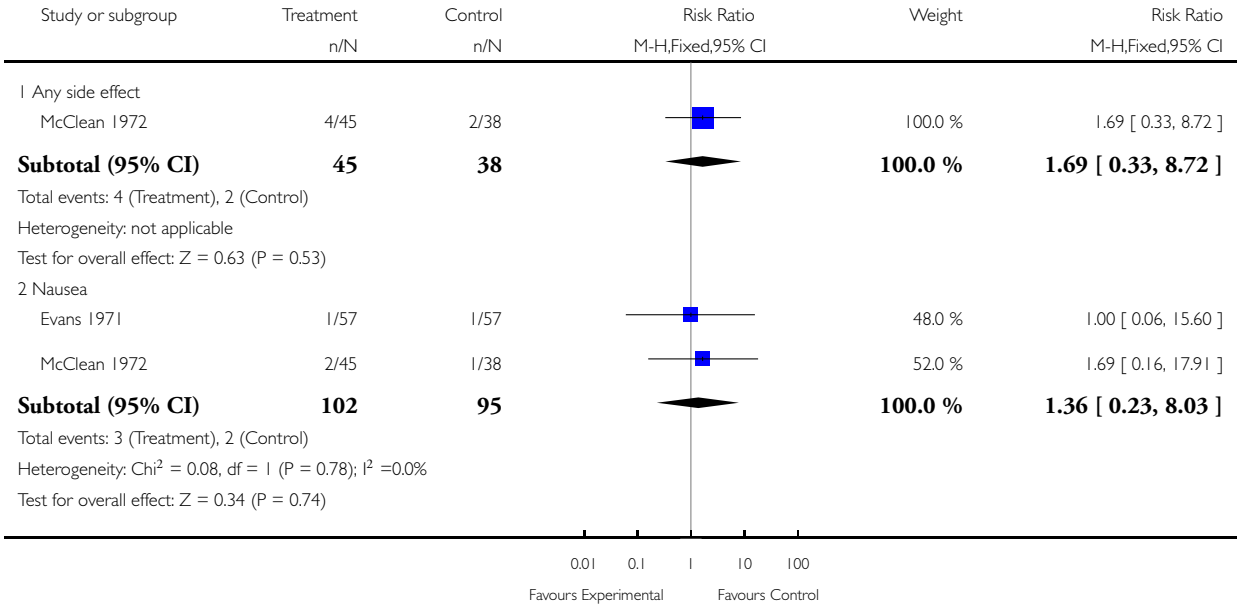


Analysis 10.2. Comparison 10 Metronidazole versus nitrimidazine, Outcome 2 Side effects.

Review: Interventions for treating trichomoniasis in women

Comparison: 10 Metronidazole versus nitrimidazine

Outcome: 2 Side effects



Analysis 11.1. Comparison 11 Intravaginal: metronidazole versus methyl patricin, Outcome 1 No parasitological cure.

Review: Interventions for treating trichomoniasis in women

Comparison: 11 Intravaginal: metronidazole versus methyl patricin

Outcome: 1 No parasitological cure

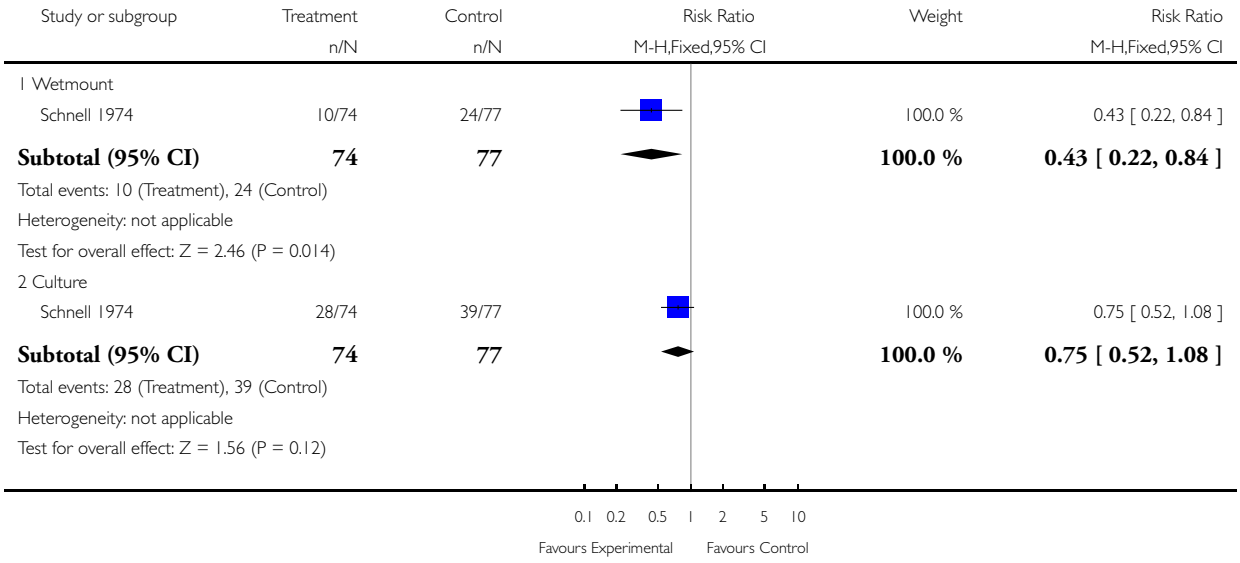
Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H,Fixed,95% CI	Weight	Risk Ratio M-H,Fixed,95% CI
Iannino 1975	12/15	7/14		100.0 %	1.60 [0.89, 2.86]
Total (95% CI)	**15**	**14**		**100.0 %**	**1.60 [0.89, 2.86]**
Total events: 12 (Treatment), 7 (Control)					
Heterogeneity: not applicable					
Test for overall effect: Z = 1.58 (P = 0.11)					

Analysis 12.1. Comparison 12 Intravaginal: metronidazole versus lotrimazole, Outcome 1 No parasitological cure (2 weeks).

Review: Interventions for treating trichomoniasis in women

Comparison: 12 Intravaginal: metronidazole versus lotrimazole

Outcome: 1 No parasitological cure (2 weeks)



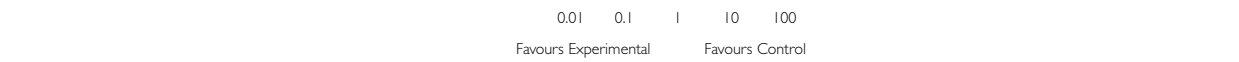
Analysis 13.1. Comparison 13 Intravaginal: clotrimazole versus AVC suppositories, Outcome 1 No parasitological cure (2-3 weeks).

