

Nursing Practice on Post-Operative Wound Care in Surgical Wards at Muhimbili National Hospital, Dar-es-Salaam, Tanzania

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Abstract

Background: Post-operative wound healing is seen to be which characterizes high oxygenation in the development of wound healing. However, wound healing is often delayed due to various factors. The study was conducted in the surgical wards of Muhimbili National Hospital, Dar-es-Salaam, Tanzania. This study assesses nursing practice on post-operative wound care in surgical wards of Muhimbili National Hospital, Tanzania. **Methods:** A cross-sectional study of surgical nurses was conducted through a self-administered questionnaire. The study was conducted in the surgical wards of Muhimbili National Hospital, Tanzania. **Results:** The study showed that 65% of nurses had a high level of knowledge regarding post-operative wound care. However, the study also found that 33% of nurses had a low level of knowledge regarding post-operative wound care. The study also found that 50% of nurses had a high level of knowledge regarding post-operative wound care. **Conclusion:** The study shows that nursing practice on post-operative wound care in surgical wards of Muhimbili National Hospital, Tanzania, is generally good. However, there is a need for further education and training for nurses to improve their knowledge and skills in post-operative wound care.

ng he e ov o he o d d ess ng 99) he se o se e g oves d ng wo nd d ess ng w s en n o cons de on y os o he n ses 63) Good c ce w s no ed n y ng d ess ng so on s eco ended 5) d y s e d ess ng w s ed y 9) nge en nd se ng o d ess ng o ce s nd o he e s h y e needed n o de o he c on s ng o ce s) s ge o o ce s o d g ze n o n se c so on 35) nd ce n ng o he wo nd ce n ng o es con n ed o os con n ed e w s on y dhe ed o y 3) Pos -o e ve co nse ng nd g v ng o he en no o e e w h he wo nd w s done y e esen on o on y 15 o n ses A he n ses d d no do he do- c en on o he ch nges o se ved on he wo nd no d d hey e o on he en s co o nd he d e nd e e he oced e wo nd ch nges e o ed en co o nd eco ded d e o e e he oced e **Conc s on** M jo y o he n ses n s g c w ds do no o ow he os o e ve wo nd c e chec s ov ded y MNH ho gh hey now s o nce Assess en o he wo nd nd doc en on con n es o e o e n he n s ng o ess on n T nz n N ses e e son y now edge e o he nc o wo nd d ess ng howeve c o now edge on so e o he ey nc es o wo nd d ess ng s wo h no ng A os h o he n ses do no w sh h nds e o e nd e he oced es hey don' se s nge g ze n one d ec on on y no ce n ng o es con n ed o os con n ed e wh ch c n e d o wo nd con n on

Keywords

Wo nd Pos -O e ve C e Wo nd D ess ng In ec on

1. Background

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S g c s e n ec ons e he os ex e ended hos ned n ec on occ ng n he e y s ge o os o e ve e od n s g c en s I c n e n ed w h o d y o y nd nc e sed eso ce z on

S g c s e n ec ons cco n o 3 o n ec ons n s g c en s nd 311 o n ec ons n en s 16

Des e dv nces n he o e ve echn es nd oved now edge o he hogenes s o wo nd n ec on os o e ve wo nd n ec on s nc e s ng y eco ng jo so ce o o d y nd o y o en s nde go ng o e ve oced es 1

Regardless of the advances in modern technology, evidence suggests that the prevalence of nosocomial infections remains high in hospitals globally [1]. The Centers for Disease Control and Prevention (CDC) reported that the prevalence of nosocomial infections in intensive care units (ICUs) in the United States was 10.5% in 2014 [2]. The prevalence of nosocomial infections in ICUs in Tanzania is 19.5% [3].

Previous studies conducted in one of the districts in Tanzania indicated that the prevalence of nosocomial infections in ICUs is 19.5% [3].

In Tanzania, the prevalence of nosocomial infections in ICUs is 19.5% [3]. The prevalence of nosocomial infections in ICUs in Tanzania is 19.5% [3]. The prevalence of nosocomial infections in ICUs in Tanzania is 19.5% [3]. The prevalence of nosocomial infections in ICUs in Tanzania is 19.5% [3].

