ENDOSCOPIC SURGERY IN GYNECOLOGY
Volume II

HYSTEROSCOPY
An Illustrated Manual for the Patient Informed Consent Process

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In recent years, hysteroscopy has become a widespread technique for diagnosis and therapy of uterine disorders.

A multitude of disorders can be visualized very precisely and managed by using this minimally-invasive technique. Hysteroscopy is a surgical technique frequently performed on an outpatient basis. As a consequence, the attending physician has a special responsibility in the informed consent discussions with the patient prior to therapy.

The present manual has been designed in response to the patient’s needs to receive comprehensive and concise information during the informed consent process. It allows the physician conducting the informed consent discussion not only to illustrate the general hysteroscopic technique on the basis of simple, easily comprehensible pictures, but also to explain to the patient the anticipated situation as well as the intended treatment regimen. As such, the manual can be an important means to build and strengthen the bond of trust between patient and doctor which is indispensable for any therapeutic measure.

Besides, the manual may also be used for medico-legal purposes since only by being provided with clear, comprehensible and comprehensive information the patient will be enabled to give her informed consent to the intended therapeutic procedure.

Prof. Ulrich Karck, M.D.                                      Prof. Michael Runge, M.D.
Instructions

How to use this manual?

The present manual is intended to serve as an aid in the patient-doctor discussions. The text has been kept short deliberately in order to provide the attending colleague with ample space for his or her own explanations and sketches. The combination of images and explanations, supplemented by a consent form that can be filled in for each patient, provides suitable means for the informed consent process to proceed rapidly while ensuring that the patient receives comprehensive information, advice, and instructions.

The manual consists of two components. The image section in the front of the manual depicts on double pages the most common clinical pictures and issues underlying the need for a hysteroscopy. This section also contains pages explaining the technique and includes images of the normal anatomical situation. On the basis of the patient’s individual preferences and needs to receive information, the counselling doctor can discuss one or more of these pages with the patient to suit the initial diagnosis and indication for the planned procedure. The right pages are easy to find with the registers provided.

In addition to this manual, there is a carbon-copy pad, each page of which shows two schematic drawings and provides an address field for the doctor’s office address and a short standardized text. The form can be used to document the informed consent discussions in the form of brief notes. We recommend to define the general nature and objective of the planned procedure as well as potential limitations and complications. This can be complemented by the anticipated condition of the patient by entering the relevant details in the schematic drawings. At the end of the informed consent discussion, the form is signed by both the patient and the physician. The top copy (original) is archived as part of the patient records and serves as documentation and proof that informed consent and advice were actually given, whereas the carbon copy is handed to the patient for reference purposes. In our experience, this is an important aid for the patient to remember the discussions and by that means strengthen her confidence in both the doctor and the proposed course of treatment.

After completion of the procedure, the manual can be useful again – possibly assisted by video prints / recordings that were taken during the procedure – to discuss the actual findings and, explain any follow-up treatment, if planned.
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1. Anesthetized patient
2. Operating surgeon
3. Scrub nurse
4. Assistant
5. Anaesthesiologist
6. High-resolution monitors displaying an endoscopic image
7. Sterile instrument tray
Technique and Procedure

Instruments for Diagnostic Hysteroscopy

Hysteroscope with coupled high resolution video camera and connectors for irrigation liquid and light source.
During diagnostic hysteroscopy, a device called hysteroscope, with a max. diameter of 5 mm, is inserted into the uterus. Inside this device there is a high resolution telescope which the doctor uses to visually inspect the intra-uterine cavity.
**Technique and Procedure**

**Instruments for Operative Hysteroscopy**

Hysteroscope with coupled high-resolution video camera and connectors for irrigation liquid and light source.

- Loop electrode
- Roller electrode
- Roller ball electrode
- Hook electrode
- Biopsy forceps
During operative hysteroscopy, a device called hysteroscope with a max. diameter of 8–10 mm is inserted into the uterus. Inside this device there is a high-resolution telescope which the doctor uses to visually inspect the intra-uterine cavity. As an additional option, the device allows the use of specialized surgical instruments inside the uterine cavity.
Anatomy

Hysteroscopy in the Presence of a Normal Uterus

View of the uterine cavity (the two tubal openings are seen as small dark orifices).

View of the cervix of the uterus.

View of the cervical os.
Hysteroscopy – A Brief Review of the Procedure

Reasons that justify undergoing hysteroscopy

Hysteroscopy is used in the assessment and treatment of undesired infertility, uterine pain, bleeding disorders, and for further clarification of suspicious findings obtained through ultrasound or medical check-up.

Potential Complications

Even the most skilled surgeon exercising good technique cannot say for sure that the planned treatment will be conducted without the occurrence of complications. Complications during hysteroscopy are rare and may typically comprise injury or even complete perforation of the uterine wall. Infection and inflammation are extremely rare. Especially during extended procedures, the irrigation liquid may pass into the bloodstream and cause cardiovascular malfunction requiring adequate treatment. However, this is a very rare event.
Assessment of Uterine Alterations

Uterine Septum

The presence of a uterine septum may account for undesired infertility and repeated early miscarriages.
A specially-shaped delicate needle electrode can be used to divide the septum between the two halves of the uterus. This is done using the cutting capacity of a high-frequency current.
Assessment of Uterine Adhesions

Adhesions inside the Uterus (Synechiae)

Synechiae may account for undesired infertility and bleeding disorders.
Uterine adhesions can be dissected and removed with the help of a fine needle electrode by using the cutting capacity of a high-frequency current.
Polyps are defined as benign growths of the uterine mucosa. Uterine polyps may lead to bleeding disorders, undesired infertility, and – depending upon their size – menstrual pain.

Cervical uterine polyps also account for increased discharge, bleeding disorders, and undesired infertility.
Polyps may be overlooked during uterine curettage. By means of hysteroscopy polyps can be dissected and removed with the help of a loop electrode using the cutting capacity of a high-frequency current.
Myomas are benign growths that form inside the muscle of the uterus. Usually they form the shape of a round bulb and may either bulge into the uterine cavity or grow on a stalk (pedunculated myoma) attached to the uterine wall. Myomas of the pedunculated type often account for bleeding disorders and may be the cause of undesired infertility. They are also a frequent cause of menstrual pain.
Myomas inside the uterine cavity can be removed in a step-by-step fashion with the help of a loop electrode using the cutting capacity of a high-frequency current.
Assessment of Uterine Alterations

Benign Thickening (Hyperplasia) of the Uterine Lining

Hyperplasia of the uterine lining is more frequent in women past the age of 40, and may result in bleeding disorders, intensified or prolonged or overly frequent menstrual bleeding.
Treatment of Hyperplasia of the Uterine Mucosa

Complete surgical removal of the uterine lining, also referred to as destruction of the mucosal lining or endometrial ablation.

With the help of a loop electrode or roller ball electrode the cutting capacity of a high-frequency current can be used to remove or completely destroy the uterine mucosa. In up to 80% of the women treated in this way, the procedure brings about complete remission of the symptoms of bleeding disorders or has an alleviating effect, such that only slight bleeding remains.
Carcinomas of the uterine cavity usually develop in the uterine mucosa. In the majority of cases, this type of carcinoma only occurs in postmenopausal women and, typically is accompanied by chronic recurrent bleeding after several years without menstruation.
Unfortunately, a carcinoma of the uterine cavity cannot be treated by hysteroscopy, however biopsy samples obtained during hysteroscopy may provide conclusive diagnostic information for the assessment of a clinically suspected carcinoma of the uterine cavity.
WITH COMPLIMENTS OF KARL STORZ—ENDOSKOE