Review: Interventions for treating trichomoniasis in women

Comparison: 13 Intravaginal: clotrimazole versus AVC suppositories

Outcome: 1 No parasitological cure (2-3 weeks)

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H,Fixed,95% CI	Weight	Risk Ratio M-H,Fixed,95% CI
DuBouchet 1997	38/45	31/43		100.0 %	1.17 [0.94, 1.47]
Total (95% CI)	**45**	**43**		**100.0 %**	**1.17 [0.94, 1.47]**
Total events: 38 (Treatment), 31 (Control)					
Heterogeneity: not applicable					
Test for overall effect: Z = 1.38 (P = 0.17)					



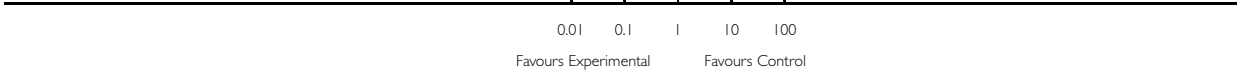
Analysis 13.2. Comparison 13 Intravaginal: clotrimazole versus AVC suppositories, Outcome 2 No parasitological cure (4-6 weeks).

Review: Interventions for treating trichomoniasis in women

Comparison: 13 Intravaginal: clotrimazole versus AVC suppositories

Outcome: 2 No parasitological cure (4-6 weeks)

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H,Fixed,95% CI	Weight	Risk Ratio M-H,Fixed,95% CI
DuBouchet 1997	40/45	35/43		100.0 %	1.09 [0.92, 1.30]
Total (95% CI)	**45**	**43**		**100.0 %**	**1.09 [0.92, 1.30]**
Total events: 40 (Treatment), 35 (Control)					
Heterogeneity: not applicable					
Test for overall effect: Z = 0.98 (P = 0.33)					



Analysis 13.3. Comparison 13 Intravaginal: clotrimazole versus AVC suppositories, Outcome 3 Any side effect.

Review: Interventions for treating trichomoniasis in women

Comparison: 13 Intravaginal: clotrimazole versus AVC suppositories

Outcome: 3 Any side effect

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H,Fixed,95% CI	Weight	Risk Ratio M-H,Fixed,95% CI
DuBouchet 1997	0/50	4/51			0.11 [0.01, 2.05]

Analysis 14.1. Comparison 14 Tinidazole versus ornidazole, Outcome 1 No parasitological cure (days 3-14).

Review: Interventions for treating trichomoniasis in women

Comparison: 14 Tinidazole versus ornidazole

Outcome: 1 No parasitological cure (days 3-14)

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H,Fixed,95% CI	Weight	Risk Ratio M-H,Fixed,95% CI
Chaisilwattana 1980	0/52	1/55		9.6 %	0.35 [0.01, 8.46]
Chunge 1992	7/14	6/13		40.8 %	1.08 [0.49, 2.38]
Hillstroem 1977	2/43	0/45		3.2 %	5.23 [0.26, 105.85]
Sandvei 1979	3/24	0/25		3.2 %	7.28 [0.40, 133.89]
Serup 1978	0/19	1/17		10.4 %	0.30 [0.01, 6.91]
Sesti 1990	3/20	5/20		32.8 %	0.60 [0.17, 2.18]
Total (95% CI)	**172**	**175**		**100.0 %**	**1.11 [0.61, 2.01]**

Total events: 15 (Treatment), 13 (Control)

Heterogeneity: Chi^2 = 4.66, df = 5 (P = 0.46); I^2 =0.0%

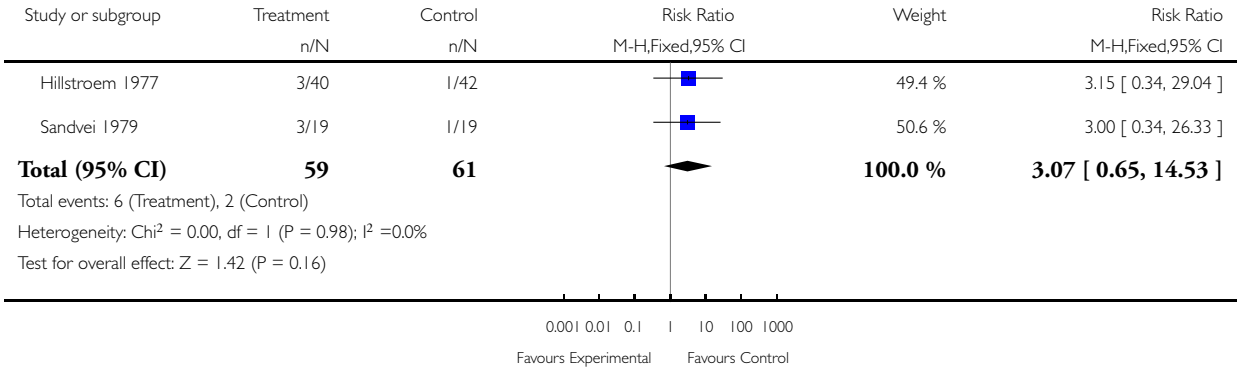
Test for overall effect: Z = 0.33 (P = 0.74)

Analysis 14.2. Comparison 14 Tinidazole versus ornidazole, Outcome 2 No parasitological cure (4 weeks).

Review: Interventions for treating trichomoniasis in women

Comparison: 14 Tinidazole versus ornidazole

Outcome: 2 No parasitological cure (4 weeks)

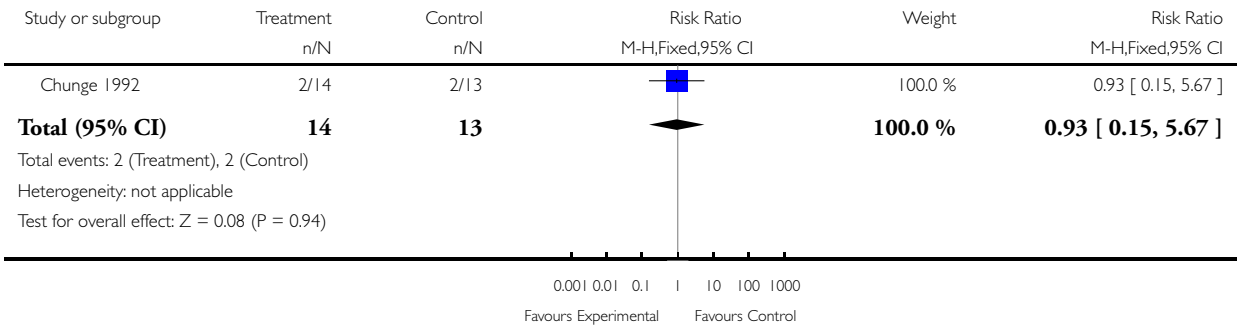


Analysis 14.3. Comparison 14 Tinidazole versus ornidazole, Outcome 3 No clinical cure.

