

Routine perineal shaving on admission in labour (Review)

Basevi V, Lavender T



**THE COCHRANE
COLLABORATION®**

This is a reprint of a Cochrane review, prepared and maintained by The Cochrane Collaboration and published in *The Cochrane Library* 2009, Issue 4

<http://www.thecochranelibrary.com>



Routine perineal shaving on admission in labour (Review)

Copyright © 2009 The Cochrane Collaboration. Published by John Wiley & Sons, Ltd.

TABLE OF CONTENTS

HEADER	1
ABSTRACT	1
PLAIN LANGUAGE SUMMARY	2
BACKGROUND	2
OBJECTIVES	2
METHODS	2
RESULTS	3
DISCUSSION	5
AUTHORS' CONCLUSIONS	5
ACKNOWLEDGEMENTS	5
REFERENCES	5
CHARACTERISTICS OF STUDIES	6
DATA AND ANALYSES	9
Analysis 1.1. Comparison 1 Perineal shaving versus no perineal shaving, Outcome 1 Postpartum maternal febrile morbidity.	9
Analysis 1.2. Comparison 1 Perineal shaving versus no perineal shaving, Outcome 2 Colonisation.	10
Analysis 1.3. Comparison 1 Perineal shaving versus no perineal shaving, Outcome 3 Neonatal infection.	10
Analysis 1.4. Comparison 1 Perineal shaving versus no perineal shaving, Outcome 4 Wound infection.	11
Analysis 1.5. Comparison 1 Perineal shaving versus no perineal shaving, Outcome 5 Wound dehiscence.	11
Analysis 1.11. Comparison 1 Perineal shaving versus no perineal shaving, Outcome 11 Maternal satisfaction continuous data.	12
WHAT'S NEW	12
HISTORY	12
CONTRIBUTIONS OF AUTHORS	12
DECLARATIONS OF INTEREST	13
SOURCES OF SUPPORT	13
INDEX TERMS	13

[Intervention Review]

Routine perineal shaving on admission in labour

Vittorio Basevi¹, Tina Lavender²

¹CeVEAS, Centro per la Valutazione della Efficacia della Assistenza Sanitaria, Azienda USL di Modena, Modena, Italy. ²School of Nursing, Midwifery and Social Work, The University of Manchester, Manchester, UK

Contact address: Vittorio Basevi, CeVEAS, Centro per la Valutazione della Efficacia della Assistenza Sanitaria, Azienda USL di Modena, V. le L. Muratori 201, Modena, 41100, Italy. v.basevi@ausl.mo.it. (Editorial group: Cochrane Pregnancy and Childbirth Group.)

Cochrane Database of Systematic Reviews, Issue 4, 2009 (Status in this issue: *Unchanged*)

Copyright © 2009 The Cochrane Collaboration. Published by John Wiley & Sons, Ltd.

DOI: 10.1002/14651858.CD001236

This version first published online: 23 October 2000 in Issue 4, 2000.

Last assessed as up-to-date: 1 January 2008. (Help document - [Dates and Statuses](#) explained)

This record should be cited as: Basevi V, Lavender T. Routine perineal shaving on admission in labour. *Cochrane Database of Systematic Reviews* 2000, Issue 4. Art. No.: CD001236. DOI: 10.1002/14651858.CD001236.

ABSTRACT

Background

Pubic or perineal shaving is a procedure performed before birth in order to lessen the risk of infection if there is a spontaneous perineal tear or if an episiotomy is performed.

Objectives

To assess the effects of routine perineal shaving before birth on maternal and neonatal outcomes, according to the best available evidence.

Search strategy

We searched the Cochrane Pregnancy and Childbirth Group's Trials Register (2 January 2008).

Selection criteria

All controlled trials (including quasi-randomised) that compare perineal shaving versus no perineal shaving.

Data collection and analysis

We evaluated trials under consideration for methodological quality and appropriateness for inclusion without consideration of their results.

Main results

Three trials fulfilled the prespecified criteria. In the earlier trial, 389 women were alternately allocated to receive either skin preparation and perineal shaving or clipping of vulval hair only. In the second trial, which included 150 participants, perineal shaving was compared with the cutting of long hairs for procedures only. In the third trial, 500 women were randomly allocated to shaving of perineal area or cutting of perineal hair. The primary outcome for all three trials was maternal febrile morbidity. No differences were found (combined odds ratio (OR) 1.16, 95% confidence interval (CI) 0.70 to 1.90).

No differences were found in terms of perineal wound infection (OR 1.52, 95% CI 0.79 to 2.90) and perineal wound dehiscence (OR 0.13, 95% CI 0.00 to 6.70) in the larger trial, the only one assessing these outcomes.

In the smaller trial, fewer women who had not been shaved had Gram-negative bacterial colonisation compared with women who had been shaved (OR 0.43, 95% CI 0.20 to 0.92).

