



West Middlesex University Hospital

**Date of Search:** 11 January 2017

**Sources Searched:** Medline, Embase, CINAHL, TRIP Database, Cochrane Library

## Perineal Suturing and Surgical Drapes/Gowns

---

### Summary

Surgical site infection has been estimated to occur in about [15% of clean surgery and 30% of contaminated surgery cases](#). Using plastic adhesive drapes to protect the wound from organisms that may be present on the surrounding skin during surgery is one strategy used to prevent surgical site infection.

It would seem it is considered good practice for perineal repairs to be performed using aseptic techniques to minimise risk of infection, including the use of surgical drapes. The RCOG Green-Top Guideline (June 2015) on the [Management of Third and Fourth Degree Perineal Tears](#) recommends that such repairs '*should take place in an operating theatre, under regional or general anaesthesia, with good lighting and with appropriate instruments.*' While the [NICE guidance on Intrapartum care for healthy women and babies](#) recommends that perineal repairs should be 'undertaken using aseptic techniques' to avoid infection.

A Cochrane systematic review ([Webster J, Alghamdi A. 2015](#)) which investigated use of plastic adhesive drapes for the prevention of surgical site infections (although not including studies of episiotomy/perineal repair) concluded that there was no evidence (based on seven trials) that plastic adhesive drapes reduce surgical site infection rates, and that there was some evidence of an increase in infection rates.

The [WHO Recommendations on Intraoperative and Postoperative Measures for Surgical Site Infection Prevention](#) (Allegranzi B et al, 2016) suggest using either sterile disposable non-woven or sterile reusable woven drapes and surgical gowns during surgical operations for the purpose of preventing surgical site infection (conditional recommendation; based on moderate to very low quality of evidence); and that plastic adhesive incise drapes with or without antimicrobial properties should not be used (conditional recommendation; based on low to very low quality of evidence).

## **Episiotomy techniques**

**Author(s):** Verspyck E.; Sentilhes L.; Roman H.; Sergent F.; Marpeau L.

**Source:** Journal de gynécologie, obstétrique et biologie de la reproduction; Feb 2006; vol. 35 (no. 1)

**Publication Date:** Feb 2006

**Publication Type(s):** Journal: Review

Available in full text at [Journal de Gynécologie Obstétrique et Biologie de la Réproduction](#) - from Free Access Content

**Abstract:**OBJECTIVES: To describe the different types of episiotomy and to define the methods of repair. METHODS: A systematic review on Medline and Cochrane Database between 1980 and August 2005 was performed. RESULTS: **Aseptic prevention and specific material may be used in order to reduce the risk of surgical wound infection (grade C).** Episiotomy and perineal repair may be associated with considerable pain. In contrast, there has been little evaluation of the effectiveness of analgesia provided to women undergoing this procedure. The mediolateral episiotomy is a 6 cm incision at a 45 degrees angle from the inferior portion of the hymeneal ring (professional agreement). However, shorter length and lower angled episiotomies are also currently reported for routine practice (grade C). There are no data to recommend preferential use of an absorbable synthetic material (acid polyglycolic versus polyglactin 910). The use for the more rapid polyglactin 910 suture material was associated with less need to remove sutures but with more wound gapping in comparison with the standard polyglactin 910 material (grade A). The continuous subcuticular technique of perineal repair may be associated with less pain in the immediate postpartum period than the interrupted technique (grade A). CONCLUSION: Mediolateral episiotomy is the method of choice in France. However, the procedure for this technique should be studied more. Subcuticular technique with an absorbable synthetic material may be the optimal method of repair.

**Database:** EMBASE

## **New WHO recommendations on intraoperative and postoperative measures for surgical site infection prevention: an evidence-based global perspective**

**Author(s):** Allegranzi B.; Zayed B.; Kubilay N.Z.; Bischoff P.; Gastmeier P.; de Jonge S.; de Vries F.; Gans S.; Wallert E.D.; Boermeester M.A.; Gomes S.M.; Solomkin J.S.; Wu X.; Ren J.; Abbas M.; Pittet D.; Dellinger E.P.; Egger M.; Guirao X.

