# GLOBAL COMPETENCY-BASED FISTULA SURGERY TRAINING MANUAL


**FIGO and Partners**

International Federation of Gynecology and Obstetrics (FIGO)

International Society of Obstetric Fistula Surgeons (ISOFS)

United Nations Population Fund (UNFPA)

EngenderHealth

Royal College of Obstetricians and Gynaecologists (RCOG)



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# INTRODUCTION

Preventable deaths occur in considerable numbers during pregnancy and childbirth in the developing world where maternal mortality ranges, according to estimates, from 500 to 1000 per 100,000 live births. Moreover, for each woman who dies an estimated 16 to 30 women survive avoidable complications, often miserably. Obstetric fistulae perhaps stand out as the most tragic of preventable childbirth complications, as affected women often find themselves abandoned by their husbands, shunned by most, and forced to live in shame. Moreover, women and children caught in wars or population displacements are exposed to horrendous attacks, and alarming increases in the numbers of traumatic genital fistulae have been reported from zones of violence.

Too few physicians are equipped with the knowledge and skills needed to repair genital fistulae and care for patients following surgery. Most procedures are performed in Africa and Asia by local physicians, with technical support from surgeons from developed countries where these fistulae are rarely seen. It would take many years for all the physicians presently able to treat genital fistulae to operate on all the women who need their expertise today, and the number of women who need their expertise increases daily. Although the need for physicians trained in fistula repair has long been recognized, no standard training manual has existed so far. This manual was designed to help meet this need.

# IMPLEMENTATION GUIDE

## Purpose of the manual

To enable dedicated physicians to acquire the knowledge, skills and professionalism needed to prevent obstetric fistulae and provide proper surgical, medical and psychosocial care to women who have incurred fistulae, whether during childbirth or because of inflicted trauma.

## Target groups

Physicians dedicated to the prevention and management of fistulae of the female genital tract. The training approach is multidisciplinary and team based as fistula surgeons, nurses, physiotherapists and other specialized professionals will all contribute to the training. The manual allows for three levels of surgical proficiency: standard (S), advanced (A) and expert (E).

This manual will be continually used during training. However, the selected physicians will be expected to be familiar with its subject matter and associated literature and have read the recommended journal articles and the textbooks before commencing their training.

## Training and facilitation

Trainers and facilitators are fistula surgeons, nurses and other specially trained health professionals.

## Performance assessment

Each training center is expected to accommodate no more than three trainees at any one time.

It should take at least 3 months to gain competency in the standard management of genital fistulae, 12 months in their advanced management, and 24 months in their expert management. This program in keeping with global guidelines for the training of specialist surgeons but by no means authoritative, however. Trainees need to progress according to competency, not timelines, and the actual time to reach a given level will be determined by the trainees and their trainers.

The trainees will be expected to assist in their own training by using the recommended learning guides. They will be evaluated throughout the curriculum via group discussions (when possible) as well as structured performance-based assessment and trainers' reports. Checklists and assessment forms will be used and a logbook of competency will be kept for each trainee and signed at each stage by his/her trainers. Conversely, the trainees will contribute to the quality of the program by evaluating their trainers and their training centers.

# TRAINING CENTERS, TRAINERS AND TRAINEES

## Training centers

The training centers will be selected by the Global Education Team, which will be jointly assembled by FIGO and ISOFS.

Each center will have adequate training facilities and treat a sufficient number of fistula patients each year.

## Trainers

1. Each trainer will have undergone a 'Training the Trainers' course. Taught by members of the Global Education Team, this course will ensure that trainers are familiar with the manual and willing to adhere to its use.
2. The following information must be disclosed to future trainees by the training centers or by the principal trainer at these centers:
   - Name of the principal trainer
   - Name of the center and number of beds
   - Number of fistula repairs per year and outcomes
   - Types and complexity of the fistulae repaired
   - Training duration
   - Types of physiotherapy, counseling and audit practiced
3. Future trainees will receive a list of the centers where they may be trained. This list will be drawn by the Global Education Team and include the names of the trainers at these centers.

## Trainees

1. Most trainees will be trained within their own country and/or its neighboring countries. The candidates selected for a particular center will be given an overview of the place, as outlined for the future trainers.
2. Before commencing their training the selected candidates will assure the Global Education Team of their long-term commitment to fistula surgery.
3. The training at all centers will include:
   - An induction day, with introduction to staff and a tour of the premises
   - Seeing outpatients with the main trainer at the clinic
   - Observing the trainer perform simple and advanced fistula surgery
   - Assisting the trainer during surgery
   - Performing a simple or complex fistula repair under the trainer's supervision
4. Each country will determine how candidates are selected for training. Currently, ministries of health, non-government health agencies or universities select candidates. Final responsibility, however, lies with the trainers.
5. In addition to surgical training, the trainees will be taught to audit their own work (they will use this skill in their own practice after training). Upon training completion, they will be expected to send evaluations of their trainers and training centers to the Global Education Team.

# HOW DOES THE MANUAL WORK?

The manual is divided into five main sections:

## Section 1: Curriculum Modules

Each module provides an outline of its content, which the trainee is expected to bear in mind. The modules are used in conjunction with recommended works of reference. In some cases, their completion needs to be formalized by a performance-based assessment (PBA).

There are seven curriculum modules.

## Section 2: Logbooks of Competency

These are records of the work carried out by the trainee. They must be signed off by the trainer after the trainee has observed a procedure, has assisted with a procedure or has performed a procedure independently. The trainer will also indicate in the logbook whether the trainee needs further training in a particular area. A logbook is comprehensive and each section must be filled promptly and carefully (detailed outline below).

The seven logbooks to be completed for each trainee constitute records of the protocols, processes and audits that are followed or performed during the competency assessments.

## Section 3: Performance-based Assessment (PBA)

Each aspect of surgical training will be assessed separately and specifically. The trainees will undergo each PBA at a standard, advanced or expert level. As trainees are encouraged to train at more than one center, two or more trainers from two or more centers are likely to sanction each PBA with their signatures (detailed outline below).

A trainee will undergo 15 PBAs before being considered an expert fistula surgeon, and the process will often require the full 24 months of training. However, each trainee will require different lengths of time to achieve each level of expertise.

## Section 4: Supporting Tools for Assessment

Supporting tools ensure a structured approach to the assessment of each trainee by each trainer. After undergoing an induction and an appraisal process, trainees arriving at a new center will promptly design a plan for personal development with the help of their trainers. The trainees will also provide and record case-based reports.

## Section 5: Appendices

The appendices provide background and back-up information.

# LEARNING AND ASSESSMENT SUPPORT

## 1. Course timetable and checklist

Trainees will follow a detailed timetable and mark off events accordingly. They should refer to their diary, logbooks and assessment tools to summarize experiences in detail.

| Learning session | Schedule | Checklist |
|---|---|---|
| Lectures | Standard stage of fistula training | |
| Skill laboratories (where available) | Standard stage of fistula training | |
| Group work with nurses, physiotherapists and counselors | Standard stage of fistula training | |
| Bedside teaching | Standard stage of fistula training | |
| Team discussions | Standard stage of fistula training | |
| Video learning sessions | Standard stage of fistula training | |
| Reflective learning sessions | Standard stage of fistula training | |
| Case-based discussions | Standard stage of fistula training | |
| | | |
| Performing surgery | Standard/Advanced/Expert stage of fistula training | |
| Confidential diary entries and log keeping | Standard/Advanced/Expert stage of fistula training | |
| Demonstration and participation | Advanced/Expert stage of fistula training | |
| Field visits to neighboring obstetric units | Advanced/Expert stage of fistula training | |
| Surgical demonstration | Advanced/Expert stage of fistula training | |

## 2. Appraisals

Education progression appraisals, or reviews, will be made one month after induction at a center and upon completion of the educational requirements covered at this center. These appraisals will be made after a special discussion between trainer and trainee. They are meant to ensure regular communication between all parties towards the steady, structured development of the trainee; early identification of problems in trainee development; and trainee satisfaction with the program and provided support. The appraisals will be sent to the FIGO and ISOFS Global Education Team.

## 3. Confidential reflective learning

Being directly involved in solving difficult clinical situations, and then reflecting on the decisions taken and outcomes obtained, is crucial to being a good physician. Trainees must recognize that they will learn from situations by discussing them and making notes, and that to build their confidence they should continually reflect on their practice and learn from their mistakes, even old ones. Writing notes can dispel anxiety, as can sharing ideas based on the items suggested in the reflective learning form. Trainees should also be encouraged to keep a personal diary.

## 4. Personal development planning (PDP)

PDP is a structured and supported process by which individuals reflect on their progress, performance and/or achievement and plan for their personal, educational and career development.

PDP embraces a range of approaches to learning that connect planning (an individual's goals and intentions for learning or achievement); doing (aligning actions to intentions); recording (thoughts, ideas and experiences to better understand the process of learning and determine its results); and reflecting (reviewing and evaluating experiences and the results of learning). When a trainee's progress is assessed, different PDP forms should be completed for different aspects of his/her work.

## 5. Assessments

### a. The case-based discussion (CbD) tool

A generic CbD tool formalizes case discussions with the trainer. The competencies that can be assessed using this tool are indicated in the curriculum modules. Trainees use the CbD tool to document objective assessments of discussions about cases, but this tool can also be used to assess clinical decision-making as well as knowledge and application of knowledge. Each case-based discussion should involve slightly different clinical situations in the competency area to be assessed. The case-based discussions with the trainer will focus on the information given to the patient and recorded in the trainee's notes. These discussions can take place in theater, at the bedside or at the outpatient clinic but they need to be formally written up.

### b. The logbook of competency

From observation, through direct supervision, to independent practice, the final level of competency is reached in many stages. Each curriculum module has specific training goals and the logbook of competency offers a simple way of recording the acquisition of the skills described in the modules.

*i. Observation*

Before performing a new procedure under direct supervision, the trainee will have observed the procedure on several occasions and demonstrated a thorough

understanding of its principles, indications and possible complications. Only then can the trainer sign and date the relevant competency box and the trainee move on to performing the procedure under direct supervision.

*ii. Direct supervision*

The time to acquire the skills to perform a procedure under direct supervision will depend on the complexity of the procedure and the trainee's aptitude. It is also important for the trainee to be certain that, when performing a procedure independently, one must able to deal with any complications and know whom to call on for help.

*iii. Independent practice*

The progression to independent practice is the most difficult. Once allowed to perform surgery under direct supervision, the trainee is expected to perform procedures with less and less supervision as soon as the trainer agrees. Moreover, the trainee is expected to be signed off for independent practice as soon as trainee and trainer are confident that the trainee can perform procedures when the trainer is away. Once this level of competency is attained the trainee must keep a record of all the procedures he/she performs and, if any, of the complications that ensue.

**c. The performance-based assessment (PBA) tool**

Some procedures and steps of procedures are so fundamental to fistula surgery that an objective tool was developed and validated to aid in the assessment of their performance. The PBA tool assesses the technical competencies that the trainee needs to acquire before moving on for independent practice in general, or for a particular procedure, or for a particular step in a complex procedure.

Before the competencies can be signed off in the logbook, however, each form must have been successfully completed (i.e., each box must have been ticked for independent practice) on at least three separate occasions. The trainers will perform PBAs of their trainees when the latter feel ready.

When a PBA form is signed, the date should be entered in the relevant section of the logbook for the appropriate module. As most trainees will be trained at several institutions, two or more assessors will often sign the same form.

**d. Further aims of the assessment experience**

Because learning rates and clinical opportunities vary considerably, it is not possible to be prescriptive about the number of procedures that each trainee will need to perform in 24-months' time. It is expected, however, that each time a trainer signs a trainee off for a new level of competency, the trainee will take more responsibility in the performance of the procedures listed on their PBA forms. The forms are designed to help make this expectation explicit.

A new form should be completed for each procedure selected. In each case, trainees should indicate the level of supervision they received (i.e., whether it was from a colleague, senior trainer or visiting surgeon). Space is provided for comments about any particular features of the case, such as the degree of difficulty of the procedure or the extent of the supervisor's involvement. Such comments should better indicate than numbers alone the level of clinical responsibility assumed by the trainee. It is anticipated that a good trainee will be allowed to take on greater responsibility even when entrusting him/her with an entire procedure would not be appropriate.

# STRUCTURAL ARRANGEMENT OF THE GLOBAL FISTULA MANUAL

The manual is structured in such a way that, depending on the level of expertise of the trainee, each section can be used independently or in tandem with other components of the manual. The theoretic components of each curriculum module need to be studied first, before any formal surgical training takes place. Once training has begun, the modules will be used in combination with specific PBA forms to optimize their respective usefulness. The combinations are outlined below:

## Module 1

Epidemiology of female genital fistulae (FGF): To be used with all PBAs

## Module 2

An introduction to FGF: diagnosis, classification, prognostic factors and outcomes: To be used with all PBAs

## Module 3

Management of vesico-vaginal fistulae (VVF): To be used with PBAs 1 and 2

## Module 4

Management of recto-vaginal fistulae (RVF) and third- and fourth-degree tears: To be used with PBAs 1, 8 and 9

## Module 5

Management of complicated/complex fistulae: To be used with PBAs 3, 4, 5, 6, 7, 10, 11 and 12

## Module 6

Management of complications of fistula repair: To be used with all PBAs

## Module 7

Anesthesia for fistula surgery: To be used with PBAs 13, 14 and 15

# SECTION ONE

# CURRICULUM MODULES

# Module 1: Epidemiology of Female Genital Fistulae (FGF) [Curriculum Level: Standard]

**Aims and objectives**

At the end of this module, the trainee will be able to:

- Define FGF and discuss their incidence
- Explain the etiology and pathogenesis of FGF
- Describe genital and extra-genital complications of obstructed labor

| Knowledge criteria | Clinical competency | Professional skills and attitudes | Training support | Evidence and knowledge assessment |
|---|---|---|---|---|
| Knowledge of fistula definitions | Ability to plan patient management appropriately | Ability to recognize the need for empathy, privacy, confidentiality and dignity | Training manual and recommended textbooks<br><br>Tutorials | Direct observation<br><br>Logbook of competency updated at bedside, at the outpatient clinic and in theater |
| Knowledge of the different types of fistulae | Ability to examine, correctly identify and assess damage to the genital tract | Awareness that counseling following surgery is different for VVF and RVF patients (to be assessed by trainer) | Visits to the anatomy laboratory<br><br>Participation in Outpatient Department activities | Case-based discussions (CbD) conducted at bedside, at the outpatient clinic and in theater |
| Awareness of fistula incidence and contributing factors | Ability to identify and manage symptoms not associated with the genital tract | Ability to recognize the need to plan consultations with trainers | Participation in ward rounds<br><br>Participation in theater activities<br><br>Contributes to holistic patient care with nurses, physiotherapists and other staff members | Well-kept reflective logbook of experiences |

| Knowledge criteria | Clinical competency | Professional skills and attitudes | Training support | Evidence and knowledge assessment |
|---|---|---|---|---|
| Knowledge of the etiology and pathogenesis of genital fistulae | Ability to plan short- and long-term patient management | Attentiveness to cultural, social and ethnic sensitivities | Planning and reviews with educational supervisor<br><br>Observation of and assistance from trainer | Personal development plan |
| Understanding non-obstetric causes of fistulae | Ability to determine and organize relevant pre-operative investigations | Ability to work in an unfamiliar environment and with language differences | | |
| Knowledge of other possible consequences of obstructed labor | Ability to counsel or arrange counseling, particularly when there is a language barrier | Ability to communicate and work as a team with colleagues providing holistic care | | |
| Knowledge of consequences of complete incontinence | | Ability to understand the roles of other professionals in the multi-disciplinary team, particularly the roles of nurses, physiotherapists and psychologists/ counselors | | |
| Knowledge and understanding of psycho-social consequences of living with a fistula | Ability to obtain informed consent from patients | Ability to show empathy for patients | | |

## Module 2: An Introduction to Female Genital Fistulae (FGF): Diagnosis, Classification, Prognostic Factors and Outcomes [Curriculum Level: Standard]

**Aims and objectives**

At the end of this module, the trainee will be able to:

- Diagnose FGF
- Outline FGF classification
- Understand how to evaluate fistula surgery outcome
- Identify the prognostic factors for surgical outcome

Whether they be at the standard (S), advanced (A) or expert (E) levels, the trainees must all have knowledge of and achieve competency for this module (the competency level is determined by the trainer).

| Knowledge criteria | Clinical competency | Professional skills and attitudes | Training support | Evidence and knowledge assessment |
|---|---|---|---|---|
| DIAGNOSIS<br>Ability to understand data collection processes and patient history assessment | Ability to collect data from the patient's history | Ability to recognize the need for empathy, privacy, confidentiality and dignity | Training manual and recommended textbooks | Direct observation |
| Knowledge of record keeping requirements, whether for personal, institutional or national use | Ability to collect data from the patient's physical examination | Ability to counsel or arrange counseling, particularly when there is a language barrier | Tutorials | Logbook of competency updated at bedside, at the outpatient clinic and in theater |
| Understanding basic and other relevant laboratory investigations | Ability to record outcomes from the patient's follow-up visits | | Visits to the anatomy laboratory | |

| Knowledge criteria | Clinical competency | Professional skills and attitudes | Training support | Evidence and knowledge assessment |
|---|---|---|---|---|
| Knowledge of informed consent procedures associated with laboratory tests | Ability to build a database for personal records, institutional audits and multicenter studies | Ability to:<br>• Plan consultations with the trainer<br>• Be attentive to cultural, social and ethnic sensitivities and language differences<br>• Work in an unfamiliar environment and with language differences<br>• Communicate and work as a team with colleagues providing holistic care<br>• Understand the roles of other professionals in the multi-disciplinary team, particularly the roles of nurses, physiotherapists and psychologists/ counselors<br>• Show empathy for patients<br>• Recognize socio-economic and cultural repercussions | Participation in Outpatient Department activities<br><br>Participation in ward rounds<br><br>Participation in theater activities<br><br>Contributes to holistic patient care with nurses, physiotherapists and other staff members | Case based discussion (CbD) at bedside, at the outpatient clinic and in theater<br><br>Well-kept reflective logbook of experiences |
| Knowledge of how to carry out dye tests | Ability to examine all fistulae under direct vision, using dye if necessary | | | |
| PROGNOSTIC FACTORS and OUTCOMES<br>Understanding the audit process | Ability to audit to ensure good patient care | Ability to recognize the need to plan with the trainer | | |

| Knowledge criteria | Clinical competency | Professional skills and attitudes | Training support | Evidence and knowledge assessment |
|---|---|---|---|---|
| Knowledge of the expected outcomes of fistula surgery:<br>• Closed with continence<br>• Closed with incontinence<br>• Not closed<br><br>Awareness of prognosis based on etiology and classification<br><br>Awareness of prognosis based on previous surgical repairs, available techniques, factors affecting wound healing and the availability and quality of postoperative care<br><br>Knowledge of the data collection processes used to:<br>• Monitor service provision<br>• Develop protocols<br>• Manage epidemiologic data<br><br>Knowledge of assessment tools suitable for fistula surgery | Ability to organize and appropriately manage patient data and records<br><br>Ability to develop new processes and protocols based on evolution of practice and availability of new equipment<br><br>Ability to ensure quality teaching and assessment of trainees<br><br>Ability to perform an audit | | | |

| Knowledge criteria | Clinical competency | Professional skills and attitudes | Training support | Evidence and knowledge assessment |
|---|---|---|---|---|
| Knowledge and understanding of the psycho-social consequences of living with a fistula | Ability to obtain informed consent from patients | Ability to show empathy for patients | | |

# Module 3: Management of Vesico-Vaginal Fistulae (VVF) [Curriculum Level: Standard]

**Aims and objectives**

At the end of this module, the trainee will be able to:

- Describe approaches for the immediate management of VVF
- Describe and carry out pre-operative care
- Describe the surgical techniques of VVF repair and perform a simple procedure
- Provide basic post-operative care and identify any complications

| Knowledge criteria | Clinical competency | Professional skills and attitudes | Training support | Evidence and knowledge assessment |
|---|---|---|---|---|
| Knowledge of appropriate preventative treatments to be implemented immediately following prolonged or obstructed | Ability to perform bladder catheterization<br><br>Ability to teach pelvic floor exercises | Ability to recognize the need for empathy, privacy, confidentiality and dignity | Training manual and recommended textbooks | Direct observation |
| Knowledge of the appropriate management of patients following delivery | Ability to ensure appropriate perineal hygiene by arranging for sitz baths | Ability to counsel or labor arrange counseling, particularly when there is a language barrier | Tutorials | Logbook of competency appropriately updated |
| Awareness of overflow incontinence secondary to postpartum urinary retention | Ability to perform complete physical and pelvic examinations, and:<br>• Check for skin infection in the genital area | Attentiveness to cultural, social and ethnic sensitivities and language differences | Visits to the anatomy laboratory | Oral presentation or case-based discussion based on the reflective logbook of experiences |
| Knowledge of the immediate management options for VVF | • Assess vaginal mucosa health<br>• Confirm fistula classification | Ability to work in an unfamiliar environment and with language difficulties | Participation in Outpatient Department activities | Other case-based discussion |

| Knowledge criteria | Clinical competency | Professional skills and attitudes | Training support | Evidence and knowledge assessment |
|---|---|---|---|---|
| Understanding that needs to be done or secured on the day before VVF repair:<br>• Physical examination<br>• Blood and urine test<br>• Informed consent<br>• Pre-anesthetic requirements<br>• Antibiotic administration, as indicated<br>• Awareness of cultural sensitivities relating to treatment<br><br>Knowledge of appropriate abdominal and vaginal surgical techniques<br><br>Knowledge of appropriate positioning of patient<br><br>Knowledge of appropriate instruments, equipment and suture materials<br><br>Understanding the basic principles of the surgical techniques<br><br>Knowledge of the initial steps of fistula closure | Ability to administer anesthesia (if appropriate) – this must be carefully assessed<br><br>Ability to select the appropriate surgical approach<br><br>Ability to position the patient in a way that exposes the fistula<br><br>Ability to perform hemostatic infiltration using oxytocin/adrenaline<br><br>Ability to perform a preliminary examination under anesthesia: i.e., to check scarring extent, ureteric positions and, in out-patients, whether a bladder stone was missed; to use dye tests when needed to determine VVF site; to debride scar tissue and insert ureteric catheters | Ability to communicate and work as a team with colleagues providing holistic care<br><br>Ability to understand the roles of other professionals in the multi-disciplinary team, particularly the roles of nurses, physiotherapists and psychologists/ counselors<br><br>Ability to show empathy for patients | Participation in ward rounds<br><br>Participation in theater activities<br><br>Learning holistic care from nurses, physiotherapists, and other members of the hospital team | PBA of pre- and peri-operative care<br><br>PBA for spinal anesthesia and sedation<br><br>PBA for basic principles of surgical techniques<br><br>PBA for the different steps of fistula closure<br><br>All surgeons should be encouraged to write up cases for publication |

| Knowledge criteria | Clinical competency | Professional skills and attitudes | Training support | Evidence and knowledge assessment |
|---|---|---|---|---|
| Knowledge of the final steps of fistula closure<br><br>Basic and intermediate knowledge and understanding of post-operative care, including fluid management<br><br>Knowledge and understanding of late post-operative care, including fluid/diet management, physiotherapy, dye testing and suture removal<br><br>Knowledge of the discharge protocols | Ability to perform the following operative steps for fistula closure:<br>• Dye test to verify closure<br>• Check bladder catheter drainage<br>• Applies vaginal packs, using adrenaline when needed<br>• Remove the ureteric catheters, when needed<br>• Secure the urethral catheter<br><br>Ability to perform the following post-operative steps:<br>• Pain, fluid and bowel management<br>• Catheter management<br>• Suture removal prior to discharge, if non-absorbable sutures were used | | | |

## Module 4: Management of Recto-Vaginal Fistulae (RVF) and Third- and Fourth-Degree Tears [Curriculum Level: Standard]

Module 4 is only available to trainees who have achieved proficiency in simple fistula closure and provided the following:
- Case load (trainer-specific)
- Patients' outcomes
- Audits of all cases performed

Trainees may simultaneously complete, and gain experience from, module 3.

### Aims and objectives

At the end of this module, the trainee will be able to:
- Describe and provide pre-operative management of RVF
- Repair simple RVF and third- and fourth-degree tears (anal sphincter trauma)
- Describe surgical techniques for complicated RVF
- Describe and provide post-operative care



| Knowledge criteria | Clinical competency | Professional skills and attitudes | Training support | Evidence and knowledge assessment |
|---|---|---|---|---|
| Ability to diagnose and understand other causes of RVF, e.g., rape, trauma, tuberculosis, lymphogranuloma venereum and cancer | Ability to take patients' history sympathetically<br><br>Knowledge of when to perform a colostomy | Ability to recognize the need for empathy, privacy, confidentiality and dignity | Training manual and recommended textbooks | Direct observation<br><br>PBA for third- and fourth-degree tears |
| Knowledge of the anatomy of the anal sphincter | Ability to lead perineal care with nurses | Ability to counsel or arrange counseling, particularly when there is a language barrier, and to obtain informed consent | Tutorials | |
| Knowledge of RVF classification | Coordinate lab tests and see them through completion for the following: | | Visits to the anatomy laboratory | PBA for RVF repair |

| Knowledge criteria | Clinical competency | Professional skills and attitudes | Training support | Evidence and knowledge assessment |
|---|---|---|---|---|
| Knowledge of pre-operative management, including of colostomy<br><br>Awareness of possible indications for colostomy, including:<br>• Large/very high recto-vaginal defects<br>• On-going inflammation<br>• Significant scarring around the fistula | • Full blood cell count<br>• Blood group and Rh status<br>• Presence of ova and parasites in a stool sample | Ability to recognize the need to plan with trainer<br><br>Attentiveness to cultural, social and ethnic sensitivities and language differences | Participation in Outpatient Department activities<br><br>Participation in ward rounds | PBA for the repair of anal sphincter injury associated with RVF<br><br>Logbook of competency appropriately updated |
| Ability to manage a temporary colostomy<br><br>Ability to provide appropriate perineal care<br><br>Knowledge of the appropriate laboratory investigations, including:<br>• Full blood cell count<br>• Blood group and Rh status<br>• Presence of ova and parasites in a stool sample | Ability to coordinate appropriate bowel preparation<br><br>Ability to ensure high standards for RVF and anal sphincter repair by:<br>• Securing good exposure with maximum access<br>• Maintaining asepsis<br>• Localizing the fistula and determining its size<br>• Performing a tension-free, airtight closure<br>• Administering antibiotics, as appropriate | Ability to work in an unfamiliar environment and with language difficulties<br><br>Ability to communicate and work efficiently as a team with colleagues providing holistic care<br><br>Ability to understand the roles of other professionals in the multi-disciplinary team, particularly the roles of nurses, physiotherapists and psychologists/ counselors | Participation in theater activities<br><br>Contributes to holistic patient care with nurses, physiotherapists and other staff members | Oral presentation or case-based discussion based on the reflective logbook of experiences<br><br>Other case-based discussion<br><br>All surgeons should be encouraged to write up cases for publication |

| Knowledge criteria | Clinical competency | Professional skills and attitudes | Training support | Evidence and knowledge assessment |
|---|---|---|---|---|
| Awareness of the options available for bowel preparation (as there is no agreement regarding the issue)<br><br>Awareness of the principles at the basis of RVF and anal sphincter repair<br><br>Good knowledge of techniques associated with the surgical repair of RVF and anal sphincter injury<br><br>Ability to carry out RVF post-operative care, understanding the differences in the post-operative care of VVFs and RVFs<br><br>Good knowledge of when to reverse the colostomy | Ability to co-ordinate the post-operative management of pain, fluid, bladder and bowel<br><br>Ability to conduct a dye test before colostomy closure<br><br>Ability to determine whether colostomy reversal is appropriate; if yes, ability to coordinate appropriate bowel preparation | Ability to show empathy for patients | | |

## Module 5: Management of Complicated/Complex Fistulae [Curriculum Level: Advanced and Expert]

Module 5 is only available to trainees who have achieved proficiency in simple fistula closure and provided the following:
- Case load (trainer-specific)
- Patients' outcomes
- Audits of all cases performed

(Note: It is expected to that some trainees will remain at the standard skill level.)