Authors' conclusions

There is insufficient evidence to recommend perineal shaving for women on admission in labour.

PLAIN LANGUAGE SUMMARY

Routinely shaving women in the area around the vagina on admission to hospital in labour

Women may have their pubic hairs shaved with a razor (perineal shaving) when they are admitted to hospital to give childbirth. This is done in the belief that shaving reduces the risk of infection if the perineum tears or a episiotomy is performed and that it makes suturing easier and helps with instrumental deliveries. Shaving is a routine procedure in some countries. The present review found no evidence of any clinical benefit with perineal shaving. Not routinely shaving women before labour appeared safe. Three controlled trials that involved a total of 1039 women were reported on between 1922 and 2005. They each used antiseptic skin preparation and compared perineal shaving with cutting vulval hairs. When the findings of the trials were combined, no differences were found, with and without shaving, on the number of mothers who experiencing high body temperatures after the birth (maternal febrile morbidity). One trial also looked at perineal wound infection, the incidence of open wounds and maternal satisfaction immediately after a perineal repair had been completed and found no difference between groups. Most of the side-effects attributable to shaving occur later, as described by one of the trials. These included irritation, redness, multiple superficial scratches from the razor and burning and itching of the vulva. No trial assessed the views of the women about shaving, such as pain, embarrassment or discomfort during hair regrowth, to determine the most appropriate form of care in terms of health gain.

BACKGROUND

Pubic or perineal shaving is a procedure performed before birth to lessen the risk of infection if there is a spontaneous perineal tear or if an episiotomy is performed. It has also been suggested that perineal shaving is likely to make suturing easier and safer ([Kantor 1965](#); [Kovavisarach 2005](#)). Routine shaving - a procedure which ceased in the UK in the late 1970s - continues in some other countries.

A systematic review on preoperative hair removal to reduce surgical site infection that included eleven RCTs (n = 4486) ([Tanner 2006](#)) did not detected any difference in surgical site infections among patients who have had hair removed prior to surgery and those who have not.

Preoperative shaving by razor can create cutaneous microlacerations that may lead to colonisation with micro-organisms ([Briggs 1997](#)). Furthermore, perineal shaving may be disliked by the woman ([Oakley 1979](#)), may cause discomfort during the period of hair regrowth ([Kantor 1965](#)) and may cause maternal embarrassment ([Romney 1980](#)).

The aim of this review is to determine if there is any clear scientific evidence that perineal shaving on admission in labour reduces maternal and/or neonatal morbidity.

The objective of this review is to determine the effects of perineal shaving compared with no shaving prior to birth. The scientific evidence provided by this review will enable purchasers, providers and consumers of health care to decide the most appropriate form of care in terms of both health gain and cost.

METHODS

Criteria for considering studies for this review

Types of studies

All identified controlled trials (including quasi-randomised) that compare routine perineal shaving with no perineal shaving prior to birth.

Types of participants

All primiparous and multiparous women, irrespective of mode of delivery, with or without perineal trauma.

Types of interventions

All controlled trial comparisons of perineal shaving versus no shaving prior to birth.

OBJECTIVES

Types of outcome measures

The main outcome measures were postpartum maternal febrile morbidity, neonatal infection and if there was perineal trauma, wound infection, wound dehiscence and need for wound resuturing. Poorly defined outcomes were included for information purposes only.

The criteria for postpartum maternal febrile morbidity were clinical signs or symptoms (persistent temperature of at least 37.5 degrees centigrade, tachycardia), and an elevated white blood cell count (at least 20,000/mm³).

The criteria for wound infection were persistent temperature of at least 37.5 degrees centigrade with clinical symptoms such as localised erythema and/or discharge and/or a positive wound swab culture with an organism likely to cause infection.

The criteria for neonatal infection were if the baby had one or more of the following: probable sepsis; probable meningitis; or probable pneumonia. This will be considered present if the baby has clinical signs/symptoms (respiratory distress, irritability, temperature instability, feeding difficulties, early onset jaundice, poor perfusion, hypotension, apnoea, seizures, tachycardia, lethargy), and either an abnormal sepsis screen or abnormal cerebrospinal fluid findings.

Psychological outcomes included level of discomfort, degree of pain, degree of embarrassment and level of maternal satisfaction.

Search methods for identification of studies

Electronic searches

We searched the Cochrane Pregnancy and Childbirth Group's Trials Register by contacting the Trials Search Co-ordinator (2 January 2008).

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

- (1) quarterly searches of the Cochrane Central Register of Controlled Trials (CENTRAL);
- (2) monthly searches of MEDLINE;
- (3) handsearches of 30 journals and the proceedings of major conferences;
- (4) weekly current awareness search of a further 36 journals plus monthly BioMed Central email alerts.

