# National VVF Project Nigeria

## obstetric fistula surgery training

**training of 20 consultants and 20 nurses**

**5 training workshop sessions of 14 days of 4 doctors and 4 nurses each**

Babbar Ruga National Fistula Teaching Hospital
Katsina

Laure Fistula Center
Murtala Muhammad Specialist Hospital
Kano

# report

## second session

**training of 4 consultants and 5 nurses**

**from monday 27.06 thru sunday 10.07.11**

kees waaldijk MD PhD

chief consultant surgeon

**from now onwards**
**operation report added to**
**other particulars and**
**handed over to the patient**
**since that is**

**where they belong**

**and for other doctors to read**
**at subsequent pregnancies**

**and to take appropriate action**
**at subsequent deliveries**

# obstetric fistula surgery training

## second session

Laure Fistula Center
Murtala Muhammad Specialist Hospital
Kano

# introduction

as based on our 35,000 repairs with evidence-based success of 97-98% at closure and the training of 350 doctors and 340 nurses since started in 1984,

we were approached by mdg to train 20 doctors and 20 nurses in the basics of the obstetric fistula and its (surgical) management during a training programme of 14 days

we set out a strategy for this novel type of training to make the most of it and we came up with an intensive training course of some 120-140 hours of theoretical lectures and practical surgical sessions whereby the quality to our patients and to our training will be guaranteed

it should be considered an intensive exposure as an introduction to the complicated complex trauma of the obstetric fistula and its (surgical) management

for this we will follow the internationally approved/accepted isofs-figo-rcog training manual as state-of-the-art guidelines

throughout the training course the accent will be on the quality and not on the quantity; for this we plan 3 operations per operating bed for 12 days; that will be 72 operations during the 2 weeks of training; or a total of 360 operations during the 5 sessions of 2 weeks

continuous monitoring will be provided by mdg, fmoh and ktmoh

a comprehensive evaluation report will be produced at the end of each 2-week training session and for the whole training programme

# obstetric fistula surgery training

## second session

Laure Fistula Center
Murtala Muhammad Specialist Hospital
Kano

# executive summary

the trainees arrived monday 27.06.11 and were handed a cd-rom with 5 books about the obstetric fistula, the isofs-figo-rcog training manual, a logbook and questionnaire for active participation, self-study and self-evaluation

however, none of the doctors was a consultant which made the training even more difficult since the basics in theory and practice are not present though they had a variable experience in obstetrics/gynecology

all the participants insisted that we should stick to the normal working hours and some complained about working on saturday and sunday

since nobody was willing to volunteer for the recaps we skipped it; it shows the level of commitment; this is not a kindergarten

the program was run from monday 27.06 thru saturday 09.07 for a full 13 days of 8 hours each from 8.00 thru 16.00 hr starting and ending with a wardround with in between surgery and lectures

on special request by all the trainees spinal anesthesia became part of the training course and all the 9 participants were able to practice

**a total of 76 operations** were performed; however, considering the difficulty grading there was only one small type IIAa fistula which was operated by a trainee doctor under strict supervision with good result; the rest was from complicated to very complicated

this is due to the fact that many patients turned up who had been operated several times by different surgeons in different centers; resulting in **last resort final proce dures 9x** and assessment of **inoperable fistulas 6x**

a questionnaire was filled out by all participants for self-evaluation

**a total of 10 clinical and 8 classroom lectures** were delivered where all the different topics were highlighted with special emphasis on the complex obstetric trauma in its broadest sense including total 3° cervix prolapse

by the end of the course all the participants had a far better understanding of the complex trauma of the obstetric fistula and its causes and of the urine and stool continence mechanism in the female

however, considering the limited time it can only be considered as an introduction to its (surgical) management; but at least they all know exactly what not to do which is very important

their conclusion was to refer the obstetric fistula patients to a center where the neces sary expertise is available since the surgery was too difficult for them

the whole training was executed according to the guidelines of isofs-figo-rcog competency-based training manual

all the trainees were supposed to keep meticulous documentation of what they saw, did and learned in their logbook

the trainees travelled home on saturday 09.07.11

# obstetric fistula surgery training

## second session

Laure Fistula Center
Murtala Muhammad Specialist Hospital
Kano

## logbook

**training of 4 consultants and 5 nurses**

**from monday 27.06 thru sunday 10.07.11**

**day 0**
**sunday 26.06**
katsina

| | |
|---|---|
| 7.00 | catheter treatment 6x + surgery 3 operations + administration |
| 14.00 | traveling of chief surgeon by road to kano |
| 17.15 | arrival at hotel |
| 17.30 | supposed arrival of participants but only 2 turned up |