2. Methods

2.1. Study Design

A cross-sectional study of nosocomial infections was conducted in one of the districts in Tanzania. The study was conducted in one of the districts in Tanzania. The study was conducted in one of the districts in Tanzania.

A sample size of 110 was determined using the following formula [4].

2.2. Participants

The general population of the district was screened for nosocomial infections. The prevalence of nosocomial infections in the district was 19.5% [3].

2.3. Data Collection-Instruments

Data were collected using a structured questionnaire. The questionnaire was designed to collect information on the prevalence of nosocomial infections in the district. The questionnaire was designed to collect information on the prevalence of nosocomial infections in the district.

The questionnaire was designed to collect information on the prevalence of nosocomial infections in the district. The questionnaire was designed to collect information on the prevalence of nosocomial infections in the district.

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2.4. Sampling Technique

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2.5. Statistical Analysis

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 SPSS Inc Ch c go IL USA) w s sed n co ng s s c n yses

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 w h -v e o 5 cons de ed s gn c n 95 con dence n e v

3. Results

3.1. Description of the Sample

As shown n **T e 1** o o l n ses c ed n h s s dy O hose 55
 65) we e e e nd 16 5) we e e o n ses we e o ge
 g o e ween 1 o 6 ye s On y wo) c n s we e ess h n
 ye s o d En o ed n ses we e 1 5) Ne y h ee e 53 6) we e
 eg s e ed n ses

T e 1 D s o n o c n y d e o g h c h c e s c s

F c o s	S e c v e	N e N = 1	P e c e n g e
Sex	M e	16	5
	F e e	55	65
Age ye)	Less h n		
	5 o 3	9	
	35 o	6	36.6
	Mo e h n 5	1	19
P o e s s o n E d c o n e v e	Ce c e	1	5
	D o	3	6.6
	D e g e e	1	1.1
J o e	Reg s e e d N s e	53	6
	En o e d N s e	1	5

3.2. Nurse's Practice towards Post-Operative Wound Care

A e s n v o v n g n s e s' c c e o n w o n d c e w e e s s e s s e d A c o e c c c e w s s c o e d 1 n d n c o e c o n d o n e o c e d e w s s c o e d T o s c o e s o o v e c c e n d h e s c o e s w e e c o e d o n s o c o - d e o g h c h c e s c s T h e e n s c o e o n s e s' c c e w s 16

S c o e e o w h e e n w s c o n s d e e d s o o o s o e v e w o n d c e n d s c o e o v e w s c o n s d e e d s g o o d c c e T e e o w s z e s h e e s s o n c c e s c o e s w h h e s o c o - d e o g h c h c e s c s

I n g e n e 3 c n s 3) w e e o s e v e d o h v e g o o d o s - o e o n w o n d c e o w o n d c e n g e e n d o e h n h o c n s 5) h d o o o e o n w o n d c e c c e M e c n s s c o e d h g h e s c o e o n o s - o e v e w o n d c e c o e d o h e e e c o n e s h o w e v e h e e w s n o c o n s d e e d e e n c e e w e e n s c o e s P = 3)

L o w o s - o e v e w o n d c e s c o e w s e c o d e d o c n s g e d 3 y e s n d e o w N s e s w h 15 o y e s n d 5 o 3 y e s h d 1 5 n d 16 3 s c o e s e s e c v e y H g h e s c o e s w e e o s e v e d n c n s g e d d 35 o y e s 16 65) N o s g n c n d e e n c e w s o s e v e d n c c e s c o e s e w e e n c n s o d e e n g e g o P =)

U n d e g d e n s e s h d g o o d c c e d n d s c o e d h g h e c o e d o o h e s T h e e w s n s s c o y o s - o e v e w o n d c e n n s e s w h d o n d o o c c e n n s e s w h c e c e e v e o e d c o n T h e e w s c o n s d e y e e c c e e w e e n d e g d e n s e s c o e d o d o n e d n s e s P = 3) M o e o v e g o o d o s - o e v e w o n d c c e w s o s e v e d o n g n d e g d e n s e s c o e d o c e c e h o d n g n s e s P = 6)