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

Trials identified through the searching activities described above are given a code (or codes) depending on the topic. The codes are

linked to review topics. The Trials Search Co-ordinator searches the register for each review using these codes rather than keywords. We did not apply any language restrictions.

Data collection and analysis

We independently assessed and selected trials for inclusion in the review in accordance with the prestated selection criteria, without consideration of their results. We included individual outcome data in the analysis if they met the prestated criteria in 'Types of outcome measure'.

It was not possible to assess the relevance of the trials blinded because the authors' names, institution, journal publication and results were known when the criteria were applied.

We processed included trial data as described in [Higgins 2006](#).

We assessed the trials according to the following main criteria:

method of allocation to treatment;

adequate documentation of how exclusions were handled after treatment allocation - to facilitate intention to treat analysis; clinical relevance of outcomes.

Concealment of treatment allocation and adequate blinding of outcome assessments were not possible due to the nature of the intervention.

Data were entered directly from published reports into the Review Manager 4.2.10 ([RevMan 2003](#)) software once a consensus had been reached between reviewers. Because of the date of publication for two of included trials, it was not possible to seek additional information from the trialists by personal communication. Statistical analysis was undertaken using the RevMan software for calculation of the treatment effect as represented by the odds ratio, proportional and absolute risk reductions. We tested for heterogeneity between trial results where appropriate.

RESULTS

Description of studies

See: [Characteristics of included studies](#).

Three clinical trials were identified where perineal shaving was compared with no shaving.

In the earliest trial ([Johnston 1922](#)), 389 women were alternately allocated to receive either skin preparation and perineal shaving (control) or clipping of vulval hair only (experimental). This was carried out as part of a larger trial which assessed the potential benefits of the study hospital's admission procedure. The routine skin preparation included scrubbing of external genitalia and inner thighs with soap and water and, if labour was imminent, vulval douching with sterile water, alcohol and a weak solution of bichloride of mercury.

The second trial (Kantor 1965), which included 150 participants, compared perineal shaving versus the cutting of long hairs for procedures only. Fifty women in each arm received pHisoHex wash as skin preparation and 25 in each arm received povidone-iodine spray.

The third trial (Kovavisarach 2005) included 500 women. 42 women were excluded after randomization due to caesarean section. The trial compared perineal shaving versus cutting of perineal hair, down to 0.5 cm above the skin. In all women the perineal region was scrubbed with 4% chlorohexidine scrub and rinsed with savlon solution (1:100).

Risk of bias in included studies

The Johnston trial (Johnston 1922) assessed perineal shaving in 389 women as part of a larger study (N = 1059), which explored general preparation for childbirth. The applicability of this study to practice is limited, given that much of what was reported then would now be considered unacceptable to women, i.e. intensive skin preparation.

Women were alternately allocated to experimental or control group. There is no information on the timing of allocation, the personnel involved, or the number of exclusions during this process. The potential for bias cannot be excluded.

The second trial (Kantor 1965), which includes 150 participants, also provided limited detail about the research methods employed and therefore the quality was difficult to assess. In particular, the method of allocation was unclear in this paper and, as such, the potential for bias cannot be excluded.

In the third trial (Kovavisarach 2005) 500 women were randomly allocated from a table of random numbers with sequentially numbered, sealed envelopes.

Because blinding of outcome assessors was not possible due to the nature of the intervention, the potential for bias cannot be excluded in all the trials.

All the trials provided a limited assessment of the effects of perineal shaving. In particular, only one trial assessed neonatal outcomes and the maternal satisfaction. No trial assessed the outcomes associated with maternal views such as pain, embarrassment or discomfort.

Effects of interventions

Three trials (Johnston 1922; Kantor 1965; Kovavisarach 2005) were identified by the search (1039 women).

Postpartum maternal febrile morbidity

In the Johnston 1922 trial the primary outcome was maternal febrile morbidity, defined as temperature 100.4 degrees Fahrenheit or above on two successive days (excluding the day of delivery), and taken every four hours. No significant differences were found

between the trial arms (odds ratio (OR) 1.37, 95% confidence interval (CI) 0.78 to 2.41). There was no microbiological evidence to suggest differences in maternal infection between groups.

In the Kantor 1965 trial no significant differences were found between those women who had or had not received a perineal shave with regard to maternal pyrexia during the 4 days after delivery (OR 0.79, 95% CI 0.21 to 3.03).

In the Kovavisarach 2005 trial no significant differences were found between those women who had or had not received a perineal shave with regard to puerperal morbidity, defined as temperature 38.0 degrees centigrade (100.4 degrees Fahrenheit) or higher, arising on any 2 of the first 10 days postpartum exclusive of the first 24 hours, and to be taken by mouth at least four times daily (OR 0.50, 95% CI 0.10 to 2.50).