**day 1**
**monday 27.06**

| | |
|---|---|
| 7.00 | preparation of facilities |
| 9.00 | introduction of participants, explaining the training to all participants, explaining the logistics/financial implications by representative of FMOH |
| 10.00 | surgery<br>**87+88 complicated** bilateral ureter catheterization + uvvf-repair + bilateral pcf fixation of type **IIAa** fistula and rvf-repair of type **Ia** fistula in one patient para III (0 alive)<br>**89** continent euo rhaphy/urethra/pcf/avw reconstruction as **last resort** in para I (0 alive) following urethra/rvf-repair after yankan gishiri fistulas and then uvvf-repair of **obstetric** type **IIBa** fistula<br>**90** uvvf-repair of type **IIAa** fistula in para I (0 alive) |
| 13.00 | selection of patients for the training workshop |
| 14.30 | postoperative wardround |
| 15.00 | end of the working day |

**day 2**
**tuesday 28.06**

7.00 preparations for the day
8.00 wardround
8.30 surgery with step-by-step teaching

**91 state-of-the-art** lecture and demonstration of reconstructive surgery in **mutilated** sphincter ani rupture **IIb** with preoperative theoretic teaching of the stool continence mechanism, explanation and demonstration of spinal anesthesia, **step-by-step** reconstruction of internal sphincter (anorectum), end-to-end sphincter ani reconstruction ani and repair of perineal body with (in)direct re-union of transversus perinei and bulbocavernosus muscles in para I (1 alive) already operated 2x, now 58 days post partum

**92** repair of minute tah-cs type **I** fistula by **early closure minimum surgery** in para XII (8 alive)

**93** repair of **extensive** type **IIBa** fistula as result of **infection (boil)** at 3 yr of age, leaking for 33 years, as **first stage minimum surgery** in para VI (1 alive)

**94** continent urethra/fascia/avw reconstruction of type **IIBb** operated 2x in para I (0 alive) with severe scarring, poor-quality tissue and total cervix fixation pulling on repair

**95 complicated** 4/5 circumferential uvvf-repair of type **IIAb** fistula in para I (0 alive)

**96** vvf-repair of type **I** fistula as **early closure** in para IX (3 alive) due to anterior trauma

**97** repair of type **I** fistula in para IV (1 alive)

**lecture**

**a.** stool continence mechanism, pathophysiology and development of sphincter ani rupture as **cut-thru** trauma and systematic reconstruction of the functional anatomy in this complex trauma

14.00 selection of patients
15.30 wardround of postoperative patients
16.15 end of the working day

**day 3**
**wednesday 29.06**

7.00 preparations for the day
8.00 wardround
8.30 surgery: with step-by-step teaching

**98 state-of-the-art** lecture and demonstration of cervix/pcf fixation onto levator ani muscle fascia thru superior pubic bone periost/atf/atl/internal obturator and levator ani muscles in para IV (3 alive) with total 3° cervix prolapse for 9 yr which started spontaneouöls after delivery I at 16 yr of age

**99** end-to-end reconstruction of small anterior sphincter ani defect + perineal body reinforcement as **last resort** in severely obese para IX (all alive) complaining about tusa pv

**100 early closure minimum surgery** with transverse pcf repair/bilateral fixation of type **IIAa** or **IIBa** fistula in para I (0 alive)

**101 early closure** of **retracted** type **IIAa** fistula within 4x1 cm pcf defect by trainee doctor under direct supervision of chief surgeon in para II (1 alive)

**102** uvvf-repair of type **IIAa** fistula as **early closure** in para I (0 alive) due to anterior trauma

**103 complicated** repair of **mutilated** type **IIBa** fistula in para VI (4 alive) operated once elsewhere

**104** urethra reconstruction of **mutilated** type **IIBa** fistula in para I (0 alive) already 3x operated elsewhere
**105** catheter treatment of **necrotic** type **IIAa** fistula of 10-day duration in para I (0 alive)
**lecture**
**b** physiopathology and development of total 3° uv prolapse in relation to pelvis (span too wide), sacrouterine ligaments and pubocervical fascia with **mini-invase** uterus-sparing fixation