H o w e v e n o s g n c n d e e n c e n s c o e e w e e n n s e s h v n g c e c e n n g n d h o s e w h d o e v e o e d c o n P = 9) R e g s e e d n s e s

T e P c ce sco es w h soc o-de og h c ch c e s cs

V e	C ego y	Me n	± -V e
Sex	M e	16 6	3
	Fe e	16 36	
Age ye)	1 o	1 5	
	5 o 3	16 3	
	35 o	16 65	
	5+	16 36	
P o ess on Ed c on eve	Ce c e	15 6	6*
	D o	16	9
	Deg ee	19 5	5
Jo e	Reg se ed N se	16 6	5
	En o ed N se	15 6	

P-V e o sco e e ween n ses w h Ce c e nd deg ee -V e o sco e e ween n ses w h Ce c e nd D o* **9 -V e o sco e e ween n ses w h D o nd deg ee **±** Inde enden s e - es n co ng e n e ween sex nd Jo e ANOVA w s sed n co ng e nd e ence e ween geg o s nd o ess on ed c on eve)

sco ed h ghe co ed o en o ed n ses The e w s no s gn c n d e ence n sco es e ween en o ed n se nd en o ed n ses $P = .5$)

3.3. Assessment of Nurses on Post-Operative Wound Care Procedure-Preparation Phase

As shown n **F g e 1** e ow s sess ng he e on h se o os -o e ve wo nd ce A n ses we e e o e s e h he w se g w s w h n e ch 1 o es onden s we e e o d sc ss w h he en o he o ced e Asse ng o needed s es w s done y 6 o n ses Ne y h o he n ses o se ved h nd w sh ng e o e nd e o ced e 93 o n ses ss sed he en o ss e he co o e os on A he n ses d d no he e s ce n nd s e s o nd ng env on en he d o s ng he o ced e The v cy o en s w s no o se ved s nce none o he n ses c osed no sc eened he oo e o e s ng he o ced e

3.4. Distribution of Nurse’s Practice on Post-Operative Wound Care-Usage of Dressing Equipment

As shown n **F g e** e ow he se o ce ng oves y he n ses w s o se ved w h 99 s ng he e ec ve y A n ses we e e o e ove o d d ess ng e v ng nne d ess ng 99 sed no s ne o so nd e ove s c d ess ng o he wo nd 9 o he n ses d s osed nne d ess ng nd he n he w se g 6 e oved d s os e g oves nd 63 on se e g ove Us ge o o ce s n ng nne d ess ng w s o se ved y on y h o es on-

den s 5) nd ess h n h o n ses) oo e o o se ve he n e o
he wo nd d ng d ess ng

3.5. Distribution of Nurses' Practice on Post-Operative Wound Care-Dressing Phase

In **Figure 3** e ow he e w s n o se v on o good c ce d ng c on
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s dhes ve se o nd ge Less h n o he n ses e ed he o ce s
o e sed o d ess ng nd o he e ed e s n o de o he c on
s ng o ce s 3 de se o he o ce s o d ng he g ze n o n se c
so on nd 3 o se ved ce n ng o he wo nd o es con n ed o
os con n ed e