**Source:** The Lancet Infectious Diseases; Dec 2016; vol. 16 (no. 12)

**Publication Date:** Dec 2016

**Publication Type(s):** Journal: Review

**Abstract:** Surgical site infections (SSIs) are the most common health-care-associated infections in developing countries, but they also represent a substantial epidemiological burden in high-income countries. The prevention of these infections is complex and requires the integration of a range of preventive measures before, during, and after surgery. No international guidelines are available and inconsistencies in the interpretation of evidence and recommendations in national guidelines have been identified. Considering the prevention of SSIs as a priority for patient safety, WHO has developed evidence-based and expert consensus-based recommendations on the basis of an extensive list of preventive measures. We present in this Review 16 recommendations specific to the intraoperative and postoperative periods. The WHO recommendations were developed with a global perspective and they take into account the balance between benefits and harms, the evidence quality level, cost and resource use implications, and patient values and preferences. Copyright © 2016 World Health Organization. Published by Elsevier Ltd/Inc/BV. All rights reserved.

## **Surgical site infection surveillance-perineal wounds 2015**

**Author(s):** Calvia A.; Natarajan D.; Denman K.; Kaur K.

**Source:** BJOG: An International Journal of Obstetrics and Gynaecology; Jun 2016; vol. 123 ; p. 168

**Publication Date:** Jun 2016

**Publication Type(s):** Journal: Conference Abstract

Available in full text at [BJOG: An International Journal of Obstetrics and Gynaecology](#) - from John Wiley and Sons

**Abstract:** Objectives To audit the incidence of infection of perineal wounds within our trust and highlight risk factors for infection. Methods This audit focused on perineal tears between May and June 2015. A premade audit proforma was completed at the time of wound repair. A surveillance nurse in Medical microbiology then telephoned patients after 1 month to enquire about wound healing. Risk factors specifically addressed were parity, BMI, time lapsed before suturing, the type of tear and degree, the grade of medical professional that sutured and if patients were on antibiotics peripartum. Results A total of 66 patients were audited, 36 of these were followed-up after 1 month. Of these patients there was a 14% infection rate. This rate was the same in both primiparous and multiparous patients and BMI had no impact. There was a 19% rate of infection in patients who underwent an episiotomy compared to 11% in patients with tears. 23% rate of infection after a second degree tear, none after 3rd degree tear and in 15% the degree of tear was not recorded. The rate of infection was 9% in patients who received peripartum antibiotics opposed to 16% in patients that did not. 16% of patients waiting over an hour for suturing had infection opposed to 12% who were sutured within 1 hour. The infection rate was found to be 7% in patients sutured by midwives, 33% in those sutured by junior doctors, 25% by middle grade doctors and no infections in patients sutured by consultants. Conclusions A lower rate of wound infection was seen with peripartum use of antibiotics and in third degree tears versus 2nd degree tears. This may be due to patients with third degree tears routinely receiving antibiotics. A higher rate of wound infection was found in patients with episiotomy and instrumental delivery. This may be related to patients having a deeper wound from episiotomy than tear. A high rate was seen in patients sutured by junior doctors. It is thought this may reflect the difference in complexity of cases. More instrumental deliveries are done by junior doctors, who may be less experienced than their seniors at suturing. Our recommendations are for consultants to provide more supervision to junior doctors when suturing perineal wounds. A research trial is suggested to test the hypothesis "Prophylactic antibiotic dose at the time of suturing of episiotomy reduces the risk of perineal wound infection".

