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## Analysis of the degree to which the recommendations of experts in hysteroscopy can be adopted

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### ABSTRACT

The Guidelines are an useful tool in clinical practice. However, they have one weak point: their acceptability. A "Guideline" is HELPFUL when applied, and is applied when it provides handy and shared information. It must involve the contribution of the experience, made of specific language and common sense, of a representative group of professionals.

In order to evaluate partially overcome these limits and evaluate the acceptability of recommendations in hysteroscopy, a meeting was held in Milan. This paper presents the outcome of that meeting.

### SOMMARIO

Le linee guida sono uno strumento utile nella pratica clinica. Tuttavia, essi hanno un punto debole: la loro accettabilità. Una "linea guida" è utile quando fornisce informazioni utili e condivise e viene applicata. Per essere applicata, quindi, deve considerare il contributo dell'esperienza, fatta di linguaggio specifico e di buon senso, di un gruppo rappresentativo di professionisti.

Al fine di valutare l'accettabilità delle raccomandazioni in isteroscopia, una riunione si è svolta a Milano tra esperti isteroscopisti. Questo documento presenta il risultato di tale incontro.

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Several Guidelines have been published on the diagnostic and therapeutic role of hysteroscopy (1-7). The "Guideline", however, has one weak point: an unguarded entrance through which **uselessness**, or worse still **danger**, could get in.

This is the **acceptance** door, that could be kept ajar, leaving the house empty, or it could be opened wide, enabling free access even by the most sophisticated and inflexible interpretations, of no use to people who get things done, only to those who are interested in criticising, often from outside.

Tackling this situation - which everyone is aware of - is the most difficult part of the problem.

A "Guideline" is **helpful** when applied, and is applied when it provides handy and shared information.

It must involve the contribution of the experience, made of specific language and common sense, of a representative group of professionals.

In order to overcome these limits at least in part, on 27th February 2015 a meeting was held on the subject of hysteroscopy, which is complex in terms of both ideas and contents, clinically useful and featuring many clinical experiences. This paper presents the outcome of that meeting.

## METHODS

At the meeting, in addition to the 25 experts, 105 hysteroscopists of proven experience were invited. They acted as the **audience**, with the task of listening to the speakers, comparing their contributions with their own experiences and providing for each of them two opinions according to the variables specified below. Each expert was asked to present in four minutes the state of the art and their proposed recommendations on clinical themes relating to hysteroscopy, identified by the co-ordinator and listed in **Table 1**.

Once the recommendations had been presented, the **audience** were asked to express their thoughts on the practical applicability of the action proposed, using a scale from 1 to 5 corresponding to the following opinions:

NOT TO BE DONE	NEED NOT BE DONE	COULD BE DONE	SHOULD BE DONE	CANNOT NOT BE DONE
1	2	3	4	5

"Not to be done" indicated a refusal to include the proposed recommendations in their clinical practice.

**Table 1.**  
Clinical themes

1.1	The role of diagnostic hysteroscopy vs "see-and-treat"
1.2	Indications for diagnostic hysteroscopy
1.3	Approach to difficult hysteroscopies
1.4	Treatment of uterine polyps
1.5	Hysteroscopy in infertile women
1.6	Hysteroscopic myomectomy: preoperative work up
1.7	Role of Hysteroscopy in the diagnosis of benign and malignant endometrial pathology
1.8	Role of hysteroscopy in the diagnosis of endocervical neoplasia
2.1	Counselling
2.2	Cervical dilatation
2.3	Environment, basic equipment and standardization of preoperative examinations for an office hysteroscopy
2.4	Technique and instruments of the office hysteroscopy
2.5	Treatment o of postpartum post-abortion retained placental tissues
2.6	Hysteroscopic treatment of hydrosalpinges
3.1	Bipolar and monopolar technology
3.2	Training
3.3	Focal endometrial carcinoma
3.4	Endometrial ablation in heavy menstrual flows
3.5	Treatment of myomas with an intramural component
3.6	Intrauterine pathologies and reproductive prognosis
3.7	Hysteroscopic niche resection

"Need not be done" meant that the proposed recommendations were not considered indispensable to their activity and were felt to be in any case fairly superfluous.