### Aims and objectives

At the end of this module, the trainee will be able to:
- Identify the different types of complicated/complex fistulae
- Describe surgical techniques for the repair of complicated/complex urinary fistulae
- Repair complicated/complex urinary fistulae

| Knowledge criteria | Clinical competency | Professional skills and attitudes | Training support | Evidence and knowledge assessment |
|---|---|---|---|---|
| Ability to identify and understand fistula complexity according to site:<br>• Urethral fistula<br>• Urethral damage<br>• Vesico-cervical, vesico-uterine and vault fistula<br>• Ureteric fistula<br><br>Ability to identify and repair complex types of fistulae:<br>• Minute fistulae | Ability to repair urethral fistulae (vaginal approach)<br><br>Ability to repair a circumferential fistula<br><br>Ability to repair a vesico-cervical and a vesico-uterine fistula<br><br>Ability to repair a vault fistula (after hysterectomy)<br><br>Ability to repair a uretero-cervico-vaginal fistula | Ability to recognize the need for empathy, privacy, confidentiality and dignity<br><br>Ability to counsel or arrange counseling, particularly when there is a language barrier, and to obtain informed consent<br><br>Ability to recognize the need to plan consultations with the trainer | Training manual and recommended textbooks<br><br>Tutorials<br><br>Visits to the anatomy laboratory<br><br>Participation in Outpatient Department activities | Direct observation<br><br>PBA for urethral fistula repair<br><br>PBA for urethral reconstruction<br><br>PBA for circumferential fistula repair<br><br>PBA for vesico-cervical and vesico-uterine fistula repair<br><br>PBA for the repair of a vaginal vault fistula using the abdominal or vaginal route (after hysterectomy) |

| Knowledge criteria | Clinical competency | Professional skills and attitudes | Training support | Evidence and knowledge assessment |
|---|---|---|---|---|
| • Circumferential bladder fistulae<br>• Fistulae with a small bladder or no bladder (urinary diversion may be needed)<br>• Urinary fistulae with extensive vaginal scarring<br>• Residual fistulae<br>• Recurrent fistulae<br>• Lateral fistulae<br>• Uretero-(cervico)-vaginal fistulae<br>• Complex fistulae associated with bladder prolapse<br><br>Ability to perform vaginal surgery for urethral repair<br><br>Ability to perform circumferential fistula repair<br><br>Ability to identify and repair vesico-cervical and vesico-uterine fistulae<br><br>Ability to identify and repair a vault fistula (after hysterectomy) | Ability to perform urethral reconstruction (vaginal approach)<br><br>Ability to perform ureteric re-implantation (abdominal approach – type to be determined by the trainer)<br><br>Ability to repair a urinary fistula when vaginal scarring is extensive<br><br>Ability to repair a combination of two or more complicated urinary fistulae<br><br>Management of post-repair urinary incontinence:<br><br>Ability to make a clinical diagnosis after history taking and physical examination, using tests (such as urodynamic tests) when appropriate and possible at the center | Attentiveness to cultural, social and ethnic sensitivities and language differences<br><br>Ability to work in an unfamiliar environment and with language differences<br><br>Ability to communicate and work efficiently as a team with colleagues providing holistic care<br><br>Ability to understand the roles of other professionals in the multi-disciplinary team, particularly the roles of nurses, physiotherapists and psychologists/ counselors<br><br>Ability to show empathy for patients | Participation in ward rounds<br><br>Participation in theater activities<br><br>Contributes to holistic patient care with nurses, physiotherapists and other staff members | PBA for the repair of a ureteric fistula, with ureteric re-implantation (abdominal approach, type to be determined by the trainer)<br><br>PBA for the repair of a urinary fistula with extensive vaginal scarring<br><br>Logbook of competency appropriately updated<br><br>Oral presentation or case-based discussion based on the reflective logbook of experiences<br><br>Other case-based discussion<br><br>All surgeons should be encouraged to write up cases for publication |

| Knowledge criteria | Clinical competency | Professional skills and attitudes | Training support | Evidence and knowledge assessment |
|---|---|---|---|---|
| Ability to identify and repair a uretero-cervico-vaginal fistula (vaginal approach)<br><br>Ability to determine when urethral reconstruction is required, using the vaginal approach<br><br>Ability to identify ureteric injury (location and site) and know when to perform ureteric re-implantation (abdominal approach – type to be determined by the trainer)<br><br>Ability to repair a urinary fistula in the presence of extensive vaginal scarring<br><br>Ability to repair a combination of two or more complicated urinary fistulae<br><br>Knowledge of methods for the post-repair diagnosis of urinary incontinence | Following repair, ability to conservatively manage urinary incontinence in general and, specifically:<br>• Overflow incontinence<br>• Trial therapy of urge incontinence, if relevant details were noted during history taking<br>• Diagnose detrusor over-activity (if urodynamic testing is available) and treat with anti-cholinergics<br><br>Ability to teach patients how to insert a urethral plug in cases of persistent urinary incontinence after repair (if considered appropriate by the trainer) | | | |

| Knowledge criteria | Clinical competency | Professional skills and attitudes | Training support | Evidence and knowledge assessment |
|---|---|---|---|---|
| Following repair, awareness of how to conservatively manage the following:<br>• Stress incontinence<br>• Overflow incontinence<br>• Urge incontinence or detrusor overactivity<br>• Mixed urinary incontinence<br><br>Ability to understand the surgical options for persistent urinary stress incontinence. Examples include:<br>• Urethralization and pubo-coccygeal sling<br>• Retro-pubic urethrolysis and sling operation (rare)<br>• Urethralization and fascio-colposuspension (rare)<br>• Other: Burch colposuspension, mid-urethral sling/*tapes (*Under specific trainer direction because of the high risk of vaginal/urethral erosion in VVF patients) | | | | |

| Knowledge criteria | Clinical competency | Professional skills and attitudes | Training support | Evidence and knowledge assessment |
|---|---|---|---|---|
| Ability to understand the management of persistent urinary incontinence using:<br>• A urethral plug<br>• Medications (e.g., anti-cholinergics)<br>• Surgery | | | | |

## Module 6: Management of Complications of Fistula Repair [Curriculum Level: Standard, Advanced and Expert]

Module 6 should be used by the trainees throughout their training period, i.e., while they are completing and gaining experience from the preceding modules. The trainees will provide the following:

- Case load (trainer-specific)
- Patient's outcomes
- Audit of all cases performed

Trainees at the standard and advanced levels must acquire knowledge of this module, whilst those at an expert level must achieve competency.

### Aims and objectives

At the end of this module, the trainee will be able to:

- Prevent intra-operative complications, detect them if they occur and determine their management
- Identify immediate post-operative complications and outline their management
- Identify late post-operative complications and outline their management



| Knowledge criteria | Clinical competency | Professional skills and attitudes | Training support | Evidence and knowledge assessment |
|---|---|---|---|---|
| Ability to detect and manage complications relating to:<br>• Anesthesia<br>• Surgery | Ability to determine problems and ensure appropriate treatment | Ability to recognize the need for empathy, privacy, confidentiality and dignity<br><br>Ability to counsel or arrange counseling, particularly when there is a language barrier, and to obtain informed consent<br><br>Ability to recognize the need to plan consultations with the trainer | Training manual and recommended textbooks<br><br>Tutorials<br><br>Visits to the anatomy laboratory<br><br>Participation in Outpatient Department activities<br><br>Participation in ward rounds | Direct observation<br><br>Logbook of competency appropriately updated<br><br>Oral presentation or case-based discussion based on the reflective logbook of experiences |

| Knowledge criteria | Clinical competency | Professional skills and attitudes | Training support | Evidence and knowledge assessment |
|---|---|---|---|---|
| | | | Participation in theater activities<br><br>Contributes to holistic patient care with nurses, physiotherapists and other staff members | |
| Ability to deal with anesthetic complications | Ability to deal with anesthetic complications | Ability to recognize the need for empathy, privacy, confidentiality and dignity<br><br>Ability to counsel or arrange counseling, particularly, and to obtain informed consent<br><br>Ability to recognize the need to plan consultations with the trainer<br><br>Attentiveness to cultural, social and ethnic sensitivities and language differences<br><br>Ability to work in an unfamiliar environment and with language differences | Planning and reviews with educational supervisor<br><br>Observation and assistance from Trainer | Appropriate investigations<br><br>Case-based discussion<br><br>Advanced or expert surgeons should be encouraged to write up cases for publication |
| Ability to prevent hemorrhage | Ability to detect bleeding disorders from patient history or by appropriate laboratory tests | | | |
| Ability to manage mild hemorrhage | Ability to secure hemostasis | | | |
| Ability to manage moderate hemorrhage in patients who are:<br>• Hemodynamically stable<br>• Hemodynamically unstable | Ability to secure hemostasis and manage mild/moderate hemorrhage<br>• Applies vaginal packs, using adrenaline when needed | | | |
| Ability to manage severe hemorrhage, with resuscitation and a blood transfusion, when needed | Ability to take measures for resuscitation (e.g., order blood and arrange for blood transfusion) | | | |

| Knowledge criteria | Clinical competency | Professional skills and attitudes | Training support | Evidence and knowledge assessment |
|---|---|---|---|---|
| Ability to manage and prevent injury to the ureter | Ability to manage a ureter injury | Ability to communicate and work efficiently as a team with colleagues providing holistic care<br><br>Ability to understand the roles of other professionals in the multi-disciplinary team, particularly the roles of nurses, physiotherapists and psychologists/ counselors<br><br>Ability to show empathy for patients | | |
| Ability to manage bladder and urethral injuries | Ability to manage bladder and urethral injuries | | | |
| Ability to manage anuria | Ability to manage anuria | | | |
| Ability to locate a misplaced ureteral catheter | Ability to locate and remove a misplaced ureteral catheter | | | |
| Ability to manage early breakdown of the suture line, as urine leakage leads to wound infection | Ability to manage early breakdown of the suture line, as urine leakage leads to wound infection | | | |
| Ability to manage deep vein thrombosis (DVT) and pulmonary embolism | Ability to manage DVT and pulmonary embolism | | | |

| Knowledge criteria | Clinical competency | Professional skills and attitudes | Training support | Evidence and knowledge assessment |
|---|---|---|---|---|
| Ability to manage a bowel injury | Ability to manage a bowel injury | | | |
| Ability to remove a broken needle | Ability to remove a broken needle | | | |
| Ability to identify and manage late complications, such as:<br>• Late breakdown of wound repair<br>• Urethral stricture<br>• Vaginal stricture<br>• Bladder stones<br>• Hematometra<br>• Menouria<br>• Secondary amenorrhea and infertility (needs referral to a specialist) | Ability to identify and manage late complications, such as:<br>• Late breakdown of wound repair<br>• Urethral stricture<br>• Vaginal stricture<br>• Bladder stones<br>• Hematometra<br>• Menouria<br>• Secondary amenorrhea and infertility (order endocrine tests, check for Asherman's syndrome) | | | |

## Module 7: Anesthesia for Fistula Surgery
## [Curriculum Level: Advanced and Expert]

Module 7 is available to trainees assigned to centers where surgeons administer anesthesia themselves. The trainers are anesthetists.

Each trainee will provide the following:
- Case load (trainer-specific)
- Patients' outcomes
- Audit of all cases performed

### Aims and objectives

At the end of this module, the trainee will be able to:
- Understand the principles of sedation, spinal anesthesia and general anesthesia
- Identify and manage patients' pre-operative co-morbidities and prevent intra-operative complications
- Identify and manage intra-operative and postoperative complications



| Knowledge criteria | Clinical competency | Professional skills and attitudes | Training support | Evidence and knowledge assessment |
|---|---|---|---|---|
| SPINAL ANESTHESIA<br><br>Ability to connect the monitoring devices to the patient and obtain intravenous access<br><br>Ability to position the patient<br><br>Knowledge of aseptic techniques | Ability to determine pre-operative problems and ensure appropriate treatment<br><br>Ability to deal with anesthetic complications | Ability to recognize the need for empathy, privacy, confidentiality and dignity<br><br>Ability to counsel or arrange counseling, particularly when there is a language barrier, and to obtain informed consent | Training manual and recommended textbooks<br><br>Tutorials<br><br>Participation in Outpatient Department activities | Direct observation<br><br>Log book<br><br>Oral presentation or case based discussion from reflective log book of experiences<br><br>Appropriate investigations |

| Knowledge criteria | Clinical competency | Professional skills and attitudes | Training support | Evidence and knowledge assessment |
|---|---|---|---|---|
| Ability to set up the equipment and prepare the drugs (must be checked with assistant)<br><br>Knowledge of different types of local anesthesia (e.g., with lignocaine or bupivacaine)<br><br>Ability to identify the correct inter-spinous space<br><br>Ability to prepare the skin with local anesthesia<br><br>Ability to assess the level of blockade<br><br>Ability to manage continual monitoring<br><br>Knowledge of complications of<br>• anesthesia<br>• surgery<br><br>Ability to deal with anesthetic complications | Ability to take measures for resuscitation (e.g., has an oxygen cylinder at hand)<br><br>Ability to ensure that all medications are correctly selected and labeled for the patient, and are not expired<br><br>Ability to perform the following for spinal anesthesia:<br>• Place the patient in the correct position on the operating table<br>• Infiltrate skin and sub-cutaneous tissues with a local anesthetic<br>• Insert a spinal needle (with or without an introducer) until free flow of CSF is noted<br>• Inject the drug into the intrathecal space<br>• Use of a cold fluid to identify the level of blockade | Ability to recognize the need to plan consultations with the trainer<br><br>Attentiveness to cultural, social and ethnic sensitivities and language differences<br><br>Ability to work in an unfamiliar environment and with language differences<br><br>Ability to communicate and work efficiently as a team with colleagues providing holistic care<br><br>Ability to understand the roles of other professionals in the multi-disciplinary team, particularly the roles of nurses, physiotherapists and psychologists/ counselors | Participation in ward rounds<br><br>Participation in theater activities<br><br>Planning and review with educational supervisor<br><br>Observation and assistance from Trainer | Case-based discussion<br><br>All surgeons should be encouraged to write up cases for publication |

| Knowledge criteria | Clinical competency | Professional skills and attitudes | Training support | Evidence and knowledge assessment |
|---|---|---|---|---|
| GENERAL ANESTHESIA | | | | |
| Knowledge of the anesthetic machine, monitoring equipment and drugs used | Ability to identify and manage intra-operative and late complications | Ability to show empathy for patients | | |
| Ability to have the needed drugs at hand, including emergency drugs | | | | |
| Ability to connect the monitoring devices to the patient and obtain intravenous access | Ability to check equipment with the assistant to ensure all components are working | | | |
| Ability to set up the equipment and prepare the drugs (must be checked with assistant) | Ability to determine pre-operative problems and ensure appropriate treatment | | | |
| Ability to pre-oxygenate the patient | Ability to have resuscitation measures in place (e.g., has an oxygen cylinder at hand) | | | |
| Ability to induce anesthesia (intravenous or gaseous) | | | | |
| Ability to establish an airway and hand-ventilate the patient | Ability to ensure that all medications are correctly selected and labeled for the patient, and are not expired | | | |

| Knowledge criteria | Clinical competency | Professional skills and attitudes | Training support | Evidence and knowledge assessment |
|---|---|---|---|---|
| Ability to secure definitive airways<br><br>Ability to insert other vascular lines, if required (another intravenous access, an arterial line or a central venous line)<br><br>Ability to manage patient monitoring throughout the operative period<br><br>Ability to prevent complications in the intra-operative period<br><br>Ability to perform airway extubation competently for smooth emergence from anesthesia<br><br>Ability to administer post-operative fluids appropriately<br><br>Ability to manage post-operative pain | Ability to use colloidal/crystalline or blood-related products appropriately<br><br>Ability to appropriately Appropriately uses opioid drugs as well as NSAIDs and other non-opioid analgesics | | | |

# SECTION TWO

# LOGBOOKS OF COMPETENCY

## Logbook for Module 1:
## Epidemiology of Female Genital Fistulae

| | Observing the Trainer | Direct supervision by the Trainer | Independent practice |
|---|---|---|---|
| Ability to plan management appropriately | | | |
| Ability to examine and assess damage to the genital tract | | | |
| Ability to identify and manage symptoms not associated with the genital tract | | | |
| Ability to plan short- and long-term management | | | |
| Ability to determine and organize relevant pre-operative investigations | | | |
| Ability to counsel or arrange for counseling, particularly when there is a language barrier | | | |
| Ability to secure informed consent on hospital forms | | | |
| **Signature and Date (Trainee):** | | **Signature and Date (Trainer):** | |

## Logbook for Module 2:
## Female Genital Fistulae: Diagnosis, Classification, Prognostic Factors and Outcomes

| | Observing the Trainer | Direct supervision by the Trainer | Independent practice |
|---|---|---|---|
| Ability to collect data from the patients' histories | | | |
| Ability to collect data from physical examinations | | | |
| Ability to record outcomes from follow-up examinations | | | |
| Ability to audit to ensure good patient care | | | |
| Ability to examine all fistulae under direct vision, using dye if needed | | | |
| Ability to build a database for personal records, institutional audits and multicenter studies | | | |
| Ability to organize and appropriately manage patients' records and data | | | |
| Ability to develop new processes and protocols based on evolution of practice and availability of new equipment | | | |
| Ability to provide quality teaching and assessment of trainees | | | |

| | Observing the Trainer | Direct supervision by the Trainer | Independent practice |
|---|---|---|---|
| Ability to perform an audit and complete the audit cycle | | | |
| **Signature and Date (Trainee):** | | **Signature and Date (Trainer):** | |

## Logbook for Module 3:
## Management of Vesico-Vaginal Fistulae (VVF)

| | Observing the Trainer | Direct supervision by the Trainer | Independent practice |
|---|---|---|---|
| Ability to place a urethral catheter (and ensuring the bladder is catheterized) | | | |
| Ability to ensure appropriate perineal hygiene and arrange for sitz baths | | | |
| Ability to teach pelvic floor exercises | | | |
| Ability to perform a complete examination of the genital region, not forgetting to:<br>• Look for skin infection in the genital area<br>• Look for healthy vaginal mucosa<br>• Confirm the classification of the fistula | | | |
| Ability to select an appropriate surgical approach | | | |
| Ability to position the patient appropriately, ensuring that the fistula is exposed | | | |
| Ability to perform spinal anesthesia | | | |

| | Observing the Trainer | Direct supervision by the Trainer | Independent practice |
|---|---|---|---|
| Ability to perform an examination under anesthesia that includes checking the extent of scarring, ureteric positions and, in outpatients, the absence of bladder stones; ability to debride scar tissue, insert ureteric catheters and, if needed, perform a dye test to determine VVF site | | | |
| Ability to perform hemostatic infiltrations using oxytocin/adrenaline | | | |
| Ability to perform the initial steps of fistula closure | | | |
| Ability to perform the final steps of fistula closure | | | |
| Ability to perform a dye test to ensure a watertight fistula closure | | | |
| Ability to manage post-operative pain | | | |
| Ability to manage post-operative administration of fluids | | | |
| Ability to manage post-operative catheter care | | | |

| | Observing the Trainer | Direct supervision by the Trainer | Independent practice |
|---|---|---|---|
| Ability to manage post-operative antibiotic treatment | | | |
| Ability to remove sutures (if non-absorbable) prior to discharge | | | |
| **Signature and Date (Trainee):** | | **Signature and Date (Trainer):** | |

## Logbook for Module 4:
## Management of Recto-Vaginal Fistulae and Third- and Fourth- Degree Tears (RVF)

| | Observing the Trainer | Direct supervision by the Trainer | Independent practice |
|---|---|---|---|
| Ability to understand and teach perineal care to all members of the team | | | |
| Ability to coordinate and manage the completion of all lab tests necessary for surgery | | | |
| Ability to oversee appropriate bowel preparation | | | |
| Ability to describe and classify third- and fourth-degree tears | | | |
| Ability to perform examinations under anesthesia, checking for types of perineal tear, extent of scarring, and rectal and anal sphincter disruption | | | |
| Ability to perform examinations under anesthesia, checking for extent of scarring, length and depth of the RVF, extent of anal sphincter disruption and the presence of other fistulae | | | |
| Ability to perform a colostomy | | | |
| Ability to perform hemostatic infiltrations using oxytocin/adrenaline | | | |

| | Observing the Trainer | Direct supervision by the Trainer | Independent practice |
|---|---|---|---|
| Ability to follow the following steps during fistula closure:<br>• Good fistula exposure | | | |
| • Aseptic technique | | | |
| • Localization and size assessment of the fistula | | | |
| • Adequate mobilization to ensure maximum access | | | |
| • Circular incision around the edge of the fistula | | | |
| • Proper dissection of the vaginal wall from the underlying rectal wall and inspection of the anal sphincter: if disrupted, proper repair | | | |
| • Excision of scar tissue from the edge of the fistula (optional) | | | |
| • Avoidance of the rectal mucosa during closure, if possible | | | |
| • Tension-free, airtight closure | | | |
| Ability to manage the post-operative care of RVF patients | | | |

| | Observing the Trainer | Direct supervision by the Trainer | Independent practice |
|---|---|---|---|
| Ability to manage post-operative pain | | | |
| Ability to manage post-operative administration of fluids | | | |
| Ability to manage post-operative catheter care | | | |
| Ability to manage post-operative antibiotic treatment | | | |
| Ability to oversee appropriate post-operative bowel management | | | |
| Ability to remove sutures (if non-absorbable) prior to discharge | | | |
| Ability to determine whether colostomy reversal if appropriate | | | |
| Ability to perform a dye test before colostomy closure | | | |
| **Signature and Date (Trainee):** | | **Signature and Date (Trainer):** | |

## Logbook for Module 5:
## Management of Complicated/Complex Fistulae

| ■ = Not required at all training centers | Observing the Trainer | Direct supervision by the Trainer | Independent practice |
|---|---|---|---|
| Management of complicated/complex fistulae | | | |
| Ability to perform urethral fistula repair | | | |
| Ability to perform circumferential fistula repair | | | |
| Ability to perform vesico-cervical and vesico-uterine fistula repair | | | |
| Ability to perform vault fistula repair (after hysterectomy) | | | |
| Ability to perform urethral reconstruction (vaginal approach) | | | |
| Ability to perform ureteric re-implantation, e.g., with a Boari flap (abdominal approach – to be determined by the trainer) | | | |
| Ability to repair a urinary fistula in the presence of extensive vaginal scarring | | | |
| Ability to repair a combination of two or more complicated urinary fistulae | | | |
| Assessment of urinary incontinence following repair: | | | |

| ■ = Not required at all training centers | Observing the Trainer | Direct supervision by the Trainer | Independent practice |
|---|---|---|---|
| Ability to reach diagnosis from history taking, physical examination, lab tests, clinical tests and specialized tests | | | |
| Ability to manage different sorts of urinary incontinence conservatively following repair:<br>• Urinary stress incontinence | | | |
| • Overflow incontinence | | | |
| • Detrusor over-activity or urge incontinence | | | |
| • Mixed urinary incontinence (urge and stress incontinence) | | | |
| Ability to teach the patient to insert a urethral plug for persistent urinary incontinence (if such plugs are used at the training center or by the trainer) | | | |
| Ability to manage persistent urinary incontinence surgically, using (to be determined by the training center or trainer):<br>• Urethralization and a pubo-coccygeal sling | | | |

| ■ = Not required at all training centers | Observing the Trainer | Direct supervision by the Trainer | Independent practice |
|---|---|---|---|
| • ■ Urethralization and fascio-colposuspension | | | |
| • ■ Retro-pubic urethrolysis and sling operation | | | |
| • ■ Other: Burch colposuspension, mid-urethral sling/*tapes | | | |
| *(*Under specific trainer direction because of the high risk of vaginal/urethral erosion in VVF patients)* | | | |
| **Signature and Date (Trainee):** | | **Signature and Date (Trainer):** | |

## Logbook for Module 6:
## Management of Complications of Fistula Repair

| | Observing the Trainer | Direct supervision by the Trainer | Independent practice |
|---|---|---|---|
| Ability to detect bleeding disorders by taking a good history and performing appropriate blood tests, where possible | | | |
| Ability to understand and manage mild and moderate hemorrhage (to be assessed over the 24 months of training):<br>• In hemodynamically stable patients | | | |
| • In hemodynamically unstable patients | | | |
| • Secures hemostasis | | | |
| • Applies vaginal packs, using adrenaline when needed | | | |
| • Takes resuscitation measures (e.g., a blood transfusion) | | | |
| Ability to identify and manage injury to surrounding organs:<br>• Determines ureteric problems (using IV urography, where possible) and treats them appropriately under anesthesia (e.g., performs cystoscopy and ureteral cauterization) | | | |

| | Observing the Trainer | Direct supervision by the Trainer | Independent practice |
|---|---|---|---|
| • Manages anuria | | | |
| • Manages bladder and urethral injury | | | |
| • Manages bowel injury | | | |
| Ability to identify and manage associated surgical problems (some of the conditions arise rarely, but what should be done if they arose must be studied with the trainer) | | | |
| • Deals with anesthetic complications | | | |
| • Treats sepsis | | | |
| • Manages DVT and pulmonary embolism | | | |
| • Manages early breakdown of the suture line with urine leakage, which leads to wound infection | | | |
| • Locates and removes a misplaced ureteral/urethral catheter | | | |
| • Removes a broken needle | | | |
| Ability to identify and manage late complications:<br>• Repairs suture breakdown | | | |

| | Observing the Trainer | Direct supervision by the Trainer | Independent practice |
|---|---|---|---|
| • Manages urethral stricture | | | |
| • Manages vaginal stricture | | | |
| • Removes bladder stones | | | |
| • Manages hematometra | | | |
| • Manages menouria | | | |
| • Understands the issues regarding secondary amenorrhea and infertility and refers the patient to an appropriate specialist, where available | | | |
| Ability to record complications data, prognostic factors and outcomes: | | | |
| • Organizes and manages patient's records and data appropriately | | | |
| • Develops new processes and protocols based on evolution of practice and new equipment availability to reduce complications rates | | | |
| • Ensures quality education and assessment of all team members | | | |

| | Observing the Trainer | Direct supervision by the Trainer | Independent practice |
|---|---|---|---|
| • Is able to perform and present an audit | | | |
| **Signature and Date (Trainee):** | | **Signature and Date (Trainer):** | |

## Logbook for Module 7: Anesthesia for Fistula Surgery

| ■ = Not required at all training centers | Observing the Trainer | Direct supervision by the Trainer | Independent practice ■ |
|---|---|---|---|
| Ability to perform spinal anesthesia<br>• Correctly uses the monitoring devices and secures intravenous access | | | |
| • Correctly positions the patient for spinal anesthesia, ensuring full flexion of the spine to access the lumbar vertebrae with ease | | | |
| • Knows aseptic techniques | | | |
| • Prepares equipment and drugs (must be checked with assistant) | | | |
| • Knows different types of local anesthesia (e.g., with lignocaine or bupivacaine) | | | |
| • Correctly identifies the correct inter-spinous space | | | |
| • Correctly prepares the skin using local anesthesia | | | |
| • Correctly administers the spinal anesthetic drug | | | |
| • Correctly assesses the level of blockade | | | |

| ■ = Not required at all training centers | Observing the Trainer | Direct supervision by the Trainer | Independent practice ■ |
|---|---|---|---|
| • Correctly performs continual monitoring | | | |
| • Is aware of possible complications of spinal anesthesia (e.g., respiratory impairment from high block or headache from dural tap) | | | |
| • Prepares relevant sedation agents and emergency drugs for use with the spinal anesthetic or separately (should they be necessary). | | | |
| Ability to induce sedation | | | |
| • Checks equipment (oxygen delivery system, monitoring equipment and suction.) | | | |
| • Correctly uses the monitoring devices and secures intravenous access | | | |
| • Correctly administers oxygen to the patient. | | | |
| • Correctly administers the chosen sedation agent | | | |
| • Reassesses the patient regularly and administers further medications, if necessary | | | |

| ■ = Not required at all training centers | Observing the Trainer | Direct supervision by the Trainer | Independent practice ■ |
|---|---|---|---|
| • Continually monitors the patient for complications during the operative period | | | |
| Ability to perform general anesthesia | | | |
| • Checks the anesthetic machine(s) and monitoring equipment | | | |
| • Prepares the relevant drugs, including emergency drugs | | | |
| • Correctly uses the monitoring devices and secures intravenous access | | | |
| • Pre-oxygenates the patient | | | |
| • Induces anesthesia by the chosen method (intravenous or gaseous) | | | |
| • Establishes a patent airway and hand-ventilates the patient | | | |
| • Establishes and secures a definitive airway | | | |
| • Correctly inserts other vascular lines, if required (another intravenous access, an arterial line or a central venous line) | | | |

| ■ = Not required at all training centers | Observing the Trainer | Direct supervision by the Trainer | Independent practice ■ |
|---|---|---|---|
| • Continually monitors the patient for complications during the operative period. | | | |
| • Performs airway extubation competently for smooth emergence from anesthesia | | | |
| Manages post-operative fluid administration of colloids, crystalloids or blood products, as appropriate | | | |
| Appropriately uses opioid drugs as well as NSAIDs and other non-opioid analgesics | | | |
| **Signature and Date (Trainee):** | | **Signature and Date (Trainer):** | |

# SECTION THREE

# PERFORMANCE-BASED ASSESSMENT

The PBA forms are designed to look at the nuances of surgical training. They are used to assess skills and how well these skills are applied. The forms take into account, for example, whether the trainee handles tissues gently, is aware of possible complications, and has prepared all the necessary equipment.