15.00 selection of patients
16.00 wardround of postoperative patients
logbook discussion with tranee doctors about his own procedure
16.30 end of the working day

**day 4**
**thursday 30.06**

7.00 preparations for the day
8.00 wardround
8.30 surgery with st ep-by-step teaching
**106 state-of-the-art** lecture and demonstration of uterus-saving fixation of cervix/pcf in 3° total cervix prolapse with total intrinsic-stress incontinence grade III in para III (1 alive)
**107** urethralization by longitudinal fascia repair/bilateral para-euo fixation of total post **IIBb** postdelivery urine intrinsic-stress incontinence as **last resort** in para VI (1 alive) with **3rd obstetric leakage/fistula** who still delivered at home after 2 days of labor
**108 + 109** urethralization + pcf fixation as **last resort** in **mutilated** total post **IIAb** intrinsic–stress incontinence grade III and rvf-"repair" in **mutilated** type **Ia** rvf in para I suffering for 7 yr and operated 4x elsewhere
**110** dilatation, repair and pcf refixation of minute type **Ab** fistula with seve re uv-stricture as **second obstetric** fistula in para II (0 alive) after suc cessful circumferential repair after delivery I
**111** repair of residual type **IIAb** fistula in para XI (7 alive) after **complica ted** repair after 1x operation elsewhere
**112** bladder neck elevation by pcf fixation in total post **IIAb** urine intrinsic-stress incontinence in para II (0 alive) being completely ok for 1.5 yr until period of lower abdominal pain/fever (?miscarriage?)
**113** repair of residual lungu fistula R after proximal pouch of **extensive in operable IIAb** fistula since everything fixed in para VI (3 alive) with rvf **healed**
**114** repair of recurrent type **IIAb** fistula after urethralization for post IIAb total urine intrinsic_stress kincontinence in para I (0 alive)
bladder neck elevation in total post **extensive IIAb**; rvf **healed**
15.30 postoperative wardround
16.00 end of the working day

**day 5**
**friday 01.07**

7.00 preparations for the day
8.00 wardround
8.30 surgery with step-by-step teaching
**115 + 116 state-of-the-art** lecture and demonstration early closure of type **IIAa** fistula with special emphysis on the urine continence mecha nism in the female and **step-by-step** reconstruction of anorectum, sphincter ani with adaptation of perineal body with special emphasis on

the stool continence mechanism in the female in para I (alive) with **inflammation/ contamination ++** after immediate suturing pp

**117** repair of type **IIAa** fistula as **early closure** immediate management in para I (0 alive with ar neg and flatus incontinence

**118** uvvf-repair of type **IIAa** in para II (1 alive) already operated 1x else where

11.30 chief surgeon travelled back to katsina

15.00 arrival in babbar ruga hospital

18.00 end of the working day

**day 6**
**saturday 02.07**

katsina

7.00 selection of patients + preparations for the day

**119** catheter treatment of large **necrotic** type **IIAa** fistula with **necrotic** type **Ia** rvf in para II (1 alive) leaking for 6 days

**120** catheter treatment of small type **IIAa** fistula within 4x1 cm transverse avw trauma/pcf defect in para III (1 alive) with anterior sphincter ani trau ma; leaking for 2 mth

**121** catheter treatment of extensive type **IIAb** fistula, **necrotic** proximal pvw and total breakdown of episiotomy L with visible stool incontinence of 12-day duration

**122** catheter treatment of small **scarred** type **IIAa** fistula of 21-day dura tion following yankan gishiri by wanzami bco not sleeping with husband in 13-yr-old para 0

**123** first bladder drill for 2-4 weeks for urge incontinence **++** in 13-yr-old para 0 (already divorced by husband) who started to leak 7 yr ago following period of high fever; if not responding then for further examina tion/decision

**124** primary suturing **minimum surgery** of **severely mutilated** type **IIAa** fistula following vaginal hysterectomy bco total 3° cervix prolapse in para VIII (4 alive)

**125** assessment of **extensive** type **IIBb** fistula due to **total circumferen tial trauma** in para I (0 alive); **inoperable now** since everything fixed at 71–day duration; probably **"operable"** after 6-8 mth since good bladder capacity; (sub)total avw loss

