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DEPARTMENT OF OBSTETRICS AND GYNAECOLOGY
HOSPITAL SULTANAH NUR ZAHIRAH
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REDUCING THE RISK OF RETAINED SWAB AFTER PERINEAL SUTURING

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7. To Deputy Director (Clinical) of Hospital Sultanah Nur Zahirah, and all others that had either directly or indirectly contribute or assist in the development of this manual.

1. RATIONALE

'Formal Swab Count' is not usual practice during or when performing perineal suturing. This is due to the fact that the surgical field of the procedure is clear as well as no definite cavity to lose the swab. However, it may not be so during an attempt to stop bleeding from the uterus or upper part of the vagina. In the above scenario, sometime there is an obvious need to place a swab above the surgical field such as high up in the vaginal canal to absorb the blood, thus minimize the interference during the procedure. In the above situation, one of the preventive measure is to use a swab with a tail and the tail is allowed to be outside and clipped to the perineal sheath, so that the swab may be pull out from outside after the procedure completed.

There is no doubt that every hospital has local preventive strategies to prevent retaining swab in addition to the above and it varies. For example, there are hospitals enforced the policy of swab counting mechanism for every perineal suturing regardless the extent of the wound but many others are not. However, based on previous medical enquiries, the occurrence of retained swab is still repeatedly happened despite the above fact and preventive measures. These incidents may be explained by the higher rate of poor compliance to safe practice among doctors and staffs involve with childbirth and perineal suturing. Thus, it is timely now to consider more effective strategies to be adopted by all hospitals.

2. INTRODUCTION

One of the well known risks in the management of perineal trauma and suturing is retained swab in the vagina. The incidents occur when gauze, tampon, cotton or any type of swab is placed in the vagina to prevent blood from tracking down into the operating field but forgot to remove at the completion of the procedure.
There are many literatures described and discussed this potential medico-legal incident. The CRICO/RMF Revised Clinical Guideline for Obstetrical Providers 2006 entitle Prevention of Retained Sponges and Needles Following Vaginal Delivery outlines the safer steps of perineal suturing procedure. Many important practical points in this clinical guideline are very useful as a reference such as only radio-opaque swab with a tail should be used, counting process and documentation in the medical record must involve two qualified personnel, avoid usage of swab in the case of pre-delivery swab count is not possible, manual search of the vagina and delivery area should be done in the case of discrepancy in count, radiological imaging should be used if indicated and the final status of the swab and instrument must be adequately documented by providers.

In the review of the practice points by Dr. John Limbert in Medical Malpractice New, Volume 9, Issue 1, June 2003 conclude that swab and instrument counts are recommended when instruments set-up, swabs unpackaged, before surgery begin and after surgery completed. This review also concluded that the potential causes of nursing or medical malpractice action are when swab or instrument count not done, falsely correct and incorrect but ignored.

An article on the adverse event in obstetrics by Patricia Healy published in the British Journal of Midwifery concluded that cases of retained vaginal swabs are few in number. However, they represent a significant problem in that they are very difficult to be defended in clinical negligence litigation, as they reflex the failure of clinician to comply with practice standard. Thus, maternity service provider must put measures in place to manage this preventable clinical risk.

3. STRATEGY FOR IMPROVEMENT

(A) Recommended strategies for improvement based on this local Quality Assurance study comprise the following measures:

(1) Safer policy on perineal repair should be practiced in labour room, thus swab and instrument counting mechanism for the vaginal procedure (perineal repair) should be in place (prepared and utilized). Below are the options;

1.1 Only sanitary pad and / or tampon with the tail should be used for any perineal repair in the labour room. If tampon is used, the number of tampon used should be fixed, e.g. pack of 4 tampons, thus the counting process will be easier and user-friendly especially in busy labour rooms.

1.2 However, if the procedure required more than 4 tampons (additional loose tampon required) or if any other types of swabs preferred by the doctors/staff, the swab counting mechanism similar to the existing practices in operation theatre must be in place.