Review: Interventions for treating trichomoniasis in women

Comparison: 14 Tinidazole versus ornidazole

Outcome: 3 No clinical cure

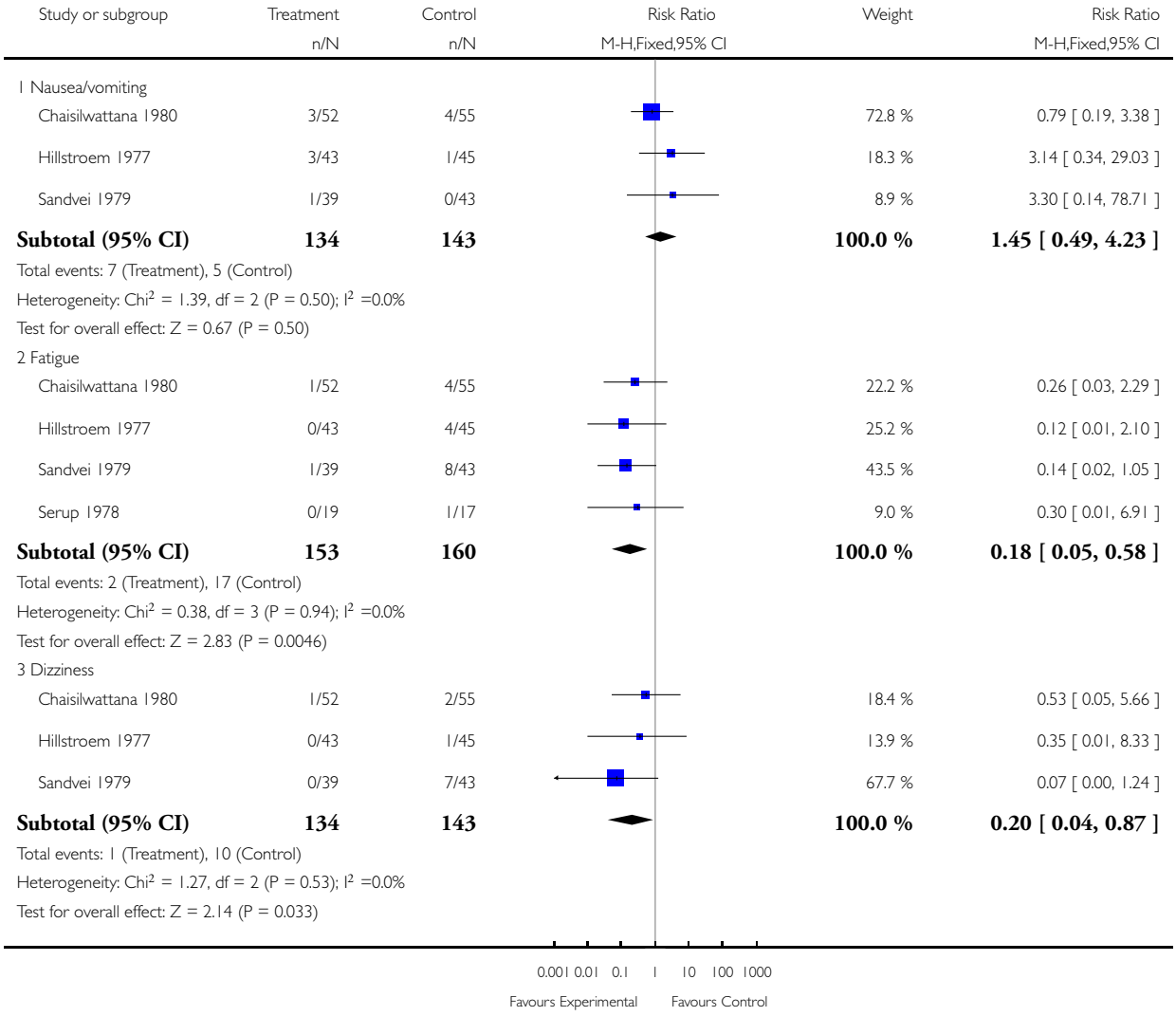


Analysis 14.4. Comparison 14 Tinidazole versus ornidazole, Outcome 4 Side effects.

Review: Interventions for treating trichomoniasis in women

Comparison: 14 Tinidazole versus ornidazole

Outcome: 4 Side effects



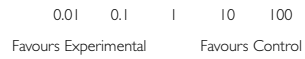
Analysis 15.1. Comparison 15 Tinidazole versus nimorazole, Outcome 1 No parasitological cure.

Review: Interventions for treating trichomoniasis in women

Comparison: 15 Tinidazole versus nimorazole

Outcome: 1 No parasitological cure

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H,Fixed,95% CI	Weight	Risk Ratio M-H,Fixed,95% CI
Chunge 1992	7/14	6/45		100.0 %	3.75 [1.51, 9.32]
Total (95% CI)	**14**	**45**		**100.0 %**	**3.75 [1.51, 9.32]**
Total events: 7 (Treatment), 6 (Control)					
Heterogeneity: not applicable					
Test for overall effect: Z = 2.84 (P = 0.0044)					



Analysis 15.2. Comparison 15 Tinidazole versus nimorazole, Outcome 2 No clinical cure.

Review: Interventions for treating trichomoniasis in women

Comparison: 15 Tinidazole versus nimorazole

Outcome: 2 No clinical cure

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H,Fixed,95% CI	Weight	Risk Ratio M-H,Fixed,95% CI
Chunge 1992	2/14	3/45		100.0 %	2.14 [0.40, 11.56]
Total (95% CI)	**14**	**45**		**100.0 %**	**2.14 [0.40, 11.56]**
Total events: 2 (Treatment), 3 (Control)					
Heterogeneity: not applicable					
Test for overall effect: Z = 0.89 (P = 0.38)					

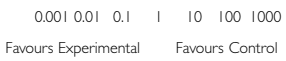
Analysis 16.1. Comparison 16 Tinidazole versus carnidazole, Outcome 1 No parasitological cure (1 week).