When the findings of all the trials were combined, no differences were found in those who had or had not been shaved with regard to maternal febrile morbidity (combined OR 1.16, 95% CI 0.70 to 1.90).

In the Kantor trial there were no differences in Gram-positive bacteria colonization. A significant difference was found in the number of women who were colonized by Gram-negative bacteria (OR 0.43, 95% CI 0.20 to 0.92) in favour of those who had been shaved.

Wound infection, wound dehiscence and need for wound re-suturing.

Only Kovavisarach 2005 trial assessed this outcome. No statistical significant differences were found between the trial arms with regard to perineal wound infection, defined as pain and erythema of the surgical margins of perineal or episiotomy wound with or without serous or purulent discharge (OR 1.52, 95% CI 0.79 to 2.90), and perineal wound dehiscence (OR 0.13, 95% CI 0.00 to 6.70).

Maternal satisfaction

Only Kovavisarach 2005 trial assessed this outcome. Likert scales on five degrees were used to measure a women's intensity of satisfaction (5, excellent; 4, good; 3, average; 2, fair and 1, poor). No significant difference was found between the trial arms (WMD 0.00; 95% CI -0.13 to 0.13).

Neonatal infection

No neonatal infections were detected in Kovavisarach 2005 trial, but the sample size was underpowered to show difference.

Side-effects

Only the Kantor 1965 trial described the side-effects experienced by the women who had been shaved. This included irritation, redness, multiple superficial scratches and burning and itching of the vulva. As the number of side-effects was not reported for women in the unshaved group, this information could not be included in the analysis. The Johnston 1922 and Kovavisarach 2005 trials made no reference to any side-effects attributable to shaving.

DISCUSSION

Two of the three trials identified by the initial search were more than forty years old which may have accounted for the poor reporting of information. This also meant that personal communication to seek additional information about the trials was not possible. The Johnston trial (Johnston 1922) was, in fact, the first trial registered in the Cochrane Pregnancy and Childbirth Group's register. Although a significant difference was found in the number of women who had colonized gram negative bacteria in favour of those who had been shaved (Kantor 1965), when combined with gram positive bacteria no differences were found. Moreover, all cases of maternal pyrexia were attributed to other causes, i.e. urinary tract infection and endometritis (Kantor 1965). The most recent and larger trial found no differences between the trial arms on the perineal wound infection and dehiscence and puerperal morbidity and infection (Kovavisarach 2005). No significant differences were found between those women who had or had not received a perineal shave with regard to maternal satisfaction, evaluated immediately after perineal repair had finished (Kovavisarach 2005). However the timing of assessment could be unsuitable, because most of the side-effects attributable to shaving are late complications.

AUTHORS' CONCLUSIONS

Implications for practice

There is sufficient evidence that avoiding routine perineal shaving

for women prior to labour is safe. The clinical significance of the difference in women having gram negative bacteria is uncertain. Furthermore, the potential for side-effects suggests that shaving should not be part of routine clinical practice.

All three trials identified included the clipping of long hairs in their control groups to aid in operative procedures. This process is carried out for practical reasons, i.e. when performing instrumental deliveries or carrying out perineal repairs.

Implications for research

It is unlikely that further randomized controlled trials on routine perineal shaving on admission in labour may provide additional information on maternal morbidity and perineal wound infections. In settings where midwives and doctors continue to perform routine perineal shaving, surveys on knowledge, attitude and behaviour of professionals could be useful to identify barriers and facilitators to change this practice.

ACKNOWLEDGEMENTS

This Cochrane review updates the pre-Cochrane review undertaken by Prof Mary Renfrew in 1995 (Renfrew 1995).

Acknowledgements to Prof Zarko Alfirevic for his support and guidance and to Dr Simona Di Mario for her support on the update of the review.

REFERENCES

References to studies included in this review

Johnston 1922 {published data only}

Johnston RA, Sidall RS. Is the usual method of preparing patients for delivery beneficial or necessary?. *American Journal of Obstetrics and Gynecology* 1922;4:645–50.

Kantor 1965 {published data only}

Kantor HI, Rember R, Tabio P, Buchanon R. Value of shaving the pudendal-perineal area in delivery preparation. *Obstetrics & Gynecology* 1965;25:509–12.

Kovavisarach 2005 {published data only}

Kovavisarach E, Jirasettasiri P. Randomised controlled trial of perineal shaving versus hair cutting in parturients on admission in labor. *Journal of the Medical Association of Thailand* 2005;88:1167–71.

Additional references

Briggs 1997

Briggs M. Principles of closed surgical wound care. *Journal of Wound Care* 1997;6(6):288–92.