**126 complicated** repair of type **I** tah-cs-vcv fistula as **second** obstetric fistula in para III (1 alive); due to **severe obesity**

**127** distal urethra_euo reconstruction as **last resort** in post **IIBb** total urine intrinsic_stress incontinence in para I (0 alive); both urine/stool fistulas **healed**

**128** closure of sigmoidostomy (elsewhere) after successful type **Ib** recto vaginal fistula repair in para I (0 alive) also with **extensive inoperable** type **IIBb** urine fistula

8.00 wardround

8.30 surgery

17.00 wardround

17.15 selection of partients for next day + administration

19.00 end of working day

kano no operations since all the staff of kano state is due for personal screen ing of their employment particulars

**day 7**
**sunday 03.07**
katsina

| | |
|---|---|
| 7.00 | preparations for the day |
| 8.00 | wardround |
| 8.30 | surgery with step-by-step teaching<br>**129 state-of-the-art** bilateral ureter catheterization and repair with trans verse fascia repair of large yankan gishiri type **IIAa** fistula bco total 3° cervix prolapse; **nb** she was planned for cervix fixation but decided to go for yankan gishiri by wanzami<br>**130** continent **state-of-the-art** urethralization of total post **IIBb** urine in-trinsic-stress incontinence in para I (0 alive) leaking for 14 years; 5x operated also for rvf; with repair of dehiscent perineal body for better configuration of both urine/stool continence mechanisms |
| 12.30 | wardround |
| 13.30 | traveling of chief surgeon by road to kano |
| 17.00 | arrival in hotel |

| | |
|---|---|
| kano | no operations since clinic day |
| 12.00 | wardround |
| 12.30 | screening of new patients including history, examination, height etc and instructions about personal hygiene and drinking<br>examination of patients coming for follow-up at different stages following their repair |
| 17.00 | end of the working day |

**day 8**
**monday 04.07**

| | |
|---|---|
| 700 | preparations for the day |
| 800 | wardround |
| 8.30 | surgery with step-by-step teaching<br>**131 state-of-the-art** continent urethralization/fascia/avw reconstruction for **third consecutive** obstetric **leakage** now post **IIBb** delivery total urine intrinsic-stress incontinence in para III (1 alive) as **last resort**; had successful uvvf/rvf-repair for extensive obstetric trauma during delivery I<br>**132 step-by-step** teaching of 4/5 circumferential vesicourethrostomy with transverse fascia repair/bilateral refixation onto paraurethra_euo atf of type **IIAb** fistula in para I (0 alive) not healed by catheter treatment<br>**133 state-of-the-art** circumferential dissection and circumferential bladder fixation into “euo” as **first stage** in reconstruction of extensive type **IIBb** fistula whereby bladder neck slipped upwards and got fixed to cephalad brim of symphysis in para I (0 alive) as part of **immediate** management; if necessary for continent urethra/fascia reconstruction as **second stage**<br>**134** repair of type **IIBa** fistula as first stage in para I (0 alive) operated 1x elsewhere<br>**135** catheter treatment of total postpartum urine intrinsic-stress inconti nence grade III in para I (0 alive) leaking for 17 days<br>**136** catheter treatment of total postpartum urine intrinsic-stress inconti nence grade III in para I (alive) leaking for 8 days |
| 13.30 | selection of patients |
| 14.00 | lectures<br>**a** the complex trauma of the obstetric fistula<br>**b** pelvis anatomy and pelvis floor anatomy<br>**c** the pressure gradient of obstructed labor in relation to pelvis floor structures |

15.00 postoperative wardround
15.30 end of the working day

**day 9**
**tuesday 05.07**
7.00 preparations for the day
8.00 wardround
8.30 surgery with step-by-step teaching
**137 state-of-the-art** lecture + **step-by-step** demonstration of urethraliza tion by longitudinal fascia repair of 6x2 cm median defect with bilateral retraction + bilateral fixation to para-euo atf of **genuine** postpartum total urine intrinsic-stress incontinence grade III in para I (alive) leaking urine for 1 yr; with urethra length of 0.4 cm
**138** minimum surgery for **severely mutilated** type **IIAa** fistula in para I (0 alive) from ondo state after abdominal repair and vaginal repair else where; leaking for 14 yr
**139 complicated** repair of **mutilated** sth-cs type **I** fistula in para VIII (4 alive) operated 2x; leaking urine for 15 yr; for rvf-repair as 2nd stage
**140** assessment under anesthesia of **inoperable extensive** 1 cm 0 type **IIAb** fistula operated 10 yr ago as **last resort final** with only one try possible; rvf **healed**
**141** repair of type **I** fistula in para I (0 alive)
13.00 selection of patients
14.00 lectures
**d** obstetric pubocervical fascia defects
**e** sphincter ani rupture; a complex trauma
**f** fistulas for beginners
15.00 wardround
15.30 end of the working day