"Could be done" indicated appreciation of what was suggested, meaning willingness to adopt the proposed recommendations, but recognition that there were problems and obstacles that would make things difficult or not immediate.

"Should be done" indicated a personal commitment to overcome the possible difficulties in carrying out the practice being advised with the aim of applying it within a reasonably short time.

"Cannot not be done" indicated that the recommendation was considered essential, whether already included in the hysteroscopist's own clinical and surgical practices or not applied for reasons that did not depend entirely on the hysteroscopist.

## CRITERIA FOR PROCESSING AND ANALYSING THE RESULTING SCORES

In analysing the raw data resulting from the scores of applicability of the expressed opinion, it was found that attribution to each speaker of the average score of the answers obtained (from 1 to 5)

levelled out the opinions, so much so that almost no differences were highlighted.

Ignoring the principle of a pure mathematical average, it was decided to privilege comparison between simple objective situations that were intuitively consistent with the spirit of the activity, since as such it would be more difficult to misinterpret them.

We therefore proceeded as follows:

1. All the values obtained were transformed into percentages of the number of people actually answering on each contribution (this was deduced on the basis of the number of active radio transmitters, up-dated in real time by the system);
2. The percentages of the two "negative" answers (1 and 2) were added together to provide a single value defined as the number of those "NOT IN FAVOUR";
3. The percentages of the two "positive" answers (4 and 5) were added together to provide a single value defined as the number of those "IN FAVOUR";
4. The percentage of those who were "UNCERTAIN" (point 3) was added to that of "NO ANSWERS" to provide a single value defined as the number of "ABSTENTIONS";
5. For each contribution, the percentage of those "IN FAVOUR" was compared with the percentage of those "NOT IN FAVOUR", to define a ratio called the "APPLICATION POTENTIAL" (A);
6. Considering the position of the "ABSTENTIONS", the percentage expressing this attitude towards all the speakers was reported, thus defining the situation of "UNCERTAINTY IN GIVING OPINIONS" (B1); for the sake of completeness, the average number of "ABSTENTIONS" for each single issue was then considered, thus defining for them the degree of "UNCERTAINTY WITH REGARD TO EACH ISSUE" (B2);
7. For each speaker, the percentage of those "IN FAVOUR" was compared with the sum of the percentages of those "NOT IN FAVOUR" plus the "ABSTENTIONS" (= "NOT ALIGNED"), defining a value we called the "INDEX OF ACCEPTABILITY" (C), to which, due to graphic requirements, a plus sign was assigned when the number of those "IN FAVOUR" exceeded that of those "NOT ALIGNED" or a minus sign if the contrary applied;
8. Lastly, for each contribution, the percentage of "ABSTENTIONS" was compared with

the sum of the percentages of those "NOT IN FAVOUR" plus those "IN FAVOUR" (= "AFFIRMATIVE"), defining a value that we called the "INDEX OF AWARENESS" (D), to which, for graphic reasons, a minus sign was assigned when the number of "ABSTENTIONS" exceeded that of the "AFFIRMATIVE" answers or a plus sign when the contrary applied.

By way of an initial speculation, it is possible to attribute to each of the four values described above the following meanings.

- A. Knowledge of the distribution, in a sample of listeners, of the positions "IN FAVOUR" and of those "NOT IN FAVOUR" of a given opinion makes it possible to assume what the attitude of the population towards the theory put forward will be, on a broad scale. If the opinion expresses operational requirements, the distribution, in practice, refers to the probability according to which the population will comply with said requirements in their professional activities. The outcome is expressed as the "weight" of the "pros" compared with the "cons", and its value can be understood as the "likelihood that the opinion will be applied in the reference professional field".
- B. The analysis of these data starts out from the assumption that those hysteroscopists who answered that it "could be done" were, basically, expressing a "lack of commitment to a decision" on the subject, thus avoiding discussion and leaving it up to the "current trend" - statistically speaking - to decide for them, too. Such a position can be associated logically with that of those who did not express any opinion, choosing to abstain. This is why it was decided to group together the percentage of "NO ANSWERS" with that of the "UNDECIDED" (answer 3) in a single category, defined as the "ABSTENTIONS". Of course, there may be different reasons for "abstaining", however it was felt that in this context the most common would be, in the following order:
  - a lack of clinical interest - in the short or medium term - in the issue proposed;
  - a feeling that the issue was of no use in the hysteroscopists' own operational contexts;
  - difficulty on the part of the opinion leader to communicate with the audience and/or

or to gain their confidence.