Higgins 2006

Higgins JPT, Green S, editors. Cochrane Handbook for Systematic Reviews of Interventions 4.2.6 [updated September 2006]. <http://www.cochrane.org/resources/handbook/hbook.htm> (accessed 20th September 2007).

Oakley 1979

Oakley A. *Becoming a mother*. Oxford: Martin Robertson, 1979.

RevMan 2003

The Nordic Cochrane Centre, The Cochrane Collaboration. Review Manager (RevMan). 4.2 for Windows. Copenhagen: The Nordic Cochrane Centre, The Cochrane Collaboration, 2003.

Romney 1980

Romney ML. Pre-delivery shaving: an unjustified assault?. *Journal of Obstetrics and Gynaecology* 1980;1:33–5.

Tanner 2006

Tanner J, Woodings D, Moncaster K. Preoperative hair removal to reduce surgical site infection. *Cochrane Database of Systematic Reviews* 2006, Issue 3. [Art. No.: CD004122. DOI: 10.1002/14651858.CD004122.pub3]

References to other published versions of this review

Renfrew 1995

Renfrew MJ. Routine perineal shaving on admission in labour. [revised 02 April 1992]. In: Enkin MW, Keirse MJNC, Renfrew MJ, Neilson JP, Crowther C (eds.) Pregnancy and Childbirth Module. In: The Cochrane Pregnancy and Childbirth Database [database on disk and CDROM]. The Cochrane Collaboration: Issue 2, Oxford: Update Software; 1995.

* *Indicates the major publication for the study*

CHARACTERISTICS OF STUDIES

Characteristics of included studies [ordered by study ID]

Johnston 1922

Methods	Alternate allocation.	
Participants	389 women in labour. Exclusions criteria: caesarean section; previously identified infection; eclampsia; postpartum admissions. USA	
Interventions	Pubic shaving plus the usual skin preparation (scrubbing of the external genitalia and inner thighs with green soap and water and the pouring of sterile water, alcohol and a weak solution of bichloride of mercury over the vulva and adjoining area) (N=196) versus clipping of long pubic hairs only (no skin preparation) (N=193).	
Outcomes	Febrile puerperia.	
Notes		
<i>Risk of bias</i>		
Item	Authors' judgement	Description
Allocation concealment?	No	C - Inadequate

Kantor 1965

Methods	Method of allocation not specified.
Participants	150 labouring women pre delivery. USA
Interventions	First comparison: shaving of the pudendal and perineal areas (N=50) versus clipping of long pubic hairs (N=50). In all women the pudendal and perineal region was washed with a diluted pHisoHex solution. Second comparison: shaving of the pudendal and perineal areas (N=25) versus clipping of long pubic hairs (N=25). All women received povidone-iodine spray as skin preparation, after washing to remove pHisoHex.
Outcomes	Positive bacteriology cultures (gram positive and negative). Maternal pyrexia.
Notes	
<i>Risk of bias</i>	

Kantor 1965 (Continued)

Item	Authors' judgement	Description
Allocation concealment?	Unclear	B - Unclear

Kovavisarach 2005

Methods	Random allocation from a table of random numbers with sequentially numbered, sealed envelopes.
Participants	500 pregnant women recruited from one hospital. 42 women excluded after randomization due to caesarean section. Study period: November 2001- February 2002. Inclusion criteria: term pregnancy (gestational age 37-42 weeks) true labour pain, singleton, cephalic presentation, living fetus. Exclusion criteria: women with medical or obstetric complications (e.g. premature rupture of membranes, HIV positive, treatment with antibiotics within 7 days of admission, birth canal or anal infection). Thailand
Interventions	Perineal shaving (N=231) versus cutting of perineal hair, down to 0.5 cm above the skin (N=227). In all women the perineal region was scrubbed with 4% chlorohexidine scrub and rinsed with savlon solution (1:100).
Outcomes	Perineal wound infection; puerperal morbidity; puerperal infection; neonatal infection; satisfaction of the patients, accoucheurs and perineorrhaphy operators.
Notes	All women were attended by nurses, externs and obstetrics-gynecology residents. The episiotomy wounds were repaired either by externs or residents under the supervision of the senior residents. The satisfaction of parturients was evaluated immediately after perineal repair had finished. The definition of puerperal infection was based on histopathological and not clinical criteria.