**Database:** EMBASE

## **Use of plastic adhesive drapes during surgery for preventing surgical site infection.**

**Author(s):** Webster J; Alghamdi A; Webster, Joan; Alghamdi, Abdullah

**Source:** Cochrane Database of Systematic Reviews; Apr 2015 (no. 4)

**Publication Date:** Apr 2015

**Publication Type(s):** Database

**Abstract:**Background: Surgical site infection has been estimated to occur in about 15% of clean surgery and 30% of contaminated surgery cases. Using plastic adhesive drapes to protect the wound from organisms that may be present on the surrounding skin during surgery is one strategy used to prevent surgical site infection. Results from non-randomised studies have produced conflicting results about the efficacy of this approach. A systematic review was required to guide clinical practice.Objectives: To assess the effect of adhesive drapes used during surgery on surgical site infection, cost, mortality and morbidity.Search Methods: For this fourth update we searched the Cochrane Wounds Group Specialised Register (searched 4th March 2015); the Cochrane Central Register of Controlled Trials (CENTRAL) (The Cochrane Library 2015, Issue 2); Ovid MEDLINE (2012 to 3rd March 2015); Ovid MEDLINE (In-Process & Other Non-Indexed Citations, 2012 to 3rd March 2015); Ovid EMBASE (2012 to 3rd March 2015); and EBSCO CINAHL (2012 to 4th March 2015).Selection Criteria: Randomised controlled trials comparing any plastic adhesive drape with no plastic adhesive drape, used alone or in combination with woven (material) drapes or disposable (paper) drapes, in patients undergoing any type of surgery. Ring drapes were excluded.Data Collection and Analysis: Two review authors independently selected and assessed studies for trial quality and both independently extracted data. We contacted study authors for additional information.Main Results: We identified no new studies for this fourth update. The review includes five studies involving 3082 participants comparing plastic adhesive drapes with no drapes and two studies involving 1113 participants comparing iodine-impregnated adhesive drapes with no drapes. A significantly higher proportion of patients in the adhesive drape group developed a surgical site infection when compared with no drapes (risk ratio (RR) 1.23, 95% confidence interval (CI) 1.02 to 1.48,  $P = 0.03$ ). Iodine-impregnated adhesive drapes had no effect on the surgical site infection rate (RR 1.03, 95% CI 0.06 to 1.66,  $P = 0.89$ ). Length of hospital stay was similar in the adhesive drape and non-adhesive drape groups.Authors' Conclusions: There was no evidence from the seven trials that plastic adhesive drapes reduce surgical site infection rates, and some evidence that they increase infection rates. Further trials may be justified, using blinded outcome assessment to examine the effect of adhesive drapes on surgical site infection, based on different wound classifications.

**Database:** CINAHL

**Challenging birth rituals: to swab and drape or not?**

**Author(s):** Dahlen H; Ryan M

**Source:** Birth Issues; Jun 2001; vol. 10 (no. 2); p. 50-52

**Publication Date:** Jun 2001

**Publication Type(s):** Periodical

**Abstract:** Prior to the commencement of a new intake of student midwives, it was decided to conduct a review of the swabbing and draping policy in the labour ward of a major Australian teaching hospital, King George V, in Sydney. A literature search revealed that we were not following best practice and it became obvious that midwives were undertaking rituals that they themselves did not find beneficial. At the same time, the procedures were not facilitating women-centred care, but were distracting and unpleasant and increasing the risk of contamination of sterile areas. Students were preoccupied with practices that were not supported by the evidence. Following collaboration with staff, changes were made to the birth set-up procedure and at the end of a six-month trial period, compliance and infection rates were evaluated and found to be supportive of the new policies. Cost savings were also found to be higher than initially anticipated.

**Database:** CINAHL

**Use of povidone-iodine in post-delivery perineal repairs: A prospective trial**

**Author(s):** Ruparelia B.A.; Robson P.; Iqbal I.; Johnson I.R.

**Source:** Journal of Obstetrics and Gynaecology; 1990; vol. 10 (no. 3); p. 202-203

**Publication Date:** 1990

**Publication Type(s):** Journal: Article

Available in full text at [Journal of Obstetrics and Gynaecology](#) - from Taylor & Francis

**Abstract:** Povidone-iodine powder was tested as a prophylactic against perineal wound breakdown in 87 mothers requiring episiotomy for delivery. Though the infection rates were similar on days 2 and 5 of the study to those in 96 patients of the control group, by the 10th day 13.5 per cent of control patients had wound breakdown compared to 3.5 per cent in those treated.

**DISCLAIMER:** Results of database and or Internet searches are subject to the limitations of both the database(s) searched, and by your search request. It is the responsibility of the requestor to determine the accuracy, validity and interpretation of the results.

## Strategy 113468

#	Database	Search term	Results
1	Medline	(perineal ADJ3 sutur*).ti,ab	155
2	Medline	(perineal ADJ3 stitch*).ti,ab	9
3	Medline	(perineum ADJ3 sutur*).ti,ab	37
4	Medline	(perineum ADJ3 stitch*).ti,ab	1
5	Medline	exp PERINEUM/in	1216
6	Medline	exp SUTURES/	12201
7	Medline	(5 AND 6)	32
8	Medline	(episiotom* ADJ3 sutur*).ti,ab	75
9	Medline	(episiotom* ADJ3 stitch*).ti,ab	3
10	Medline	exp EPISIOTOMY/	1493
11	Medline	(6 AND 10)	60
12	Medline	(1 OR 2 OR 3 OR 4 OR 7 OR 8 297 OR 9 OR 11)	
13	Medline	exp "SURGICAL DRAPES"/	79
14	Medline	(drape* OR draping).ti,ab	1724
15	Medline	(13 OR 14)	1746
16	Medline	(12 AND 15)	0
17	Medline	(6 AND 15)	7
18	Medline	exp "INFECTION CONTROL"/	45628
19	Medline	(12 AND 18)	2
20	CINAHL	(perineal ADJ3 sutur*).ti,ab	53