Review: Interventions for treating trichomoniasis in women

Comparison: 16 Tinidazole versus carnidazole

Outcome: 1 No parasitological cure (1 week)

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H,Fixed,95% CI	Weight	Risk Ratio M-H,Fixed,95% CI
Chaudhuri 1980	2/34	0/38		100.0 %	5.57 [0.28, 112.12]
Total (95% CI)	**34**	**38**		**100.0 %**	**5.57 [0.28, 112.12]**
Total events: 2 (Treatment), 0 (Control)					
Heterogeneity: not applicable					
Test for overall effect: Z = 1.12 (P = 0.26)					



Analysis 16.2. Comparison 16 Tinidazole versus carnidazole, Outcome 2 No parasitological cure (2 weeks).

Review: Interventions for treating trichomoniasis in women

Comparison: 16 Tinidazole versus carnidazole

Outcome: 2 No parasitological cure (2 weeks)

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H,Fixed,95% CI	Weight	Risk Ratio M-H,Fixed,95% CI
Chaudhuri 1980	2/38	0/39		100.0 %	5.13 [0.25, 103.43]
Total (95% CI)	**38**	**39**		**100.0 %**	**5.13 [0.25, 103.43]**
Total events: 2 (Treatment), 0 (Control)					
Heterogeneity: not applicable					
Test for overall effect: Z = 1.07 (P = 0.29)					

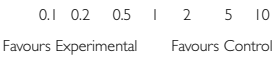
Analysis 16.3. Comparison 16 Tinidazole versus carnidazole, Outcome 3 Any side effect.

Review: Interventions for treating trichomoniasis in women

Comparison: 16 Tinidazole versus carnidazole

Outcome: 3 Any side effect

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H,Fixed,95% CI	Weight	Risk Ratio M-H,Fixed,95% CI
Chaudhuri 1980	12/76	25/78			0.49 [0.27, 0.91]



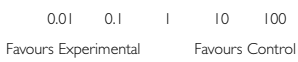
Analysis 17.1. Comparison 17 Ornidazole versus nimorazole, Outcome 1 No parasitological cure.

Review: Interventions for treating trichomoniasis in women

Comparison: 17 Ornidazole versus nimorazole

Outcome: 1 No parasitological cure

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H,Fixed,95% CI	Weight	Risk Ratio M-H,Fixed,95% CI
Chunge 1992	6/13	6/45		100.0 %	3.46 [1.34, 8.94]
Total (95% CI)	**13**	**45**		**100.0 %**	**3.46 [1.34, 8.94]**
Total events: 6 (Treatment), 6 (Control)					
Heterogeneity: not applicable					
Test for overall effect: Z = 2.57 (P = 0.010)					

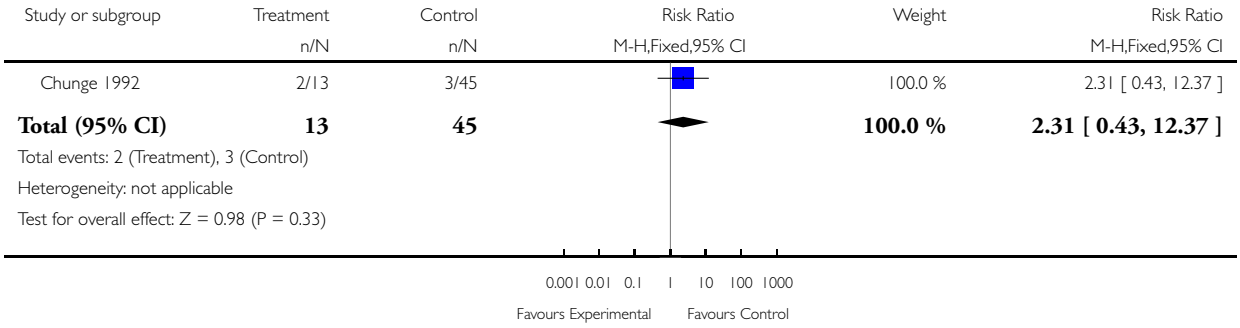


Analysis 17.2. Comparison 17 Ornidazole versus nimorazole, Outcome 2 No clinical cure.

Review: Interventions for treating trichomoniasis in women

Comparison: 17 Ornidazole versus nimorazole

Outcome: 2 No clinical cure

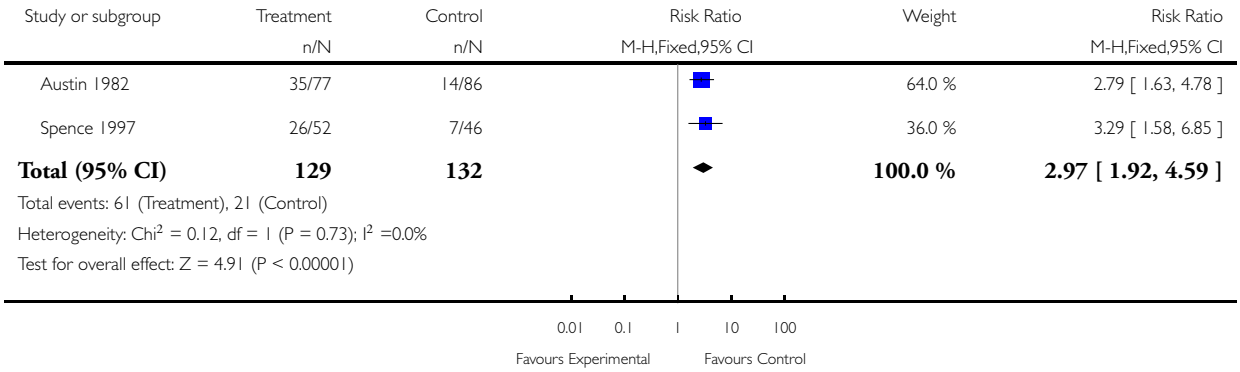


Analysis 18.1. Comparison 18 Metronidazole low dose (1g or less) versus standard dose (1.5g or more), Outcome 1 No parasitological cure (1-2 weeks).