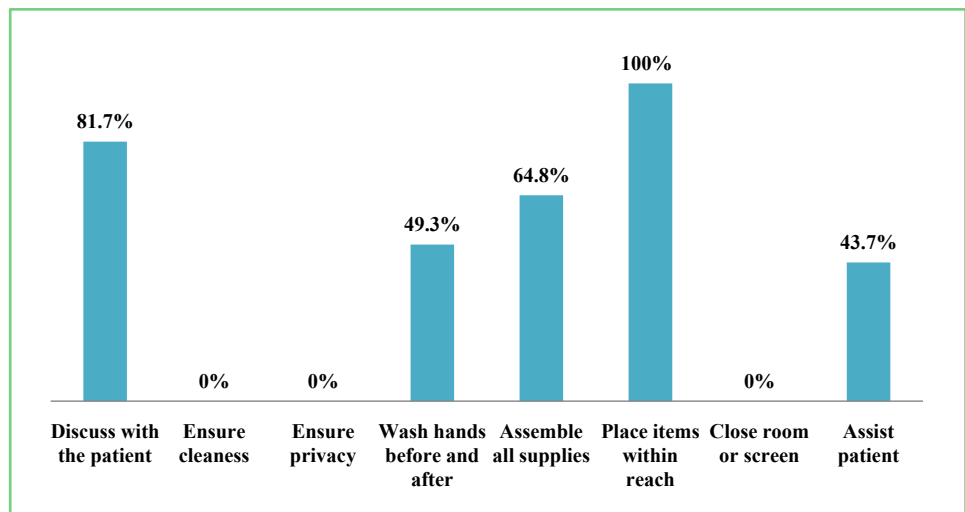


Figure 1 Assess en o n ses on os-o e ve wo nd c e oced e n e cen ge

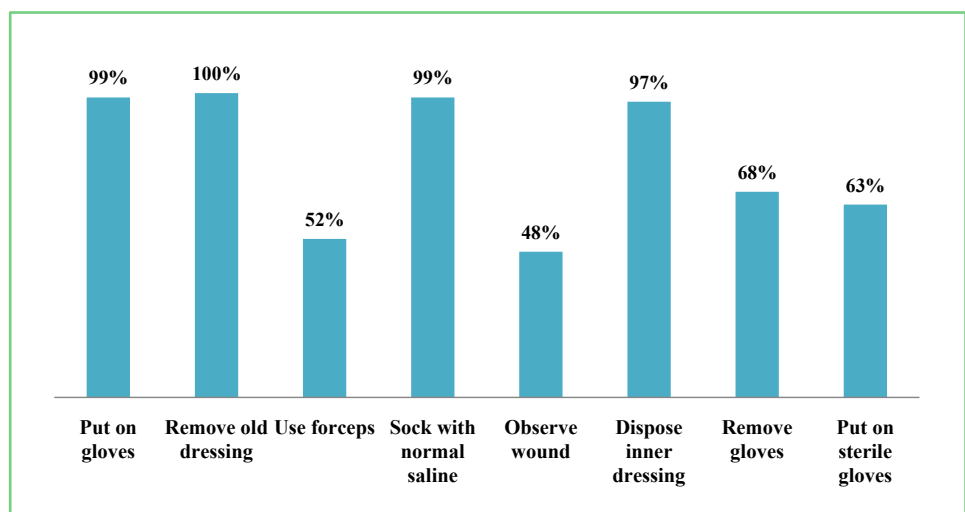


Figure D s on o n se's c ce on os-o e ve wo nd c e- s ge o d ess ng e en

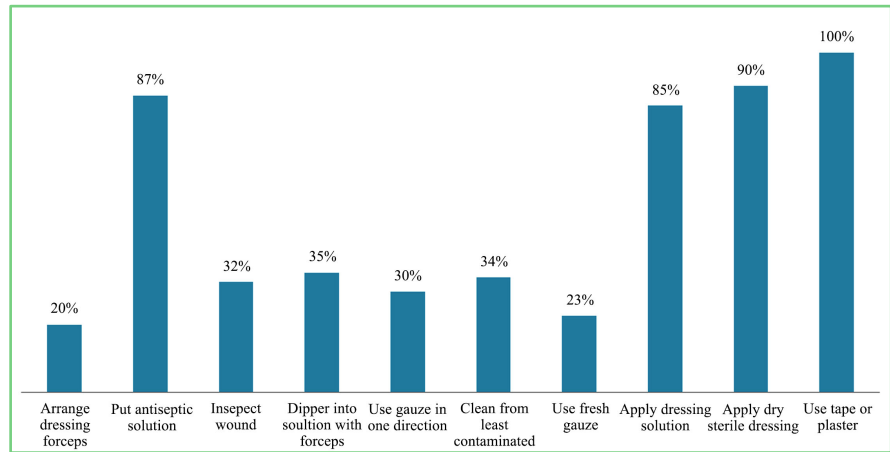


Figure 3 Doctors' compliance on the use of dressing materials

3.6. Nursing Practice on Post-Operative Wound Care-Counseling and Documentation

As shown in Figure 4, nurses were interviewed on post-operative wound care counseling and documentation. The results showed that 15% of nurses did not document changes. The nurses did not document changes on the wound care in 15% of cases. The remaining 85% of nurses documented changes on the wound care.