21	CINAHL	(perineal ADJ3 stitch*).ti,ab	2
22	CINAHL	(perineum ADJ3 sutur*).ti,ab	7
23	CINAHL	(perineum ADJ3 stitch*).ti,ab	0
24	CINAHL	(episiotom* ADJ3 sutur*).ti,ab	20
25	CINAHL	(episiotom* ADJ3 stitch*).ti,ab	3
26	CINAHL	exp PERINEUM/	1022
27	CINAHL	exp "SUTURE TECHNIQUES"/	2121
28	CINAHL	(26 AND 27)	67
29	CINAHL	(20 OR 21 OR 22 OR 23 OR 24 124 OR 25 OR 28)	
31	CINAHL	exp "SURGICAL DRAPING"/	163
32	CINAHL	(drape* OR draping).ti,ab	302
33	CINAHL	(31 OR 32)	391
34	CINAHL	(29 AND 33)	0
35	CINAHL	exp "INFECTION CONTROL"/	43764
36	CINAHL	(29 AND 35)	0
37	CINAHL	(27 AND 35)	14
38	CINAHL	exp "STERILIZATION AND DISINFECTION"/	6877
39	CINAHL	(29 AND 38)	0
40	CINAHL	(27 AND 38)	5
41	EMBASE	exp PERINEUM/	9248
42	EMBASE	exp SUTURE/	54417

43	EMBASE	exp "SURGICAL DRAPE"/	322
44	EMBASE	(41 AND 42 AND 43)	0
45	EMBASE	(42 AND 43)	17
46	EMBASE	exp EPISIOTOMY/	3842
47	EMBASE	(43 AND 46)	0
48	EMBASE	(42 AND 46)	154
49	EMBASE	exp "SURGICAL GOWN"/	154
50	EMBASE	(41 AND 42 AND 49)	0
51	EMBASE	(41 AND 49)	0
52	EMBASE	(46 AND 49)	0
53	Medline	(From social to surgical Historical perspectives on perineal care during labour AND birth).ti,ab	1
55	CINAHL	(Challenging birth rituals).ti	1
56	CINAHL	(26 AND 33)	1
57	CINAHL	exp "PERINEAL CARE"/	158
58	CINAHL	(33 AND 57)	0
59	CINAHL	(perine*).ti	899
60	CINAHL	(33 AND 59)	1
61	CINAHL	*"SURGICAL DRAPING IN PREGNANCY"/	1
62	CINAHL	(27 AND 57)	10
63	CINAHL	exp EPISIOTOMY/	801



64	CINAHL	(33 AND 63)	0
65	CINAHL	(38 AND 63)	1
66	CINAHL	(35 AND 63)	5
67	CINAHL	(aseptic).ti	349
68	CINAHL	(26 AND 67)	0
69	EMBASE	exp ASEPSIS/	52826
70	EMBASE	(aseptic).ti,ab	19256
71	EMBASE	(69 OR 70)	70386
72	EMBASE	(41 AND 71)	48
73	EMBASE	(suture* OR repair*).ti,ab	411274
74	EMBASE	(42 OR 73)	474568
75	EMBASE	(72 AND 74)	4
76	EMBASE	exp "SURGICAL INFECTION"/	35070
77	EMBASE	(41 AND 76)	100
78	EMBASE	exp EPISIOTOMY/	3842
79	EMBASE	(71 AND 78)	16
80	CINAHL	exp ASEPSIS/	732
81	CINAHL	(59 AND 80)	0
82	CINAHL	(63 AND 80)	0
83	CINAHL	(27 AND 80)	5
84	CINAHL	(27 AND 63)	40
85	Medline	(asepsis OR aseptic).ti,ab	16064

86	Medline	exp ASEPSIS/	1291
87	Medline	(85 OR 86)	16970
88	Medline	(12 AND 87)	1
89	Medline	(perine*).ti,ab	24688
90	Medline	(87 AND 89)	22
91	Medline	(10 AND 87)	2
92	Medline	(EPISIOTOM*).ti,ab	2263
93	Medline	(87 AND 92)	3
94	Medline	(6 AND 87)	38
95	Medline	(infection).ti,ab	885551
96	Medline	(perine* ADJ2 repair*).ti,ab	439
97	Medline	(95 AND 96)	40
98	EMBASE	(76 AND 78)	47
99	EMBASE	(43 AND 76)	53
100	CINAHL	exp "SURGICAL WOUND INFECTION"/	5185
101	CINAHL	(33 AND 100)	55
102	Medline	exp "SURGICAL WOUND INFECTION"/	18428
103	Medline	(15 AND 102)	104