The PBAs have been grouped according to fistula location:

## BLADDER and URETHRAL FISTULAE:

1. Basic principles of surgical techniques
2. Standard steps in fistula closure
3. Repair of urinary fistulae with extensive vaginal scarring
4. Repair of urethral fistulae
5. Urethral reconstruction
6. Repair of circumferential VVF

## URETERIC SURGERY:

7. Repair and re-implantation of ureteric fistulae

## RECTAL FISTULAE:

8. Repair of third- and fourth-degree tears
9. Repair of RVF and anal sphincter injury
10. Repair of circumferential RVF

## UTERINE/CERVICAL and VAULT FISTULAE:

11. Repair of vault fistula using the abdominal or vaginal route
12. Repair of vesico-cervical and vesico-uterine fistulae

## ANESTHESIA:

13. Spinal anesthesia
14. Sedation techniques
15. General anesthesia

# PBA 1: BASIC PRINCIPLES OF FISTULA SURGERY

## (Curriculum Level: Standard)

Assessor, please ring the candidate's performance for each of the following factors:

| | | | |
|---|---|---|---|
| **Respect for tissue** | Frequently used unnecessary force on tissues or caused damage using instruments inappropriately | Carefully handled tissues but inadvertently caused damage on occasion | Consistently handled tissues appropriately, with minimal damage |
| **Time, motion and flow of operation and forward planning** | Made many unnecessary moves and/or frequently stopped operating<br>Needed to discuss the next move | Progressed reasonably well but made some unnecessary moves<br>Showed good overall knowledge of the procedure but the flow of movements was slightly disjointed at times | Demonstrated an excellent economy of movement for maximum efficiency<br>Obviously planned the procedure for an effortless flow from one move to the next |
| **Knowledge and handling of instruments** | Lacked knowledge of instruments | Used the instruments competently but was occasionally awkward or tentative | Has an obvious familiarity with all instruments |
| **Suturing and knotting skills** | Placed sutures inaccurately, tied knots insecurely, and/or was inattentive to safety | Knotting and suturing was usually reliable but sometimes awkward | Consistently placed sutures accurately, with appropriate and secure knots and proper attention to safety |
| **Technical use of assistants** | Consistently placed assistants poorly or failed to use assistants | Used assistants appropriately most of the time | Strategically used assistants to the best advantage at all times |
| **Relations with patient and surgical team** | Communicated poorly or frequently, seemed to be unaware of the needs of the patient and/or the professional team | Communicated reasonably well and showed awareness of the needs of the patient and/or the professional team | Consistently communicated efficiently, with keen awareness of the needs of the patient and/or the professional team |

| | | | |
|---|---|---|---|
| **Insight/Attitude** | Poorly understands own areas of weakness | Has some understanding of own areas of weakness | Fully understands own areas of weakness |
| **Documentation of procedures** | Limited documentation<br>Poorly written | Adequate documentation, but with omissions or areas that need further information | Clear, comprehensive documentation presenting findings, procedures and post-operative management |

TICK

☐ The trainee is competent in all areas for this procedure

☐ The trainee is working towards competence

| | |
|---|---|
| The trainee needs further help with (list points):* | The trainee is competent to perform the entire procedure without supervision:* |

| | | |
|---|---|---|
| Date: | Date (1): | Date (2): |
| Signed (trainer): | Signed (trainer 1): | Signed (trainer 2): |
| Signed (trainee): | Signed (trainee): | Signed (trainee): |

**Delete where applicable, and date and sign in the relevant box.*

# PBA 2: STANDARD STEPS IN URINARY FISTULA CLOSURE

## (Curriculum Level: Standard)

Assessor, please ring the candidate's performance for each of the following factors:

| | | | |
|---|---|---|---|
| **Respect for tissue** | Frequently used unnecessary force on tissues or caused damage using instruments inappropriately | Carefully handled tissues but inadvertently caused damage on occasion | Consistently handled tissues appropriately, with minimal damage |
| **Time, motion and flow of operation and forward planning** | Made many unnecessary moves and/or frequently stopped operating<br>Needed to discuss the next move | Progressed reasonably well but made some unnecessary moves<br>Showed good overall knowledge of the procedure but the flow of movements was slightly disjointed at times | Demonstrated an excellent economy of movement for maximum efficiency<br>Obviously planned the procedure for an effortless flow from one move to the next |
| **Knowledge and handling of instruments** | Lacked knowledge of instruments | Used the instruments competently but was occasionally awkward or tentative | Has an obvious familiarity with all instruments |
| **Suturing and knotting skills** | Placed sutures inaccurately, tied knots insecurely, and/or was inattentive to safety | Knotting and suturing was usually reliable but sometimes awkward | Consistently placed sutures accurately, with appropriate and secure knots and proper attention to safety |
| **Technical use of assistants** | Consistently placed assistants poorly or failed to use assistants | Used assistants appropriately most of the time | Strategically used assistants to the best advantage at all times |
| **Relations with patient and surgical team** | Communicated poorly or frequently, seemed to be unaware of the needs of the patient and/or the professional team | Communicated reasonably well and showed awareness of the needs of the patient and/or the professional team | Consistently communicated efficiently, with keen awareness of the needs of the patient and/or the professional team |

| | | | |
|---|---|---|---|
| **Insight/Attitude** | Poorly understands own areas of weakness | Has some understanding of own areas of weakness | Fully understands own areas of weakness |
| **Documentation of procedures** | Limited documentation<br>Poorly written | Adequate documentation, but with omissions or areas that need further information | Clear, comprehensive documentation presenting findings, procedures and post-operative management |

TICK

☐ The trainee is competent in all areas for this procedure

☐ The trainee is working towards competence

| | | |
|---|---|---|
| The trainee needs further help with (list points):* | The trainee is competent to perform the entire procedure without supervision:* | |
| Date: | Date (1): | Date (2): |
| Signed (trainer): | Signed (trainer 1): | Signed (trainer 2): |
| Signed (trainee): | Signed (trainee): | Signed (trainee): |

**Delete where applicable, and date and sign in the relevant box.*

# PBA 3:
# REPAIR OF URINARY FISTULAE WITH EXTENSIVE VAGINAL SCARRING

## (Curriculum Level: Advanced or Expert)

Assessor, please ring the candidate's performance for each of the following factors:

| | | | |
|---|---|---|---|
| **Respect for tissue** | Frequently used unnecessary force on tissues or caused damage using instruments inappropriately | Carefully handled tissues but inadvertently caused damage on occasion | Consistently handled tissues appropriately, with minimal damage |
| **Time, motion and flow of operation and forward planning** | Made many unnecessary moves and/or frequently stopped operating<br><br>Needed to discuss the next move | Progressed reasonably well but made some unnecessary moves<br><br>Showed good overall knowledge of the procedure but the flow of movements was slightly disjointed at times | Demonstrated an excellent economy of movement for maximum efficiency<br><br>Obviously planned the procedure for an effortless flow from one move to the next |
| **Knowledge and handling of instruments** | Lacked knowledge of instruments | Used the instruments competently but was occasionally awkward or tentative | Has an obvious familiarity with all instruments |
| **Suturing and knotting skills** | Placed sutures inaccurately, tied knots insecurely, and/or was inattentive to safety | Knotting and suturing was usually reliable but sometimes awkward | Consistently placed sutures accurately, with appropriate and secure knots and proper attention to safety |
| **Technical use of assistants** | Consistently placed assistants poorly or failed to use assistants | Used assistants appropriately most of the time | Strategically used assistants to the best advantage at all times |
| **Relations with patient and surgical team** | Communicated poorly or frequently, seemed to be unaware of the needs of the patient and/or the professional team | Communicated reasonably well and showed awareness of the needs of the patient and/or the professional team | Consistently communicated efficiently, with keen awareness of the needs of the patient and/or the professional team |

| | | | |
|---|---|---|---|
| **Insight/Attitude** | Poorly understands own areas of weakness | Has some understanding of own areas of weakness | Fully understands own areas of weakness |
| **Documentation of procedures** | Limited documentation<br>Poorly written | Adequate documentation, but with omissions or areas that need further information | Clear, comprehensive documentation presenting findings, procedures and post-operative management |

TICK

☐ The trainee is competent in all areas for this procedure

☐ The trainee is working towards competence

| | | |
|---|---|---|
| The trainee needs further help with (list points):* | The trainee is competent to perform the entire procedure without supervision:* | |
| Date: | Date (1): | Date (2): |
| Signed (trainer): | Signed (trainer 1): | Signed (trainer 2): |
| Signed (trainee): | Signed (trainee): | Signed (trainee): |

**Delete where applicable, and date and sign in the relevant box.*

# PBA 4:
# REPAIR OF URETHRAL FISTULAE

## (Curriculum Level: Standard/Advanced and Expert)

Assessor, please ring the candidate's performance for each of the following factors:

| | | | |
|---|---|---|---|
| **Respect for tissue** | Frequently used unnecessary force on tissues or caused damage using instruments inappropriately | Carefully handled tissues but inadvertently caused damage on occasion | Consistently handled tissues appropriately, with minimal damage |
| **Time, motion and flow of operation and forward planning** | Made many unnecessary moves and/or frequently stopped operating<br><br>Needed to discuss the next move | Progressed reasonably well but made some unnecessary moves<br><br>Showed good overall knowledge of the procedure but the flow of movements was slightly disjointed at times | Demonstrated an excellent economy of movement for maximum efficiency<br><br>Obviously planned the procedure for an effortless flow from one move to the next |
| **Knowledge and handling of instruments** | Lacked knowledge of instruments | Used the instruments competently but was occasionally awkward or tentative | Has an obvious familiarity with all instruments |
| **Suturing and knotting skills** | Placed sutures inaccurately, tied knots insecurely, and/or was inattentive to safety | Knotting and suturing was usually reliable but sometimes awkward | Consistently placed sutures accurately, with appropriate and secure knots and proper attention to safety |
| **Technical use of assistants** | Consistently placed assistants poorly or failed to use assistants | Used assistants appropriately most of the time | Strategically used assistants to the best advantage at all times |
| **Relations with patient and surgical team** | Communicated poorly or frequently, seemed to be unaware of the needs of the patient and/or the professional team | Communicated reasonably well and showed awareness of the needs of the patient and/or the professional team | Consistently communicated efficiently, with keen awareness of the needs of the patient and/or the professional team |

| | | | |
|---|---|---|---|
| **Insight/Attitude** | Poorly understands own areas of weakness | Has some understanding of own areas of weakness | Fully understands own areas of weakness |
| **Documentation of procedures** | Limited documentation<br>Poorly written | Adequate documentation, but with omissions or areas that need further information | Clear, comprehensive documentation presenting findings, procedures and post-operative management |

TICK

☐ The trainee is competent in all areas for this procedure

☐ The trainee is working towards competence

| | |
|---|---|
| The trainee needs further help with (list points):* | The trainee is competent to perform the entire procedure without supervision:* |

| | | |
|---|---|---|
| Date: | Date (1): | Date (2): |
| Signed (trainer): | Signed (trainer 1): | Signed (trainer 2): |
| Signed (trainee): | Signed (trainee): | Signed (trainee): |

**Delete where applicable, and date and sign in the relevant box.*

# PBA 5:
# URETHRAL RECONSTRUCTION

## (Curriculum Level: Standard/Advanced and Expert)

Assessor, please ring the candidate's performance for each of the following factors:

| | | | |
|---|---|---|---|
| **Respect for tissue** | Frequently used unnecessary force on tissues or caused damage using instruments inappropriately | Carefully handled tissues but inadvertently caused damage on occasion | Consistently handled tissues appropriately, with minimal damage |
| **Time, motion and flow of operation and forward planning** | Made many unnecessary moves and/or frequently stopped operating<br><br>Needed to discuss the next move | Progressed reasonably well but made some unnecessary moves<br><br>Showed good overall knowledge of the procedure but the flow of movements was slightly disjointed at times | Demonstrated an excellent economy of movement for maximum efficiency<br><br>Obviously planned the procedure for an effortless flow from one move to the next |
| **Knowledge and handling of instruments** | Lacked knowledge of instruments | Used the instruments competently but was occasionally awkward or tentative | Has an obvious familiarity with all instruments |
| **Suturing and knotting skills** | Placed sutures inaccurately, tied knots insecurely, and/or was inattentive to safety | Knotting and suturing was usually reliable but sometimes awkward | Consistently placed sutures accurately, with appropriate and secure knots and proper attention to safety |
| **Technical use of assistants** | Consistently placed assistants poorly or failed to use assistants | Used assistants appropriately most of the time | Strategically used assistants to the best advantage at all times |
| **Relations with patient and surgical team** | Communicated poorly or frequently, seemed to be unaware of the needs of the patient and/or the professional team | Communicated reasonably well and showed awareness of the needs of the patient and/or the professional team | Consistently communicated efficiently, with keen awareness of the needs of the patient and/or the professional team |

| | | | |
|---|---|---|---|
| **Insight/Attitude** | Poorly understands own areas of weakness | Has some understanding of own areas of weakness | Fully understands own areas of weakness |
| **Documentation of procedures** | Limited documentation<br>Poorly written | Adequate documentation, but with omissions or areas that need further information | Clear, comprehensive documentation presenting findings, procedures and post-operative management |

TICK

☐ The trainee is competent in all areas for this procedure

☐ The trainee is working towards competence

| | | |
|---|---|---|
| The trainee needs further help with (list points):* | The trainee is competent to perform the entire procedure without supervision:* | |
| Date: | Date (1): | Date (2): |
| Signed (trainer): | Signed (trainer 1): | Signed (trainer 2): |
| Signed (trainee): | Signed (trainee): | Signed (trainee): |

**Delete where applicable, and date and sign in the relevant box.*

# PBA 6:
# REPAIR OF CIRCUMFERENTIAL VVF

## (Curriculum Level: Advanced and Expert)

Assessor, please ring the candidate's performance for each of the following factors:

| | | | |
|---|---|---|---|
| **Respect for tissue** | Frequently used unnecessary force on tissues or caused damage using instruments inappropriately | Carefully handled tissues but inadvertently caused damage on occasion | Consistently handled tissues appropriately, with minimal damage |
| **Time, motion and flow of operation and forward planning** | Made many unnecessary moves and/or frequently stopped operating<br><br>Needed to discuss the next move | Progressed reasonably well but made some unnecessary moves<br><br>Showed good overall knowledge of the procedure but the flow of movements was slightly disjointed at times | Demonstrated an excellent economy of movement for maximum efficiency<br><br>Obviously planned the procedure for an effortless flow from one move to the next |
| **Knowledge and handling of instruments** | Lacked knowledge of instruments | Used the instruments competently but was occasionally awkward or tentative | Has an obvious familiarity with all instruments |
| **Suturing and knotting skills** | Placed sutures inaccurately, tied knots insecurely, and/or was inattentive to safety | Knotting and suturing was usually reliable but sometimes awkward | Consistently placed sutures accurately, with appropriate and secure knots and proper attention to safety |
| **Technical use of assistants** | Consistently placed assistants poorly or failed to use assistants | Used assistants appropriately most of the time | Strategically used assistants to the best advantage at all times |
| **Relations with patient and surgical team** | Communicated poorly or frequently, seemed to be unaware of the needs of the patient and/or the professional team | Communicated reasonably well and showed awareness of the needs of the patient and/or the professional team | Consistently communicated efficiently, with keen awareness of the needs of the patient and/or the professional team |

| | | | |
|---|---|---|---|
| **Insight/Attitude** | Poorly understands own areas of weakness | Has some understanding of own areas of weakness | Fully understands own areas of weakness |
| **Documentation of procedures** | Limited documentation<br>Poorly written | Adequate documentation, but with omissions or areas that need further information | Clear, comprehensive documentation presenting findings, procedures and post-operative management |

TICK

☐ The trainee is competent in all areas for this procedure

☐ The trainee is working towards competence

| | |
|---|---|
| The trainee needs further help with (list points):* | The trainee is competent to perform the entire procedure without supervision:* |

| | | |
|---|---|---|
| Date: | Date (1): | Date (2): |
| Signed (trainer): | Signed (trainer 1): | Signed (trainer 2): |
| Signed (trainee): | Signed (trainee): | Signed (trainee): |

**Delete where applicable, and date and sign in the relevant box.*

# PBA 7:
# REPAIR OF URETERIC FISTULAE AND URETERIC RE-IMPLANTATION

## (Curriculum Level: Advanced and Expert)

Assessor, please ring the candidate's performance for each of the following factors:

| | | | |
|---|---|---|---|
| **Respect for tissue** | Frequently used unnecessary force on tissues or caused damage using instruments inappropriately | Carefully handled tissues but inadvertently caused damage on occasion | Consistently handled tissues appropriately, with minimal damage |
| **Time, motion and flow of operation and forward planning** | Made many unnecessary moves and/or frequently stopped operating<br><br>Needed to discuss the next move | Progressed reasonably well but made some unnecessary moves<br><br>Showed good overall knowledge of the procedure but the flow of movements was slightly disjointed at times | Demonstrated an excellent economy of movement for maximum efficiency<br><br>Obviously planned the procedure for an effortless flow from one move to the next |
| **Knowledge and handling of instruments** | Lacked knowledge of instruments | Used the instruments competently but was occasionally awkward or tentative | Has an obvious familiarity with all instruments |
| **Suturing and knotting skills** | Placed sutures inaccurately, tied knots insecurely, and/or was inattentive to safety | Knotting and suturing was usually reliable but sometimes awkward | Consistently placed sutures accurately, with appropriate and secure knots and proper attention to safety |
| **Technical use of assistants** | Consistently placed assistants poorly or failed to use assistants | Used assistants appropriately most of the time | Strategically used assistants to the best advantage at all times |
| **Relations with patient and surgical team** | Communicated poorly or frequently, seemed to be unaware of the needs of the patient and/or the professional team | Communicated reasonably well and showed awareness of the needs of the patient and/or the professional team | Consistently communicated efficiently, with keen awareness of the needs of the patient and/or the professional team |

| | | | |
|---|---|---|---|
| **Insight/Attitude** | Poorly understands own areas of weakness | Has some understanding of own areas of weakness | Fully understands own areas of weakness |
| **Documentation of procedures** | Limited documentation<br>Poorly written | Adequate documentation, but with omissions or areas that need further information | Clear, comprehensive documentation presenting findings, procedures and post-operative management |

TICK

☐ The trainee is competent in all areas for this procedure

☐ The trainee is working towards competence

| | | |
|---|---|---|
| The trainee needs further help with (list points):* | The trainee is competent to perform the entire procedure without supervision:* | |
| Date: | Date (1): | Date (2): |
| Signed (trainer): | Signed (trainer 1): | Signed (trainer 2): |
| Signed (trainee): | Signed (trainee): | Signed (trainee): |

**Delete where applicable, and date and sign in the relevant box.*

# PBA 8:
# REPAIR OF THIRD- AND FOURTH-DEGREE TEARS

## (Curriculum Level: Standard)

Assessor, please ring the candidate's performance for each of the following factors:

| | | | |
|---|---|---|---|
| **Respect for tissue** | Frequently used unnecessary force on tissues or caused damage using instruments inappropriately | Carefully handled tissues but inadvertently caused damage on occasion | Consistently handled tissues appropriately, with minimal damage |
| **Time, motion and flow of operation and forward planning** | Made many unnecessary moves and/or frequently stopped operating<br><br>Needed to discuss the next move | Progressed reasonably well but made some unnecessary moves<br><br>Showed good overall knowledge of the procedure but the flow of movements was slightly disjointed at times | Demonstrated an excellent economy of movement for maximum efficiency<br><br>Obviously planned the procedure for an effortless flow from one move to the next |
| **Knowledge and handling of instruments** | Lacked knowledge of instruments | Used the instruments competently but was occasionally awkward or tentative | Has an obvious familiarity with all instruments |
| **Suturing and knotting skills** | Placed sutures inaccurately, tied knots insecurely, and/or was inattentive to safety | Knotting and suturing was usually reliable but sometimes awkward | Consistently placed sutures accurately, with appropriate and secure knots and proper attention to safety |
| **Technical use of assistants** | Consistently placed assistants poorly or failed to use assistants | Used assistants appropriately most of the time | Strategically used assistants to the best advantage at all times |
| **Relations with patient and surgical team** | Communicated poorly or frequently, seemed to be unaware of the needs of the patient and/or the professional team | Communicated reasonably well and showed awareness of the needs of the patient and/or the professional team | Consistently communicated efficiently, with keen awareness of the needs of the patient and/or the professional team |

| | | | |
|---|---|---|---|
| **Insight/Attitude** | Poorly understands own areas of weakness | Has some understanding of own areas of weakness | Fully understands own areas of weakness |
| **Documentation of procedures** | Limited documentation<br>Poorly written | Adequate documentation, but with omissions or areas that need further information | Clear, comprehensive documentation presenting findings, procedures and post-operative management |

TICK

☐ The trainee is competent in all areas for this procedure

☐ The trainee is working towards competence

| | |
|---|---|
| The trainee needs further help with (list points):* | The trainee is competent to perform the entire procedure without supervision:* |

| | | |
|---|---|---|
| Date: | Date (1): | Date (2): |
| Signed (trainer): | Signed (trainer 1): | Signed (trainer 2): |
| Signed (trainee): | Signed (trainee): | Signed (trainee): |

**Delete where applicable, and date and sign in the relevant box.*

# PBA 9: REPAIR OF RVF AND ANAL SPHINCTER INJURY

## (Curriculum Level: Standard)

Assessor, please ring the candidate's performance for each of the following factors:

| | | | |
|---|---|---|---|
| **Respect for tissue** | Frequently used unnecessary force on tissues or caused damage using instruments inappropriately | Carefully handled tissues but inadvertently caused damage on occasion | Consistently handled tissues appropriately, with minimal damage |
| **Time, motion and flow of operation and forward planning** | Made many unnecessary moves and/or frequently stopped operating<br><br>Needed to discuss the next move | Progressed reasonably well but made some unnecessary moves<br><br>Showed good overall knowledge of the procedure but the flow of movements was slightly disjointed at times | Demonstrated an excellent economy of movement for maximum efficiency<br><br>Obviously planned the procedure for an effortless flow from one move to the next |
| **Knowledge and handling of instruments** | Lacked knowledge of instruments | Used the instruments competently but was occasionally awkward or tentative | Has an obvious familiarity with all instruments |
| **Suturing and knotting skills** | Placed sutures inaccurately, tied knots insecurely, and/or was inattentive to safety | Knotting and suturing was usually reliable but sometimes awkward | Consistently placed sutures accurately, with appropriate and secure knots and proper attention to safety |
| **Technical use of assistants** | Consistently placed assistants poorly or failed to use assistants | Used assistants appropriately most of the time | Strategically used assistants to the best advantage at all times |
| **Relations with patient and surgical team** | Communicated poorly or frequently, seemed to be unaware of the needs of the patient and/or the professional team | Communicated reasonably well and showed awareness of the needs of the patient and/or the professional team | Consistently communicated efficiently, with keen awareness of the needs of the patient and/or the professional team |

| | | | |
|---|---|---|---|
| **Insight/Attitude** | Poorly understands own areas of weakness | Has some understanding of own areas of weakness | Fully understands own areas of weakness |
| **Documentation of procedures** | Limited documentation<br>Poorly written | Adequate documentation, but with omissions or areas that need further information | Clear, comprehensive documentation presenting findings, procedures and post-operative management |

TICK

☐ The trainee is competent in all areas for this procedure

☐ The trainee is working towards competence

| | |
|---|---|
| The trainee needs further help with (list points):* | The trainee is competent to perform the entire procedure without supervision:* |

| | | |
|---|---|---|
| Date: | Date (1): | Date (2): |
| Signed (trainer): | Signed (trainer 1): | Signed (trainer 2): |
| Signed (trainee): | Signed (trainee): | Signed (trainee): |

**Delete where applicable, and date and sign in the relevant box.*

# PBA 10:
# REPAIR OF CIRCUMFERENTIAL RV F

## (Curriculum Level: Advanced and Expert)

Assessor, please ring the candidate's performance for each of the following factors:

| | | | |
|---|---|---|---|
| **Respect for tissue** | Frequently used unnecessary force on tissues or caused damage using instruments inappropriately | Carefully handled tissues but inadvertently caused damage on occasion | Consistently handled tissues appropriately, with minimal damage |
| **Time, motion and flow of operation and forward planning** | Made many unnecessary moves and/or frequently stopped operating<br><br>Needed to discuss the next move | Progressed reasonably well but made some unnecessary moves<br><br>Showed good overall knowledge of the procedure but the flow of movements was slightly disjointed at times | Demonstrated an excellent economy of movement for maximum efficiency<br><br>Obviously planned the procedure for an effortless flow from one move to the next |
| **Knowledge and handling of instruments** | Lacked knowledge of instruments | Used the instruments competently but was occasionally awkward or tentative | Has an obvious familiarity with all instruments |
| **Suturing and knotting skills** | Placed sutures inaccurately, tied knots insecurely, and/or was inattentive to safety | Knotting and suturing was usually reliable but sometimes awkward | Consistently placed sutures accurately, with appropriate and secure knots and proper attention to safety |
| **Technical use of assistants** | Consistently placed assistants poorly or failed to use assistants | Used assistants appropriately most of the time | Strategically used assistants to the best advantage at all times |
| **Relations with patient and surgical team** | Communicated poorly or frequently, seemed to be unaware of the needs of the patient and/or the professional team | Communicated reasonably well and showed awareness of the needs of the patient and/or the professional team | Consistently communicated efficiently, with keen awareness of the needs of the patient and/or the professional team |

| | | | |
|---|---|---|---|
| **Insight/Attitude** | Poorly understands own areas of weakness | Has some understanding of own areas of weakness | Fully understands own areas of weakness |
| **Documentation of procedures** | Limited documentation<br>Poorly written | Adequate documentation, but with omissions or areas that need further information | Clear, comprehensive documentation presenting findings, procedures and post-operative management |

TICK

☐ The trainee is competent in all areas for this procedure

☐ The trainee is working towards competence

| | |
|---|---|
| The trainee needs further help with (list points):* | The trainee is competent to perform the entire procedure without supervision:* |

| | | |
|---|---|---|
| Date: | Date (1): | Date (2): |
| Signed (trainer): | Signed (trainer 1): | Signed (trainer 2): |
| Signed (trainee): | Signed (trainee): | Signed (trainee): |

**Delete where applicable, and date and sign in the relevant box.*

# PBA 11:
# REPAIR OF VAULT FISTULAE (AFTER HYSTERECTOMY) BY THE ABDOMINAL OR VAGINAL ROUTE

## (Curriculum Level: Advanced and Expert)

Assessor, please ring the candidate's performance for each of the following factors:

| | | | |
|---|---|---|---|
| **Respect for tissue** | Frequently used unnecessary force on tissues or caused damage using instruments inappropriately | Carefully handled tissues but inadvertently caused damage on occasion | Consistently handled tissues appropriately, with minimal damage |
| **Time, motion and flow of operation and forward planning** | Made many unnecessary moves and/or frequently stopped operating<br>Needed to discuss the next move | Progressed reasonably well but made some unnecessary moves<br>Showed good overall knowledge of the procedure but the flow of movements was slightly disjointed at times | Demonstrated an excellent economy of movement for maximum efficiency<br>Obviously planned the procedure for an effortless flow from one move to the next |
| **Knowledge and handling of instruments** | Lacked knowledge of instruments | Used the instruments competently but was occasionally awkward or tentative | Has an obvious familiarity with all instruments |
| **Suturing and knotting skills** | Placed sutures inaccurately, tied knots insecurely, and/or was inattentive to safety | Knotting and suturing was usually reliable but sometimes awkward | Consistently placed sutures accurately, with appropriate and secure knots and proper attention to safety |
| **Technical use of assistants** | Consistently placed assistants poorly or failed to use assistants | Used assistants appropriately most of the time | Strategically used assistants to the best advantage at all times |
| **Relations with patient and surgical team** | Communicated poorly or frequently, seemed to be unaware of the needs of the patient and/or the professional team | Communicated reasonably well and showed awareness of the needs of the patient and/or the professional team | Consistently communicated efficiently, with keen awareness of the needs of the patient and/or the professional team |

| | | | |
|---|---|---|---|
| **Insight/Attitude** | Poorly understands own areas of weakness | Has some understanding of own areas of weakness | Fully understands own areas of weakness |
| **Documentation of procedures** | Limited documentation<br>Poorly written | Adequate documentation, but with omissions or areas that need further information | Clear, comprehensive documentation presenting findings, procedures and post-operative management |

TICK

☐ The trainee is competent in all areas for this procedure

☐ The trainee is working towards competence

| | |
|---|---|
| The trainee needs further help with (list points):* | The trainee is competent to perform the entire procedure without supervision:* |

| | | |
|---|---|---|
| Date: | Date (1): | Date (2): |
| Signed (trainer): | Signed (trainer 1): | Signed (trainer 2): |
| Signed (trainee): | Signed (trainee): | Signed (trainee): |

**Delete where applicable, and date and sign in the relevant box.*

# PBA 12:
# REPAIR OF VESICO-CERVICAL AND VESICO-UTERINE FISTULAE

## (Curriculum Level: Advanced and Expert)

Assessor, please ring the candidate's performance for each of the following factors:

| | | | |
|---|---|---|---|
| **Respect for tissue** | Frequently used unnecessary force on tissues or caused damage using instruments inappropriately | Carefully handled tissues but inadvertently caused damage on occasion | Consistently handled tissues appropriately, with minimal damage |
| **Time, motion and flow of operation and forward planning** | Made many unnecessary moves and/or frequently stopped operating<br>Needed to discuss the next move | Progressed reasonably well but made some unnecessary moves<br>Showed good overall knowledge of the procedure but the flow of movements was slightly disjointed at times | Demonstrated an excellent economy of movement for maximum efficiency<br>Obviously planned the procedure for an effortless flow from one move to the next |
| **Knowledge and handling of instruments** | Lacked knowledge of instruments | Used the instruments competently but was occasionally awkward or tentative | Has an obvious familiarity with all instruments |
| **Suturing and knotting skills** | Placed sutures inaccurately, tied knots insecurely, and/or was inattentive to safety | Knotting and suturing was usually reliable but sometimes awkward | Consistently placed sutures accurately, with appropriate and secure knots and proper attention to safety |
| **Technical use of assistants** | Consistently placed assistants poorly or failed to use assistants | Used assistants appropriately most of the time | Strategically used assistants to the best advantage at all times |
| **Relations with patient and surgical team** | Communicated poorly or frequently, seemed to be unaware of the needs of the patient and/or the professional team | Communicated reasonably well and showed awareness of the needs of the patient and/or the professional team | Consistently communicated efficiently, with keen awareness of the needs of the patient and/or the professional team |

| | | | |
|---|---|---|---|
| **Insight/Attitude** | Poorly understands own areas of weakness | Has some understanding of own areas of weakness | Fully understands own areas of weakness |
| **Documentation of procedures** | Limited documentation<br>Poorly written | Adequate documentation, but with omissions or areas that need further information | Clear, comprehensive documentation presenting findings, procedures and post-operative management |

TICK

☐ The trainee is competent in all areas for this procedure

☐ The trainee is working towards competence

| | | |
|---|---|---|
| The trainee needs further help with (list points):* | The trainee is competent to perform the entire procedure without supervision:* | |
| Date: | Date (1): | Date (2): |
| Signed (trainer): | Signed (trainer 1): | Signed (trainer 2): |
| Signed (trainee): | Signed (trainee): | Signed (trainee): |