Review: Interventions for treating trichomoniasis in women

Comparison: 18 Metronidazole low dose (1g or less) versus standard dose (1.5g or more)

Outcome: 1 No parasitological cure (1-2 weeks)

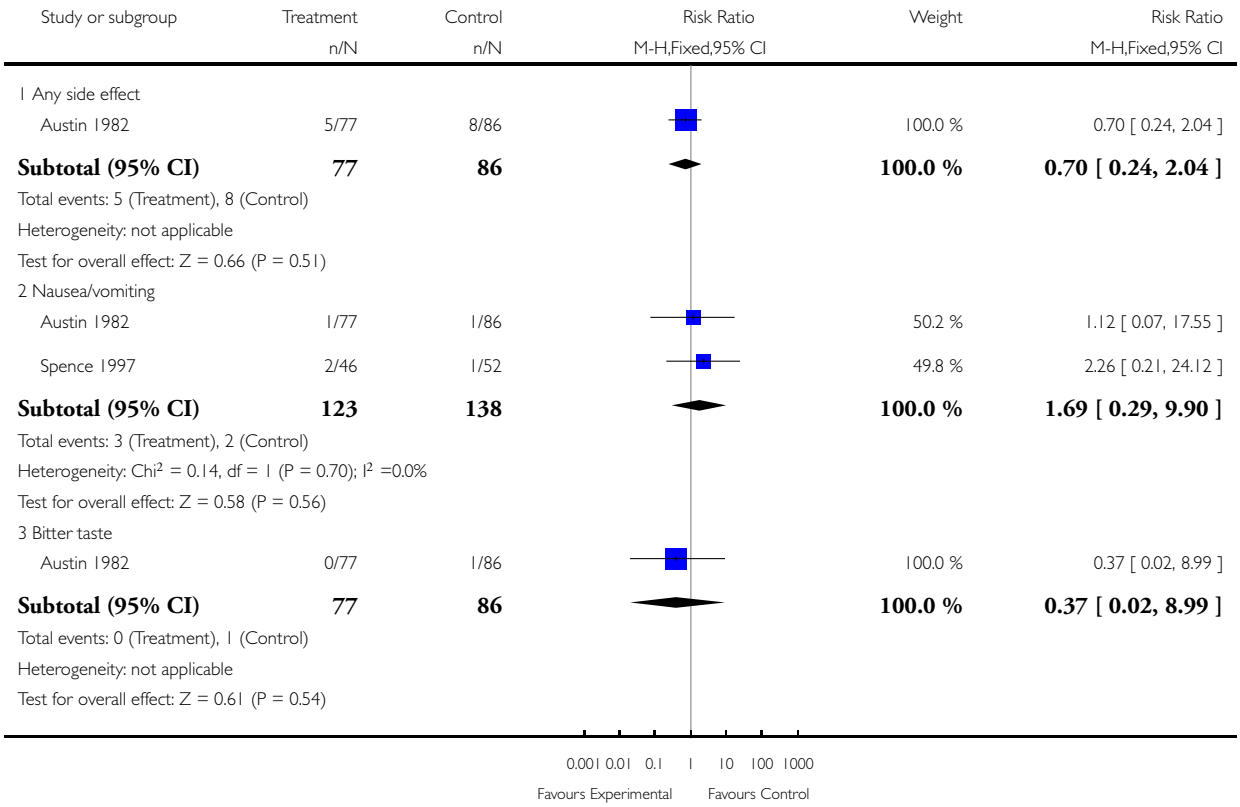


Analysis 18.2. Comparison 18 Metronidazole low dose (1g or less) versus standard dose (1.5g or more), Outcome 2 Side effects.

Review: Interventions for treating trichomoniasis in women

Comparison: 18 Metronidazole low dose (1g or less) versus standard dose (1.5g or more)

Outcome: 2 Side effects



Analysis 19.1. Comparison 19 Ornidazole 0.5-1g versus 1.5-2g, Outcome 1 No parasitological cure.

Review: Interventions for treating trichomoniasis in women

Comparison: 19 Ornidazole 0.5-1g versus 1.5-2g

Outcome: 1 No parasitological cure

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H,Fixed,95% CI	Weight	Risk Ratio M-H,Fixed,95% CI
Chung 1978	0/17	1/30		21.2 %	0.57 [0.02, 13.36]
Fugere 1983	8/40	0/19		12.9 %	8.29 [0.50, 136.59]
Korner 1978	0/53	3/55		66.0 %	0.15 [0.01, 2.80]
Total (95% CI)	**110**	**104**		**100.0 %**	**1.29 [0.38, 4.33]**

Total events: 8 (Treatment), 4 (Control)

Heterogeneity: $Chi^2 = 4.03$, df = 2 (P = 0.13); $I^2 = 50\%$

Test for overall effect: Z = 0.41 (P = 0.68)

Analysis 19.2. Comparison 19 Ornidazole 0.5-1g versus 1.5-2g, Outcome 2 No clinical cure.

Review: Interventions for treating trichomoniasis in women

Comparison: 19 Ornidazole 0.5-1g versus 1.5-2g

Outcome: 2 No clinical cure

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H,Fixed,95% CI	Weight	Risk Ratio M-H,Fixed,95% CI
Fugere 1983	15/40	0/19		100.0 %	15.12 [0.95, 240.11]
Total (95% CI)	**40**	**19**		**100.0 %**	**15.12 [0.95, 240.11]**

Total events: 15 (Treatment), 0 (Control)

Heterogeneity: not applicable

Test for overall effect: Z = 1.93 (P = 0.054)

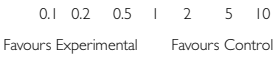
Analysis 19.3. Comparison 19 Ornidazole 0.5-1g versus 1.5-2g, Outcome 3 Any side effect.

Review: Interventions for treating trichomoniasis in women

Comparison: 19 Ornidazole 0.5-1g versus 1.5-2g

Outcome: 3 Any side effect

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H,Fixed,95% CI	Weight	Risk Ratio M-H,Fixed,95% CI
Fugere 1983	7/40	6/19			0.55 [0.22, 1.42]
Korner 1978	17/71	43/71			0.40 [0.25, 0.62]



Analysis 20.1. Comparison 20 Nimorazole dose comparisons, Outcome 1 No parasitological cure.