1.3 Perineal Suturing Kit is one of the new and simple innovative proposed to fulfil the above policy (after one of the Quality Assurance Study presented at the National Quality Assurance Convention). The kit contained a number of tampons (with tail) and instruments which can be locally packed and prepared. Thus, it will be user-friendly to busy doctors / staff as they are only expected to ensure the number of tampon and instrument inside the kit is correct before use and after use. However they are required to systematically count if they need more swab or instrument other than inside the prefilled kit. The kit comprised of 4 tampons in one pack, needle holder, artery forcep, cutting scissor and dissecting forceps. Note that pack of 4 tampons prepared separately as to comply with requirement of sterile supply.

(2) Section on Standard Operating Procedure, Continuous Medical Education and Supervision.

2.1 The labour room protocol should have one section on Standard Operating Procedure concerning the procedure of perineal suturing. The section functions as one of the guiding materials to improve awareness and knowledge of new doctors and staff. The section describes minimum steps to be taken by all doctors and staff who involved in the procedure of perineal repair.

2.2 These steps should also be discussed during relevant in-service training courses to sustain the effectiveness.

2.3 Regular supervision and monitoring by senior staff /specialist during procedure.

(3) Other recommended measures are stamp pad and laminated posters.

3.1 The department is suggested to strengthen the measure by preparing a simple user-friendly quick reference. This may be done as preparing a summary of preventive steps in the form of simple laminated posters and are to be pasted on the walls where the perineal procedures usually done i.e. every cubical of labour suite and in the examination room of postnatal wards.

3.2 It is worthwhile for the department to have a rubber stamp to guide doctors in the postnatal ward to do an adequate examination to ensure that all foreign bodies (blood, swabs and others) within the operative field being removed before discharge patients. It may function as final check to ensure the effectiveness of the above measures.

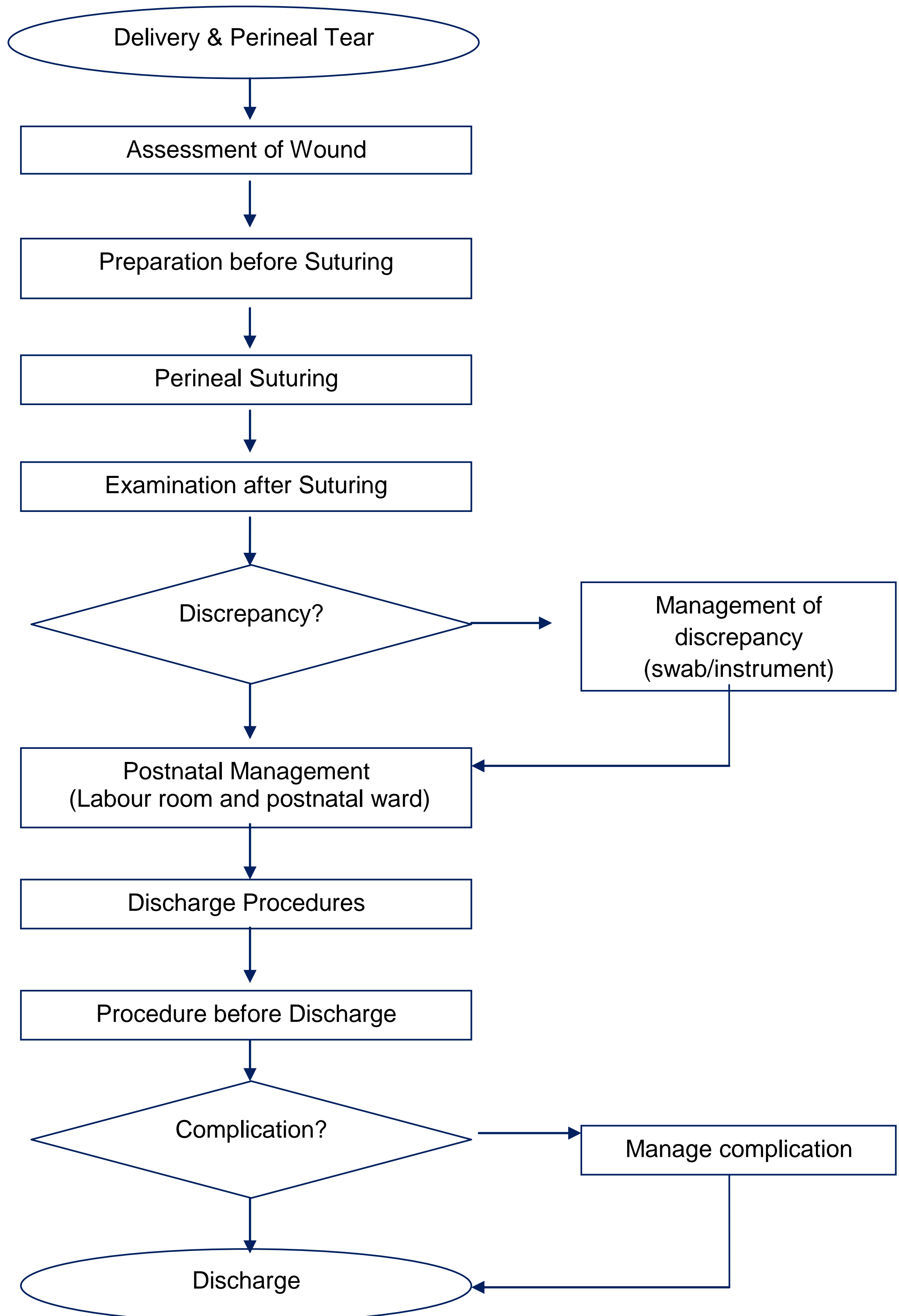
(4) Finally, in the case of discrepancy in counting or any procedural related incident, the appropriate steps must be strictly complied.