Regardless of which of these reasons the attitude of each single hysteroscopist may depend on, the percentage to be analysed measured in any case the proportion of "UNCERTAINTY" to the issue as expressed by the sample and, referred to the population in general, it also recalls the advisability that the opinion leaders should make an effort to "understand whether given subjects are really helpful rather than not understood or badly explained".

- C. Knowing, in a representative sample of interviewees, the proportion of those who agree in full with the idea proposed to them compared with all the others who, for different reasons and with different levels of certainty, do not agree with them, makes it possible to outline the degree of readiness on the part of the corresponding general population to accept what is suggested to them and to use it immediately. This is an "absolute" value that can be understood as "in favour of the theory" if originated by a ratio higher than one of those "in favour" to those who are "not aligned", while it will be against it if the ratio is less than one.

We shall use this value as the "ACCEPTABILITY INDEX" of the assumption put forward, considering it the expression of the "coincidence between the attitude illustrated by the opinion leader and that achievable in the operational context of the hysteroscopist who is answering". It will therefore not be possible to use this value as a 'score' referred to the scientific validation and/or clinical evaluation of the opinion leader's theory, but only as a "forecast of how well it could be spread among Italian hysteroscopists".

- D. D) There may be good reasons for the distance separating those who express an opinion for or against an idea from those who prefer not to take sides, either refusing to discuss the issue or opting for a "happy medium", the main ones being:

- a) complete ignorance of the subject;
- b) pre-existing incomplete knowledge of the subject, not sufficiently improved by the information provided on this occasion;
- c) little clinical interest in what has been described, as it is not a habitual occurrence for the hysteroscopist who is answering,

and who, what is more, still does not feel that what they have just learned has provided elements enabling a firmer position.

Whatever the reasons modulating this comparison may be, we can see in it the "degree of a hysteroscopist's knowledge and/or attention paid to each speaker's contribution".

Again, this is an 'absolute' value, and can therefore be understood as being "in favour of the theory" if originated by a ratio of less than one between the "abstentions" and all the others ("affirmative" answers), while it will be against it if it is higher than one.

We will use this value as an "INDEX OF AWARENESS", considering it a "criterion for forecasting the understandability of the attitude proposed and of its effectiveness as currently perceived among Italian hysteroscopists".

## RESULTS

Following are, in summary, the main recommendations put forward by the experts during the meeting, completed, for each single contribution, by the four opinions expressed by the audience of hysteroscopists.

### 1.1. The role of diagnostic hysteroscopy vs "see-and-treat"

#### 1.1.1. General criteria

##### Recommendations

The "see-and-treat" method should be planned for patients in whom repeated ultrasound scans have shown that there is a disease requiring treatment, but it cannot be used for all diagnostic hysteroscopic activity.

Application potential of the recommendations	6
Percentage of uncertainty about the recommendations	29
Index of acceptability/rejection of the recommendations	+0,6
Index of awareness of the recommendations/lack of interest in them	+1,5

#### 1.1.2. Instruments for "see-and-treat" hysteroscopy

##### Recommendations

Using instruments with a smaller diameter reduces the pain and the risk of complications.

Application potential of the recommendations	8
Percentage of uncertainty about the recommendations	40
Index of acceptability/rejection of the recommendations	+0,2
Index of awareness of the recommendations/lack of interest in them	+0,5

Application potential of the recommendations	1
Percentage of uncertainty about the recommendations	66
Index of acceptability/rejection of the recommendations	-3
Index of awareness of the recommendations/lack of interest in them	-1

**1.2. Indications for diagnostic hysteroscopy**

**1.2.1. General criteria**

*Recommendations*

The followings are indications for a diagnostic hysteroscopy:

- persistence of bleeding even if an ultrasound scan does not reveal any pathology or a diagnosis;
- pre-implant evaluations;
- confirmation of a diagnosis of Müllerian anomalies;
- follow-up examinations in pre-neoplastic and neoplastic diseases;
- pyometra;
- lost-IUD;
- spotting after a Caesarean section;
- Asherman’s syndrome.