Risk of bias

Item	Authors' judgement	Description
Allocation concealment?	Yes	A - Adequate

DATA AND ANALYSES

Comparison 1. Perineal shaving versus no perineal shaving

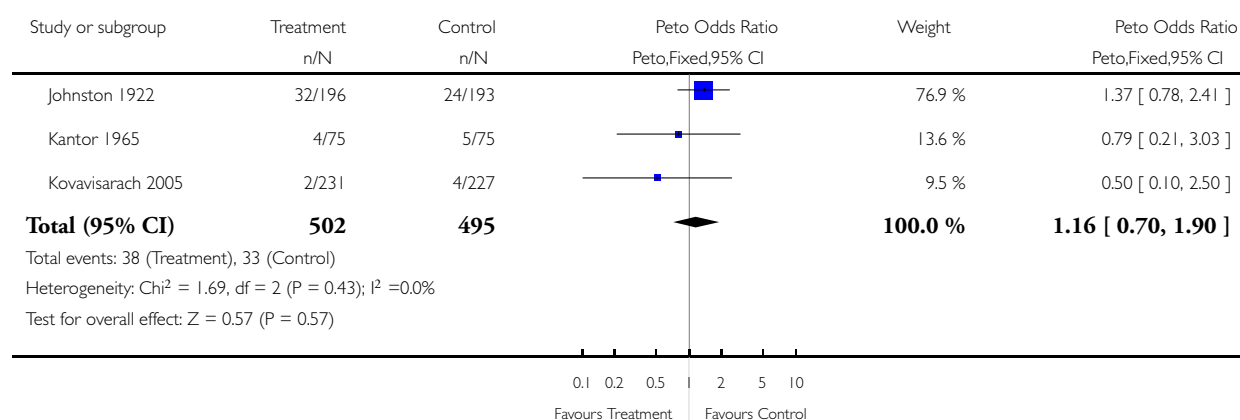
Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 Postpartum maternal febrile morbidity	3	997	Peto Odds Ratio (Peto, Fixed, 95% CI)	1.16 [0.70, 1.90]
2 Colonisation	1	300	Peto Odds Ratio (Peto, Fixed, 95% CI)	0.83 [0.51, 1.35]
2.1 Gram-positive	1	150	Peto Odds Ratio (Peto, Fixed, 95% CI)	1.31 [0.69, 2.48]
2.2 Gram-negative	1	150	Peto Odds Ratio (Peto, Fixed, 95% CI)	0.43 [0.20, 0.92]
3 Neonatal infection	1	458	Peto Odds Ratio (Peto, Fixed, 95% CI)	Not estimable
4 Wound infection	1	458	Peto Odds Ratio (Peto, Fixed, 95% CI)	1.52 [0.79, 2.90]
5 Wound dehiscence	1	458	Peto Odds Ratio (Peto, Fixed, 95% CI)	0.13 [0.00, 6.70]
6 Need for wound resuturing	0	0	Peto Odds Ratio (Peto, Fixed, 95% CI)	Not estimable
7 Discomfort	0	0	Peto Odds Ratio (Peto, Fixed, 95% CI)	Not estimable
8 Pain	0	0	Peto Odds Ratio (Peto, Fixed, 95% CI)	Not estimable
9 Maternal embarrassment	0	0	Peto Odds Ratio (Peto, Fixed, 95% CI)	Not estimable
10 Maternal satisfaction	0	0	Peto Odds Ratio (Peto, Fixed, 95% CI)	Not estimable
11 Maternal satisfaction continuous data	1	458	Mean Difference (IV, Fixed, 95% CI)	Not estimable

Analysis 1.1. Comparison 1 Perineal shaving versus no perineal shaving, Outcome 1 Postpartum maternal febrile morbidity.