**day 10**
**wednesday 06.07**
7.00 preparations for the day
8.00 wardround
8.30 surgery with step-by-step teaching
**142 demonstration** of what goes wrong if the trauma is not understood well and what to do **step-by-step** to correct it in residual sphincter ani rupture type **IIb** in para II (all alive) repaired 1x; the **meticulous repair** of the internal sphincter cannot be overstressed
**143 state-of-the-art** continent urethra/fascia/avw reconstruction **second stage** after nicely healed circumferential bladder fixation as **first stage minimum surgery** of **extensive** type **IIBb** fistula in para I (0 alive)
**144 + 145** catheterization R ureter and repair of large type **IIAa** fistula with re-inforcement of sphincter ani + perineal body in para V (2 alive) opera ted 2x for sphincter ani rupture
**146** uvvf-repair as **early closure** of type **IIAa** fistula in para I (0 alive); lea king 28 days
**147** closure of recurrent type **IIBa** in para IX (all alive) following success ful closure and then urethralization; went for another surgery with this fistula as result
**148** urethralization by fasciorrhaphy and bilateral fixation of pc fascia in post **extensive IIAb** total urine intrinsic-stress incontinence in para I (0 alive) leaking urine for 11 yr
14.00 selection of patients
no lectures since participants left us to collect their salary for june

14.45 postoperative wardround
15.15 end of the working day

**day 11**
**thursday 07.07**
7.00 preparations for the day
8.00 wardround
8.30 surgery with step-by-step teaching
**149** lecture and demonstration of the **complicated** repair of **minute** type **IIAa** fistula with **objective** total urine intrinsic_stress incontinence where the dye was needed to indentify the fistula after dissection/excision of scar tissue in para VI (1 alive) leaking for 5 yr
**150** continent urethra/fascia/avw reconstruction as **last resort** in **second** now **extensive** type **IIBb** fistula in para II (0 alive) after successful clo sure + urethra reconstruction after delivery I
**151 + 152** assessment of **inoperable mutilated** type **IIBb** fistula and **inop erable** type **Ia** fistula in para I (0 alive) leaking urine/passing stools pv for 20 yr and operated 1x in university teaching hospital; **severe stone-hard fibrosis/scarring**
**153** vvf-repair as **early closure** of type **I** fistula in para II (0 alive) leaking for 39 days
**154** gradual dilatation of severe introitus stenosis and catheter treatment of overflow incontinence due to atonic bladder in para I (0 alive)
14.00 lectures
**g** clinical lecture + demonstration of the complexity of minute fistulas
**h** spinal anesthesia and its advantages by dr idris suleiman abubakar
15.00 postoperative wardround
15.30 end of the working day

**day 12**
**friday 08.07**
7.00 preparations for the day
8.00 wardrouind
8.30 surgery with step-by-step teaching
**155** uvvf-repair with bilagteral pcf (re)fixation of **second obstetric** type **IIBb** fistula after successful urethra/avw reconstruction 15 years ago in para II (0 alive)
**156** repair of **third obstetric** intracervical type **I** in para VII (3 alive) after catheter treatment post delivery IV and cs-vcvuvf-repair post delivery VI; **nb** patient reported to hospital for booked elective cs, she spent 2 days in the hospital and then delivered vaginally without any action taken
**157** urethra reconstruction of **extensive** type **IIBb** as **last resort final** in para I (0 alive) operated 3x; the problem: right from the beginning she presented with severe scarring/fibrosis with vagina depth of only 4 cm
11.00 lectures
**i** pre-, intra- and post-operative care by dr amir imam yola
11.45 postoperative wardround
12.00 end of the working day so that everybody can prepare for the mosque