Review: Interventions for treating trichomoniasis in women

Comparison: 20 Nimorazole dose comparisons

Outcome: 1 No parasitological cure

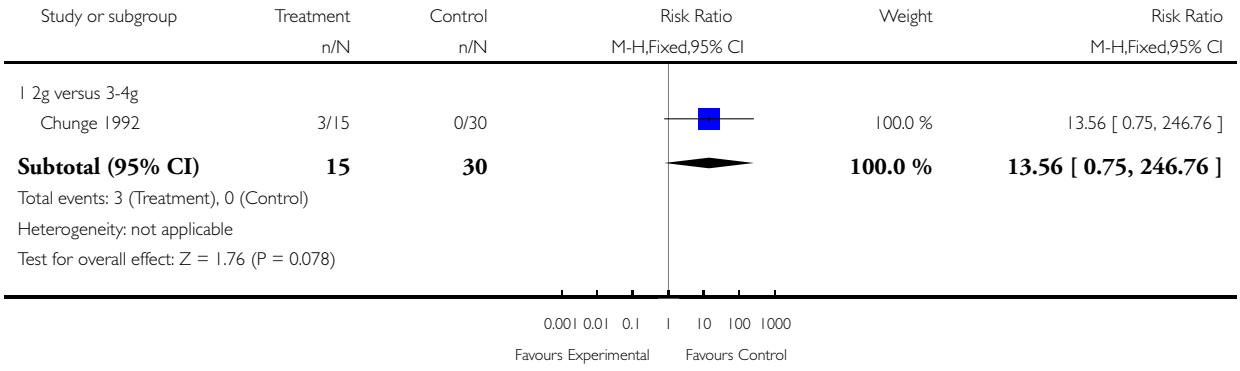
Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H,Fixed,95% CI	Weight	Risk Ratio M-H,Fixed,95% CI
1 750mg versus 1000mg					
Roncuzzi 1972	1/25	2/20		100.0 %	0.40 [0.04, 4.10]
Subtotal (95% CI)	**25**	**20**		**100.0 %**	**0.40 [0.04, 4.10]**
Total events: 1 (Treatment), 2 (Control)					
Heterogeneity: not applicable					
Test for overall effect: Z = 0.77 (P = 0.44)					
2 2g versus 3-4g					
Chunge 1992	5/15	1/30		100.0 %	10.00 [1.28, 78.12]
Subtotal (95% CI)	**15**	**30**		**100.0 %**	**10.00 [1.28, 78.12]**
Total events: 5 (Treatment), 1 (Control)					
Heterogeneity: not applicable					
Test for overall effect: Z = 2.20 (P = 0.028)					

Analysis 20.2. Comparison 20 Nimorazole dose comparisons, Outcome 2 No clinical cure.

Review: Interventions for treating trichomoniasis in women

Comparison: 20 Nimorazole dose comparisons

Outcome: 2 No clinical cure

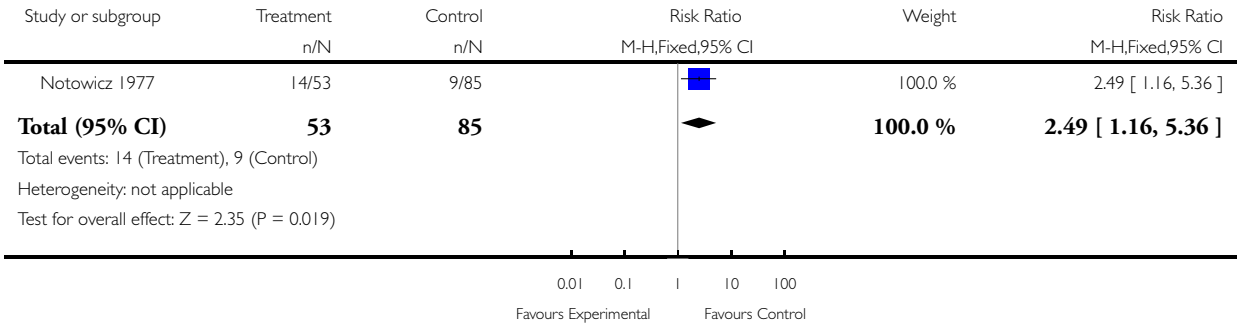


Analysis 21.1. Comparison 21 Carnidazole 1.5g versus 2g, Outcome 1 No parasitological cure (1-3 weeks).

Review: Interventions for treating trichomoniasis in women

Comparison: 21 Carnidazole 1.5g versus 2g

Outcome: 1 No parasitological cure (1-3 weeks)

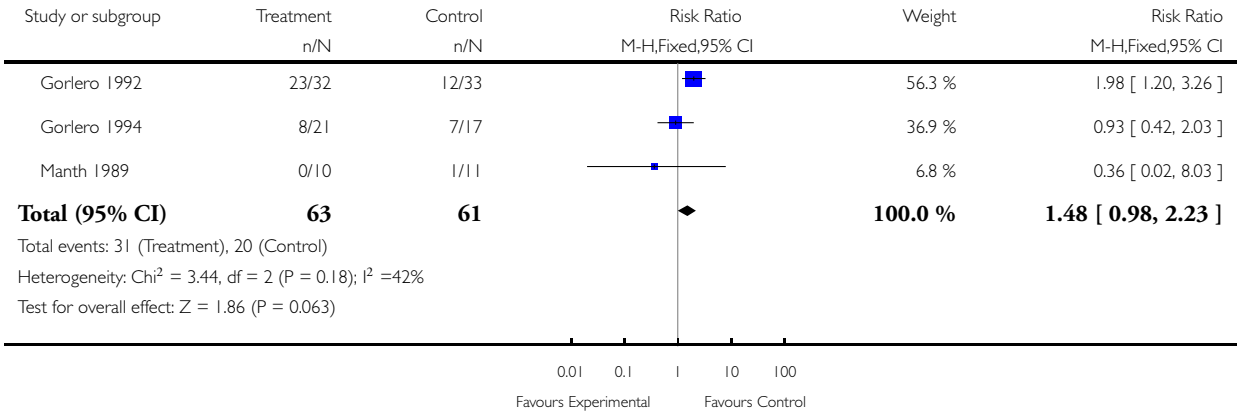


Analysis 22.1. Comparison 22 Intravaginal: fenticonazole 600 mg versus 1000 mg, Outcome 1 No parasitological cure.