The followings are not indications for a diagnostic hysteroscopy:

- endometrial lining thickening in asymptomatic menopausal patients;
- suspected polyp or suspected submucous myoma;
- suspected Müllerian anomaly;

Application potential of the recommendations	2
Percentage of uncertainty about the recommendations	42
Index of acceptability/rejection of the recommendations	-0,4
Index of awareness of the recommendations/lack of interest in them	+0,4

**1.2.2. Infertile patients**

*Recommendations*

In infertile patients it is useful to carry out a virtual hysteroscopy as a first stage of examination before proceeding with a diagnostic hysteroscopy.

**1.2.3. Diagnosis of endometrial cancer**

*Recommendations*

In fertile women, a hysteroscopy must be carried out in case of abnormal bleeding not responding to progestin treatment.

In menopausal women, access to hysteroscopy is restricted to the presence of bleeding.

An endometrial thickness of less than 4 mm with a net superficial margin is not an indication for hysteroscopy, even in the presence of bleeding.

Application potential of the recommendations	5
Percentage of uncertainty about the recommendations	39
Index of acceptability/rejection of the recommendations	0
Index of awareness of the recommendations/lack of interest in them	+0,6

**1.2.4. The role of hysteroscopy in diagnosing chronic endometritis**

*Recommendations*

Diagnostic hysteroscopy is the gold standard for exploring the uterine cavity.

Hysteroscopy is the gold standard for diagnosing chronic endometritis.

Application potential of the recommendations	8
Percentage of uncertainty about the recommendations	40
Index of acceptability/rejection of the recommendations	+0,2
Index of awareness of the recommendations/lack of interest in them	+0,5

**1.3. Approach to challenging hysteroscopies**

*Recommendations*

In the presence of cervical stenosis or of conglutination of the external orifice of the uterus, it is helpful to use a hysteroscope providing

magnification of the images. In the case of operative hysteroscopy, it may be helpful to precede it with a diagnostic hysteroscopy - above all in the presence of cervical stenosis -enabling an input path to be planned and thus lowering the risk of giving rise to mechanical trauma. It is important, if it is suspected that performance will be difficult, to carry out ultrasound monitoring. It has not been proved that spasmolytics can prepare the cervix. In selected cases, administration of a painkiller from 30 minutes to one hour before carrying out the hysteroscopy or paracervical anaesthesia may be helpful.

Application potential of the recommendations	15
Percentage of uncertainty about the recommendations	51
Index of acceptability/rejection of the recommendations	-0,2
Index of awareness of the recommendations/lack of interest in them	0

#### 1.4. Treatment of uterine polyps

##### *Recommendations*

Before planning a hysteroscopy for removing an endometrial polyp, there must be a certain and complete ultrasound diagnosis. A polypectomy has to be carried out in sterile women in whom no other cause of infertility has been found, especially if the polyps are larger than 2 cm and are situated close to the tubal ostium. In asymptomatic premenopausal women, polyps smaller than 1.5 cm may remain under observation. In postmenopausal women all polyps should be removed. Endometrial sampling in an area distant from the base of the polyp is advisable, especially in women aged over forty with large polyps.

There is no evidence of better outcomes with one technique rather than another. A fundic implant larger than 2 cm would seem to privilege use of a resectoscope or of a morcellator rather than thin electrodes.

Application potential of the recommendations	16
Percentage of uncertainty about the recommendations	32
Index of acceptability/rejection of the recommendations	+0,8
Index of awareness of the recommendations/lack of interest in them	+1,2

##### *Recommendations*

All endometrial polyps have to be removed from infertile women to improve their reproduction outcome, whether spontaneous or with medically

assisted procreation techniques.

Asymptomatic polyps at a fertile age and in premenopausal women do not have to be removed if the sonographic diagnosis is precise; if, however, persistent symptoms develop, they do have to be removed.

In menopausal women aged between 60 and 70, removal of polyps is indicated. In the case of late menopause (>75), when a sonographic or hysterosonographic diagnosis indicates a cystic anthropic polyp, it is possible to advise the patient to choose between follow-up observation or removal.