**Delete where applicable, and date and sign in the relevant box.*

# PBA 13:
# SPINAL ANESTHESIA
# (Training by anesthetist)

## (Curriculum Level: Standard)

Assessor, please ring the candidate's performance for each of the following factors:

| | | | |
|---|---|---|---|
| **Knowledge and handling of anesthetic machine and surgical instruments** | Lacked knowledge of anesthetic machine and instruments | Used the anesthetic machine and instruments competently but was occasionally awkward or tentative | Has an obvious familiarity with the anesthetic machine and all instruments |
| **Knowledge and handling of anesthetic drugs** | Lacked knowledge of the drugs | Used the drugs competently but was occasionally awkward or tentative | Has an obvious familiarity with the drugs |
| **Time, motion and flow of operation and forward planning** | Made many unnecessary moves, frequently stopped operating, and/or needed to discuss the next move | Progressed reasonably well but made some unnecessary moves<br>Showed good overall knowledge of the procedure but the flow of movements was slightly disjointed at times | Demonstrated an excellent economy of movement for maximum efficiency<br>Obviously planned the procedure for an effortless flow from one move to the next |
| **Technical use of assistants** | Consistently placed assistants poorly or failed to use assistants | Used assistants appropriately most of the time | Strategically used assistants to the best advantage at all times |
| **Relations with patient and surgical team** | Communicated poorly or frequently, seemed to be unaware of the needs of the patient and/or the professional team | Communicated reasonably well and showed awareness of the needs of the patient and/or the professional team | Consistently communicated efficiently, with keen awareness of the needs of the patient and/or the professional team |

| | | | |
|---|---|---|---|
| **Insight/attitude** | Poorly understands own areas of weakness | Has some understanding of own areas of weakness | Fully understands own areas of weakness |
| **Documentation of procedures** | Limited documentation<br>Poorly written | Adequate documentation, but with omissions or areas that need further information | Clear, comprehensive documentation presenting findings, procedures and post-operative management |

TICK

☐ The trainee is competent in all areas for this procedure

☐ The trainee is working towards competence

| | | |
|---|---|---|
| The trainee needs further help with (list points):* | The trainee is competent to perform the entire procedure without supervision.* | |
| Date: | Date (1): | Date (2): |
| Signed (trainer): | Signed (trainer 1): | Signed (trainer 2): |
| Signed (trainee): | Signed (trainee): | Signed (trainee): |

**Delete where applicable, and date and sign in the relevant box.*

# PBA 14:
# SEDATION TECHNIQUES
# (Training by anesthetist)

## (Curriculum Level: Advanced and Expert)

Assessor, please ring the candidate's performance for each of the following factors:

| | | | |
|---|---|---|---|
| **Knowledge and handling of anesthetic machine and surgical instruments** | Lacked knowledge of anesthetic machine and instruments | Used the anesthetic machine and instruments competently but was occasionally awkward or tentative | Has an obvious familiarity with the anesthetic machine and all instruments |
| **Knowledge and handling of anesthetic drugs** | Lacked knowledge of the drugs | Used the drugs competently but was occasionally awkward or tentative | Has an obvious familiarity with the drugs |
| **Time, motion and flow of operation and forward planning** | Made many unnecessary moves and/or frequently stopped operating<br><br>Needed to discuss the next move | Progressed reasonably well but made some unnecessary moves<br><br>Showed good overall knowledge of the procedure but the flow of movements was slightly disjointed at times | Demonstrated an excellent economy of movement for maximum efficiency<br><br>Obviously planned the procedure for an effortless flow from one move to the next |
| **Technical use of assistants** | Consistently placed assistants poorly or failed to use assistants | Used assistants appropriately most of the time | Strategically used assistants to the best advantage at all times |
| **Relations with patient and surgical team** | Communicated poorly or frequently, seemed to be unaware of the needs of the patient and/or the professional team | Communicated reasonably well and showed awareness of the needs of the patient and/or the professional team | Consistently communicated efficiently, with keen awareness of the needs of the patient and/or the professional team |

| | | | |
|---|---|---|---|
| **Insight/attitude** | Poorly understands own areas of weakness | Has some understanding of own areas of weakness | Fully understands own areas of weakness |
| **Documentation of procedures** | Limited documentation<br>Poorly written | Adequate documentation, but with omissions or areas that need further information | Clear, comprehensive documentation presenting findings, procedures and post-operative management |

TICK

☐ The trainee is competent in all areas for this procedure

☐ The trainee is working towards competence

| | | |
|---|---|---|
| The trainee needs further help with (list points):* | The trainee is competent to perform the entire procedure without supervision.* | |
| Date: | Date (1): | Date (2): |
| Signed (trainer): | Signed (trainer 1): | Signed (trainer 2): |
| Signed (trainee): | Signed (trainee): | Signed (trainee): |

**Delete where applicable, and date and sign in the relevant box.*

# PBA 15:
# GENERAL ANESTHESIA
# (Training by anesthetist)

## (Curriculum Level: Advanced and Expert)

Assessor, please ring the candidate's performance for each of the following factors:

| | | | |
|---|---|---|---|
| **Knowledge and handling of anesthetic machine and surgical instruments** | Lacked knowledge of anesthetic machine and instruments | Used the anesthetic machine and instruments competently but was occasionally awkward or tentative | Has an obvious familiarity with the anesthetic machine and all instruments |
| **Knowledge and handling of anesthetic drugs** | Lacked knowledge of the drugs | Used the drugs competently but was occasionally awkward or tentative | Has an obvious familiarity with the drugs |
| **Time, motion and flow of operation and forward planning** | Made many unnecessary moves and/or frequently stopped operating<br>Needed to discuss the next move | Progressed reasonably well but made some unnecessary moves<br>Showed good overall knowledge of the procedure but the flow of movements was slightly disjointed at times | Demonstrated an excellent economy of movement for maximum efficiency<br>Obviously planned the procedure for an effortless flow from one move to the next |
| **Technical use of assistants** | Consistently placed assistants poorly or failed to use assistants | Used assistants appropriately most of the time | Strategically used assistants to the best advantage at all times |
| **Relations with patient and surgical team** | Communicated poorly or frequently, seemed to be unaware of the needs of the patient and/or the professional team | Communicated reasonably well and showed awareness of the needs of the patient and/or the professional team | Consistently communicated efficiently, with keen awareness of the needs of the patient and/or the professional team |

| | | | |
|---|---|---|---|
| **Insight/attitude** | Poorly understands own areas of weakness | Has some understanding of own areas of weakness | Fully understands own areas of weakness |
| **Documentation of procedures** | Limited documentation<br>Poorly written | Adequate documentation, but with omissions or areas that need further information | Clear, comprehensive documentation presenting findings, procedures and post-operative management |

TICK

☐ The trainee is competent in all areas for this procedure

☐ The trainee is working towards competence

| | | |
|---|---|---|
| The trainee needs further help with (list points):* | The trainee is competent to perform the entire procedure without supervision.* | |
| Date: | Date (1): | Date (2): |
| Signed (trainer): | Signed (trainer 1): | Signed (trainer 2): |
| Signed (trainee): | Signed (trainee): | Signed (trainee): |

**Delete where applicable, and date and sign in the relevant box.*

# SECTION FOUR

# LEARNING TOOLS TO SUPPORT ASSESSMENT

Supporting tools were developed to structure the assessment of each trainee by each trainer. Upon arrival at a new training center, trainees will undergo a full induction process and record its steps on a form. They will also undergo a full appraisal process within one month of training initiation and at the end of training at the center, and these appraisals must also be recorded. Moreover, trainees should also design personal development plans with their trainer and write and record case-based reports.

Reflective learning should be considered at all times throughout the training.

The following tools are enclosed:

- An Induction, to be used:
  - Following induction, each time the trainee joins a new training center
  - For appraisal within the first month of training at this center
  - For appraisal at the end of training at this center
- A Personal Development Plan form
- A Case-based Discussion Report form
- A Reflective Learning form

# INDUCTION AND APPRAISAL

| | |
|---|---|
| **Date of Assessment** | |
| **Name of Trainee** | |
| **Name of Trainer** | |
| **Training Center** | |
| **Trainee's Post (Standard, Advanced or Expert)** | |
| **Place of Assessment** | |
| **Meeting Type (Induction or Appraisal)** | |

**Attitudes and attributes**

(e.g. reliability, enthusiasm, ability to communicate, relations with colleagues, relations with patients, families and medical staff).

**Activities and knowledge**

Please list the projects completed, teaching responsibilities assumed and presentations made since the last appraisal.

**Review of Logbooks**

**Current issues and concerns, e.g. personal health**

Please list any problem areas for discussion.

**Suggested courses to teach and work to plan**

**Problem areas and possible solutions**

When there are areas of concern, the supervisor must put into place an action plan.

**Planning for the next stage of training**

**Assessor's name and signature**

**Assessor's position**

**Trainee's name and signature**

**Date of next meeting**

# PERSONAL DEVELOPMENT PLAN

| | |
|---|---|
| **Date of Assessment** | |
| **Name of Trainee** | |
| **Name of Trainer** | |
| **Training Center** | |
| **Trainee's Post (Standard, Advanced or Expert)** | |
| **Place of Assessment** | |

**Title of plan**

| |
|---|
| |

**Think SMART!**

These are more specific objectives to help you meet your training needs. These objectives should be:

- **Specific** – You should clearly define the objectives you want to achieve.
- **Measurable** – You should be able to measure whether you have achieved these objectives.
- **Achievable** – Are these objectives achievable?
- **Realistic** – Can you realistically achieve these objectives with the resources at your disposal?
- **Time-bound** – When do you want to have achieved these objectives?

**What specific objectives do you want to meet?**

| |
|---|
| |

**How will the objectives be met?**

**Timetable**

**Evaluation and outcome (how have you managed to meet these objectives)**

| |
|---|
| **Assessor's name and signature** |
| **Assessor's position** |
| **Trainee's name and signature** |
| **Date of next meeting** |

# CASE-BASED DISCUSSION (CbD) RECORD OF ASSESSMENT

| | |
|---|---|
| **Date of Assessment** | |
| **Name of Trainee** | |
| **Name of Trainer** | |
| **Training Center** | |
| **Trainee's Post (Standard, Advanced or Expert)** | |
| **Place of Assessment** | |
| **Clinical Setting (Consulting room, Ward or Operating Theater)** | |

## Clinical problem

| **Problem** (please circle) | **VVF** (please tick box) | **RVF** (please tick box) | **Level of Complexity: Simple, Medium, High** (please tick box) |
|---|---|---|---|
| Simple/Standard repair | | | |
| Minute fistula | | | |
| Fistula with extensive vaginal scar | | | |
| Circumferential fistula | | | |
| Fistula with small or no bladder | | | |
| Residual fistula | | | |
| Recurrent fistula | | | |
| Lateral fistula | | | |
| Reconstruction surgery | | | |
| Sling operation | | | |
| Diversion operation | | | |
| Other (describe below) | | | |

### Grading of performance (the trainee will keep a separate record)

| Please grade the following areas using the scale below | Basic standard | Working towards competence | Competent | NA |
|---|---|---|---|---|
| 1 Medical record keeping | | | | |
| 2 Clinical assessment | | | | |
| 3 Investigation and referrals | | | | |
| 4 Treatment | | | | |
| 5 Follow-up and future planning | | | | |
| 6 Professionalism | | | | |
| 7 Overall clinical judgment | | | | |

### Notes on performance

### Good points

### Suggestions for development

### Action points agreed upon for the next assessment

| Time taken for observation (minutes) |
| --- |
| |

| Time taken for feedback (minutes) |
| --- |
| |

| Assessor's name and signature |
| --- |
| |

| Assessor's position |
| --- |
| |

| Trainee's name and signature |
| --- |
| |

| Date of next meeting |
| --- |
| |

# REFLECTIVE PRACTICE

| | |
|---|---|
| **Date of Assessment** | |
| **Name of Trainee** | |
| **Name of Trainer** | |
| **Training Center** | |
| **Trainee's Post (Standard, Advanced or Expert)** | |
| **Place of Assessment** | |
| **Clinical Setting (Consulting room, Ward or Operating Theater)** | |

**Areas of reflection (circle the relevant area or areas below)**

- Clinical skills
- Judgment
- Communication
- Decision making
- Working as a team member

**Situation**

**What are you reflecting on?**

**What is the most important thing that you have learnt from this experience?**

**What would you do next time?**

**Has this experience highlighted any deficiencies in your training? If so, make a note of them so that you can discuss them with your trainers and supervisors in due course.**

**Notes/advice from trainers at the event**

| |
|---|
| **Assessor's name and signature** |
| **Assessor's position** |
| **Trainee's name and signature** |
| **Date of next meeting** |

# RECOMMENDED REFERENCES

## Journal References

Below are the different search terms used to locate relevant references and the location of the relevant journal articles.

**SEARCH TERMS:**

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- ***Vesico-vaginal Fistula*** (Wall 2005; Onuora, Oguike et al. 2006; Ray, Esen et al. 2006; Sharma, Seth et al. 2006; Wall, Arrowsmith et al. 2006; Arrowsmith 2007; Arrowsmith 2007; Evans and Moore 2007; Mohammad 2007; Nafiou, Idrissa et al. 2007; Ojengbede and Morhason-Bello 2007; Ojengbede, Morhason-Bello et al. 2007; Ojenuwah and Olowosulu 2007; Padhye 2007; Popli, Ranka et al. 2007; Siddiqui and Paraiso 2007; Wall 2007; Wall 2007; Yang, Xu et al. 2007; Audu, Kullima et al. 2008; Goh and Krause 2008; Jatoi, Jatoi et al. 2008; Obi, Ozumba et al. 2008; Schindlbeck, Klauser et al. 2008; Uthman 2008; Akporiaye, Oguike et al. 2009; Gharoro and Agholor 2009; Hadzi-Djokic, Pejcic et al. 2009; Igberase, Gharoro et al. 2009; Porpiglia, Fiori et al. 2009; Sachdev, Hassan et al. 2009).
- ***Recto-vaginal Fistula*** (Frileux, Berger et al. 1994; Gleeson, Baile et al. 1994; Ayhan, Tuncer et al. 1995; Parra and Kellogg 1995; Bankole Sanni, Denoulet et al. 1997; Lasser, Doidy et al. 1999; Udom, Umoh et al. 1999; Falandry 2000; Henrich, Meckies et al. 2000; Soriano, Lemoine et al. 2001; Murray, Goh et al. 2002; Onuora, Oguike et al. 2006; Oom, Gosselink et al. 2006; Sathappan and Rica 2006; Zhang, Li et al. 2006; Chawla, Smart et al. 2007; Genadry, Creanga et al. 2007; Kelly and Winter 2007; Ojengbede, Morhason-Bello et al. 2007; Rijken and Chilopora 2007; Wall 2007).
- ***Childbirth Injury*** (Bangser, Mehta et al. ; Moir 1947; Camargos 1950; Morgan and Cadger 1964; Aimakhu 1974; Regent, Hodez et al. 1977; Russell and Gallagher 1977; Evoh and Akinla 1978; Bourrel 1983; Saldana, Rivera-Alsina et al. 1983; Petrov, Tachev et al. 1989; Tahzib 1989; 1991; Ojanuga 1991; Giebel and Karanjia 1993; Leke, Oduma et al. 1993; Ojanuga 1994; 1995; Kelly 1995; Taniguchi, Hamasaki et al. 1995; Onuora, al Ariyan et al. 1997; 1999; 1999; Hodges 1999; Ojanuga Onolemhemhen and Ekwempu 1999; Angioli, Gomez-Marin et al. 2000; Falandry 2000; Wall, Karshima et al. 2004; Nour 2006; Wall 2006; Aina 2007; Wall 2007; Wittman and Wall 2007; Gharoro and Agholor 2009; Leung and Chung 2009; Ndiaye, Amoul Kini et al. 2009; Olusegun, Akinfolarin et al. 2009).
- ***Classification of fistulae*** (Coetzee and Lithgow 1966; Gray 1970; Lawson 1972; Schmidt 1979; Rosenshein, Genadry et al. 1980; Couvelaire 1982; Otte 1983; Gallot, Malafosse et al. 1991; Sale, Claude et al. 1991; Falandry 1992; Gueye, Ba et al. 1992; Elkins 1994;

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*These books and reports are available in **electronic PDF** format and can be ordered on-line at WAHA-International free of charge.

# SECTION FIVE

# APPENDICES

## Appendix A: Curriculum Modules:

A1 Module 1: Epidemiology of female genital fistulae (FGF) (Report from the literature)
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**RECTAL FISTULAE:**

C8 Repair of third- and fourth-degree tears
C9 Repair of RVF and anal sphincter injury
C10 Repair of circumferential RVF

**UTERINE/CERVICAL and VAULT FISTULAE:**

C11 Repair of vault fistulae using the abdominal or vaginal route
C12 Repair of vesico-cervical and vesico-uterine fistulae

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D3 Urogynecology History and Examination Form
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a. Urogenital Distress Questionnaire (QoL)

b. International Consultation on Incontinence Questionnaire Female: Lower Urinary Tract Symptoms Module (ICIQ-FLUTS)
c. International Consultation on Incontinence Questionnaire: Urinary Incontinence Short Form (ICIQ-UI Short Form)
d. International Consultation on Incontinence Questionnaire: Urinary Incontinence Quality of Life Module (ICIQ-LUTSqol)

D5 Bowel Function Questionnaire
Wexner Bowel Function Questionnaire

D6 Sexual Function Questionnaire
International Consultation on Incontinence Questionnaire: Female Sexual Matters Associated with Lower Urinary Tract Symptoms Module (ICIQ-FLUTSsex)

# APPENDIX A

# APPENDIX A1:

## Module One:
## Epidemiology of Fistulae in the Female Genital Tract

Please read the recommended books and articles to gain an overview of this matter.

**Objectives**

At the end of this module, the trainee should be able to:

1. Define female genital fistulae (FGF) and discuss their incidence
2. Explain the etiology of FGF and the pathogenesis of obstetric fistulae
3. Explain all genital and extra genital complications of obstructed labor

**Definition and Incidence of Genital Fistulae**

**Fistula:** An abnormal communication between two epithelial surfaces. A fistula can occur between two hollow internal organs or between an internal hollow organ and the outer epithelial layer of the body.

**Genital fistula:** A communication of the urethra, bladder, ureter and/or rectum with the uterus, cervix and/or vagina. Such communications are therefore genito-urinary and/or recto-vaginal (the latter being nearly always of obstetric cause).

**Incidence:** Whereas genito-urinary fistulae from non-obstetric causes occur worldwide, obstetric fistulae occur almost entirely in the developing world. Their incidence is poorly studied and the available rates are mainly those reported in hospital-based studies. It is generally thought, however, that at least 3 million new cases of obstetric fistulae occur each year, mostly in Sub-Saharan Africa (Obi, Ozumba et al. 2008; Ndiaye, Amoul Kini et al. 2009; Yeakey, Chipeta et al. 2009).

Numbers of new cases per year, as reported by four different countries:

| | |
|---|---|
| Nigeria | 250,000–300,000 |
| Ethiopia | >25,000 |
| Mali/Niger | >50,000 |
| Bangladesh | >70,000 |

**Epidemiologic Factors as Reported in the Literature**

Maternal age: Generally young, most patients being less than 20 years of age when they sustain a genital fistula. However, the mean age is 22 years in Ethiopia and 28 years in Nigeria (Thomson 2007; Olusegun, Akinfolarin et al. 2009). Other factors are

1. Parity: In Ethiopia, more than 60% of the women are primiparous when they sustain a genital fistula.
2. Labor duration: 3.9 days in Ethiopia.
3. Fetal outcome: In Ethiopia, the rate of stillbirths is about 93% among women who sustain a fistula because of prolonged obstructed labor.
4. Social and cultural status: in Ethiopia, 92% of the women sustaining a genital fistula are illiterate and 52% are divorced (1995; Kelly 1995; Murray, Goh et al. 2002; Thomson 2007; Williams 2007; Zeidan and Abdella 2007).

## Etiology and Pathogenesis of Genital Fistulae

### Obstetric causes

1. Prolonged obstructed labor is the predominant cause of obstetric fistulae (1995; Kelly 1995; Murray, Goh et al. 2002; Thomson 2007; Williams 2007; Zeidan and Abdella 2007).
2. Other causes include:
   i. Destructive delivery
   ii. Instrumental vaginal delivery
   iii. Cesarean delivery with or without hysterectomy
   iv. Traditional practices (e.g., when defibulation before delivery is necessary in women with a pharaonic circumcision)
   v. Symphysiotomy is associated with uretero-vaginal fistula

### Non obstetric causes

1. Traumatic (Amor and Charbagi 1972; Rudnicki 2006)
   i. Coitus (responsible for many recto-vaginal fistulae)
   ii. Sexual violence (e.g., forceful intercourse and/or introduction of foreign objects into the vagina)
   iii. Accidental trauma (e.g., falling on a stick)
   iv. Female genital mutilation
2. Infection (Awonuga, Greenbaum et al. 2007)
   i. Granulomatous infection
   ii. Tuberculosis
   iii. HIV infection
3. Congenital (rare)
4. Malignancy (especially advanced cervical cancer)
5. Iatrogenic (during pelvic surgery)
6. Radiotherapy

### Pathogenesis of Genital Fistulae

The most common cause of genital fistula in the developing world, and therefore of most of the fistulae that the trainees will see, is prolonged obstructed labor.

When labor is obstructed, the presenting fetus presses the soft tissue of the pelvis against the maternal bony pelvis, leading to the ischemic necrosis of the soft tissue.

After delivery of the (usually) still born child, the necrotic tissue sloughs off, allowing a direct communication between two or more organs. The sloughing process takes place over days or weeks and results in a fistula.

### Other possible consequences of obstructed labor

The ischemic process affects not only the tissues of the genito-urinary tract and rectum and/or anus but also all other pelvic tissues, causing a spectrum of injuries.

### Genital complications

1. Uterine rupture
2. Fetal loss
3. Post-partum sepsis
4. Ischemic processes in pelvic organ tissues
5. Spontaneous symphysiolysis

### Complications after vaginal scarring

1. Dyspareunia, which can lead to apareunia

2. Amenorrhea: Can be secondary to Asherman's syndrome, Sheehan's syndrome, malnutrition or supratentorial conditions, but often vaginal scarring has caused occlusion
3. Infertility: Can be secondary to Asherman's syndrome or Sheehan's syndrome
4. Bladder dysfunction: Can include neuropathic bladder

**Rare associations**

1. Cervical incompetence
2. Uterine prolapse

**Extra-genital damage**

1. Gastro-intestinal damage
2. Anal sphincter damage: Occult, or part of a third- or fourth-degree tear
3. Musculoskeletal damage: Includes damage to pelvic floor fibers of the levator ani and contractures secondary to foot drop or caused by sitting or squatting too long during labor
4. Neurologic damage in 20% to 65% of patients. It can be due to lumbosacral injuries caused by the presenting fetal part; the prolapse of a vertebral disc; or the impingement of the common peroneal nerve at the fibular head during prolonged squatting. Improvement was reported at 2 years in 87% of patients

**Consequences of incontinence**

1. Dermatologic injury: 'Urine dermatitis' where urinary phosphates and nitrates/nitrites cause skin irritation
2. Chronic excoriation of the vulvar skin: A condition secondary to urine dermatitis
3. Stones in the bladder or vagina: Women with urinary fistulae often restrict their intake of fluids to pass less urine, but stones form in the concentrated urine. The women also insert cloth or plant material in their vaginas to stem urine flow, and these barriers also promote stone formation

**Psycho-social consequences of incontinence**

1. Decreased life expectancy
2. Social isolation and personal injury
3. Divorce
4. Depression: 97% of women with urinary incontinence experience some form of psychiatric disorder
5. Suicidal thoughts or attempts in 40% of these women

# APPENDIX A2:

## Module Two:
## An Introduction to FGF: Diagnosis, Classification, Prognostic Factors and Outcomes

Please read the recommended books and articles to gain an overview of this matter.

**Objectives**

At the end of this module, the trainee will be able to:

1. Diagnose female genital fistulae (FGF)
2. Outline a classification for FGF

**Clinical presentation and investigation**

Data need to be collected at the patient's first visit to the hospital or clinic, and all the way through the numerous processes relative to admission, care, discharge and follow-up. Data collecting permits the audits and assessments at the core of good training and therefore is the first step towards good patient care.

Basic data collection includes the following:

1. Recording data from the patient's personal and clinical history
2. Recording data from the patient's examination
3. Recording data from the patient's admission, surgical procedure, post-operative management and discharge
4. Recording data from all follow-up visits
5. Performing audits
6. Building a database for personal records as well as institutional audits and multi-center studies

The following needs to be included in case presentations:

1. Patient's characteristics:
   i. Name
   ii. Age and age at marriage. When the patient does not know her age (which occurs frequently) she is asked if she was married before or after menarche, and/or how many periods she had before she became pregnant.
   iii. Address
   iv. Marital status
2. Complaint
   i. Main problem
   ii. Main problem duration
3. Parity; sex of living and dead children
4. Social history
   i. Members of the patient's household
   ii. Patient's education
   iii. Patient's occupation, if she is currently working outside the household
5. How she heard about/was referred to the center
6. Obstetric history:
   i. Labor duration
   ii. Place of delivery (home, health institution, other)
   iii. Time spent in labor and time spent at home before being helped, and who helped her at home. Time spent at the health institution before she received help there

iv. Mode of delivery: Spontaneous vaginal delivery; instrumental delivery (forceps or vacuum); destructive delivery; symphysiotomy; cesarean delivery, with or without hysterectomy
v. Obstetric outcome: Live birth, stillbirth, early neonatal death, sex of baby
vi. Any other complaint, such as: Vaginal bleeding or discharge, inability to walk properly or absence of menses. If the menses have resumed, how long after delivery?
vii. Fistula history: Any previous fistula repair? Where? Was it successful? (the answer indicating whether the present fistula is a new fistula or an old, unsuccessfully repaired one)

**Physical examination**

1. General: For gross nutritional status, developmental stage and mental status
2. Systemic: Review of respiratory, cardiovascular, abdominal and musculoskeletal functions
3. The neurologic system can be affected by symptoms (such as foot drop or saddle anesthesia) caused by obstructed labor. Moreover, if anal reflex and pudendal nerve function are impaired, residual stool and or flatal incontinence may continue to trouble the patient despite good anatomic repair.
4. The external genitalia are examined for:
   i. Signs of ulceration and excoriation ('urine dermatitis')
   ii. Bleeding, stones, genital mutilation, perineal tears
5. Speculum and digital examination
   This part of the examination allows us to diagnose FGF and to take note of any characteristics that may affect treatment and outcome. The following are checked:
   i. Patency of the reproductive tract (the vagina, uterus or cervix can be occluded and the cervix may even be missing)
   ii. Location (anterior and/or posterior) and extent of vaginal scarring; scarring often appears as a thick band of scar tissue on the posterior vaginal wall
   iii. Fistula number (there can be more than one bladder or rectal fistula); fistula size and location; urethral length; whether the urethra is circumferential (one can feel a bony structure anteriorly when the urethra has been severed from the bladder); presence of bladder stones; anal sphincter status; any other abnormality in the genital tract
   iv. Bladder capacity (difficult to evaluate pre-operatively, but can be roughly assessed by sounding the bladder with a metal catheter or probe)
   v. If there is no obvious fistula, the physician asks the patient to cough and looks for signs of stress urinary incontinence (this test requires some urine in the bladder)
   vi. Although most fistulae are diagnosed by digital examination, it is very useful to examine them under direct vision with the aid of a speculum
   vii. A dye test is performed when a fistula escapes digital and visual detection:
      a. A dye test permits to detect a small or unusual fistula, especially a utero-vaginal or cervico-vaginal fistula.
      b. A dye test is performed by inserting dry cotton swabs into the vagina (classically, 3 are inserted) and instilling methylene blue or other sterile colored solution into the bladder by means of a catheter. The swabs are removed after a few minutes. If the swab that was the lowest in the vagina is stained, the patient has a urethro-vaginal fistula (care should be taken to exclude urethral spilling of the dye); if the middle swab is stained, the patient has a vesico-vaginal fistula; and if the upper swab is stained, the patient has a juxtacervical fistula, a vault fistula, a uretero-vesical fistula or a cervico-vesical fistula. If the upper swab is stained with urine but not with dye, the patient has a uretero-vaginal fistula.
6. Laboratory investigations
   Some of the following investigations will probably not be available at all centers:

i. Hematocrit, blood group and Rh group
ii. Additional tests:
    a. Blood tests for HIV infection, syphilis, hepatitis and renal function
    b. Stool tests for occult blood, ova and parasites
    c. Ultrasound exploration of kidney, ureter and bladder. Look for stones and obstruction, especially if the patient previously had a fistula repair or an abdominal operation (especially, a cesarean delivery or a hysterectomy).
    d. Radiologic exploration: Intravenous urography to look for stones and obstruction and assess renal function
    e. The indigo carmine test to look for ureteric fistulae
    f. Endoscopy: Cystoscopy and urethroscopy

**Classification**

There are different classification systems for genito-urinary fistulae, and most are based on the location of the fistula. As no standardized classification exists, communication between surgeons and centers can be imprecise.

A classification system should:

1. Be descriptive, indicative as well as prognostic (i.e. present a description, indicate the operative technique to be applied and the outcome to expect)
2. Be a reliable tool for study and communication
3. Help trainers select cases for trainees and help surgeons select cases for themselves according to competence

What we know at present:

Incontinence persisting after repair can be predicted by the following:

1. Urethral involvement (odds ratio [OR] = 8.4)
2. Important scarring (OR = 2.4)
3. Size of defect (OR increases by 1.34 for each1-cm increase in defect size)
4. Bladder capacity (OR = 4.2 if the bladder is unable to contain 100 mL of urine at the end of surgery)[1]

**Current systems**

1. The Waaldijk System is based on whether the continence mechanism is impaired and on circumferential damage. Studies have been conducted to assess this system, which is presently used in West and East Africa (Waaldijk 1990; Waaldijk 1995).
2. The Goh System is based on urethral involvement, size of defect, extent of scarring, whether scarring is circumferential, and whether repair has previously been attempted. Studies have been conducted to assess this system, which is presently used at several centers in East Africa (Goh, Browning et al. 2008).
3. The Francophone System has been partially validated and is used in francophone Africa.
4. The two-stage Tafesse System is based on urethral involvement, extent of scarring, whether the continence mechanism is affected, and bladder capacity. This system has not been assessed and is not validated (Tafesse 2008).