3.7. Availability of Dressing Equipment

Table 3 shows the results of the survey on the availability of dressing equipment. The results showed that 6% of nurses reported that dressing equipment was not available.

Moreover, the results showed that 94% of nurses reported that dressing equipment was available. The results showed that 94% of nurses reported that dressing equipment was available.

In general, the results showed that 94% of nurses reported that dressing equipment was available. The results showed that 94% of nurses reported that dressing equipment was available.

3.8. Assessment of Nurses on Proper Usage of Available Dressing Material

Table 4 shows the results of the survey on the assessment of nurses on the proper usage of available dressing material. The results showed that 85% of nurses reported that they used the proper dressing material. The results showed that 85% of nurses reported that they used the proper dressing material.

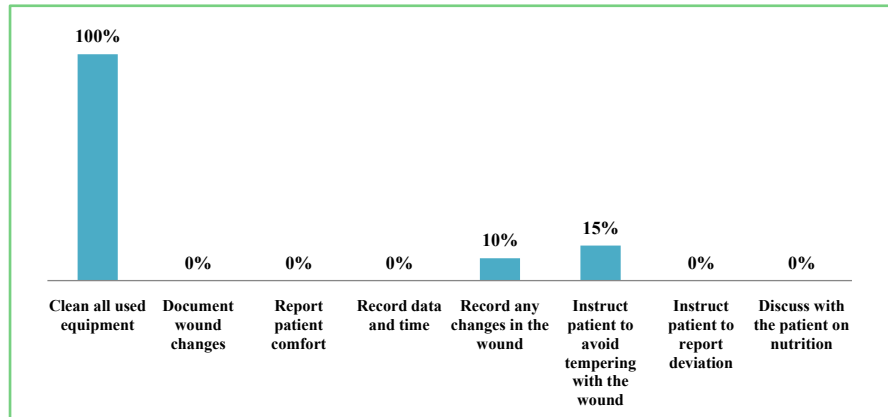


Figure 3: Nursing compliance on assessment of wound care compliance and documentation

Table 3: Dressing inventory of dressing equipment

Item	Present (%)	Not Present (%)
DRESSING PACK		
Toohead dressing Force	1 (100%)	-
Non-oohead dressing Force	6 (100%)	3 (50%)
Dressing Towel	5 (100%)	1 (96%)
Gaze	69 (90%)	-
Coon Swab	6 (99.5%)	3 (100%)
Gloves	9 (60%)	1 (100%)
Kdney Dressing	69 (90%)	-
Accessory Force	-	1 (100%)
DRESSING SOLUTION		
No. Sine	1 (100%)	-
Sine	1 (100%)	-
Eso Solution	-	1 (100%)
Hydrogen Peroxide	-	1 (100%)
Povidone	1 (100%)	-
DRESSING EQUIPMENTS		
Trolley	6 (50%)	11 (15.5%)
Mats	-	1 (100%)
Dressing	1 (100%)	-
Plastic Apron	-	1 (100%)
Seal Goggles	6 (50%)	11 (15.5%)
Bandage	6 (90%)	5 (60%)
Connected Sides	1 (100%)	-
Chlorine Force	-	1 (100%)
J. Chlorine	-	1 (100%)
Dressing Machine	1 (100%)	61 (59%)
Chlorine Goggles	1 (100%)	-

ence Pos o e ve wo nd c e o se ved on he yo ng n ses w s oo co -
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c o ex e ence n n s ng c e nd he c h os o he h d h v ng ow
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13) es shed h o d n ses h d good os -o e ve wo nd c e n
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n ses e se o o ce s n wo nd d ess ng As no ed e e he e son o
h s co d e s es o c o de e ed c on n ng nd non- dhe ence
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good c ce n wo nd ns ec on e o e d ess ng s no ed n l o c -
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s ng s ng e g ze n one d ec on Th s s so ce o wo nd n ec on Mo eove
on y 3 o n ses ens ed he se o ce ng oves whenever ce n ng he wo nd
nd on y 35 o n ses ce ned he wo nd o he ess con n ed e o
he os con n ed one These nd ngs oved oo wo nd d ess ng c-
ce Poo doc en on o e wo nd sses en nd d ess ng s so no he
ev dence de ons ed n h s s dy s he n ses d d no doc en he d e
nd e e wo nd sses en On y 15 o n ses we e een o ns c he
en s no o e e w h he wo nd e he d ess ng