Application potential of the recommendations	16
Percentage of uncertainty about the recommendations	34
Index of acceptability/rejection of the recommendations	+0,6
Index of awareness of the recommendations/lack of interest in them	+0,9

##### *Recommendations*

Diagnostic sonography enables endometrial polyps to be diagnosed. The purpose of removing them is to eliminate their symptoms, to exclude possible neoplastic evolution and to avoid long periods of sonographic follow-up scans for the women concerned. The currently available hysteroscopy instruments enable most women with these polyps to undergo atraumatic and mini-invasive treatment as out-patients.

Application potential of the recommendations	6
Percentage of uncertainty about the recommendations	33
Index of acceptability/rejection of the recommendations	+0,4
Index of awareness of the recommendations/lack of interest in them	+1

##### *Recommendations*

Since endometrial cancer evolves very slowly, responding well to treatment, the indication for polypectomy, which is very frequent, must be supported by a finding of a situation of exposure to the risk of cancer, by the presence of symptoms and by sonographic evidence that the polyp has become sufficiently larger, as suggested in a recent study by Enrico Ferrazzi.

Application potential of the recommendations	2
Percentage of uncertainty about the recommendations	41
Index of acceptability/rejection of the recommendations	-0,5
Index of awareness of the recommendations/lack of interest in them	+0,4

Application potential of the recommendations	4
Percentage of uncertainty about the recommendations	58
Index of acceptability/rejection of the recommendations	-1
Index of awareness of the recommendations/lack of interest in them	-0,4

**1.5. Hysteroscopy in infertile women.**

**1.5.1. General Aspects**

*Recommendations*

Three-dimensional ultrasonography (3DUS) is the gold standard in the diagnosis of complex uterine anomalies.

In case of uterine malformation, 3DUS should be performed before surgery.

Application potential of the recommendations	5
Percentage of uncertainty about the recommendations	55
Index of acceptability/rejection of the recommendations	-0,6
Index of awareness of the recommendations/lack of interest in them	-0,2

**1.5.2. Indication to Metroplasty**

*Recommendations*

Recurrent abortion is an indication to metroplasty. There is no clear indication to prophylactic surgery, but all women should be advised to consider metroplasty before pregnancy.

Application potential of the recommendations	25
Percentage of uncertainty about the recommendations	49
Index of acceptability/rejection of the recommendations	0
Index of awareness of the recommendations/lack of interest in them	0

**1.5.3. Postoperative residual septum**

*Recommendations*

In case of postoperative residual septum of 1,5cm or more, second surgery should be considered. Post operative residual septum measurement must be confirmed by 3DUS.

**1.6. Hysteroscopic myomectomy: pre-operative work up.**

**1.6.1. Role of Hysteroscopy and ultrasonography in the diagnostic work up**

*Recommendations*

Hysteroscopy is useful to define:

- the relationship with the ostia;
- the thickness and homogeneity of the endometrium;
- the absence of associated pathologies.

The ultrasound evaluation is useful to define:

- size and depth of myoma into the myometrium.

Sono-Hysteroscopy should be preferred to transvaginal ultrasound examination.

MRI should be considered in case of previous cesarean sections or obese patients;

The Hartmann’s classification is useful to define surgical strategies and risks.

Application potential of the recommendations	61
Percentage of uncertainty about the recommendations	38
Index of acceptability/rejection of the recommendations	+0,6
Index of awareness of the recommendations/lack of interest in them	+0,6

**1.6.2. Pre-operative evaluation and role of the European Society of Endoscopy grading**

*Recommendations*

Transvaginal ultrasound is accurate:

- in the diagnosis of submucosal myomas;
- to evaluate the number, the side, the size, the miometrial free margin;
- the presence of intramural and/or subserous myomas.

Transvaginal ultrasonographic examination is of limited utility in the grading of myomas.

Sono-hysteroscopy is accurate in the grading of submucosal myomas.

Application potential of the recommendations	6
Percentage of uncertainty about the recommendations	40
Index of acceptability/rejection of the recommendations	+0,1
Index of awareness of the recommendations/lack of interest in them	+0,5

### 1.6.3. Pre-operative evaluation

#### Recommendations

The site of the fibroid should not be considered a limiting factor in hysteroscopic surgery. There is no consensus regarding the treatment of myomas with prevalent intramural component (G2).