One system cannot be recommended over another until there is an accepted standardized classification system. However, a system should be used to permit points of communication, record keeping, audits, case selection and studies.

# APPENDIX A3:

## Module Three: Management of Vesico-Vaginal Fistulae (VVF)

Please read the recommended books and articles to gain an overview of this matter (Ijaiya, Rahman et al. 2010; Kalilani-Phiri, Umar et al. 2010; Kent 2010; Kirschner, Yost et al. 2010; Muleta, Rasmussen et al. 2010; Shah 2010; Shoukry, Hassouna et al. 2010; Singh, Gupta et al. 2010; Tran, Ezzat et al. 2010; Allen, Lakin et al. 2011; Narcisi, Tieniber et al. 2011).

### Objectives

At the end of this module, the trainee will be able to:

1. Describe methods for the immediate management of VVF
2. Describe and carry out pre-operative care
3. Describe the surgical techniques for and perform simple VVF repair
4. Provide basic post-operative care and predict/identify post-operative complications
5. Discuss VVF and RVF prevention

### Immediate Management of VVF

The following steps should be considered when a VVF is discovered within one month of the trauma:

| | |
|---|---|
| Catheterize the bladder: | Once the fistula is diagnosed, catheterize the bladder continuously for at least 3–4 weeks, to help the fistula to heal. |
| Increase fluid intake: | Up to 5 litres of fluid per day is recommended. |
| Institute perineal hygiene: | 'Sitz' or salt baths twice daily to help the perineum to heal. |
| Determine timing of surgery: | To be determined after careful clinical assessment and excision of necrotic tissue, if necessary.<br><br>Surgery will be delayed until the inflammation and/or infection has been eradicated from the fistula site. |
| Re-assess the clinical situation: | The vagina and perineum should be regularly assessed – preferably once a week. |

### Pre-operative Assessment of the Patient

A detailed history is taken when the patient presents, and again prior to surgery, to ensure that medical problems are not missed. The surgeon then

1. Performs a complete examination of the genital area,
   - Checking the health of the vaginal mucosa
   - Looking for skin infection
   - Classifying (or confirming the classification) of the fistula, under anesthesia if necessary
2. Checks laboratory test results and treats anemia, if present
3. Considers cross-matching for possible blood transfusion
4. Checks if the patient has been counseled and provided inform consent
5. Arranges for an enema (optional for VVF, essential for RVF)
6. Assesses the patient before anesthesia is induced
7. Administers antibiotic prophylaxis, taking into account the following:
   a. Surgeon/trainer preference of medication
   b. Possible on-going antibiotic treatment for another indication
   c. Sensitivity patterns of organisms present in the culture

## Surgical Principles

### All Approaches and Techniques Used in the Repair of VVF Share the Same Principles

However, the following need to be considered according to the case to be treated:

- Best surgical approach
  - Vaginal or abdominal
- Patient positioning
  - Exaggerated lithotomy position
  - Knee-chest position
- Type of equipment
  - See Appendix B
- Type of sutures
  - Absorbable (0, 2/0, 3/0 and 4/0)

### Basic Steps and Principles of Fistula Surgery

- Administering anesthesia
- Positioning the patient
- Focusing the light
- Exposing the fistula, which may require:
  - Stitching the labia open
  - The use of Auvard and Sims speculums
  - The use of Lone Star retractors
  - An episiotomy
  - Traction on vaginal tissues
  - During the preliminary examination the surgeon
  - Looks for bladder stones
  - Performs a dye test and looks for tiny or unusual fistulae
  - Performs an hemostatic infiltration

### Steps in Fistula Closure

The surgeon then performs the initial part of fistula closure,

- Incising around the edge of the fistula and looking for the ureteric orifices (which he/she catheterizes, if necessary)
- Mobilizing the bladder and trimming the edge of the fistula, if needed
- Closing the fistula without tension in one or two layers
- Introducing an in-dwelling catheter (14F–18F) and performing a dye test to check the closure and reveal any missed VVF
- Measuring the lengths of the urethra and bladder and recording the values
- Closing the vaginal mucosa

The final steps of fistula closure are the following:

- Checking urethral catheter patency
- Applying a vaginal pack (optional)
- Removing the ureteric catheters (if present and if indicated)
- Fixing any problem associated with the catheter(s)

### Post-operative Care

Postoperative care is divided into immediate and late.

Immediate post-operative care includes:

- Taking the patient's vital signs and assessing her general health
- Managing pain
- Watching for bleeding

- Ensuring proper catheter drainage
- Ensuring that fluid input approximates 5 liters orally or 3 liters intravenously
- Recording fluid input and output

Late post-operative care includes:
- Taking the patient's vital signs and assessing her general health
- Removing the vaginal pack (if present) 24 to 72 hours after placement
- Irrigating the ureteric catheters, if necessary, and removing them 3 to 7 days after placement (according to the surgeon's preference)
- Removing the urethral catheter 7 to 28 days after placement (according to the surgeon's preference)

- Fluid/Dietary Management
  - Encourage the patient to drink 3 to 5 liters per day
  - Encourage her to eat normally after bowel motion has returned
  - Mobilize her and encourage her to exercise
  - Arrange for her to undergo physiotherapy in bed
  - Encourage her to walk as soon as possible
- At the time of discharge
  - Consider performing a dye test
  - Removing sutures, if needed
  - Perform the discharge assessment and give advice to the patient
  - Make sure that the discharge assessment is complete
  - Write all operative and post-operative details on the discharge card

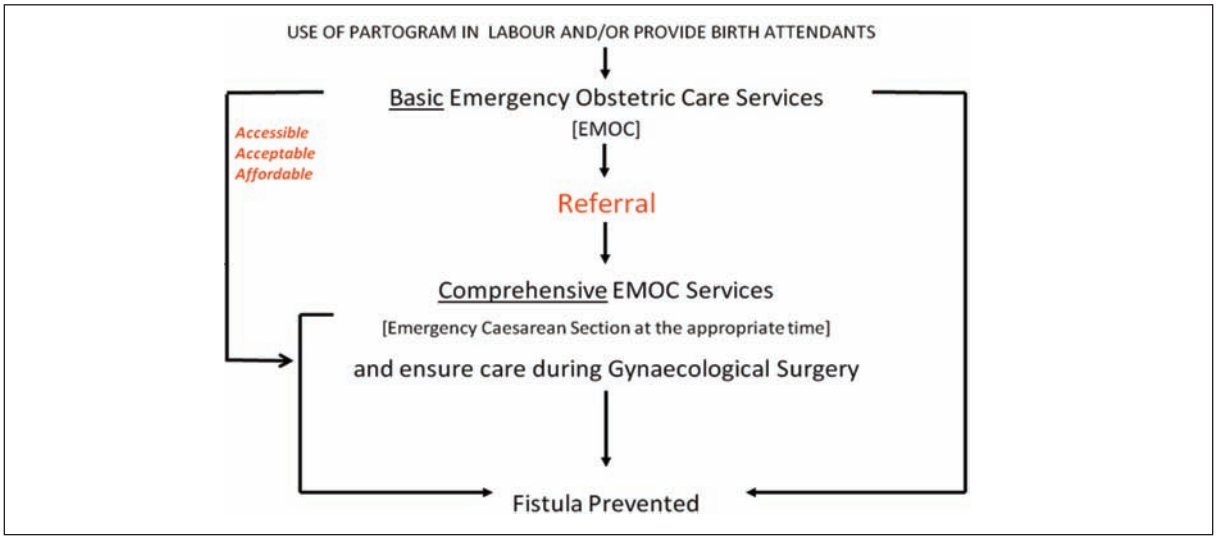
**Fistula Prevention**

When labor is prolonged or obstructed, the following should be done by:
- Inserting a urethral catheter, draining the bladder and keeping the catheter in place
- Requesting that the patient begin to drink at least 5 liters of fluid per day
- Teaching pelvic floor exercises to the patient, after delivery
- Setting up appointments for regular follow-up visits

With this treatment, fistulae can be prevented or cured in up to 20% of cases.

Immediate post-delivery stress incontinence usually improves with physiotherapy of the pelvic floor, but there is a possibility of overflow incontinence secondary to acute postpartum urinary retention.

**Algorithm to help prevent Fistulae:**



# APPENDIX A4:

## Module Four: Management of Recto-Vaginal Fistulae (Rvf) and Third- and Fourth-Degree Perineal Tears

Please read the recommended books and articles to gain an overview of this matter (Sultan AH 1993; Donnelly V 1998; McCandlish R 1998; Fitzpatrick M 2000a; Fitzpatrick M 2000b; Mann 2001; Kettle 2002; Kettle C 2004; R.C.O.G 2004; R.C.O.G 2007).

### Objectives

At the end of this module, the trainee will be able to:

1. Describe and pre-operatively manage third- and fourth-degree tears and RVF
2. Repair simple RVF and trauma to the anal sphincter
3. Describe surgical techniques to treat complicated RVF
4. Describe and provide post-operative care

### Pre-operative Assessment of Third- and Fourth-degree Tears and RVF

The need for colostomy must be carefully assessed before surgery:

- Colostomy is infrequently indicated
- Possible Indications include:
  - Recto-vaginal defects located very high and/or very large (>4cm)
  - On-going inflammation/infection and previous unsuccessful repair
  - Important scarring around the fistula

### Temporary colostomy

A temporary colostomy can be created in the transverse or sigmoid colon to facilitate the resolution of inflammation and promote healing. However, it requires:

- Explaining the purpose and nature of a stoma to the patient
- Selecting the stoma site and educating the patient about colostomy care

RVF surgery is usually done about 6 weeks after the colostomy is formed but the timing depends on the resolution of infection and inflammation.

### Perineal care

Laceration, ulceration and maceration of the vulvar skin and perineum are often seen in patients with RVF and special measures must be taken, such as:

- Douching and taking sitz baths
- Applying ointments or creams containing zinc oxide and lanolin
- Treating vaginal or cervical infection

### Management of Third- and Fourth-Degree Tears

Perineal tears are associated with considerable health burden caused by dyspareunia and psychological problems and augmented later on by anal incontinence. It is estimated that more than 85% of the women who have a vaginal delivery sustain some degree of perineal trauma, and that 60% to 70% of those who sustain perineal trauma need suturing.

Third- and fourth-degree perineal tears are identified in approximately 0.6% to 9.0% of women who undergo a mediolateral episiotomy during a vaginal delivered (Thacker and Banta 1983). In prospective studies, occult damage to the anal sphincter has been identified in up to 36% of women after vaginal delivery (Sultan et al 1993; Faltin et al 2000; Donnelly et al 1998). And in 25% to 57% of cases, primary repair of anal sphincter damage is associated with signs of fecal incontinence.

### Classification of Perineal Tears

| | |
|---|---|
| *First-degree tear:* | Only involves the skin |
| *Second-degree tear:* | Is defined as an injury to the perineum involving the fourchette and the superficial and transverse perineal muscles that stretch from the perineum to the ischial tuberosity. An episiotomy represents a second-degree tear. |
| *Third-degree tear:* | Is defined as an injury involving the external anal sphincter (EAS)<br>• 3a: a tear involving less than 50% of EAS thickness<br>• 3b: a tear involving more than 50% of EAS thickness<br>• 3c: a tear involving both the EAS and the internal anal sphincter (IAS) |
| *Fourth-degree tear:* | Is defined as an injury involving the EAS, the IAS and the rectal mucosa |

Knowing the risk factors for third- and fourth-degree perineal tears does not always prevent their occurrence.

After a vaginal delivery, all women should receive a careful examination of the vagina, rectum and perineum. If damage is detected, the severity should be assessed prior to suturing. If the midwife or physician examining the woman is unsure of the extent of the injury, the opinion of a more senior staff member should be sought.

Before examining the perineum the health professional should:
- Explain the nature and reason of the examination to the patient
- Offer the patient inhalational analgesia
- Ensure good lighting
- Position the patient so that the genital area can be clearly seen while she remains comfortable
- Visually assess the structures involved, the apex of the injury and the places where bleeding occurs
- If there is any suspicion of trauma to the perineal muscles, perform a rectal examination to check the EAS and IAS for damage

### Surgical Management of Third- and Fourth-degree Tears

Third- and fourth-degree tears are repaired in theater using an aseptic technique under regional or general anesthesia. A senior physician/registrar/consultant should be present to perform or supervise the repair. All patients must receive a full explanation of the procedure and provide written consent before surgery. In addition:
- Adequate analgesia must be provided. Besides alleviating pain, it allows repair without tension by relaxing the torn anal sphincter muscles.
- The patients should receive an intravenous dose of antibiotics, preferably intra-operatively. Even though no studies have compared the effect of prophylactic antibiotics with that of placebo, antibiotics are recommended to reduce the chances of infection and therefore the chances of wound breakdown, fistula formation and anal incontinence. Similarly, laxatives are recommended postoperatively to reduce the chances of repair disruption from the passage of a hard stool.
- In cases of fourth-degree tears, the anorectal mucosa should be repaired using interrupted absorbable 3/0 sutures with the knots tied in the lumen.
- The IAS may be difficult to identify separately from the EAS. It lies between the EAS and the anal epithelium and appears paler than the EAS. When identified, the IAS can be repaired using interrupted polydioxanone sutures (PDS) 3/0 or Vicryl sutures 2/0.

- The EAS should be repaired using a long-acting monofilament such as PDS 3/0. Repair is carried out by the overlap or end-to-end technique.
- The muscles of the perineal body are then repaired by the techniques described for second-degree tears. Finally, the vaginal mucosa and perineal skin are repaired. These last repairs are all done using Vicryl 2/0 sutures.
- Following the repair of a third-degree tear, a rectal examination should be performed to ensure that suture material has not been inadvertently inserted through the rectal mucosa.
- A swab, needle and instrument count should be performed with the theater nurse and documented in the patient's notes.
- Following repair, the patient should take oral antibiotics for five days and a laxative for two weeks, as straining and passing a hard stool may disrupt the repair.
- It is essential to take notes describing in detail the extent of the tear and the repair technique used. A diagram should be included in the maternity notes.
- The patient should be given a detailed explanation of the anal sphincter injury she sustained and of the importance of follow-up, and told that she is at some risk for anal incontinence.

### Postpartum Management

The following should be part of the postpartum management of women with perineal tears:

- Adequate analgesia with oral paracetamol plus a non-steroidal analgesic such as diclofenac should be prescribed. Analgesics containing codeine should be avoided because they may cause constipation.
- Rectal analgesia should be avoided after delivery.
- To decrease swelling, an ice pack wrapped in a sanitary pad can be applied to the perineum for 20 minutes every 3 to 4 hours for the first 48 to 72 hours following surgery.
- To decrease the risk of wound dehiscence, the patient can take laxatives or stool softeners such as lactulose (with or without Fybogel) for about 7 to 10 days.
- The patient should be referred to a physiotherapist, if possible.
- Ideally, the patient should be seen at a perineal trauma clinic 6 weeks after delivery.
- The surgeon and the patient should discuss the events leading to the tear.
- They should also discuss the measures the patient will observe to promote healing.

### General Advice Regarding the Postpartum Care of Perineal Trauma

Providing advice is encouraged after the repair of third- and fourth-degree tears. Such advice should include:

- Reassurance that perineal pain is common
- Dietary advice to avoid constipation
- Guidance regarding perineal hygiene
- Reassurance that it is not abnormal for intercourse to be uncomfortable after childbirth (suggest the use of a lubricant that will not cause pain)
- Information regarding contraception within 2 or 3 weeks of delivery

## Management of RVF

### Laboratory Investigations and Bowel Preparation

Laboratory investigations should be carried out in all cases. The list can be long but should include:

- Full blood cell count
- Determination of blood group and Rh status
- Stool sample examination for ova and parasites

Bowel preparation remains an area of debate, with no consensus on its benefits, optimal

execution or timing. The most commonly suggested options are enemas or the use of laxatives, with or without a peri-operative antibiotic treatment and/or a modified diet.

### General Principles of Surgery

These include the principles outlined for VVF surgery:

- Good exposure and an aseptic technique
- Localization and assessment of the size of the fistula and proper tissue mobilization
- Tension-free, airtight closure avoiding the rectal mucosa (if possible)

### Surgical techniques

Surgical techniques vary among surgeons but their general approach is the same. The steps are the following:

- Securing maximum access to the RVF and incising around the fistula
- Dissecting the vaginal wall from the underlying rectal wall
- Excising scarring around the fistula (if needed) and closing the rectal side of the fistula with absorbable suture, starting at an end and avoiding the rectal mucosa
- Approximating the edges of the vaginal side of the fistula and suturing in one or two layers
- Consider a flap, if necessary
- When repairing the anal sphincter
  - Identify the extent of the tear and hold the skin dimples indicating the divided ends of the EAS
  - Make an incision at the edge of the vaginal mucosa from side to side. Then, using sharp dissection, free the underlying ano-rectum and expose the stumps of the EAS
  - Close the ano-rectum in 1 or 2 layers and repair the EAS by the overlapping or end-to-end method
  - Check anal sphincter patency and tone before and after tying the sutures
  - Repair the perineal body, vaginal mucosa and perineal skin

When faced with a scarred RVF, the general principles of scar management are the same as those described for urinary fistulae with vaginal scarring.

In repairing a circumferential RVF, the following steps may need to be considered:

- Performing a diverting colostomy before repair
- Identifying the proximal and distal ends of the fistula
- Checking the patency of the rectal lumen at both ends of the fistula and disrupting any stricture by sharp or blunt dissection
- Incising around the fistula edge circumferentially, if possible, and mobilizing the recto-sigmoid colon
- Approximating the posterior wall of the rectum, if possible
- Optionally, inserting a rectal tube under direct vision
- Completing the closure following the other principles of RVF repair

### When can a Diversion Colostomy be reversed?

Colostomy reversal can be considered when proper healing has been ascertained and no rectal stricture has been found. The RVF repair is usually observed for a minimum of four weeks. Just prior to reversal surgery, the patient should undergo a bowel preparation similar to that described for the repair.

### Post-operative Care

The general principles of surgery are the same for RVF and VVF repair, but there are extra steps to the post-operative care of RVF patients. Two approaches exist, one promoting constipation and the other promoting stool softening:

Many authors recommend:

- Intravenous rehydration for 24 hours, then a clear liquid diet after the first passage of flatus
- Full liquid diet 24 hours later
- Low residual diet 24 hours later
- Regular diet three days later
- Specific for women with a diversion colostomy:
  - Regular diet after the first bowel movement
  - If present, the rectal tube is maintained in situ for 10 or more days
- Assessment of cure
  - History taking
  - Physical examination, including vaginal and rectal examination
  - Rectal dye test before closing the colostomy

# APPENDIX A5:

## Module Five:
## Management of Complicated/Complex Fistulae

Please read the recommended books and articles to gain an overview of this matter.

**Objectives**

At the end of this module, the trainee will be able to:

1. Identify the types of complicated urinary fistulae
2. Describe surgical techniques for repairing complicated urinary fistulae

**Types of Complicated/Complex Fistulae**

These are usually classified according to site or type:

| | |
|---|---|
| Site of Fistula | Urethral fistula<br>Urethral damage<br>Vesico-cervical, vesico-uterine, vault fistula<br>Ureteric fistula |
| Type of Fistula | Minute fistula<br>Circumferential bladder fistula<br>Fistula with small or no bladder<br>Urinary fistula with extensive vaginal scarring<br>Residual Fistula<br>Recurrent fistula<br>Lateral fistula |
| Associations | Bladder prolapse and bladder stones<br>Combination of two or more of the above |

**Surgical Repair of Complicated/Complex Fistulae**

Surgical repair differs with each site or type of complicated/complex fistula. The modes of repair outlined below are only for guidance, as in-depth surgical training will be provided by the trainers.

**Urethral Fistula Repair (Vaginal Approach)**

- The extent of injury and scarring are assessed as well as bladder capacity
- The urethra is mobilized with the help of fine scissors and any fibrous tissue is removed
- Tissue is handled with care
- The fistula is closed in one layer with minimum tension, using fine absorbable 3/0 suturing material
- If needed, the closure is reinforced by means of a Martius labial fat pad graft or a pubo-coccygeal sling
- The vagina is closed using fine absorbable suture material

**Circumferential Urinary Fistula Repair**

- The extent of the loss of bladder and urethral tissue is assessed
- The extent of the mobilization required is assessed
- After the bladder has been mobilized circumferentially, it is moved toward the urethra and re-anastomosed by means of 3 to 5 sutures that are also attached to the periosteum of the posterior symphysis pubis
- A graft is performed or a urethral sling placed, as appropriate
- The continence mechanism is reinforced

- The vaginal mucosa is closed

**Repair of Urinary Fistulae with Extensive Vaginal Scarring**

Once the fistula is identified and the degree of vaginal scarring is determined a large episiotomy is performed (bilaterally, if necessary) and scarring is excised, as needed. Then,

- The fistula is repaired, reinforced by a labial fat flap if the vaginal mucosa is atrophic
- Vaginal packs are re-applied, as needed
- Post-operative vaginal dilatation can be done using a candle and condom or vaginal dilators

**Urethral Reconstruction**

Urethral length and the extent of urethral loss are assessed before repair is planned.

Of the many reconstructive techniques, some are detrimental to future function. The following techniques are suggested for use:

- Technique 1
  a) Demarcate the tissue to be used for reconstruction and make deep para-urethral incisions at least 4-cm wide
  b) Mobilize sufficient tissue
  c) Insert a 12F to 18F Foley catheter into the urethra and repair the urethra by rolling mobilized tissue over the catheter
- Technique 2
  a) Tubularize the tissue, measuring the tube's diameter with a Hegar 8 dilator (6 mm in diameter)
  b) Using a fine suture material, make as few sutures as possible and avoid tension
     - Reinforce the continence mechanism
     - Close the vaginal mucosa without tension, with flaps if necessary
     - Leave the catheter for 2 to 3 weeks or create a suprapubic cystostomy, if necessary and if possible at the training site
     - Secure the catheter to avoid trauma to the neo-urethra
     - For circumferential urethral loss, make a bladder flap or use buccal mucosa)

**Ureteric Re-implantation (Abdominal Approach)**

The main indication for the abdominal approach is when the ureter cannot be catheterized vaginally

*Method*

1. Insert the ureteric and urethral catheters into the bladder via the urethral meatus
2. Identify the injured ureter and mobilize it retroperitoneally and distally up to the obstructed or injured site
3. Tie the ureter as distally as possible, place a stay suture 1cm proximally and sever the ureter in between
4. Free the ureter proximally until it is sufficiently mobilized for re-implantation
5. Incise the bladder, make a new opening in the bladder for the ureter, introduce the ureter into the bladder, spatulate the ureter and anastomose it to the bladder mucosa
6. Secure the ureter to the outer layer of the bladder
7. Introduce the ureteric catheter into the ureter (optional)
8. If a ureteric catheter was introduced, either close the bladder around it for drainage through the incision in the abdominal wall or allow it to drain through the urethra

9. If the fistula is irreparable, consider a psoas hitch or Boari flap and/or refer the patient to a specialized center for possible urinary diversion

**Vesico-cervico and Vesico-uterine Fistula Repair**

The approach depends on the surgeons' preference and experience, but always involves the mobilization of the bladder from the cervix or uterus. If the fistula is vesico-cervical, mobilize the bladder until the bladder and cervical aspects of the fistula can both be accessed. Then,

- Identify and catheterize the ureters
- Close the bladder defect (it is longitudinal in most cases)
- Close the cervical or uterine defect
- Interpose omentum between bladder and cervix, if possible
- Close the vaginal mucosa

**Vault Fistula Repair (After Hysterectomy)**

Approaches may be abdominal or vaginal.

- With the patient in the exaggerated Trendelenburg position, mobilize the bladder from the peritoneum and vagina, taking care to avoid bowel injury
- Identify and catheterize the ureters (Note: The ureters may be implanted more laterally or higher than expected.)
- Close each aspect of the fistula (with a peritoneal flap interposed, if desired)
- Repair the vagina

**Uretero-cervico-vaginal Fistula Repair (Vaginal Approach)**

After catheterizing and mobilizing the damaged ureter, incise the bladder and pull the distal end of the ureteric catheter up the urethra. Then,

- Close the bladder aspect of the fistula over the ureteric orifice and close the vaginal mucosa
- Keep the ureteric catheter in place for 10 days

**Repair of the combination of two or more of the Complicated Urinary Fistulae**

These may be repaired simultaneously or separately, depending on the types of fistulae. If the fistulae are close to each other, make them into one and repair. Otherwise, repair them separately. Unrelated fistulae are usually managed separately or in two sessions.

## Post-Repair Urinary Incontinence

There are several types of post-repair incontinence (Charlewood 1954; Candler 1960; Hassim and Lucas 1974; Birkhoff, Wechsler et al. 1977; Cox and Worth 1987; Elkins, Ghosh et al. 1992; Blaivas, Heritz et al. 1995; Arrowsmith, Hamlin et al. 1996; Hilton 1998; Hilton, Ward et al. 1998; Ascher-Walsh, Capes et al. 2010). They include:

- Stress incontinence
- Overflow incontinence
- Scar incontinence, due to intrinsic urethral sphincter deficiency
- Detrusor overactivity
- Mixed incontinence

Diagnosing the type of incontinence requires proper history taking, a physical examination, a cough stress test, inducing urgency by turning on a water faucet, and measuring post-void residual urine volume. It is also essential to rule out a urinary tract infection (UTI), which is the commonest cause of incontinence in women who underwent fistula repair.

Other tests in use are the pad test (to determine the weight of urine lost), a 24-hour urinary diary, urodynamic assessment and cystoscopy.

Once a diagnosis is made, treatment may be initiated.

**Stress Incontinence Treatment (Conservative Management)**
Pelvic floor exercises if the pelvic floor is intact:

*Indication:* The exercises promote core stability and strengthen both pelvic floor and anal sphincter (Appendix B 3)

Use the Glasgow grading methods to assess the strength of the pelvic floor muscles (Appendix B 3). The intensity of pelvic floor exercises depends on pelvic floor strength. Exercising should be a gentle continuous process based on a protocol. To ensure compliance, the patient needs to be educated about pelvic floor physiotherapy.

**Detrusor Overactivity or Urge Incontinence (Conservative Management)**
Bladder training can be in initiated after excluding infection and strictures. Then,
- Encourage a regular drinking and voiding pattern
- Encourage a gradual increase of the voiding interval
- Discourage alcohol and caffeine intake
- Prescribe anticholinergics, if available

**Overflow incontinence (Conservative Management)**
After treating strictures,
- Encourage double and triple voiding
- Prescribe intermittent self-catheterization

**Surgical Management of Post-Repair Urinary Incontinence**
None of the many surgical techniques devised to treat urinary incontinence supersedes the others.

The principles at the basis of surgery for post-repair stress incontinence aim at:
– Narrowing the urethra
– Lengthening the proximal urethra
– Elevating the pubo-vesical angle
– Reinforcing the continence mechanism

The different types of surgery include:
- Retro-pubic urethrolysis and sling operation
- Urethralization and fascio-colposuspension
- Urethralization and pubo-coccygeal sling
- Other (Burch colposuspension, mid-urethral sling/tapes)

However, their benefit to the patient has not been tested objectively.

Besides surgery, there are devices, such as silicon urethral plugs, that can be used for stress incontinence. These plugs are shaped to obstruct the urethra and are available in different sizes. They are meant to improve continence and bladder capacity, but a reliable supply is essential. The indications for using a urethral plug include:
1. Severe incontinence following fistula repair
2. Small bladder
3. Intrinsic sphincter deficiency

The plugs carry risks, however, and must be used with caution and discretion. Well known complications are plug migration into the bladder, widening and infection of the urethra, and trauma to the urethra. It is therefore usually recommended that the plug be used for a maximum of 12 hours per day.

Each patient needs to be taught to fit the plug and maintain good perineal hygiene. Periodic follow-up is essential.

# APPENDIX A6:

## Module Six:
## Complications of Fistula Repair

Please read the recommended books and articles to gain an overview of this matter (Falandry 2000; Browning 2006; Gutman, Dodson et al. 2007; Di Marco 2008).

**Objectives**

At the end of this module, the trainee will be able to:

1. Prevent intra-operative complications, detect them when they occur and determine whether their management should be anesthetic or surgical.
2. Identify immediate post-operative complications and outline their management.
3. Identify late post-operative complications and outline their management.

The complications commonly associated with fistula surgery are outlined below.

### Hemorrhage

Prevention is key with hemorrhage. Bleeding disorders should be detected ahead of time and hemostasis should be maintained throughout surgery.

When hemorrhage occurs despite meticulous hemostasis, it should be classified as mild, moderate or severe. It is essential that the patient be resuscitated and given a blood transfusion, if necessary, and that hemostasis be secured. If the hemorrhage is secondary to infection, the infection should be treated. It is sometimes necessary to insert a vaginal pack, with or without adrenaline.

### Deep Vein Thrombosis and Pulmonary Embolism

Although these conditions are much less common after fistula repair than after other types of surgical interventions, preventative strategies should always be considered, including:

- Compression stockings
- Anticoagulants
- Aspirin

### Surgical Injury

The pelvis contains many organs and injury can occur to the bladder, urethra, ureters and bowel during fistula surgery. Such injuries are usually treated by straightforward, direct closure, but ureters have been tied off, cut, crushed, torn, or damaged by catheterization or the loss of a probe. These problems can be averted by inserting catheters very carefully into the ureters before dissection. If an injury occurs to a ureter, it must be identified and corrected (depending on the case) by releasing the suture, repairing the tear, re-implanting the ureter or removing the lost material.

### Anuria

Anuria is a particular problem of urinary fistula surgery. It is usually a consequence of catheter blockage, ureter ligation, or pre-renal or renal failure. The management of anuria depends on its cause and may involve unblocking the catheter, un-tying and re-implanting the ureters, or treating the patient for renal failure.