Review: Routine perineal shaving on admission in labour

Comparison: 1 Perineal shaving versus no perineal shaving

Outcome: 1 Postpartum maternal febrile morbidity

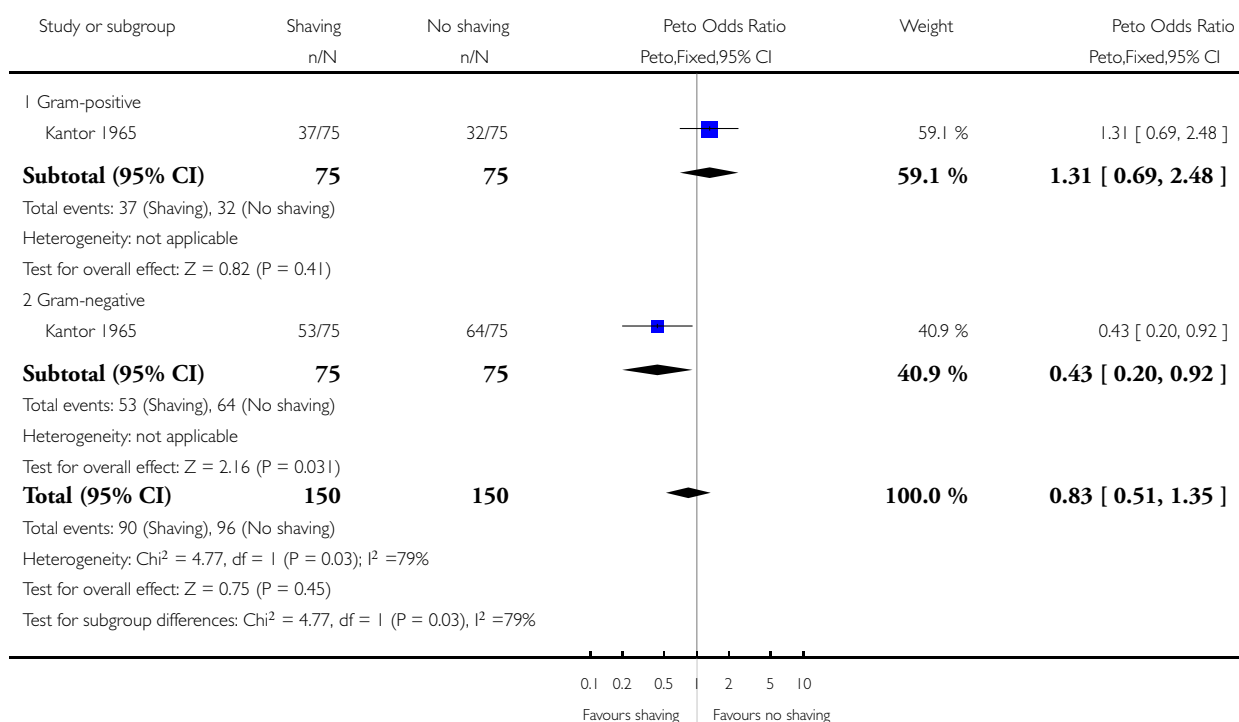


Analysis 1.2. Comparison 1 Perineal shaving versus no perineal shaving, Outcome 2 Colonisation.

Review: Routine perineal shaving on admission in labour

Comparison: 1 Perineal shaving versus no perineal shaving

Outcome: 2 Colonisation

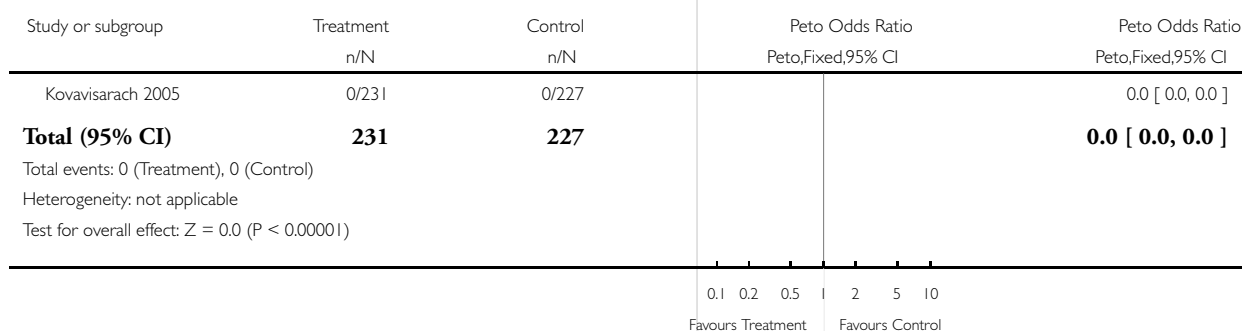


Analysis 1.3. Comparison 1 Perineal shaving versus no perineal shaving, Outcome 3 Neonatal infection.

Review: Routine perineal shaving on admission in labour

Comparison: 1 Perineal shaving versus no perineal shaving

Outcome: 3 Neonatal infection

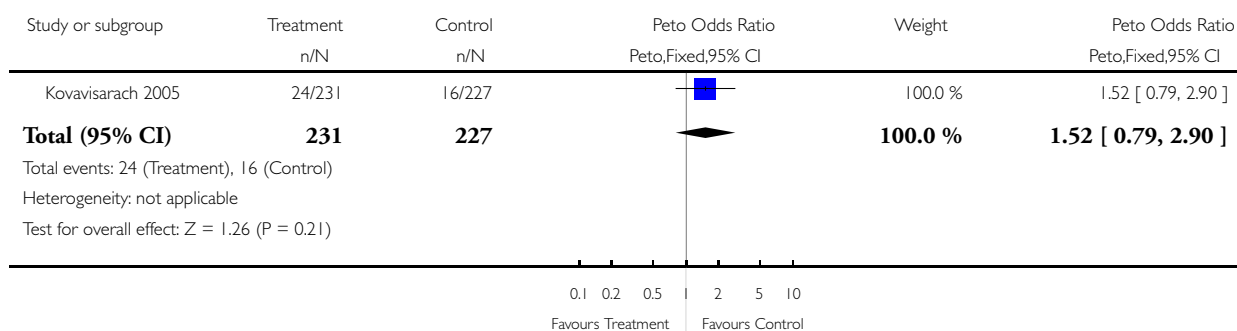


Analysis 1.4. Comparison 1 Perineal shaving versus no perineal shaving, Outcome 4 Wound infection.