The n e o en s w s gge h n he v e d ess ng c s h s no
ch ng he need A good n e o oo hed o ce s w s v e oge he
w h Co on sw G ze nd dney d sh On he o he h nd d ess ng owe s
we e ccess e o on y o n ses A e y o ce s we e no v e

E so so on nd hyd ogen e ox de so on we e no v e
he e w s de e v e o n o no s ne nd s

A n e o d ess ng e en s we e v e ho gh he e w s sc c y
o s s s c ons j che e che e o ce s nd d ess ng c n osh
The e we e good n e o ce n nd se e g oves D T o eys nd Con-
ne s o so ed e s Un v y o d ess ng e co d e ed o
ow econo c owe o he MNH Hos o ch se he e s These nd-
ngs e d e en o he s dy 3 h de ons ed e e s ge o d ess-
ng e s

Reg s e ed n ses oved e e s ge o he e s o d ess ng co ed
o he en o ed co ne Th s co d e ed o good ed c on -
ned nd ex e ence n wo nd d ess ng The s e es s on n ence o ed -
c on nd ex e ence n good s ge on d ess ng e s we e shown n s d es
done y 33 The e w s o e se o w s e gs o d s os ng o he e s -
e dy so ed w h n e ch o ey de e y d s ed o e en c y ng
d ess ng so ons s ge o ce s s ng d ng wo nd d ess ng nd he se o
esh g ze o d y ng he wo nd Howeve eg s e ed n ses d d no e o
we s co ed o he en o ed ones d ng he se o g oves nd he se o
g ze n one d ec on These es s co d e ed o he c h MNH s
he e e hos so e oys ve y ed n ses

5. Conclusions

M jo y o he n ses do no o ow he os o e ve wo nd c e chec s o-
v ded ho gh hey now s o nce Assess en o he wo nd nd doc -
en on con n es o e o e n he n s ng o ess on n T nz n

N ses e e son y now edge e o he nc o wo nd d ess ng
howeve c o now edge on so e o he ey nc es o wo nd d ess ng s
wo h no ng

A os h o he n ses do no o se ve hyg ene e o e nd e he oce-

den ed yn e nd no y he n es o ens e nony y

Availability of Data and Materials

The d se s sed nd n yzed d ng he c en s dy e v e o he one e son e e es

Authors' Contributions

AAM conce ved he s dy c ed n s dy des gn e e se ch nd d n y s s nd d ed nd s ed he n sc AAM JPZ AMS nd FBR con ed o he s dy des gn d n y s s nd n sc w ng nd ed ng A he ho s e d nd oved he n n sc

Acknowledgements

We w sh o c now edge hose who oved s o n he e on o h s n sc We e h n o he M h ho es o he e s s on o cond c h s s dy We g ve s ec h n s o n ses o he s o nd coo e on d ng d co ec on

Conflicts of Interest

The ho s dec e no con c s o n e es eg d ng he c on o h s e

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List of Abbreviations

UK Un ed K ngdo
ATP Adenos ne T hos h e
HCAIs He h C e Assoc ed In ec ons
MNH M h N on Hos
NICE N on Ins e o He h nd C nc Exce ence
PACU Pos o e ve Anes hes C e Un
SPSS S s c P c ge o Soc Sc ences
SSIs S gc S e In ec ons
SCU S gc C e Un
MUHAS M h Un ve s yo He h nd A ed Sc ences

Appendix 1

STANDARD NURSING PRACTICE ON WOUND CARE CHECKLIST

Form No.....