When anuria is the result of a displaced Foley or ureteric catheter, the catheter must be carefully retrieved and replaced.

### Wound Infection and Wound Breakdown

Wound infection can have disastrous consequences in fistula surgery, including early breakdown

of the suture line, urinary or fecal incontinence, and stricture formation in the urethra and vagina. Wound infection can also lead to gynecologic problems such as hematometra, menouria, infertility, amenorrhea and dyspareunia. Any one of these conditions can generate severe psychological problems.

Depending on the case, wound infection or breakdown can be treated by resuturing under anesthesia, leaving the catheter longer in place, and cleaning the wound using sitz baths and/or irrigation.

Repairing the suture line will be attempted only when inflammation has subsided, however, and treating the underlying sepsis is therefore paramount. A swab culture (or blood culture, if possible) needs to be done to identify the responsible pathogen and sensitivity tests carried out to determine which antibiotics should be prescribed.

**Urethral and Vaginal Strictures**

Urethral strictures are usually managed by:

- Scar incision and urethral dilatation
- A dye test to exclude a minute fistula
- Fistula repair if the test reveals a fistula
- Intermittent self-catheterization to dilate the urethra

Vaginal strictures, which are accompanied by dyspareunia, can be managed by:

- Scar excision
- Vaginal dilatation with a candle and condom or vaginal dilators

**Bladder stones**

Bladder stones are relatively common after fistula surgery, and their removal must be done with great care to prevent damaging the bladder. First, a urethral stricture should be ruled out. Stones of different sizes are removed

- Either endoscopically (stones <2cm)
- Or via a suprapubic cystostomy (larger stones)

The patient should be encouraged to drink plenty of fluids to prevent infection and recurrence.

**Gynecologic Complications**

These are numerous and their management is determined by the underlying cause.

Hematometra
- Is caused by cervical or vaginal stenosis
- The patient presents with amenorrhea and cyclic pain
- The management consists in:
  - Opening the cervix and draining the uterus
  - Stenting the cervical canal
  - If the patient does not wish to have more children, ending menstruation by means of injectable progesterone or a hysterectomy

Menouria
- Occurs when the cervix drains into the bladder
- The management consists in:
  - Separating the cervix from the bladder and repairing the fistula with interposition of omentum
  - Repositioning the cervix vaginally or abdominally
  - If the patient does not wish to have more children, ending menstruation by means of injectable progesterone or a hysterectomy

| | |
|---|---|
| Secondary amenorrhea | Causes include:<br>• Asherman's syndrome<br>• Sheehan's syndrome<br>• Cervical stenosis<br>• Vaginal obliteration<br>• Psychological disorders<br><br>Management<br>• Refer the patient to the gynecologist |
| Secondary infertility | The causes and management are the same as those for secondary amenorrhea |

# APPENDIX A7:

## Module Seven: Anesthesia for Fistula Surgery

Please read the recommended books and articles to gain an overview of this matter.

A general textbook on anesthesia will be recommended by your trainer or your trainer's anesthetist.

# APPENDIX B

# APPENDIX B1

Waaldijk Classification of Genito-urinary Fistula (Waaldijk 1990; Waaldijk 1995)
Waaldijk Classification of Genito-anorectal Fistula (Waaldijk 1990; Waaldijk 1995)

Goh Classification of Genito-urinary Fistula (Goh, Browning et al. 2008)
Goh Classification of Genito-anorectal Fistula (Goh, Browning et al. 2008)

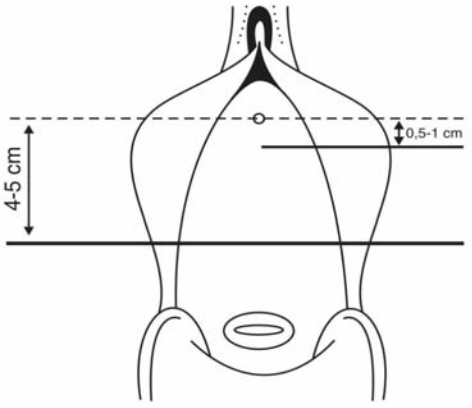
Other Classifications exist but they have not been fully validated. Please ask your trainer which classification he/she prefers to use, and which he/she recommends that you use during your training.

# The Waaldijk Classification

## The Waaldijk Classification of Genito-Urinary Fistulae (GUF) (Waaldijk 1995, with permission)

**Figures 1 and 2 demonstrate areas of injury in women with GUF**

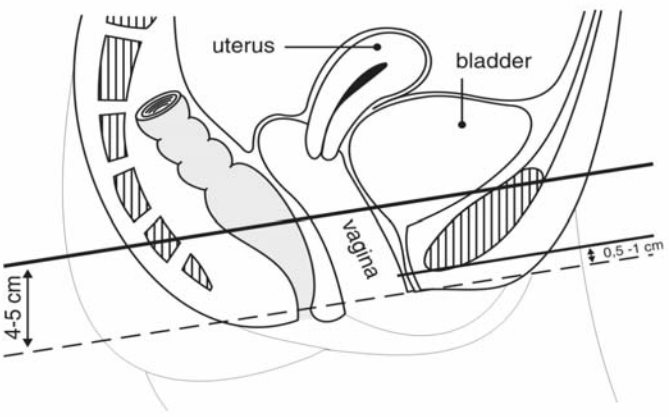
figure 1




continence/closing mechanism: frontal

© kees

figure 2




continence/closing mechanism: sagittal

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**Classification of Fistulae according to Anatomic/Physiologic Location**

| | | | |
|---|---|---|---|
| I | Fistulae not involving the continence/closing mechanism | | |
| II | Fistulae involving the continence/closing mechanism | **A** Without (sub)total urethra involvement | **a** Without circumferential defect |
| | | | **b** With circumferential defect |
| | | **B** With (sub)total urethra involvement | **a** Without circumferential defect |
| | | | **b** With circumferential defect |
| III | Miscellaneous, e.g., fistulae involving the ureter and other exceptional fistulae | | |

### Classification of Fistulae with Incontinence due to involvement of the closing mechanism

| | |
|---|---|
| **Type I** | No involvement |
| **Type II Aa** | Minimal to moderate |
| **Type II Ab** | Moderate to major |
| **Type II Ba** | Major |
| **Type II Bb** | Extensive |
| **Type III** | No involvement |

### Additional Classification of Fistulae according to size

| | |
|---|---|
| **Small** | < 2cm |
| **Medium** | 2–3cm |
| **Large** | 4–5cm |
| **Extensive** | ≥ 6cm |

### Using the Classification System to predict Surgical Principles

| Type of fistula | Bladder/urethra direction of closure | Pubocervical fascia | Anterior vaginal wall closure |
|---|---|---|---|
| Type I | Any, use common sense | No special measures | Adapt to fistula margins |
| Type II Aa | Transverse | Transverse repair with or without fixation | Transverse adaptation |
| Type II Ab | Circumferential end-to-end | Re-fixation | Transverse adaptation |
| Type II Ba | Longitudinal, with transverse urethral tissue | Fixation | Flap |
| Type II Bb | Longitudinal, with circumferential non-urethral tissue | Re-fixation | Flap |
| Type III | NA | NA | NA |

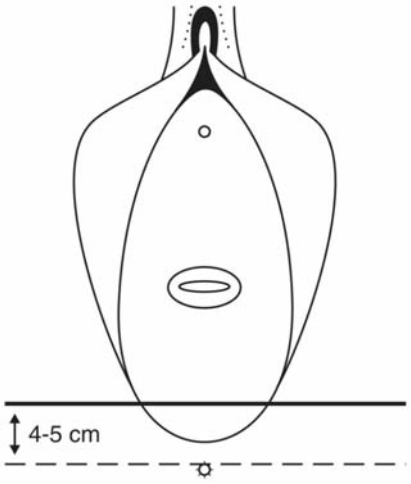
### Prognostic outcomes by the Waaldijk classification for 1,716 consecutive patients who underwent early VVF closure (1992–2001)

| Type of fistula | No. of patients | Healed at first attempt, No. (%) | Final healing, No. (%) | Incontinence, No. (%) |
|---|---|---|---|---|
| Type I | 243 | 238 (97.9) | 242 (99.6) | 1 (0.4) |
| Type II Aa | 888 | 868 (97.4) | 888 (100) | 11 (1.2) |
| Type II Ab | 366 | 333 (91.0) | 353 (96.4) | 30 (8.5) |
| Type II Ba | 87 | 80 (96.4) | 86 (98.9) | 14 (16.3) |
| Type II Bb | 132 | 114 (86.4) | 121 (91.7) | 59 (48.8) |

# The Waaldijk Classification of Genito-Anorectal Fistulae (ARF) (Waaldijk 1995, with permission)

**Figures 1 and 2 demonstrate areas of injury in women with ARF**

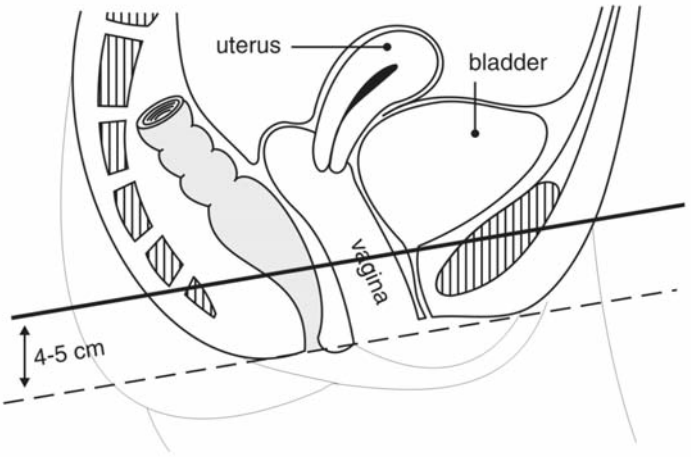
figure 1




continence/closing mechanism: frontal

© kees

figure 2




continence/closing mechanism: sagittal

© kees

## Classification of Fistulae according to Anatomic/Physiologic Location

| | | |
|---|---|---|
| **Type I** | Proximal fistulae not involving the continence/closing mechanism | **a** Without rectum stricture |
| | | **b** With rectum stricture (common) |
| | | **c** With circumferential defect (not common) |
| **Type II** | Distal fistulae involving the continence/closing mechanism | **a** Without sphincter ani involvement |
| | | **b** With sphincter ani involvement |
| **Type III** | Miscellaneous, e.g., ileouterine fistulae after instrumental abortion | |

## additional classification of fistulae According To Size

| | |
|---|---|
| **Small** | < 2cm |
| **Medium** | 2–3cm |
| **Large** | 4–5cm |
| **Extensive** | ≥ 6cm |

### Using the Classification System to predict Surgical Principles

| Type | Surgical principles |
|---|---|
| Type I a | Transverse closure of rectum |
| Type I b | Transverse closure of rectum with disruption of rectal stricture |
| Type I c | End-to-end anastomosis (after disruption of strictures); exceptionally, combined abdomino-vaginal approach with colostomy |
| Type II a | Longitudinal closure of ano-rectum |
| Type II b | Meticulous reconstruction of all the structures involved |
| Type III | Depends on the situation |

### Prognostic outcomes with the Waaldijk Classification System

There is no clear relation between surgical outcome and type of fistula, except that type I c fistulae are the most difficult to handle, with the worst results (personal communication Waaldijk, 2010).

# The Goh Classification

## The Goh Classification of Genito-Urinary Fistulae (Goh 2004; Goh, Browning et al. 2008)

| Site (distance between external urinary meatus and distal edge of fistula) | |
|---|---|
| Type 1 | > 3.5cm |
| Type 2 | 2.5–3.5cm |
| Type 3 | 1.5 to just less than 2.5 cm |
| Type 4 | < 1.5cm |
| **Size (length of the largest diameter)** | |
| A | < 1.5cm |
| B | 1.5–3cm |
| C | > 3cm |
| **Scarring characteristics** | |
| I | None or only mild fibrosis (around fistula and/or vagina) and/or vaginal length > 6cm with normal vaginal capacity |
| I i | Moderate or severe fibrosis (around fistula and/or vagina) and/or reduced vaginal length and/or reduced vaginal capacity |
| I ii | Special consideration, e.g., radiation damage, ureteric involvement, circumferential fistula, previous repair |

Prognostic outcomes by the Goh classification for 987 patients who underwent genito-urinary fistula closure

| Characteristic | Percentage of fistulae closed (n=960 [97.3%]) | Percentage of failed repairs (n=27 [2.7%]) | Percentage of continent patients with closed fistulae (n=731 [74%]) | Percentage of incontinent patients with closed fistulae (n=229 [23.2%]) |
|---|---|---|---|---|
| Type of fistula | | | | |
| 1 (n=356) | 97.2 | 2.8 | 94.1 | 3.1 |
| 2 (n=182) | 98.4 | 1.6 | 78.6 | 19.8 |
| 3 (n=171) | 97.1 | 2.9 | 64.9 | 32.2 |
| 4 (n=278) | 96.8 | 3.2 | 51.1 | 45.7 |
| *P* value | 0.77 | 0.77 | < 0.001 | < 0.001 |
| Size of fistula | | | | |
| a (n=247) | 97.6 | 2.4 | 87.0 | 10.5 |
| b (n=245) | 99.6 | 0.4 | 77.9 | 22.1 |
| c (n=495) | 96.0 | 4.0 | 68.6 | 30.1 |
| *P* value | 0.35 | 0.35 | 0.08 | 0.08 |
| Scarring/special considerations | | | | |
| i (n=456) | 98.0 | 2.0 | 90.4 | 7.7 |
| ii (n=137) | 97.8 | 2.2 | 73.7 | 24.1 |
| iii (n=394) | 96.2 | 3.8 | 55.3 | 40.9 |
| *P* value | 0.04 | 0.04 | < 0.01 | < 0.01 |

## The Goh Classification of Genito-Anorectal Fistulae (Goh 2004; Goh, Browning et al. 2008)

| Site (distance between distal edge of fistula and hymen) | |
|---|---|
| Type 1 | > 3cm |
| Type 2 | 2.5–3cm |
| Type 3 | 1.5 to just less than 2.5cm |
| Type 4 | < 1.5cm |
| **Size (length of the largest diameter)** | |
| A | < 1.5cm |
| B | 1.5–3cm |
| C | 3cm |
| **Scarring characteristics** | |
| I | None or mild fibrosis around the fistula and/or vagina |
| I i | Moderate or severe fibrosis |
| I ii | Special consideration, e.g., radiation damage, inflammatory disease, malignancy, previous repair |

# APPENDIX B2

**Equipment needed for Vaginal Surgery**

This is by no means a comprehensive list, but it provides a brief outline of the equipment needed. Each trainer and training center is likely to have a few other suggestions.

### A. Instruments for vaginal fistula repair (one set)

| Item | Quantity |
|---|---|
| Kidney dish, 500mL | 1 |
| Gallipot, 57mL | 1 |
| Kidney dish, 30cm | 1 |
| Towel clip, Backhaus, 9cm | 6 |
| Surgical blade holder, No. 3 | 1 |
| Surgical blade holder, No. 4 | 1 |
| Sponge-holding forceps, Rampley, 24cm | 3 |
| Tissue forceps, toothed, Judd Allis, 19cm (3 x 4 teeth) | 6 |
| Tissue forceps, non-toothed, Littlewood, 19cm | 3 |
| Mosquito artery forceps, curved | 6 |
| Mosquito artery forceps, straight | 6 |
| Artery forceps, Kocher | 6 |
| Artery forceps, curved | 4 |
| Auvard weighted vaginal speculum | 1 |
| Sims speculum, medium | 1 |
| Sims speculum, large | 1 |
| Retractor, Langenbeck, 3.5cm x 1.5cm | 2 |
| Probe with eye, silver-plated, 13cm or 15cm | 1 |
| Female metal catheter, 12F | 1 |
| Needle holder, Mayo-Hega, 20mm | 1 |
| Needle holder, Lawrence | 1 |
| Dressing forceps, toothed, 127mm | 2 |
| Dressing forceps, non-toothed, 127mm | 1 |
| Uterine sound, silver/chrome plated, Simpson, 30cm | 1 |
| Suture scissors, sharp, straight, 13cm | 1 |
| Fine tissue scissors, Mcindoe, 19cm | 1 |
| Rough tissue scissors, Boyd, 17cm | 1 |

## B. List of minimum equipment for out-patient and in-patient care (five patient evaluation sets can be prepared from this list)

| Item | Quantity |
|---|---|
| Disinfector(boiler), 240 V AC 12KW, capacity of 150L | 1 |
| Instrument trolley | 1 |
| Kidney dish, 500mL | 5–10 |
| Gallipot, 57mL | 5 |
| Sponge-holding forceps, Rampley, 24cm | 5 |
| Mosquito artery forceps, curved | 5 |
| Artery forceps (Kocher) | 5 |
| Sims speculum, medium | 5 |
| Retractor, Langenbeck, 3.5 x 1.5cm | 5 |
| Probe with eye, silver plated, 13cm or 15cm | 5 |
| Female metal catheter, 12F | 5 |
| Needle holder, Mayo-Hega, 20mm | 5 |
| Surgical blade holder, No. 4 | 5 |
| Sharp suture scissors, straight, 13cm | 5 |
| Dressing forceps, toothed, 127mm | 5 |
| Uterine sound | 2 |

## C. Extra list of equipment

| Item | Quantity |
|---|---|
| Drum sterilizers, 24cm x 24cm | 3–5 |
| Surgical light with battery backup | 1 |
| Spotlight | 2 |
| Operating table, mobile with adjustable height, Trendelenburg and reverse Trendelenburg positions, adjustable foot and head sections (Accessories such as legging, shoulder pieces and blades included) | 1 |
| Bowl stand | 2 |
| Instrument trolley | 2 |
| Anesthesia machine | 1 |
| Autoclave | 1 |

**Figure 1. Instruments used for vaginal fistula surgery**

COURTESY OF PROFESSOR CHARLES-HENRY ROCHAT 2010

# APPENDIX B3

This appendix covers the basics of pelvic floor physiotherapy. It includes an overview of the following:

1. **Oxford scale of pelvic floor muscle (PFM) assessment**
2. **Pelvic floor muscle (PFM) physiotherapy techniques**

## Oxford Scale PFM Assessment Tool

Measuring squeeze pressure is the most commonly used method of assessing maximum PFM strength and endurance. The patient is asked to contract her PFMs as hard as possible (maximum strength), to sustain the contraction (endurance), or to perform as many contractions as possible (endurance). The measurement can be done in the vagina, rectum or urethra by manual testing (vaginal palpation), pressure manometry or dynamometry.

Manual testing was developed by Laycock, who modified the Oxford Grading System to measure PFM strength using vaginal palpation.

This is a 6-point scale:

0 = no contraction
1 = flicker
2 = weak
3 = moderate
4 = good (with lift)
5 = strong

This scale is simple to use and requires no special equipment, as physiotherapists can easily perform palpation during clinical assessment.

## PFM Physiotherapy (PFMP)

### Make a Diagnosis

- Determine the form of the patient's incontinence (stress, urge or mixed)
- Measure post-void residual urine in patients with symptoms of voiding dysfunction or recurrent UTI
- Rule out UTI by performing a urine dipstick test
- Identify relevant predisposing and precipitating factors and other diagnoses that may require referral
- Initiate PFMP treatment when all confounding factors are excluded

### Basic Post-surgical Incontinence Management Program

Supervised PFMP is recommended for at least three months as a first-line treatment for stress or mixed urinary incontinence (UI).

- PFMT should comprise at least eight contractions performed three times per day
- Routine digital assessment of PFM contraction is not required, but to be considered when there is no initial benefit from PFMT
- When PFMT is beneficial, the exercises should be continued for the long term
- Where possible, consider electrical stimulation and/or biofeedback for patients who cannot actively contract their PFMs

Supervised bladder training is recommended for urge or mixed UI in addition to PFMP. Moreover:

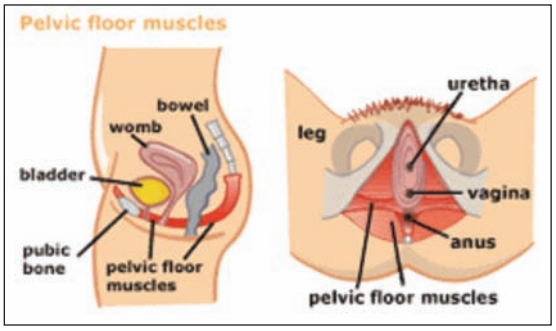
- Caffeine intake should be limited
- If the patient only receives partial benefit from bladder training, consider prescribing an anti-muscarinic drug to lessen urination frequency
- Use oxybutynin as a first-line anti-muscarinic drug. If not tolerated, alternatives include solifenacin, tolterodine, and trospium (where available). Other anti-muscarinic drugs are available

## Dedicated PFM Physiotherapy

*(With permission of Women's Health Physiotherapy at University College Hospital, London)*

**Anatomy:**

Pelvic floor muscle exercises (PFMEs) are sometimes called Kegel exercises, after the obstetrician who developed them. Another name for the exercises is pelvic floor muscle training (PFMT).




Pelvic floor exercises are among the first-line treatments for stress urinary incontinence (SUI). They are also thought to be helpful, but not as effective, in persons with urge urinary incontinence (UUI).

Other treatments include:

- Electrical stimulation
- Vaginal cones
- No treatment

However, women who do pelvic floor exercises tend to show the most improvement.

**How do the exercises improve SUI?**

The exercises are designed to:

- Make the pelvic floor stronger
- Make the patient more able to tighten her pelvic floor muscles before abdominal pressure increases, e.g., when she sneezes, coughs or laughs.

**How does one perform the exercises?**

Pelvic floor exercises are best taught by a specialist, e.g., a continence adviser or a physiotherapist.

1. **The patient needs to be taught how to identify the muscles to contract**
   She should tighten the muscles around the vagina and anus and lift up, as if to try stopping urination and flatus at the same time.

   A quick way to find the right muscles is to try to stop the flow of urine while sitting on the toilet. The patient should not do this regularly, however, because she may cause urine retention. After the contraction, she should relax and empty her bladder completely.

   To ensure that the right muscles are being exercised, the therapist inserts a couple of fingers in the patient's vagina and asks her to perform a gentle squeeze.

2. **The patient needs to be taught how to contract the muscles correctly**
   The contraction is an upward and inward movement, not a bearing-down effort.

   The patient is asked to put her hands on her abdomen and buttocks to make sure she does not feel her belly, thighs, or buttocks move.

- The patient is asked not to hold her breath. She should be able to hold a conversation or count aloud while performing the exercises
- She is asked not to tighten her abdominal, thigh or buttock muscles, as she would be exercising the wrong muscle groups
- She is asked not to squeeze her legs together

**3. Fast and slow contractions**

The therapist tells the patient that she needs to train her pelvic floor muscles through repetition.

**Slow contractions**

Slow contractions help increase the pelvic floor strength. They help the muscles hold back the urine. The patient should:

- Lift her pelvic floor muscles while the patient or her therapist counts to ten
- Hold the muscles tight for ten seconds
- She may find at first that she can only hold the contraction for one or two seconds, but she must concentrate on lifting her muscles and holding the contraction for as long as she can
- Gradually increase the time until she reaches ten seconds
- Relax her muscles and rest for ten seconds
- Repeat the sequence up to ten times

**Fast contractions**

Fast contractions help the pelvic floor to resist the pressure created by sneezing, coughing or laughing. They exercise the muscles that quickly shut off the flow of urine. The patient should:

- Lift her pelvic floor muscles quickly
- Hold the contraction for one second
- Relax the muscles and rest for one second
- Repeat the sequence 10 times

**How often should the patient perform the exercises?**

– One set of slow and one set of fast contractions six times per day
– A fast contraction just before a cough, sneeze or laugh
– A fast contraction just before getting out of a chair (this is because getting up puts pressure on the bladder and pelvic floor)

**How does the patient know the exercises are beneficial?**

– She can test her muscle strength with the stop-start test: partially empty her bladder when urinating, then try to stop the flow of urine
– If she can't stop the flow completely, slowing it is a good start. She should do the test about every two weeks to see if her muscles are growing stronger, but not more often

**The pros of pelvic floor exercises**

- They are simple, effective, and cost nothing
- They can be done when sitting, standing or lying down
- They require no special equipment
- They can be done with or without vaginal cones

**The cons of pelvic floor exercises**

- The patient must do them for the rest of the life
- It can take up to 15 weeks before any difference is noted
- They do not preclude the need for continence surgery

# APPENDIX C

## PBA Support Documents and Surgical Guides

This appendix provides surgical and anesthetic guides to PBAs provided earlier in the manual. These guides are by no means comprehensive, but they provide guidance by suggesting steps in the repair of different fistula conditions.

Each trainer has preferred techniques for each condition and the trainees are expected to learn as many of these techniques as possible. In this way, they will gain extensive experience and be able to apply their varied skills to the complex fistulae they are likely to encounter in their surgical career. Skill level is always personal, however, and all fistula surgeons cannot tackle all fistula surgery. Future fistula surgeons must recognize the point where they ought to refer a patient to a more senior colleague to prevent serious complications and the need for repeated surgery.

Because some centers offer anesthetic training, PBAs concerning the types of anesthesia used in fistula surgery were included in this manual.

# C1: SURGICAL GUIDE TO PBA 1

**Basic principles of fistula surgery (to be used with all PBA forms concerning fistula surgery)**

| Item under observation PLEASE TICK RELEVANT BOX | Independently performed | Needs help | Not applicable |
|---|---|---|---|
| **Pre-operative checks** | | | |
| • Checked patient consent for the surgery | | | |
| • Ensured all needed surgical equipment was present | | | |
| • Ensured all sutures that may be needed were present | | | |
| • Ensured good lighting was present | | | |
| **Operative procedure** | | | |
| • (The type of anesthesia, spinal or general, is to be determined by the trainer/training center) | | | |
| • Carefully positioned the patient | | | |
| • Exposed the fistula using appropriate instruments | | | |
| • Performed the measurements needed to *classify the fistula* accurately | | | |
| • Stitched the labia open (if needed) | | | |
| • Performed an episiotomy (if needed) | | | |
| • Applied traction to the vaginal tissues (if needed) | | | |
| • Preliminary examination: checked for bladder stones, performed a dye test for tiny or unusual fistula | | | |
| • Infiltrated tissue for hemostasis using diluted oxytocin/adrenalin (if needed) | | | |
| **Comments** | | | |

# C2: SURGICAL GUIDE TO PBA 2

**Surgical steps in the closure of a standard urinary fistula**

| Item under observation PLEASE TICK RELEVANT BOX | Independently performed | Needs help | Not applicable |
|---|---|---|---|
| **Standard steps**<br>• Checked and (if needed) catheterized the ureteric orifices | | | |
| • Incised around the edge of the fistula | | | |
| • Mobilized the bladder | | | |
| • Trimmed the edge of the fistula (optional) | | | |
| • Closed the fistula in one or two layers without tension | | | |
| • Introduced an indwelling catheter (14F–18F) | | | |
| • Performed a dye test to test closure and check for missed VVF | | | |
| • Measured and recorded urethral and bladder lengths | | | |
| • Closed the vaginal mucosa | | | |
| **Points to remember**<br>• Checking bladder catheter drainage | | | |
| • Applying a vaginal pack, if needed | | | |
| • Removing the ureteric catheters, if inserted | | | |
| • Securing the urethral catheter | | | |
| **Comments** | | | |

# C3: SURGICAL GUIDE TO PBA 3

**Repair of urinary fistulae with extensive vaginal scarring**

| Item under observation PLEASE TICK RELEVANT BOX | Independently performed | Needs help | Not applicable |
|---|---|---|---|
| Assessed the extent of vaginal scarring | | | |
| Performed a large episiotomy (unilateral or bilateral), as necessary | | | |
| Excised scarring, where needed | | | |
| Performed the repair according to the situation | | | |
| Performed an appropriate flap if the vaginal mucosa was deficient | | | |
| Re-applied vaginal packs, as needed | | | |
| Performed appropriate post-operative vaginal dilatation (e.g., using a candle and condom or plastic vaginal dilators) | | | |
| Comments | | | |

# C4: SURGICAL GUIDE TO PBA 4

**Urethral fistula repair**

| Item under observation PLEASE TICK RELEVANT BOX | Independently performed | Needs help | Not applicable |
|---|---|---|---|
| Assessed extent of injury and scarring as well as bladder capacity | | | |
| Mobilized the urethra using fine scissors, removing fibrous tissue if needed | | | |
| Handled tissue with care | | | |
| Closed the fistula in one layer with minimum tension using 3/0 absorbable suture material | | | |
| Considered reinforcement with a Martius labial fat pad graft or a pubo-coccygeus sling | | | |
| Closed the vagina using a fine absorbable suture material, if available | | | |
| **Comments** | | | |

# C5: SURGICAL GUIDE TO PBA 5

## Urethral reconstruction

| Item under observation PLEASE TICK RELEVANT BOX | Independently performed | Needs help | Not applicable |
|---|---|---|---|
| **Preliminary assessment)**<br>*(Selection of the appropriate technique)*<br>1. Assessed the extent of urethral loss/length | | | |
| 2. Selected the appropriate technique (as the wrong choice may adversely affect functional outcome) | | | |
| **Technique 1**<br>a) Demarcated the tissue to be used for reconstruction and made deep para-urethral incisions at least 4cm wide | | | |
| b) Mobilized sufficient tissue | | | |
| c) Inserted a 12F to 18F Foley catheter into the urethra and repaired the urethra by rolling tissue over the catheter | | | |
| **Technique 2**<br>a) Tubularized mobilized tissue, testing the diameter with a Hegar 8 dilator (diameter of 6mm) | | | |
| b) Used a fine suture material, made as few sutures as possible and avoided tension | | | |
| 3. Reinforced the continence mechanism | | | |
| 4. Closed the vaginal mucosa without tension, with flaps if necessary | | | |
| 5. Left the catheter for 2 to 3 weeks or created a suprapubic cystotomy, if necessary | | | |
| 6. Secured the catheter to avoid trauma to the neo-urethra<br>*(Note: For circumferential urethral loss, make a bladder flap or use buccal mucosa)* | | | |
| **Comments** | | | |