(B) Indicator measuring the outcome of the preventive measure taken during perineal suturing to prevent retain swab.

Type of Indicator	Sentinel An indicator to measure the outcome of perineal suturing procedure. \`Outcome\` in this indicator refers to the retained swab detected during vaginal examination before patient is discharged.
Denominator	-
Numerator	Number of retained swab detected during vaginal examination before discharge.
Formula	Number of retained swab detected during vaginal examination before discharge.
Standard	No case
Reporting Period	Every 3 months. *(i)* *January to March* *(ii)* *April to June* *(iii)* *July to September* (iv) *October to December*

4. RELEVANT INFORMATION

WORK PROCESS OF THE MANAGEMENT OF PERINEAL SUTURING



SUGGESTED MODEL OF GOOD CARE

MANAGEMENT OF PERINEAL SUTURING

PROCESS	CRITERIA	RESPON-SIBILITY
Assessment of the perineal wound	Ensure the severity of the perineal wound. Location of apex & haemostasis Involvement of anal sphincter Check for abnormality i.e. haematoma	Doctors Staff
Preparation of suturing set	Used only tampon with tail and / or sanitary pad. Count the number of pad, tampon, gauze (if use), cotton (if use), needle, instrument and suture material use. If pre-filled perineal suturing kit used, make sure the number of tampons and instruments are adequate. If not adequate, reject and get a new kit.	Doctors Staff
Perineal Suturing	"Uncomplicated" – done by doctors / staff preferably by those who conduct delivery. Must be done by trained doctors/staff. Supervision required if the procedure done by junior staff. "Complicated" (episiotomy and other perineal tear) – suturing done by medical officer / specialist in the labour room. "Complicated" (3rd or 4th degree) – suturing done by senior medical officer / specialist under general anaesthesia in operation theatre Credentialing and privileging process must be in place.	Doctors Staff
Examination after suturing	Check the suturing (intact) Make sure no abnormal bleeding (from wound or from uterus) Remove all swabs, blood clot, needle and suture material Check the adequacy of swabs and instrument. Rectal examination Adequate documentation	Doctors Staff

Continue;

PROCESS	CRITERIA	RESPONSIBILITY
Management of Discrepancy (swab / instrument)	If any discrepancy in swab and instrument count noted at the end of procedure: o Manual search of the vagina o Manual search of the operating / delivery area if required. o Perform diagnostic X-ray if indicated to ensure missing swab or instrument is not in the patient. o Adequately document the final status in the case note.	Doctors Staff
Postnatal management	According to the protocol on postnatal management. Health education on wound care.	Doctors Staff
Discharge procedure	According to the protocol	Doctors Staff
Examination before discharge	Do vaginal and rectal examination to ensure: o Intact suture and no haematoma o Remove all foreign body detected. o Documentation	Doctors
Management of complication	Manage complication according to the guideline (example: if wound gapping , plan for resuturing and if present of haematoma, plan for ceonservative of exploration) Explaination to patient and husband	Doctors Staff

5. IMPORTANT CONSIDERATIONS

5.1 There are many variations in the policy and practice concerning the issue of patient safety following perineal repair and difference hospitals had different measures taken. Thus, other better practice should be encouraged to continue and this manual is just to recommend the safe steps to be taken in order to prevent the incidence of retained swab.