Review: Interventions for treating trichomoniasis in women

Comparison: 22 Intravaginal: fenticonazole 600 mg versus 1000 mg

Outcome: 1 No parasitological cure

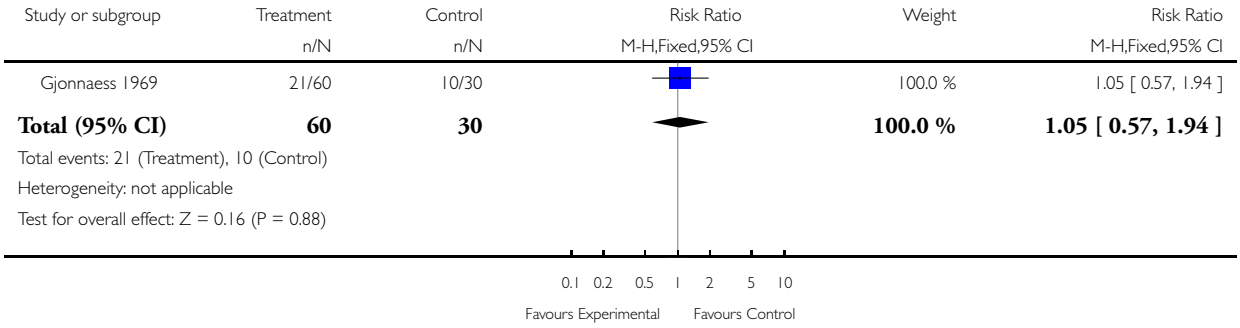


Analysis 23.1. Comparison 23 Nifuratel 7 days versus 10 days, Outcome 1 No parasitological cure.

Review: Interventions for treating trichomoniasis in women

Comparison: 23 Nifuratel 7 days versus 10 days

Outcome: 1 No parasitological cure

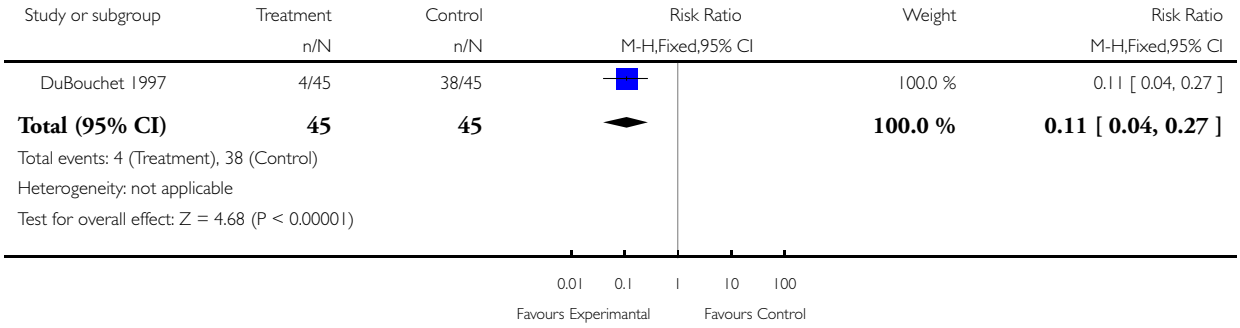


Analysis 24.1. Comparison 24 Oral metronidazole versus intravaginal clotrimazole, Outcome 1 No parasitological cure (2-3 weeks).

Review: Interventions for treating trichomoniasis in women

Comparison: 24 Oral metronidazole versus intravaginal clotrimazole

Outcome: 1 No parasitological cure (2-3 weeks)



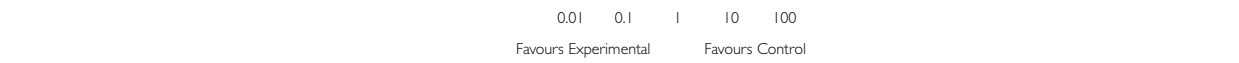
Analysis 24.2. Comparison 24 Oral metronidazole versus intravaginal clotrimazole, Outcome 2 No parasitological cure (4-6 weeks).

Review: Interventions for treating trichomoniasis in women

Comparison: 24 Oral metronidazole versus intravaginal clotrimazole

Outcome: 2 No parasitological cure (4-6 weeks)

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H,Fixed,95% CI	Weight	Risk Ratio M-H,Fixed,95% CI
DuBouchet 1997	9/45	40/45		100.0 %	0.23 [0.12, 0.41]
Total (95% CI)	**45**	**45**		**100.0 %**	**0.23 [0.12, 0.41]**
Total events: 9 (Treatment), 40 (Control)					
Heterogeneity: not applicable					
Test for overall effect: Z = 4.93 (P < 0.00001)					



Analysis 24.3. Comparison 24 Oral metronidazole versus intravaginal clotrimazole, Outcome 3 Any side effect.

Review: Interventions for treating trichomoniasis in women

Comparison: 24 Oral metronidazole versus intravaginal clotrimazole

Outcome: 3 Any side effect

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H,Fixed,95% CI	Weight	Risk Ratio M-H,Fixed,95% CI
DuBouchet 1997	7/48	0/50			15.61 [0.92, 266.08]

Analysis 25.1. Comparison 25 Oral metronidazole versus intravaginal AVC suppositories, Outcome 1 No parasitological cure (2-3 weeks).

Review: Interventions for treating trichomoniasis in women

Comparison: 25 Oral metronidazole versus intravaginal AVC suppositories

Outcome: 1 No parasitological cure (2-3 weeks)

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H,Fixed,95% CI	Weight	Risk Ratio M-H,Fixed,95% CI
DuBouchet 1997	4/45	31/43		100.0 %	0.12 [0.05, 0.32]
Total (95% CI)	**45**	**43**		**100.0 %**	**0.12 [0.05, 0.32]**
Total events: 4 (Treatment), 31 (Control)					
Heterogeneity: not applicable					
Test for overall effect: Z = 4.30 (P = 0.000017)					

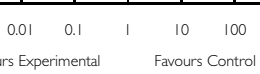
Analysis 25.2. Comparison 25 Oral metronidazole versus intravaginal AVC suppositories, Outcome 2 No parasitological cure (4-6 weeks).