Review: Routine perineal shaving on admission in labour

Comparison: 1 Perineal shaving versus no perineal shaving

Outcome: 4 Wound infection

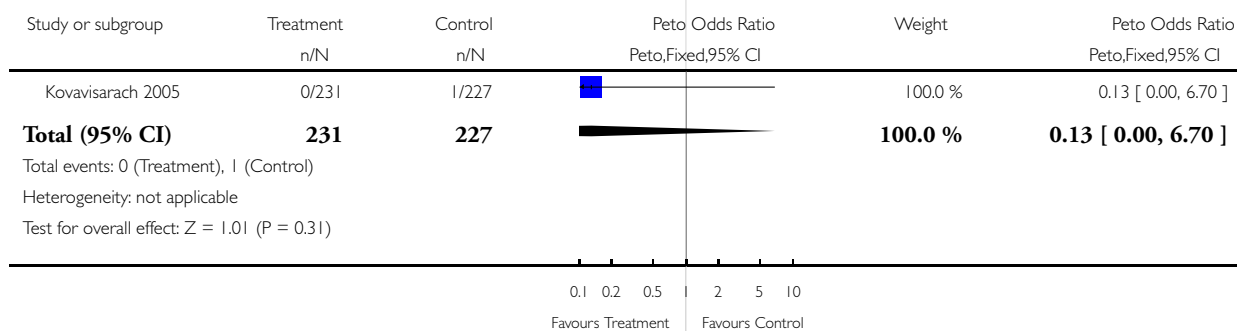


Analysis 1.5. Comparison 1 Perineal shaving versus no perineal shaving, Outcome 5 Wound dehiscence.

Review: Routine perineal shaving on admission in labour

Comparison: 1 Perineal shaving versus no perineal shaving

Outcome: 5 Wound dehiscence

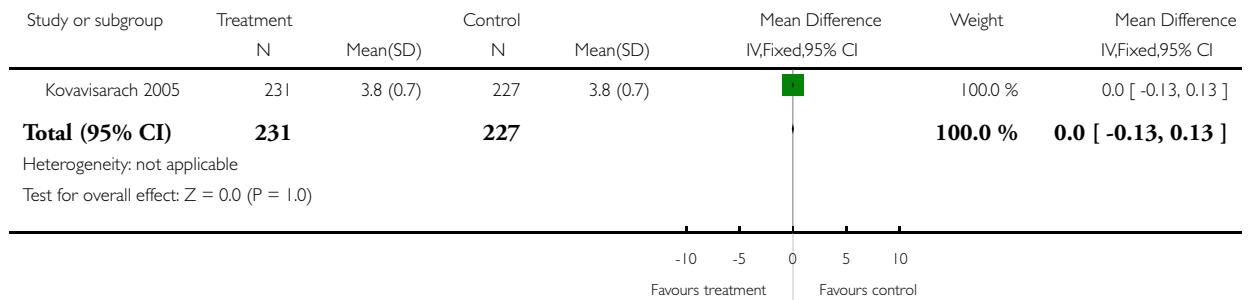


Analysis 1.11. Comparison 1 Perineal shaving versus no perineal shaving, Outcome 11 Maternal satisfaction continuous data.

Review: Routine perineal shaving on admission in labour

Comparison: 1 Perineal shaving versus no perineal shaving

Outcome: 11 Maternal satisfaction continuous data



WHAT'S NEW

Last assessed as up-to-date: 1 January 2008.

13 February 2009	Amended	Contact details updated.
------------------	---------	--------------------------

HISTORY

Protocol first published: Issue 4, 1998

Review first published: Issue 1, 2001

2 January 2008	New search has been performed	Search updated and one new trial identified. The conclusions have not changed.
2 January 2008	Amended	Converted to new review format.
17 November 2003	New search has been performed	Updated search. No new trials identified.

CONTRIBUTIONS OF AUTHORS

Vittorio Basevi wrote the protocol and Tina Lavender commented. Tina Lavender and Vittorio Basevi wrote the review. Vittorio Basevi extracted the data and Tina Lavender checked the data.

DECLARATIONS OF INTEREST

None known.

SOURCES OF SUPPORT

Internal sources

- The Liverpool Women's Hospital NHS Trust, UK.
- CeVEAS, NHS Centre for the Evaluation of Effectiveness of Health Care, Modena, Italy.

External sources

- No sources of support supplied

INDEX TERMS

Medical Subject Headings (MeSH)

*Hair Removal; *Labor, Obstetric; *Perineum; Confidence Intervals; Controlled Clinical Trials as Topic; Odds Ratio; Patient Admission

MeSH check words

Female; Humans; Pregnancy