# C6: SURGICAL GUIDE TO PBA 6

**Identification and surgical repair of circumferential VVF**

| Item under observation PLEASE TICK RELEVANT BOX | Independently performed | Needs help | Not applicable |
|---|---|---|---|
| Principles of surgical repair in circumferential VVF<br>• Assessed the loss of bladder and urethral tissue (classified the fistula and assessed the integrity of the continence mechanism) | | | |
| Determined the extent of mobilization required | | | |
| • After mobilizing the bladder circumferentially, anastomosed bladder and urethra with 3 to 5 sutures also attached to the periosteum of the posterior symphysis pubis | | | |
| • Reinforced the continence mechanism | | | |
| • Repaired the vaginal mucosa | | | |
| Comments | | | |

# C7: SURGICAL GUIDE TO PBA 7

## Ureteric repair/re-implantation (abdominal approach)

| Item under observation PLEASE TICK RELEVANT BOX | Independently performed | Needs help | Not applicable (NA) |
|---|---|---|---|
| Identification and attempt at catheterization of the injured ureter<br>*(If the ureter cannot be catheterized vaginally, catheterization should be done abdominally)* | | | |
| 1. Inserted a Foley catheter into the bladder via the urethral meatus | | | |
| 2. Identified the injured ureter and mobilized it retroperitoneally and distally up to the obstructed or injured site | | | |
| 3. Tied the ureter as distally as possible | | | |
| 4. Used a stay suture (if the trainer agrees) | | | |
| 5. Freed and mobilized the ureter proximally until adequate mobility for re-implantation was achieved<br>*(Note: If needed, consider a Psoas hitch, a Boari flap or trans-ureteral anastomosis with ileal interposition)* | | | |
| 6. Incised the bladder, made a new opening in the bladder for the ureter, introduced the ureter, spatulated it and anastomosed it to the bladder mucosa | | | |
| 7. Secured the ureter to the outer layer of the bladder | | | |
| 8. Introduced a ureteric catheter (optional) | | | |
| 9. Close the bladder around the ureteric catheter or direct it outside through the urethra | | | |
| Comments | | | |

# C8: SURGICAL GUIDE TO PBA 8

**Surgical repair of the third and fourth degree tears**

| Item under observation PLEASE TICK RELEVANT BOX | Independently performed | Needs help | Not applicable |
|---|---|---|---|
| **Principles for surgical repair**<br>• Used an aseptic technique | | | |
| • Obtained good exposure | | | |
| • Ensured maximum access | | | |
| • Localized the tear, assessed its size and classified it as third or fourth degree | | | |
| **Standard surgical repair steps**<br>• Incised around the margins of the tear and mobilized it | | | |
| • Dissected the vaginal wall from the underlying rectal wall adequately | | | |
| • Mobilized the rectum adequately | | | |
| • Excised the scar from the tear edges, if needed | | | |
| • Avoided the rectal mucosa during closure | | | |
| • Performed a tension-free, airtight closure | | | |
| **Specialist technique 1**<br>• Starting from an angle, closed the tear with an absorbable suture avoiding the rectal mucosa | | | |
| • Closed the ano-rectum in 1 or 2 layers, repairing the IAS (if visible) | | | |
| • Repaired the EAS by the overlapping or end-to-end method | | | |
| • Checked anal sphincter patency and tone before and after suturing | | | |
| • Approximated the vaginal wall and repair the perineal body | | | |
| • Closed the vaginal mucosa and perineal skin, if possible | | | |
| **Specialist technique 2**<br>• Assessed the extent of the tear | | | |
| • Held the skin dimples indicating the divided ends of the EAS | | | |

| Item under observation PLEASE TICK RELEVANT BOX | Independently performed | Needs help | Not applicable (NA) |
|---|---|---|---|
| • Made an incision from side to side at the vaginal mucosal edge | | | |
| • Freed the ano-rectum using sharp dissection and exposed the stumps of the EAS | | | |
| • Before repairing the sphincter, closed the tear with an absorbable suture starting from an angle and avoiding the rectal mucosa | | | |
| • Repaired the EAS by the overlapping or end-to-end method | | | |
| • Checked anal sphincter patency and tone before and after suturing | | | |
| • Repaired the vaginal wall and perineal body, If needed | | | |
| **Comments** | | | |

# C9: SURGICAL GUIDE TO PBA 9

**Surgical Repair of Recto-Vaginal Fistula (RVF) and Anal Sphincter Injury**

| Item under observation PLEASE TICK RELEVANT BOX | Independently performed | Needs help | Not applicable |
|---|---|---|---|
| **Principles for surgical repair**<br>• Used an aseptic technique | | | |
| • Obtained good exposure | | | |
| • Ensured maximum access | | | |
| • Localize fistula, assessed its size and classified it | | | |
| **Standard surgical repair steps**<br>• Performed a circular incision around the fistula edge | | | |
| • Dissect the vaginal wall from the underlying rectal wall adequately | | | |
| • Mobilized the rectum adequately | | | |
| • Excised the scar from the fistula edges, if needed | | | |
| • Avoided the rectal mucosa during closure | | | |
| • Performed a tension-free, airtight closure | | | |
| **Specialist technique 1**<br>• Starting from an angle, closed the fistula with an absorbable suture avoiding the rectal mucosa | | | |
| • Closure of the ano-rectum in 1 or 2 layers, repairing the IAS (if visible) | | | |
| • Repaired the EAS by the overlapping or end-to-end method | | | |
| • Checked anal sphincter patency and tone before and after suturing | | | |
| • Considered a flap, if needed | | | |
| • Approximated the vaginal wall | | | |
| • Repaired the perineal body | | | |
| • Closed the vaginal mucosa and perineal skin, if possible | | | |
| **Specialist technique 2**<br>• Assessed the extent of tear | | | |
| • Held the skin dimples indicating the divided ends of the EAS | | | |

| Item under observation PLEASE TICK RELEVANT BOX | Independently performed | Needs help | Not applicable |
|---|---|---|---|
| • Made an incision from side to side at the vaginal mucosal edge | | | |
| • Freed the ano-rectum using sharp dissection and exposed the stumps of the EAS | | | |
| • Before repairing the sphincter, closed the tear with an absorbable suture starting from an angle and avoiding the rectal mucosa | | | |
| • Repaired the EAS by the overlapping or end-to-end method | | | |
| • Checked anal sphincter patency and tone before and after suturing | | | |
| • Considered a flap, if needed | | | |
| • Repaired the vaginal wall and perineal body, if needed | | | |
| **Comments** | | | |

# C10: SURGICAL GUIDE TO PBA 10

**Identification and Repair of Circumferential RVF**

| Item under observation PLEASE TICK RELEVANT BOX | Independently performed | Needs help | Not applicable |
|---|---|---|---|
| **Principles of surgical repair in circumferential RVF**<br>• Decided whether a diversion colostomy was needed (usually done when performing a second repair) | | | |
| • Identified the proximal and distal ends of the fistula | | | |
| • Checked for patency/stricture of the rectal lumen at both ends (ensured that no stool was present) | | | |
| • Dissected out any stricture, using sharp or blunt dissection | | | |
| • Incised around the fistula edge | | | |
| • Mobilized the recto-sigmoid colon, circumferentially if possible | | | |
| • Approximated the posterior wall of the rectum if possible | | | |
| • Inserted a rectal tube under direct vision (optional) | | | |
| • Completed the closure following the other principles for RVF and anal sphincter repair | | | |
| **Comments** | | | |

# C11: SURGICAL GUIDE TO PBA 11

**Vaginal/Abdominal Vaginal Vault Fistula Repair (after a hysterectomy)**

| Item under observation PLEASE TICK RELEVANT BOX | Independently performed | Needs help | Not applicable |
|---|---|---|---|
| Mobilized the bladder from the peritoneum, with special care to avoid bowel injury (used the exaggerated Trendelenberg position if using the vaginal route) | | | |
| Identified and catheterized the ureters, using direct vision or (if possible) a cystoscope | | | |
| (Note 1: The ureters may be implanted more laterally or higher than expected | | | |
| Note 2: There may be a previously undetected ureteric injury, and ureteric re-implantation may be necessary) | | | |
| Closed the fistula | | | |
| Interposed a peritoneal/omental flap (if needed) | | | |
| Repaired the vagina separately, using a non-absorbable suture | | | |
| Comments | | | |

# C12: SURGICAL GUIDE TO PBA 12

**Vesico-cervical and Vesico-uterine Fistula Repair**

| Item under observation PLEASE TICK RELEVANT BOX | Independently performed | Needs help | Not applicable |
|---|---|---|---|
| Mobilized the bladder from the cervix/uterus | | | |
| In case of a VVF, mobilized until access to the bladder and cervical aspects of the fistula was obtained | | | |
| Identified and (if necessary) catheterized the ureters | | | |
| Closed the bladder defect, which is longitudinal in most cases | | | |
| Closed the cervical/uterine defect in the case of a VVF | | | |
| Inserted a flap, if necessary | | | |
| Closed the vaginal mucosa | | | |
| Comments | | | |

# C13: ANESTHETIC GUIDE TO PBA 13

**Spinal Anesthesia (training by Anesthetist)**

| Item under observation PLEASE TICK RELEVANT BOX | Independently performed | Needs help | Not applicable |
|---|---|---|---|
| Placed the monitoring devices and obtained intravenous access | | | |
| Positioned the patient appropriately | | | |
| Used an septic technique | | | |
| Prepared all equipment and drugs | | | |
| Correctly identified the appropriate interspinous space | | | |
| Infiltrated the skin and subcutaneous tissues with a local anesthetic | | | |
| Inserted the spinal needle, with or without an introducer, until free flow of CSF | | | |
| Injected the anesthetic drug into the intrathecal space | | | |
| Assessed the level of blockade | | | |
| Continually monitored the patient for complications (e.g., respiratory distress, headache from dural tap) | | | |
| Comments | | | |

# C14: ANESTHETIC GUIDE TO PBA 14

**Sedation for Short Procedures (training by Anesthetist)**

| Item under observation PLEASE TICK RELEVANT BOX | Independently performed | Needs help | Not applicable |
|---|---|---|---|
| Checked all equipment (oxygen delivery system, monitoring and suction equipment) | | | |
| Prepared appropriate sedation and emergency drugs | | | |
| Placed the monitoring devices and obtained intravenous access | | | |
| Administered oxygen appropriately | | | |
| Administered the chosen sedation drug | | | |
| Regularly reassessed the patient and administered further medication, as needed | | | |
| Continually monitored the patient for complications throughout surgery | | | |
| Comments | | | |

# C15: ANESTHETIC GUIDE TO PBA 15

**General Anesthesia (training by the Anesthetist)**

| Item under observation PLEASE TICK RELEVANT BOX | Independently performed | Needs help | Not applicable |
|---|---|---|---|
| Checked the anesthetic machine(s) and monitoring equipment | | | |
| Prepared the appropriate drugs, including emergency drugs | | | |
| Placed the monitoring devices and obtained intravenous access | | | |
| Pre-oxygenated the patient | | | |
| Induced the anesthesia by the chosen method (intravenous or gaseous) | | | |
| Established a patent airway and hand ventilated the patient | | | |
| Established and secured a definitive airway | | | |
| Inserted other vascular lines, if required (another intravenous access, an arterial line or a central venous line) | | | |
| Continually monitored the patient for complications throughout surgery | | | |
| Extubated the airway competently for a smooth emergence from anesthesia | | | |
| Comments | | | |

# APPENDIX D

## Support Tools for Audit and Assessment of Quality of Life

All competency-based training needs to be supported by assessment tools. The present tools were designed carry out audits of surgical and clinical practice. Practitioners can modify their surgical techniques, and improve their patients' outcomes, on the basis of personal audits.

Other assessment tools provide a framework for clinical assessment. These are questionnaires for taking urogynecology history, examination forms to use before and after surgery and questionnaires for determining the quality of life (QoL) of the patient. The QoL questionnaires are useful for assessing the patient before and after surgery. They help detect and treat clinical and other problems.

The following documents are included in this appendix and alternatives are available from other sources (where copyright permission is required, it is stated below):

D1 Generic Audit Sheet for Fistula Patients

D2 UCLH Post-partum Trauma History and Examination Form
(with permission from S. Elneil, author)

D3 UCLH Urogynecology History and Examination Form
(with permission from S. Elneil, author)

D4 Wexner Bowel Function Questionnaire (QoL)

D5 Urogenital Distress Questionnaire (QoL)

D6 Database System Records (Web-based)
(with permission from C-H. Rochat, author)

# D1: AUDIT SHEET FOR FISTULA PATIENTS

**Genital Tract Fistula Audit**

| **Name** |
|---|
| |

| **Hospital number** | **Date of birth** |
|---|---|
| | |

| Data item to collect | Options | Comments |
|---|---|---|
| Type of fistula | VVF | |
| | RVF | |
| | Urethro-vaginal Fistula | |
| | Combined | |
| | Scar description | |
| | Other | |
| Labor duration | 1st stage | |
| | 2nd stage | |
| Parity | | |
| Type of delivery | Normal vaginal | |
| | Ventouse | |
| | Forceps | |
| | Emergency LSCS | |
| | Destructive operation | |
| Pain relief | Elective LSCS | |
| | Opioid | |

| Data item to collect | Options | Comments |
|---|---|---|
| | Entonox | |
| | None | |
| Place of delivery | Home | |
| | Health center | |
| | Hospital | |

| Data item to collect | Options | Comments |
|---|---|---|
| TBA, midwife or obstetrician in attendance? | YES/NO | |
| | If present, which performed the delivery? | |
| Position for delivery | Sitting up on bed | |
| | Lying on her side | |
| | Lithotomy | |
| | Standing | |
| | All fours | |
| | Squatting | |
| | Other | |
| Received sutures | YES/NO | If the patient sustained a tear, why not? |
| | Where | |
| Time from delivery to suturing (if relevant) | | |
| Method of repair (if known) | e.g., No. of layers for closure, whether stitching was continuous or interrupted, whether closure was overlapping or end-to-end | |

| Data item to collect | Options | Comments |
|---|---|---|
| Type of suture | | |
| Who sutured tear or episiotomy? | Physician | |
| | Midwife | |
| | TBA | |
| | Other | |
| | None | |
| Documentation | Analgesia | Any other documentation given |
| | Suture material | |
| | Swabs checked YES/NO | |
| | Vaginal exam YES/NO | |
| | Rectal exam YES/NO | |
| | Name and Signature YES/NO | |
| | None | |

# D2: UCLH POST-PARTUM TRAUMA HISTORY AND EXAMINATION PROFORMA

## Postpartum Clinic Proforma

| | |
|---|---|
| **Date** | **Hospital number** |
| **Name** | |
| **DOB/Age** | **Occupation** |
| **Phone** | **Lives with** |
| **main presenting complaint** | |

## Obstetric History relating to Current Condition

| | |
|---|---|
| Parity | |
| Date of delivery | |
| Duration of second stage of labor | |
| Analgesia | None/Gas and Air/Pethidine/Epidural or Spinal/GA |
| Mode of delivery | Normal/Ventouse/Forceps vaginal delivery |
| | Emergency/Elective cesarean delivery |
| | Episiotomy or tear |

### Classification of Tears *(PLEASE CIRCLE)*

1 Injury to the vaginal mucosa
2 Injury to the perineum and perineal muscles but not the anal sphincter
3 Injury to the perineum and anal sphincter:
3a: < 50% of EAS thickness torn
3b: > 50% of EAS thickness torn
3c: IAS torn
4 Injury to the perineum involving the anal sphincter complex (EAS and IAS) and rectal mucosa but not the anal sphincter

| | | | | |
|---|---|---|---|---|
| Catheter | YES/NO | If yes, no. of days | | |
| How long ago did problems develop? | | days | weeks | months |

# History

## Urinary Symptoms

| | |
|---|---|
| **Frequency** | No. of times per day: |
| | No. of times per night: |
| **Urgency** | Do you rush to the toilet? |
| **UI** | Do you leaks because you do not get to the toilet in time? |
| | No. of times per week: |
| **USI** | Do you leak when you cough/sneeze/exercise/stand up? |
| | No. of times per week: |
| **Continence aids** | Never uses/Socially/During exercise/Always |
| **Stream** | Normal/Slow/Intermittent |
| **Hesitancy** | Do you have trouble starting to urinate? |
| **Enuresis** | Do you wet the bed at night? YES/NO |
| **Complete emptying** | YES/NO (IF **NO**, inform physician) |

| | |
|---|---|
| **UTIs** | YES/NO (IF **YES**, No. of proven UTIs per year): |
| **Urethral pain** | YES/NO (IF **YES**, inform physician) |
| **Bladder pain** | YES/NO (IF **YES**, inform physician) |
| **Blood in urine** | YES/NO (IF **YES**, inform physician) |
| **Fluid intake** | Caffeine Total amount ( L) |
| **Childhood problems** | Giggle incontinence/Enuresis/Other |

## Prolapse

| | |
|---|---|
| Lump in vagina (feel/see) | YES/NO |
| Dragging feeling or backache | YES/NO |
| Does emptying the bladder or bowel reduce the prolapse? (IF YES, INFORM PHYSICIAN) | YES/NO |

## Bowel Function

| | |
|---|---|
| Frequency of bowel movement | No. per week: |
| Blood or mucus loss? | YES/NO |
| Stool Consistency | Hard/Pellet/Normal/"Cow pat"/Watery |
| Any difficulty emptying? | YES/NO |
| If YES: | |
| (i) Digitates to empty? | Anal/Vaginal/Both |
| (ii) Sensation of complete emptying? | YES/NO |
| (iii) Strains to evacuate:<br>< 25% of the time<br>> 25% of the time | |
| Any incontinent episodes? | YES/NO |
| If YES: | |
| (i) Leakage | No. of times per week: |
| (ii) Urge to urinate | No. of times per week: |
| (iii) Flatus? | |
| Urgency | How long can you wait?<br>< 5 minutes<br>> 5 minutes |

## Sexual Intercourse

| | |
|---|---|
| **Active** | **Dyspareunia (Superficial/Deep)** |
| **Leakage during sex** | **Contraception** |

## Menstrual History

| | | |
|---|---|---|
| Cycle | Bleeding: No. of days: | Cycle duration: No. of days: |
| Heavy | YES/NO (IF YES, consider investigation) | |
| Painful | YES/NO (IF YES, consider investigation) | |
| Intermenstrual Bleeding | YES/NO (MUST INFORM PHYSICIAN) | |
| Last Smear | Date: | Classification: |

**Medical History** (Condition/Treatment/Hospital)

**Surgical Interventions** (Type/Dates)

**Medications**

**Allergies**

## Examination

| | |
|---|---|
| VULVA and VAGINA: | Appearance |
| VISIBLE PROLAPSE | YES/NO |
| GRADED PELVIC FLOOR TONE (To be done by physiotherapist) | |

POP-Q (By physician, if appropriate)

The Pelvic Organ Prolapse Quantification (POP-Q) score is used to describe, quantify and stage pelvic floor support. The measurements are taken from six different points in the vagina and the hymen, first at rest and then at maximum effort during the Valsalva maneuver. These six points are located above the hymen in women without a prolapse, and their distance from the hymen is measured negatively when they remain above the hymen during the maneuver. The distance is measured positively when the prolapse protrudes past the hymen, such that the points are located below the hymen, during the Valsalva maneuver.

Of these six points two are located on the anterior vaginal wall (Aa and Ba), two are located on the posterior vaginal wall (Ap and Bp), one is located at the anterior lip of the cervix or, in women who had a hysterectomy, at the vaginal cuff (C) and one is located in the posterior fornix in women who have not had a hysterectomy (D). The genital hiatus (Gh) and the perineal body (Pb) are also measured at rest and during the Valsalva maneuver. Total vaginal length (TVL), however, is only measured at rest (Bump, Mattiasson et al. 1996).

By definition, Aa is located 3 cm above the hymen along the midline on the anterior vaginal wall. The range of the measurement for the distance of Aa to the hymen during the Valsalva maneuver is -3 cm (normal) to +3 cm when a defect in the anterior vaginal wall is present.

Ba is located most distally between Aa and C. In women with no defect in the anterior vaginal wall, Ba is also at -3 cm from the hymen. In women with a defect in the anterior vaginal wall, the value is between -3 cm and, in the most severe cases of prolapse, the entire TVL.

By definition, Ap is located 3 cm above the hymen on the posterior vaginal wall. The range of the measurement for the distance of Ap to the hymen during the Valsalva maneuver is -3cm (normal) to +3 cm.

Bp is located most distally between Ap and C. In women with no defect in the posterior vaginal wall, Bp is at -3 cm from the hymen. In women with a defect in the posterior vaginal wall, the value is between -3 cm and, in the most severe cases of prolapse, the entire TVL.

D: Posterior fornix (No D point after hysterectomy)

Gh: Genital hiatus (measured from the middle of the external urethral meatus to the posterior aspect of the hymen)

Pb: Perineal body (measured from the posterior margin of the genital hiatus to the middle of the anal opening)

TVL: Total vaginal length (vaginal depth when the posterior fornix, the most distal edge of the cervix or the vaginal cuff is placed in its normal position)

The measurements can be recorded in the following table so that comparisons can be made pre- and post-surgery:

| Pre-surgery | Post-surgery | Pre-surgery | Post-surgery | Pre-surgery | Post-surgery |
|---|---|---|---|---|---|
| **Aa** | | **Ba** | | **C** | |
| **gh** | | **pb** | | **TVL** | |
| **Ap** | | **Bp** | | **D** | |

BI-MANUAL EXAMINATION (If necessary)

Uterine size:

Adnexae:

## Investigations

### Urinary

DIPSTICK test to rule out infection

Check BLADDER RESIDUAL (if > 100mL residual, see PHYSICIAN)

### Bowel

ANO-RECTAL PHYSIOLOGY/ ENDOANAL USS (if available)

*SIGNATURE and DATE*

## Action Plans and Planned Review

*SIGNATURE and DATE*

# D3: UCLH UROGYNECOLOGY HISTORY AND EXAMINATION PROFORMA

## Urogynecology Clinic Proforma

| Date | Hospital no. |
|---|---|
| Name | |
| DOB/Age | Occupation |
| Phone | Lives with |
| Main presenting complaint | |

## Main Diagnosis

### Suggested Plan of Action

| | | |
|---|---|---|
| Stress Incontinence | → PFMT | ⇢ Urodynamics |
| OAB | → Fluid Management/Bladder Drill +/- Oxybutynin | |
| Prolapse | → Mild | → Pfmt ⇢ Urodynamics |
| | → Severe | → See Physician |
| Voiding Dysfunction | → See Physician | |
| Mixed | OAB > USI (Treat as for OAB) | |

# History

## Urinary Symptoms

| | |
|---|---|
| **Frequency** | No. of times per day: |
| | No. of times per night: |
| **Urgency** | Do you rush to the toilet? |
| **UI** | Do you leaks because you do not get to the toilet in time? |
| | No. of times per week: |
| **USI** | Do you leak when you cough/sneeze/exercise/stand up? |
| | No. of times per week: |
| **Continence aids** | Never uses/Socially/During exercise/Always |
| **Stream** | Normal/Slow/Intermittent |
| **Hesitancy** | Do you have trouble starting to urinate? |
| **Enuresis** | Do you wet the bed at night? YES/NO |
| **Complete emptying** | YES/NO (IF **NO**, inform physician) |

| | |
|---|---|
| **UTIs** | YES/NO (IF **YES**, No. of proven UTIs per year): |
| **Urethral pain** | YES/NO (IF **YES**, inform physician) |
| **Bladder pain** | YES/NO (IF **YES**, inform physician) |
| **Blood in urine** | YES/NO (IF **YES**, inform physician) |
| **Fluid intake** | Caffeine Total amount ( L) |
| **Childhood problems** | Giggle incontinence/Enuresis/Other |

## Prolapse

| | |
|---|---|
| Lump in vagina (feel/see) | YES/NO |
| Dragging feeling or backache | YES/NO |
| Does emptying the bladder or bowel reduce the prolapse? (IF YES, INFORM PHYSICIAN) | YES/NO |

## Bowel Function

| | |
|---|---|
| Frequency of bowel movement | No. per week: |
| Blood or mucus loss? | YES/NO |
| Stool Consistency | Hard/Pellet/Normal/"Cow pat"/Watery |
| Any difficulty emptying? | YES/NO |
| If YES: | |
| (i) Digitates to empty? | Anal/Vaginal/Both |
| (ii) Sensation of complete emptying? | YES/NO |
| (iii) Strains to evacuate:<br>< 25% of the time<br>> 25% of the time | |
| Any incontinent episodes? | YES/NO |
| If YES: | |
| (i) Leakage | No. of times per week: |
| (ii) Urge to urinate | No. of times per week: |
| (iii) Flatus? | |
| Urgency | How long can you wait?<br>< 5 minutes<br>> 5 minutes |

## Sexual Intercourse

| | |
|---|---|
| **Active** | **Dyspareunia (Superficial/Deep)** |
| **Leakage during sex** | **Contraception** |

## Obstetric History

| | |
|---|---|
| **No. of children** | **Mode of delivery** |
| **Any problems during labor or postpartum?** | |

## Menstrual History

| | | |
|---|---|---|
| Cycle | Bleeding: No. of days: | Cycle duration: No. of days: |
| Heavy | YES/NO (IF YES, consider investigation) | |
| Painful | YES/NO (IF YES, consider investigation) | |
| Intermenstrual Bleeding | YES/NO (MUST INFORM PHYSICIAN) | |
| Last Smear | Date: | Classification: |

## **Medical History** (Condition/Treatment/Hospital)

## **Past Operations** (Type/Dates)

## Medications

## Allergies

## Examination

| | |
|---|---|
| VULVA and VAGINA: | Appearance |
| VISIBLE PROLAPSE | YES/NO |
| GRADED PELVIC FLOOR TONE (To be done by physiotherapist) | |

POP-Q (By physician, if appropriate)

The Pelvic Organ Prolapse Quantification (POP-Q) score is used to describe, quantify and stage pelvic floor support. The measurements are taken from six different points in the vagina and the hymen, first at rest and then at maximum effort during the Valsalva maneuver. These six points are located above the hymen in women without a prolapse, and their distance from the hymen is measured negatively when they remain above the hymen during the maneuver. The distance is measured positively when the prolapse protrudes past the hymen, such that the points are located below the hymen, during the Valsalva maneuver.

Of these six points two are located on the anterior vaginal wall (Aa and Ba), two are located on the posterior vaginal wall (Ap and Bp), one is located at the anterior lip of the cervix or, in women who had a hysterectomy, at the vaginal cuff (C) and one is located in the posterior fornix in women who have not had a hysterectomy (D). The genital hiatus (Gh) and the perineal body (Pb) are also measured at rest and during the Valsalva maneuver. Total vaginal length (TVL), however, is only measured at rest (Bump, Mattiasson et al. 1996).

By definition, Aa is located 3 cm above the hymen along the midline on the anterior vaginal wall. The range of the measurement for the distance of Aa to the hymen during the Valsalva maneuver is -3 cm (normal) to +3 cm when a defect in the anterior vaginal wall is present.

Ba is located most distally between Aa and C. In women with no defect in the anterior vaginal wall, Ba is also at -3 cm from the hymen. In women with a defect in the anterior vaginal wall, the value is between -3 cm and, in the most severe cases of prolapse, the entire TVL.

By definition, Ap is located 3 cm above the hymen on the posterior vaginal wall. The range of the measurement for the distance of Ap to the hymen during the Valsalva maneuver is -3cm (normal) to +3 cm.

Bp is located most distally between Ap and C. In women with no defect in the posterior vaginal wall, Bp is at -3 cm from the hymen. In women with a defect in the posterior vaginal wall, the value is between -3 cm and, in the most severe cases of prolapse, the entire TVL.

D: Posterior fornix (No D point after hysterectomy)

Gh: Genital hiatus (measured from the middle of the external urethral meatus to the posterior aspect of the hymen)

Pb: Perineal body (measured from the posterior margin of the genital hiatus to the middle of the anal opening)

TVL: Total vaginal length (vaginal depth when the posterior fornix, the most distal edge of the cervix or the vaginal cuff is placed in its normal position)

The measurements can be recorded in the following table so that comparisons can be made pre- and post-surgery:

| Pre-surgery | Post-surgery | Pre-surgery | Post-surgery | Pre-surgery | Post-surgery |
|---|---|---|---|---|---|
| **Aa** | | **Ba** | | **C** | |
| **gh** | | **pb** | | **TVL** | |
| **Ap** | | **Bp** | | **D** | |

BI-MANUAL EXAMINATION (If necessary)

Uterine size:

Adnexae:

## Investigations

### Urinary

DIPSTICK test to rule out infection

Check BLADDER RESIDUAL (if > 100mL residual, see PHYSICIAN)

### Bowel

ANO-RECTAL PHYSIOLOGY/ ENDOANAL USS (if available)

*SIGNATURE and DATE*

## Action Plans and Planned Review

*SIGNATURE and DATE*

# D4a: UROGENITAL DISTRESS INVENTORY LONG FORM

| Patient's name |
|---|
| |

| Date of birth | Date completed |
|---|---|
| / / | / / |
| DAY MONTH YEAR | DAY MONTH YEAR |

## Instructions

This survey asks for your views about your health in relation to symptoms from the urinary/genital area. This information will be summarized in your medical record and will help your doctors keep track of how you feel and how severe your symptoms are.

Please answer every question by circling the appropriate number 0, 1, 2 or 3. If you are unsure about how to answer a question, please give the best answer you can and make a comment in the right margin.