5.2 Eventhough the above measures did not require significant additional cost, financial issue may be looked into.

5.3 In a smaller hospital with less number of deliveries, more comprehensive strategies may be considered in addition to the above.

RELATED LEAFLET / CHECKLIST / REFERRAL FORM USED

1. EXAMPLE of The Perineal Suturing Kit (suggested innovation)

2. Swab & Instrument Count Form

2.1 The pre-existing swab and instrument count form can be used or

2.2 If Perineal Suturing Kit is used, below is the suggested form.

Swab & Instrument Count Form for Perineal Suturing

Department of Obstetrics & Gynaecology

Hospital ___________________________________

Name (patient): ____

I/C No: ____

Procedure: ____

Date: ________________________ Time: ________________________

Item		Number	Tick (√) if Correct		Additional	Total
			Before	After		
Perineal Suturing Kit	Stitch Scissor	1				
	Artery Forcep	1				
	Dissecting Forcep	1				
	Needle Holder	1				
Tampon		4				
Needle		1				
Others (__________________)						

Discrepancy NO ( ) YES ( )

Signature of Doctor/Staff: ___________ (Name :__________________________)

Signature of Witness: ______________ (Name :__________________________)

3. Monitoring Form

Hospital/KK/Institusi:	Pencapaian:	Tahun:
....	Jan-Mac / Apr-Jun / Jul-Sep / Okt-Dis	....

<table>
<tr><td rowspan="6">Strategi penambahbaikan yang direplikasi</td><td>☐</td><td colspan="11">Swab and instrument counting form (pre-existing or new form for perineal kit)</td></tr>
<tr><td>☐</td><td colspan="11">Section on management of perineal suturing added to the pre-existing labour room protocol or guideline.</td></tr>
<tr><td>☐</td><td colspan="11">Simple laminated posters on preventive steps in the perineal suturing procedure pasted at the relevant places</td></tr>
<tr><td>☐</td><td colspan="11">Regular CME for junior staff about the perineal repair and management of swab</td></tr>
<tr><td>☐</td><td colspan="11">Regular supervision and monitoring by senior staff /specialist during procedure.</td></tr>
<tr><td>☐</td><td colspan="11">Stamp pad to guide doctors to ensure adequate examination done before discharge</td></tr>
<tr><td rowspan="2">Lain-lain strategi</td><td>☐</td><td colspan="11"></td></tr>
<tr><td>☐</td><td colspan="11"></td></tr>
<tr><td>Indikator</td><td colspan="12">Number of retained swab detected during vaginal examination before discharge.</td></tr>
<tr><td>Standard</td><td colspan="12">0 (sentinel)</td></tr>
<tr><td rowspan="2">Pencapaian</td><td colspan="3">Jan - Mac</td><td colspan="3">Apr - Jun</td><td colspan="3">Jul - Sep</td><td colspan="3">Okt - Dis</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
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Dilaporkan oleh: ....

4. **Suggested Pre-Discharge check list** (Vagina Examination)
Documentation (stamp or type) in the case note.

Date: .... Time:	
Vaginal Examination	Tick (√)
Wound Apex	( )
No haematoma	( )
No active bleeding	( )
No instrument	( )
No needle / suture	( )
Anus	( )
Name:	

KEY DEFINITIONS

Swab : Is defined as an absorbent piece of material used in surgery or during operative procedure and the usage includes for cleaning wound, applying medicine and absorbs blood from the bleeder.

Perineal wound : Is referred to wound occurred to any part of the female external genitalia either spontaneous or iatrogenic with purpose during the process of delivery.

Apex of the wound : The top or highest part of the wound

Sponge : A piece of artificial or natural material that is soft and light and full of holes and can hold water easily, used for washing and cleaning

Stamp : A tool for printing the date or a design or mark onto a surface