Review: Interventions for treating trichomoniasis in women

Comparison: 25 Oral metronidazole versus intravaginal AVC suppositories

Outcome: 2 No parasitological cure (4-6 weeks)

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H,Fixed,95% CI	Weight	Risk Ratio M-H,Fixed,95% CI
DuBouchet 1997	9/45	35/43		100.0 %	0.25 [0.13, 0.45]
Total (95% CI)	**45**	**43**		**100.0 %**	**0.25 [0.13, 0.45]**
Total events: 9 (Treatment), 35 (Control)					
Heterogeneity: not applicable					
Test for overall effect: Z = 4.57 (P < 0.00001)					

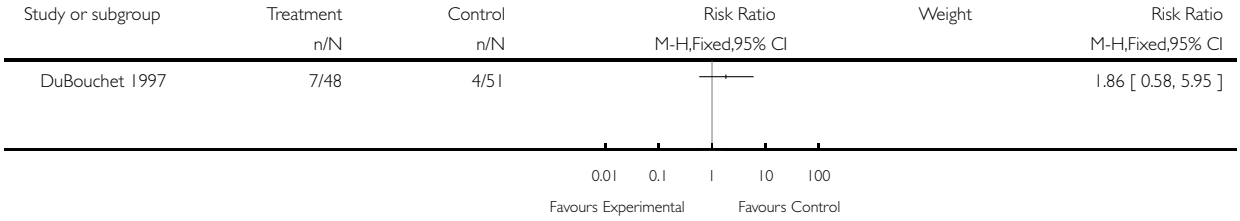


Analysis 25.3. Comparison 25 Oral metronidazole versus intravaginal AVC suppositories, Outcome 3 Any side effect.

Review: Interventions for treating trichomoniasis in women

Comparison: 25 Oral metronidazole versus intravaginal AVC suppositories

Outcome: 3 Any side effect

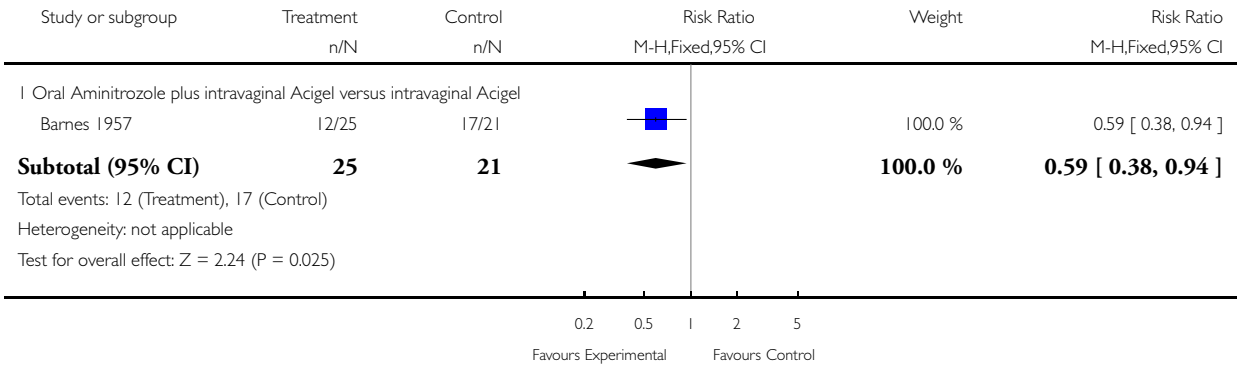


Analysis 26.1. Comparison 26 Oral plus intravaginal versus intravaginal, Outcome 1 No parasitological cure.

Review: Interventions for treating trichomoniasis in women

Comparison: 26 Oral plus intravaginal versus intravaginal

Outcome: 1 No parasitological cure

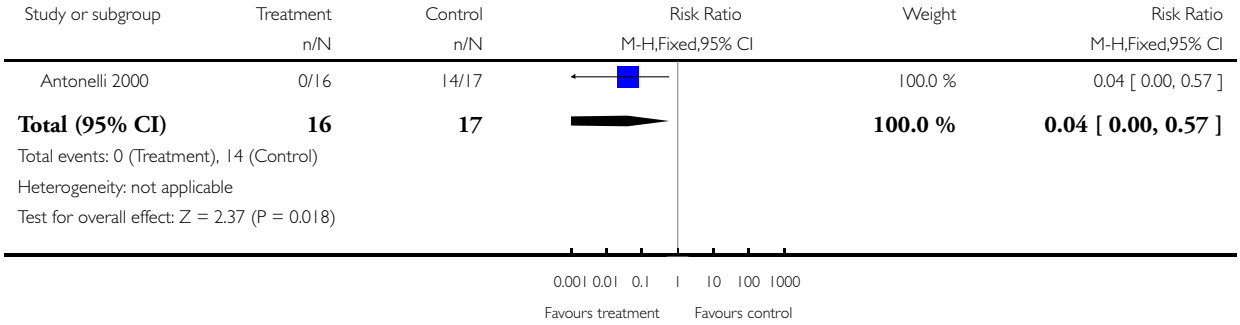


Analysis 27.1. Comparison 27 Oral metronidazole versus intravaginal nonoxynol 9, Outcome 1 No parasitological cure.

Review: Interventions for treating trichomoniasis in women

Comparison: 27 Oral metronidazole versus intravaginal nonoxynol 9

Outcome: 1 No parasitological cure



WHAT'S NEW

Date	Event	Description
18 August 2008	Amended	Converted to new review format with minor editing.

HISTORY

Protocol first published: Issue 2, 1996

Review first published: Issue 2, 1996

Date	Event	Description
13 January 2003	New citation required and conclusions have changed	Included one new trial comparing oral metronidazole to intravaginal nonoxynol-9 (Antonelli 2000), and excluded one trial for lack of randomisation (Wladeck 1981).
24 November 2002	New search has been performed	New studies found and included or excluded.

CONTRIBUTIONS OF AUTHORS

Metin Gülmezoglu wrote the initial version of the review. Fatu Forna is currently the responsible author for the review. She contributed to updating the review by extracting data from studies not included before and by revising the text of the review.

DECLARATIONS OF INTEREST

We certify that we have no affiliations with or involvement in any organisation or entity with a direct financial interest in the subject matter of the review (e.g. employment, consultancy, stock ownership, honoraria, expert testimony).

SOURCES OF SUPPORT

Internal sources

- National Perinatal Epidemiology Unit, Oxford, UK, Not specified.
- HRP - UNDP/UNFPA/WHO/World Bank Special Programme in Human Reproduction, Geneva, Switzerland.
- Duke University School of Medicine, North Carolina, USA.
- Department of Maternal & Child Health, University of North Carolina-Chapel Hill, USA.

External sources

- Department for International Development, UK.
- Nuffield Provincial Hospitals Trust, UK.
- European Commission (Directorate General XII), Belgium.

INDEX TERMS

Medical Subject Headings (MeSH)

Antitrichomonal Agents [*therapeutic use]; Clinical Trials as Topic; Metronidazole [therapeutic use]; Nitroimidazoles [therapeutic use]; Trichomonas Vaginitis [*drug therapy]

MeSH check words

Female; Humans