Do you experience, and if so, how much are you bothered by:

1. Frequent urination?
   (0) not at all
   (1) slightly
   (2) moderately
   (3) greatly

2. A strong feeling of urgency to empty your bladder?
   (0) not at all
   (1) slightly
   (2) moderately
   (3) greatly

3. Urine leakage related to the feeling of urgency?
   (0) not at all
   (1) slightly
   (2) moderately
   (3) greatly

4. Urine leakage related to physical activity, coughing, or sneezing?
   (0) not at all
   (1) slightly
   (2) moderately
   (3) greatly

5. General urine leakage not related to urgency or activity?
   (0) not at all
   (1) slightly
   (2) moderately
   (3) greatly

6. Small amounts of urine leakage (drops)?
   (0) not at all
   (1) slightly
   (2) moderately
   (3) greatly

7. Large amounts of urine leakage?
   (0) not at all
   (1) slightly
   (2) moderately
   (3) greatly

8. Night time urination?
   (0) not at all
   (1) slightly
   (2) moderately
   (3) greatly

9. Bedwetting?
   (0) not at all
   (1) slightly
   (2) moderately
   (3) greatly

10. Difficulty emptying your bladder?
    (0) not at all
    (1) slightly
    (2) moderately
    (3) greatly

11. A feeling of incomplete bladder emptying?
    (0) not at all
    (1) slightly
    (2) moderately
    (3) greatly

12. Lower abdominal pressure?
    (0) not at all
    (1) slightly
    (2) moderately
    (3) greatly

13. Pain when urinating?
    (0) not at all
    (1) slightly
    (2) moderately
    (3) greatly

14. Pain or discomfort in the lower abdominal or genital area?
    (0) not at all
    (1) slightly
    (2) moderately
    (3) greatly

15. Heaviness or dullness in the pelvic area?
    (0) not at all
    (1) slightly
    (2) moderately
    (3) greatly

16. A feeling of bulging or protrusion in the vaginal area?
    (0) not at all
    (1) slightly
    (2) moderately
    (3) greatly

17. Bulging or protrusion you can see in the vaginal area?
    (0) not at all
    (1) slightly
    (2) moderately
    (3) greatly

18. Pelvic discomfort when standing or physically exerting yourself?
    (0) not at all
    (1) slightly
    (2) moderately
    (3) greatly

19. Having to push on the vaginal walls to have a bowel movement?
    (0) not at all
    (1) slightly
    (2) moderately
    (3) greatly

Lowest Score = 0, Highest Score = 33
The higher the score, the worse the urogenital symptom distress

# D4B: INTERNATIONAL CONSULTATION ON INCONTINENCE QUESTIONNAIRE, FEMALE LOWER URINARY TRACT SYMPTOMS MODULE (ICIQ-FLUTS)

## Summary

The ICIQ-FLUTS is a brief and psychometrically robust patient-completed questionnaire for evaluating female lower urinary tract symptoms and impact on quality of life (QoL) in research and clinical practice across the world (Jackson 1996; Avery, Donovan et al. 2004; Donovan J. 2005; Gardener N 2005)

The ICIQ-FLUTS is derived from the fully validated BFLUTS-SF questionnaire and provides a brief and robust measure to assess the impact of urinary symptoms on outcome. It is scored thus:

0-16 for symptoms of filling

0-12 for voiding symptoms

0-20 for incontinence symptoms

This short and simple questionnaire will also be of use to general practitioners and clinicians in both primary and secondary care institutions to screen for lower urinary tract dysfunction; obtain a brief yet comprehensive summary of the level and impact of urinary symptoms; and facilitate patient-clinician discussions. It is also an ideal research tool.

The Third International Consultation on Incontinence recommended that all randomized trials evaluating treatments for incontinence use high-quality questionnaires, in particular the ICIQ, to assess impact on patient outcome and facilitate comparisons. The ICIQ-FLUTS provides a brief and robust measure both for this purpose and in epidemiologic surveys, particularly when more than one measure is used.

| | |
|---|---|
| Patient population: | Relevant for use with women, young and old, from all patients groups across the world, including clinic and community populations. |
| Time to complete: | A few minutes |
| Development: | Studies were conducted to evaluate the psychometric properties of the ICIQ-FLUTS following standard methods of psychometric testing, including content validity, construct validity (including comparison with other existing measures), stability (test-retest reliability), internal consistency and responsiveness to change following treatment. The ICIQ-FLUTS has been shown to be robust and psychometrically sound in studies in the UK. |
| Reliability: | As above |
| Validity: | As above |
| Responsiveness: | As above |

Initial number

ICIQ-FLUTS 08/04

**CONFIDENTIAL**

DAY MONTH YEAR

**Today's date**

## Urinary symptoms

Many people experience urinary symptoms some of the time. We are trying to find out how many people experience urinary symptoms, and how much they bother them. We would be grateful if you could answer the following questions, thinking about how you have been, on average, over the PAST FOUR WEEKS.

**1.** **Please write in your date of birth:**

DAY MONTH YEAR

**2a.** **During the night, how many times do you have to get up to urinate, on average?**

- none ☐ 0
- one ☐ 1
- two ☐ 2
- three ☐ 3
- four or more ☐ 4

**2b.** **How much does this bother you?**
*Please ring a number between 0 (not at all) and 10 (a great deal)*

**0** 1 2 3 4 5 6 7 8 9 **10**
not at all — a great deal

**3a.** **Do you have a sudden need to rush to the toilet to urinate?**

- never ☐ 0
- occasionally ☐ 1
- sometimes ☐ 2
- most of the time ☐ 3
- all of the time ☐ 4

**3b.** **How much does this bother you?**
*Please ring a number between 0 (not at all) and 10 (a great deal)*

**0** 1 2 3 4 5 6 7 8 9 **10**
not at all — a great deal

**4a.** **Do you have pain in your bladder?**

- never ☐ 0
- occasionally ☐ 1
- sometimes ☐ 2
- most of the time ☐ 3
- all of the time ☐ 4

**4b.** **How much does this bother you?**
*Please ring a number between 0 (not at all) and 10 (a great deal)*

**0** 1 2 3 4 5 6 7 8 9 **10**
not at all — a great deal

**5a.** **How often do you pass urine during the day?**

| | |
|---|---|
| 1 to 6 times ☐ | 0 |
| 7 to 8 times ☐ | 1 |
| 9 to 10 times ☐ | 2 |
| 11 to 12 times ☐ | 3 |
| 13 or more times ☐ | 4 |

**5b.** **How much does this bother you?**
*Please ring a number between 0 (not at all) and 10 (a great deal)*

**0** 1 2 3 4 5 6 7 8 9 **10**
not at all — a great deal

**F score: sum scores 2a-5a** ☐ ☐

**6a.** **Is there a delay before you can start to urinate?**

| | |
|---|---|
| never ☐ | 0 |
| occasionally ☐ | 1 |
| sometimes ☐ | 2 |
| most of the time ☐ | 3 |
| all of the time ☐ | 4 |

**6b.** **How much does this bother you?**
*Please ring a number between 0 (not at all) and 10 (a great deal)*

**0** 1 2 3 4 5 6 7 8 9 **10**
not at all — a great deal

**7a.** **Do you have to strain to urinate?**

| | |
|---|---|
| never ☐ | 0 |
| occasionally ☐ | 1 |
| sometimes ☐ | 2 |
| most of the time ☐ | 3 |
| all of the time ☐ | 4 |

**7b.** **How much does this bother you?**
*Please ring a number between 0 (not at all) and 10 (a great deal)*

**0** 1 2 3 4 5 6 7 8 9 **10**
not at all — a great deal

**8a.** **Do you stop and start more than once while you urinate?**

| | | |
|---|---|---|
| never | ☐ | 0 |
| occasionally | ☐ | 1 |
| sometimes | ☐ | 2 |
| most of the time | ☐ | 3 |
| all of the time | ☐ | 4 |

**8b.** **How much does this bother you?**
*Please ring a number between 0 (not at all) and 10 (a great deal)*

**0** 1 2 3 4 5 6 7 8 9 **10**
not at all — a great deal

**V score: sum scores 6a+7a+8a** ☐☐

**9a.** **Does urine leak before you can get to the toilet?**

| | | |
|---|---|---|
| never | ☐ | 0 |
| occasionally | ☐ | 1 |
| sometimes | ☐ | 2 |
| most of the time | ☐ | 3 |
| all of the time | ☐ | 4 |

**9b.** **How much does this bother you?**
*Please ring a number between 0 (not at all) and 10 (a great deal)*

**0** 1 2 3 4 5 6 7 8 9 **10**
not at all — a great deal

**10a.** **How often do you leak urine?**

| | | |
|---|---|---|
| never | ☐ | 0 |
| once or less per week | ☐ | 1 |
| two to three times per week | ☐ | 2 |
| once per day | ☐ | 3 |
| several times per day | ☐ | 4 |

**10b.** **How much does this bother you?**
*Please ring a number between 0 (not at all) and 10 (a great deal)*

**0** 1 2 3 4 5 6 7 8 9 **10**
not at all — a great deal

**11a.** **Does urine leak when you are physically active, exert yourself, cough or sneeze?**

| | |
|---|---|
| never ☐ | 0 |
| occasionally ☐ | 1 |
| sometimes ☐ | 2 |
| most of the time ☐ | 3 |
| all of the time ☐ | 4 |

**11b.** **How much does this bother you?**
*Please ring a number between 0 (not at all) and 10 (a great deal)*

**0** 1 2 3 4 5 6 7 8 9 **10**
not at all — a great deal

**12a.** **Do you ever leak urine for no obvious reason and without feeling that you want to go?**

| | |
|---|---|
| never ☐ | 0 |
| occasionally ☐ | 1 |
| sometimes ☐ | 2 |
| most of the time ☐ | 3 |
| all of the time ☐ | 4 |

**12b.** **How much does this bother you?**
*Please ring a number between 0 (not at all) and 10 (a great deal)*

**0** 1 2 3 4 5 6 7 8 9 **10**
not at all — a great deal

**13a.** **Do you leak urine when you are asleep?**

| | |
|---|---|
| never ☐ | 0 |
| occasionally ☐ | 1 |
| sometimes ☐ | 2 |
| most of the time ☐ | 3 |
| all of the time ☐ | 4 |

**13b.** **How much does this bother you?**
*Please ring a number between 0 (not at all) and 10 (a great deal)*

**0** 1 2 3 4 5 6 7 8 9 **10**
not at all — a great deal

**I score: sum scores9a-13a** ☐ ☐



**Thank you very much for answering these questions.**

# D4C: INTERNATIONAL CONSULTATION ON INCONTINENCE QUESTIONNAIRE URINARY INCONTINENCE SHORT FORM (ICIQ-UI SHORT FORM)

## Summary

The ICIQ-UI Short Form is a brief and psychometrically robust patient-completed questionnaire for evaluating the frequency, severity and impact on quality of life (QoL) of urinary incontinence in men and women in research and clinical practice across the world. It is scored on a scale ranging from 0 to 21 (Jackson 1996; Avery, Donovan et al. 2004; Gardener N 2005).

The ICIQ-UI Short Form provides a brief and robust measure to assess the impact of symptoms of incontinence on outcome. This short and simple questionnaire will also be of use to general practitioners and clinicians in both primary and secondary care institutions to screen for incontinence; obtain a brief yet comprehensive summary of the level, impact and perceived cause of symptoms of incontinence; and facilitate patient-clinician discussions. Its brevity also makes the ICIQ-UI Short Form an ideal research tool.

The Third International Consultation on Incontinence recommended that all randomized trials evaluating treatments for incontinence use high-quality questionnaires, in particular the ICIQ, to assess impact on patient outcome and facilitate comparisons. The ICIQ-UI Short Form provides a brief and robust measure both for this purpose and in epidemiologic surveys, particularly when more than one measure is used.

Patient population: The ICIQ-UI Short Form is relevant for use with men and women, young and old, from all patients groups across the world, including clinic and community populations.

Time to complete: A few minutes

Development: Studies were conducted to evaluate the psychometric properties of the ICIQ-UI Short Form following standard methods of psychometric testing, including content validity, construct validity (including comparison with other existing measures), stability (test-retest reliability), internal consistency and responsiveness to change following treatment (including conservative management and surgical intervention). The ICIQ-UI Short Form has been shown to be robust and psychometrically sound in studies in the UK, with replication in Japan. The ICIQ-UI Short Form scoring system also exhibits high levels of validity, reliability and responsiveness.

Reliability: As above

Validity: As above

Responsiveness: As above

Initial number

ICIQ-UI Short Form

CONFIDENTIAL

DAY MONTH YEAR

**Today's date**

Many people leak urine some of the time. We are trying to find out how many people leak urine, and how much this bothers them. We would be grateful if you could answer the following questions, thinking about how you have been, on average, over the PAST FOUR WEEKS.

**1 Please write in your date of birth:**

DAY MONTH YEAR

**2 Are you** *(tick one)*: Female ☐ Male ☐

**3 How often do you leak urine?** *(Tick one box)*

| | |
|---|---|
| never ☐ | 0 |
| about once a week or less often ☐ | 1 |
| two or three times a week ☐ | 2 |
| about once a day ☐ | 3 |
| several times a day ☐ | 4 |
| all the time ☐ | 5 |

**4 We would like to know how much urine <u>you think</u> leaks.**
**How much urine do you <u>usually</u> leak (whether you wear protection or not)?**
*(Tick one box)*

| | |
|---|---|
| none ☐ | 0 |
| a small amount ☐ | 2 |
| a moderate amount ☐ | 4 |
| a large amount ☐ | 6 |

**5 Overall, how much does leaking urine interfere with your everyday life?**
*Please ring a number between 0 (not at all) and 10 (a great deal)*

**0** 1 2 3 4 5 6 7 8 9 **10**
not at all a great deal

ICIQ score: sum scores 3+4+5 ☐☐

**6 When does urine leak?** *(Please tick all that apply to you)*

| | |
|---|---|
| never – urine does not leak | ☐ |
| leaks before you can get to the toilet | ☐ |
| leaks when you cough or sneeze | ☐ |
| leaks when you are asleep | ☐ |
| leaks when you are physically active/exercising | ☐ |
| leaks when you have finished urinating and are dressed | ☐ |
| leaks for no obvious reason | ☐ |
| leaks all the time | ☐ |

**Thank you very much for answering these questions.**

# D4D: INTERNATIONAL CONSULTATION ON INCONTINENCE QUESTIONNAIRE URINARY INCONTINENCE QUALITY OF LIFE MODULE (ICIQ-LUTSQOL)

## Summary

The ICIQ-LUTSqol is a psychometrically robust patient-completed questionnaire evaluating quality of life (QoL) in urinary incontinent patients for use in research and clinical practice across the world. The ICIQ-LUTSqol is the King's Health Questionnaire (KHQ) adapted for use within the ICIQ structure and provides a detailed and robust measure to assess the impact of urinary incontinence on quality of life with particular reference to social effects (Kelleher, Cardozo et al. 1997; Avery, Donovan et al. 2004).

It is an ideal research tool as it explores in detail the impact of urinary incontinence on QoL. The Third International Consultation on Incontinence recommended that all randomized trials evaluating treatments for incontinence use high-quality questionnaires, in particular the ICIQ, to assess impact on patient outcome and facilitate comparisons. The ICIQ-LUTSqol provides a robust measure for this purpose.

| | |
|---|---|
| Patient population: | The ICIQ-LUTSqol is relevant for use in men and women, young and old, from all patients groups across the world, including clinic and community populations. |
| Time to complete: | Several minutes |
| Development: | Studies were conducted to evaluate the psychometric properties of the ICIQ-LUTSqol following standard methods of psychometric testing, including content validity, construct validity (including comparison with other existing measures), stability (test-retest reliability), internal consistency and responsiveness to change following treatment. The ICIQ-LUTSqol has been shown to be robust and psychometrically sound in studies in the UK. |
| Reliability: | As above |
| Validity: | As above |
| Responsiveness: | As above |

☐☐☐☐☐☐☐☐☐ Initial number

ICIQ-LUTSqol 08/04

**CONFIDENTIAL**

☐☐ ☐☐ ☐☐ DAY MONTH YEAR

**Today's date**

## Quality of life

Below are some daily activities that can be affected by urinary problems. How much does your urinary problem affect you? We would like you to answer every question. Simply tick the box that applies to you.

We would be grateful if you could answer the following questions, thinking about how you have been, on average, over the PAST FOUR WEEKS.

**1. Please write in your date of birth:**

☐☐ ☐☐ ☐☐

DAY MONTH YEAR

**2. Are you** *(tick one)*: Female ☐ Male ☐

**3a. To what extent does your urinary problem affect your household tasks (e.g. cleaning, shopping, etc.)**

not at all ☐ 1
slightly ☐ 2
moderately ☐ 3
a lot ☐ 4

**3b. How much does this bother you?**
*Please ring a number between 0 (not at all) and 10 (a great deal)*

**0** 1 2 3 4 5 6 7 8 9 **10**
not at all — a great deal

**4a. Does your urinary problem affect your job, or your normal daily activities outside the home?**

not at all ☐ 1
slightly ☐ 2
moderately ☐ 3
a lot ☐ 4

**4b. How much does this bother you?**
*Please ring a number between 0 (not at all) and 10 (a great deal)*

**0** 1 2 3 4 5 6 7 8 9 **10**
not at all — a great deal

**5a.** **Does your urinary problem affect your physical activities (e.g. going for a walk, run, sport, gym, etc.)?**

not at all ☐ 1
slightly ☐ 2
moderately ☐ 3
a lot ☐ 4

**5b.** **How much does this bother you?**
*Please ring a number between 0 (not at all) and 10 (a great deal)*

**0** 1 2 3 4 5 6 7 8 9 **10**
not at all — a great deal

**6a.** **Does your urinary problem affect your ability to travel?**

not at all ☐ 1
slightly ☐ 2
moderately ☐ 3
a lot ☐ 4

**6b.** **How much does this bother you?**
*Please ring a number between 0 (not at all) and 10 (a great deal)*

**0** 1 2 3 4 5 6 7 8 9 **10**
not at all — a great deal

**7a.** **Does your urinary problem limit your social life?**

not at all ☐ 1
slightly ☐ 2
moderately ☐ 3
a lot ☐ 4

**7b.** **How much does this bother you?**
*Please ring a number between 0 (not at all) and 10 (a great deal)*

**0** 1 2 3 4 5 6 7 8 9 **10**
not at all — a great deal

**8a.** **Does your urinary problem limit your ability to see/visit friends?**

not at all ☐ 1
slightly ☐ 2
moderately ☐ 3
a lot ☐ 4

**8b.** **How much does this bother you?**
*Please ring a number between 0 (not at all) and 10 (a great deal)*

**0** 1 2 3 4 5 6 7 8 9 **10**
not at all — a great deal

**9a.** **Does your urinary problem affect your relationship with your partner?**

| | | |
|---|---|---|
| not applicable | ☐ | 8 |
| not at all | ☐ | 1 |
| slightly | ☐ | 2 |
| moderately | ☐ | 3 |
| a lot | ☐ | 4 |

**9b.** **How much does this bother you?**
*Please ring a number between 0 (not at all) and 10 (a great deal)*

**0** 1 2 3 4 5 6 7 8 9 **10**
not at all — a great deal

**10a.** **Does your urinary problem affect your sex life?**

| | | |
|---|---|---|
| not applicable | ☐ | 8 |
| not at all | ☐ | 1 |
| slightly | ☐ | 2 |
| moderately | ☐ | 3 |
| a lot | ☐ | 4 |

**10b.** **How much does this bother you?**
*Please ring a number between 0 (not at all) and 10 (a great deal)*

**0** 1 2 3 4 5 6 7 8 9 **10**
not at all — a great deal

**11a.** **Does your urinary problem affect your family life?**

| | | |
|---|---|---|
| not applicable | ☐ | 8 |
| not at all | ☐ | 1 |
| slightly | ☐ | 2 |
| moderately | ☐ | 3 |
| a lot | ☐ | 4 |

**11b.** **How much does this bother you?**
*Please ring a number between 0 (not at all) and 10 (a great deal)*

**0** 1 2 3 4 5 6 7 8 9 **10**
not at all — a great deal

**12a.** **Does your urinary problem make you feel depressed?**

| | | |
|---|---|---|
| not at all | ☐ | 1 |
| slightly | ☐ | 2 |
| moderately | ☐ | 3 |
| very much | ☐ | 4 |

**12b.** **How much does this bother you?**
*Please ring a number between 0 (not at all) and 10 (a great deal)*

**0** 1 2 3 4 5 6 7 8 9 **10**
not at all — a great deal

**13a.** **Does your urinary problem make you feel anxious or nervous?**

| | |
|---|---|
| not at all ☐ | 1 |
| slightly ☐ | 2 |
| moderately ☐ | 3 |
| very much ☐ | 4 |

**13b.** **How much does this bother you?**
*Please ring a number between 0 (not at all) and 10 (a great deal)*

**0** 1 2 3 4 5 6 7 8 9 **10**
not at all — a great deal

**14a.** **Does your urinary problem make you feel bad about yourself?**

| | |
|---|---|
| not at all ☐ | 1 |
| slightly ☐ | 2 |
| moderately ☐ | 3 |
| very much ☐ | 4 |

**14b.** **How much does this bother you?**
*Please ring a number between 0 (not at all) and 10 (a great deal)*

**0** 1 2 3 4 5 6 7 8 9 **10**
not at all — a great deal

**15a.** **Does your urinary problem affect your sleep?**

| | |
|---|---|
| never ☐ | 1 |
| sometimes ☐ | 2 |
| often ☐ | 3 |
| all the time ☐ | 4 |

**15b.** **How much does this bother you?**
*Please ring a number between 0 (not at all) and 10 (a great deal)*

**0** 1 2 3 4 5 6 7 8 9 **10**
not at all — a great deal

**16a.** **Do you feel worn out/tired?**

| | |
|---|---|
| never ☐ | 1 |
| sometimes ☐ | 2 |
| often ☐ | 3 |
| all the time ☐ | 4 |

**16b.** **How much does this bother you?**
*Please ring a number between 0 (not at all) and 10 (a great deal)*

**0** 1 2 3 4 5 6 7 8 9 **10**
not at all — a great deal

**Do you do any of the following? If so, how much?**

**17a. Wear pads to keep dry?**

never ☐ 1
sometimes ☐ 2
often ☐ 3
all the time ☐ 4

**17b. How much does this bother you?**
*Please ring a number between 0 (not at all) and 10 (a great deal)*

**0** 1 2 3 4 5 6 7 8 9 **10**
not at all — a great deal

**18a. Be careful how much fluid you drink?**

never ☐ 1
sometimes ☐ 2
often ☐ 3
all the time ☐ 4

**18b. How much does this bother you?**
*Please ring a number between 0 (not at all) and 10 (a great deal)*

**0** 1 2 3 4 5 6 7 8 9 **10**
not at all — a great deal

**19a. Change your underclothes when they get wet?**

never ☐ 1
sometimes ☐ 2
often ☐ 3
all the time ☐ 4

**19b. How much does this bother you?**
*Please ring a number between 0 (not at all) and 10 (a great deal)*

**0** 1 2 3 4 5 6 7 8 9 **10**
not at all — a great deal

**20a. Worry in case you smell?**

never ☐ 1
sometimes ☐ 2
often ☐ 3
all the time ☐ 4

**20b. How much does this bother you?**
*Please ring a number between 0 (not at all) and 10 (a great deal)*

**0** 1 2 3 4 5 6 7 8 9 **10**
not at all — a great deal

**21a.** **Get embarrassed because of your urinary problem?**

never ☐ 1
sometimes ☐ 2
often ☐ 3
all the time ☐ 4

**21b.** **How much does this bother you?**
*Please ring a number between 0 (not at all) and 10 (a great deal)*

**0** 1 2 3 4 5 6 7 8 9 **10**
not at all — a great deal

**22.** **Overall, how much do urinary symptoms interfere with your everyday life?**
*Please ring a number between 0 (not at all) and 10 (a great deal)*

**0** 1 2 3 4 5 6 7 8 9 **10**
not at all — a great deal



**Thank you very much for answering these questions.**

# D5: WEXNER BOWEL FUNCTION QUESTIONNAIRE

### Frequency of bowel movements

| | |
|---|---|
| 1–2 times per 1–2 days | 0 |
| 2 times per week | 1 |
| Once per week | 2 |
| Less than once per week | 3 |
| Less than once per month | 4 |

### Difficulty: painful evacuation effort

| | |
|---|---|
| Never | 0 |
| Rarely | 1 |
| Sometimes | 2 |
| Usually | 3 |
| Always | 4 |

### Completeness: feeling of incomplete evacuation

| | |
|---|---|
| Never | 0 |
| Rarely | 1 |
| Sometimes | 2 |
| Usually | 3 |
| Always | 4 |

### Pain: abdominal

| | |
|---|---|
| Never | 0 |
| Rarely | 1 |
| Sometimes | 2 |
| Usually | 3 |
| Always | 4 |

### Time: minutes in lavatory per attempt

| | |
|---|---|
| < 5 | 0 |
| 5–0 | 1 |
| 10–20 | 2 |
| 20–30 | 3 |
| > 30 | 4 |

### Assistance: type of assistance

| | |
|---|---|
| No assistance | 0 |
| Stimulative laxatives | 1 |
| Digital assistance or enema | 2 |

### Failure: unsuccessful attempts for evacuation per 24 hours

| | |
|---|---|
| Never | 0 |
| 1–3 | 1 |
| 3–6 | 2 |
| 6–9 | 3 |
| > 9 | 4 |

### History: duration of constipation in years

| | |
|---|---|
| 0 | 0 |
| 1–5 | 1 |
| 5–10 | 2 |
| 10–20 | 3 |
| More than 20 | 4 |

Minimum score = 0, maximum score = 30

The higher the score, the worse the constipation

# D6: INTERNATIONAL CONSULTATION ON INCONTINENCE QUESTIONNAIRE FEMALE SEXUAL MATTERS ASSOCIATED WITH LOWER URINARY TRACT SYMPTOMS MODULE (ICIQ-FLUTSSEX)

## Summary

The ICIQ-FLUTSsex is a brief and psychometrically robust patient-completed questionnaire for detailed evaluation of female sexual matters associated with their lower urinary tract symptoms and impact on quality of life (QoL) in research and clinical practice across the world. The ICIQ-FLUTSsex is derived from the fully validated BFLUTS questionnaire and provides a robust measure to assess the impact of sexual matters on outcome (Jackson 1996; Avery, Gill et al. 2004; Avery, Donovan et al. 2004; Donovan J. 2005; Gardener N 2005; Avery and Blazeby 2006).

It is an ideal research tool as it provides a detailed exploration of sexual matters associated with female urinary symptoms and impact on QoL.

The Third International Consultation on Incontinence recommended that all randomized trials evaluating treatments for incontinence use high-quality questionnaires, in particular the ICIQ, to assess impact on patient outcome and facilitate comparisons. The ICIQ-FLUTSsex provides a brief and robust measure both for this purpose and in epidemiologic surveys, particularly when more than one measure is used.

Patient population: The ICIQ-FLUTSsex is relevant for use in women, young and old, from all patient groups across the world, including clinic and community populations.

Time to complete: A few minutes

Development: Studies were conducted to evaluate the psychometric properties of the ICIQ-FLUTSsex following standard methods of psychometric testing, including content validity, construct validity (including comparison with other existing measures), stability (test-retest reliability), internal consistency and responsiveness to change following treatment. The ICIQ-FLUTSsex has been shown to be robust and psychometrically sound in studies in the UK.

Reliability: As above

Validity: As above

Responsiveness: As above

Initial number

ICIQ-FLUTSsex 09/05

CONFIDENTIAL

DAY MONTH YEAR
Today's date

## Sexual matters

We would be grateful if you could answer the following questions, thinking about how you have been, on average, over the PAST FOUR WEEKS.

**1. Please write in your date of birth:**

DAY MONTH YEAR

**2a. Do you have pain or discomfort because of a dry vagina?**

not at all ☐ 0
a little ☐ 1
somewhat ☐ 2
a lot ☐ 3

**2b. How much does this bother you?**
*Please ring a number between 0 (not at all) and 10 (a great deal)*

**0** 1 2 3 4 5 6 7 8 9 **10**
not at all — a great deal

**3a. To what extent do you feel that your sex life has been spoilt by your urinary symptoms?**

not at all ☐ 0
a little ☐ 1
somewhat ☐ 2
a lot ☐ 3

**3b. How much does this bother you?**
*Please ring a number between 0 (not at all) and 10 (a great deal)*

**0** 1 2 3 4 5 6 7 8 9 **10**
not at all — a great deal

**4a. Do you have pain when you have sexual intercourse?**

not at all ☐ 0
a little ☐ 1
somewhat ☐ 2
a lot ☐ 3
I don't have sexual intercourse ☐ 4

**4b. How much does this bother you?**
*Please ring a number between 0 (not at all) and 10 (a great deal)*

**0** 1 2 3 4 5 6 7 8 9 **10**
not at all — a great deal

**5a.** **Do you leak urine when you have sexual intercourse?**

| | |
|---|---|
| not at all ☐ | 0 |
| a little ☐ | 1 |
| somewhat ☐ | 2 |
| a lot ☐ | 3 |
| I don't have sexual intercourse ☐ | 4 |

**5b.** **How much does this bother you?**
*Please ring a number between 0 (not at all) and 10 (a great deal)*

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| not at all | | | | | | | | | | a great deal |



**Thank you very much for answering these questions.**

# D7: ALL DERIVED FROM THE GENEVA FOUNDATION FOR MEDICAL EDUCATION AND RESEARCH

The GFMER has devised a complete, Web-based database system. The trainees using this manual are invited to access the database after they have registered with the GFMER team in Geneva.

The access Web address is:
**www.gfmer.ch/infomatics/IBCT/index_mainV2.php?studyname**

The database incorporates the following databases:

A. **Fistula Database for New Patients**
B. **Fistula Database for Pre-operative Preparation**
C. **Fistula Database for Surgery**
D. **Fistula Database for Post-op Assessment**
E. **Fistula Database for Follow-up**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