**day 13**
**saturday 09.07**
7.00 preparations for the day
8.00 wardround

8.30 surgery with step-by-step teaching
**158** demonstration of longitudinal repair of 4x1.5 cm pc fascia defect with bilateral refixation onto paraurethra-euo atf + excision of mutilated avw in post **IIAb** total urine intrinsic-stress incontinence grade III in para I (0 alive)
**159** final assessment under spinal anesthesia of **inoperable** type **IIBb** fis tula after successful rvf-repair in para I (0 alive) due to **severe scarring/ everything fixed**
**160** disobliteration of neourethra with uvvf-repair of **second** obstetric type **IIBb** fistula in para IV (0 alive)) who delivered at home after a 3-stage repair of extensive fistula post delivery III
**161** repair of type **IIa** rvf as **first stage** in para I( (0 alive) with also **extensive** type **IIBb** fistula operated 1x elsewhere and leaking/passing stools pv for 16 yr
**162** uvvf-repair of **second** obstetric type **IIAb** fistula in para III (0 alive) who delivered at home ("miscarriage" of sb male) after successful repair post delivery I

12.00 evaluation of the training programme by trainees and trainers
small closing ceremony
handing out certificates to participants
farewell wishes

13.00 postoperative wardround

13.30 chief surgeon travelled by road to katsina

15.00 administrative work

19.00 end of the working day

**day 14**
**sunday 10.07**

7.00 preparartions for the day

8.00 wardround

8.30 surgery + preparations for the 3rd training session in katsina starting with the arrival of the trainees today

sincerely yours,

kees waaldijk MD PhD 10th of July 2011

**participants**

| | | | |
|---|---|---|---|
| dr charles onyra | pmo | gen hosp | gwarzo |
| alh yusuf abdullahi dannafada | po nurse | gen hosp | gwarzo |
| hajiya binta waziri kin | acno | gen hosp | gwarzo |
| dr aminu a gumel | smo | fmc | b/kudu |
| hajiya mariya garba Hassan | cno | fmc | b/kudu |
| dr adamu tella garba | pmo | gen hosp | gezawa |
| alh nadabi mohammed shitu | cno | gen hosp | gezawa |
| hajiya dije adamu gaya | cno | gen hosp | gezawa |
| dr gabari habib dauda | pmo | mmsh | kano |

**trainers**

| | | | |
|---|---|---|---|
| dr idris suleiman abubakar | consultant obs&gyn | akth | kano |
| dr amir iman yola | pmo | mmsh | kano |

**facilitators pre-, intra- and post-operative care**

| | | |
|---|---|---|
| alh abdullahi haruna | cno | babbar ruga hospital |
| hajiya binta musa | cno | mmsh |
| hajiya asma'u mado | cno | mmsh |
| hajiya mairo ahmed | cno | mmsh |
| hajiya zainab mohammed | cno | mmsh |
| hajiya usaina suleiman | no | mmsh |

**chief trainer**

| | | |
|---|---|---|
| dr kees waaldijk | chief consultant surgeon | babbar ruga hospital |

**acknowledgment**

since MDG, the **main sponsor of this training programme**, is highly interested in cooperation and since this training is only possible by contributions of other parties in the past and present

I would like to commend the following organizations/individuals

Federal Ministry of Health will select the trainers and trainees and will monitor the training and is responsible for all the logistics and will handle the available funds

UNFPA for combining their pooled efforts with this training programme

Katsina State Government for their financial, moral and personnel support

Kano State Government for their personnel support

The Yar'adua family of Katsina for building our first postoperative ward and for their continuing major support

Service to Humanity Foundation for donating our operating theatre etc

MDG Katsina for donating 4 high-quality wards, 2 powerful Perkins generators and 2 ambulances etc

USAID_Acquire for renovating our training/teaching class room and for providing the hospital with internet facilities

SK Foundation with TTT Foundation for sponsoring the running cost for 17 years; without this there would be no national project

WAHA-international for sponsoring the running costs for the last 1.5 yr for supplying computers etc and for developing teaching/training materials

Family care for their rehabilitation programme

Hajiya Amina Sambo, former president of National Task Force on VVF

Other individuals and organizations who provided support during the last 27 years like feeding our patients etc

ISOFS for developing the training manual

FIGO for developing the training manual

RCOG for developing the training manual

last of all, each and every of the staff of Laure Fistula Center of Murtala Muhammad Specialist Hospital in Kano and of Babbar Ruga Fistula Teaching Hospital in Katsina since it is team work that counts