SECTION ONE DEMOGRAPHIC INFORMATION

- 1) Age of respondent
- a) 15 -
- b) 15 - 30
- c) 31 - 40
- d) 41 - 50
- 2) Sex
- a) Male
- b) Female

STANDARD NURSING PRACTICE ON WOUND CARE

QUALIFICATION

- 3) Education
- a) Secondary (O-level)
- b) Secondary (A-level)
- c) College
- d) University
- 4) Highest educational qualification
- a) Certificate
- b) Diploma
- c) Degree
- 5) Job experience (in years)
- a) Registration
- b) Enrollment

NURSING PRACTICE ON POST OPERATIVE WOUND CARE

SECTION TWO

SN	CHARACTERISTICS TO BE OBSERVED	PERFORMANCE		
		YES	NO	N/A
1	Discuss with patient on the procedure Ensure cleanliness of the environment			
3	Ensure privacy Wash hands before and after procedure			
5	Assess the need for sutures			
6	Place the suture so that it is not visible Close the wound completely and not seen			

Con n ed

- Ass s c en / en ss e con o e os on
- 9 P on d s os e g oves nd o en wo nd
- 1 Re ov ng o d d ess ng e v ng nne d ess ng
- 11 Use o ce s nne d ess ng o s ow y
- 1 I d ess ng s c on he wo nd soc w h no s ne
- 13 O se ve n e o wo nd
- 1 D s ose o nne d ess ng nd he n he w s e g
- 15 Re ov o d s os e g oves
- 16 A nge d ess ng o ce s sc sso s nd ece ve n o de o he
c on s ng o ce s
- 1 Po n se c so on n o s e e ece ve
- 1 P on s e e g oves
- 19 Ins ec he wo nd nd c e n
- Us ng o ce s nd g ze d n o n se c so on
- 1 Fo e ch s o e o ce n ng se s ng e g ze n one d ec on on y o
vo d x y wo nd con n on
- C e n o e s con n ed o os con n ed e
- 3 Use eshg ze o d y he wo nd
- A y d ess ng so on s esc ed
- 5 A y d y s e e d ess ng
- 6 Use e o dhes ve s e o nd ge
- C e n sed e en nd s es
- Doc en wo nd ch nges nd c en's es onse

Co n c e s e c s

- 9 Re o en s eve o co o
- 3 Reco d d nd e o d ess ng
- 31 O se ve nd eco d ny ch nges n he wo nd

Te ch ng s ec

- 3 Ins c he en / e ve o vo d e e ng w h he wo nd
- 33 Ins c he en nd y o e o ny dev ons o no
on he wo nd
- 3 D sc ss w h he en nd s gn c n o he s on n on

ASSESSMENT OF AVAILABLE DRESSING MATERIALS**SECTION THREE**

TYPES OF DRESSING MATERIALS		ES	NO
1	T o ey Too hed d ssec ng o ce s		
3	Non oo hed d ssec ng o ce s Che e's o ce s		
5	J che e		
3	D G ze		
5	Co on sw s		
6	D ess ng owe D ess ng c n osh g o s		
9	dney d shes		
1	1 A e y o ce s		
11	M s		
1	P s c A on		
13	S e e g oves		
1	C e n g oves		
15	No s ne		
16	S		
1	E so so on		
1	Hyd ogen e ox de		
19	Pov done/ od ne Con ne o so ed e s		
1	P s e B nd ges		

ASSESSMENT ON PROPER USE OF THE AVAILABLE DRESSING MATERIALS**SECTION FOUR**

SN	DRESSING MATERIALS	PERFORMANCE	
		ES	NO
1	D s d ess ng T o ey o c y ng e en P ce g o so ed e w h n en e ch		
3	P on d s os e c e n) g oves when o en ng wo nd Us ng oo hed d ssec ng o ce s o nne d ess ng o s ow y		

Con n ed

- 5 Use no s ne o soc he wo nd d ess ng s c s on he wo nd
 - 6 Po n se c so on n o s e e ece ve dney d sh o g o s)
P on s e e g oves wh e d ess ng he wo nd
Use one g ove o one en)
C e n he wo nd y s ng o ce s non oo hed d ssec ng o ce s)
 - 9 Use s ng e s e e g ze n one d ec on on y
 - 1 Use esh g ze o d y he wo nd
 - 11 A y d ess ng so on s esc ed
 - 1 A y d y s e e d ess ng
 - 13 Use e o dhes ve s e o sec e d ess ng
-