The myometrial free margin, defined as the minimum thickness between the outer edge of the fibroid and inner edge of the uterine serosa, is a dynamic parameter. The myometrial free margin is not a limiting factor for hysteroscopic resection of submucous fibroids.

Factors that influence the myometrial free margins during surgery are:

- Any closed myomas;
- Age and parity;
- Previous uterine surgery;
- Pre-operative medical therapy (e.g. Analogues of GnRH or Ulipristal acetate).

The "size" should be considered as the main limiting factor, especially for partially intramural myomas (cut off 5cm).

Application potential of the recommendations	6
Percentage of uncertainty about the recommendations	40
Index of acceptability/rejection of the recommendations	+0,1
Index of awareness of the recommendations/lack of interest in them	+0,5

### 1.7. Role of Hysteroscopy in the diagnosis of benign and malignant endometrial pathology.

#### Recommendations

Quality of imaging is essential in the:

- diagnosis of endometrial glandular hyperplasia;
- minimal invasive and conservative surgical treatment of complex hyperplasia with and without atypias;
- in the follow up, diagnosis and surgical treatment of the MAV;
- in the study of endocervix.

Application potential of the recommendations	1
Percentage of uncertainty about the recommendations	55
Index of acceptability/rejection of the recommendations	-3
Index of awareness of the recommendations/lack of interest in them	-0,2

### 1.8. Role of hysteroscopy in the diagnosis of endocervical neoplasia

#### Recommendations

The indications of endocervicoscopy are:

- cytological diagnosis of ASCUS or HSIL and unsatisfactory or negative colposcopy;
- cytological diagnosis of AIS.

An endocervical biopsy should be always performed.

Application potential of the recommendations	4
Percentage of uncertainty about the recommendations	42
Index of acceptability/rejection of the recommendations	-0,2
Index of awareness of the recommendations/lack of interest in them	+0,4

## 2. OUTPATIENT WORK UP

### 2.1. Counselling

#### Recommendations

An in-depth anamnesis and a detailed counselling should be made before hysteroscopy.

The patient should be informed that the procedure can be painful and in some cases impossible. A witnessed informed consent is recommended.

A detailed reporting of the procedure is recommended. Hysteroscopy should be recorded, explained to the patient and stored.

Application potential of the recommendations	3
Percentage of uncertainty about the recommendations	45
Index of acceptability/rejection of the recommendations	-0,4
Index of awareness of the recommendations/lack of interest in them	+0,2

### 2.2. Cervical dilatation

#### Recommendations

In about 1%-3% of cases is impossible to perform

hysteroscopy.

In these cases, the use of regional anesthesia or pharmacological preparation (for example, estrogens for postmenopausal women) may be useful.

Application potential of the recommendations	16
Percentage of uncertainty about the recommendations	31
Index of acceptability/rejection of the recommendations	+0,9
Index of awareness of the recommendations/lack of interest in them	+1,2

**2.3. Environment, basic equipment and standardization of pre-operative examinations for an office hysteroscopy**

**2.3.1. Requirement and pre-operative tests**

*Recommendations*

Minimal requirement for office hysteroscopy are :

- A waiting room;
- An equipped operating room;
- A post operative observation room with one or two beds;
- An endoscopic column;
- A video recording system;
- An echograph -possibly with 3D probes;
- Mechanical instruments, bipolar electrodes, the laser, power morcellator, microreseter;
- Monitor for vital parameters;
- Emergency medications;
- Presence of an anesthesiologist.

Pre-operative tests:

- An accurate medical history before and at surgery;
- PAP test is essential especially in case of bleeding.

Application potential of the recommendations	6
Percentage of uncertainty about the recommendations	31
Index of acceptability/rejection of the recommendations	+0,5
Index of awareness of the recommendations/lack of interest in them	+1,2

**2.3.2. Safety procedures**

*Recommendations*

In case of operative hysteroscopy an anesthesiologist assistance is worthwhile

In case of diagnostic hysteroscopy it is useful an oximeter that allows a real time monitoring of the

vital parameters.

There is no indication of antibiotic prophylaxis, however a short pre-operative treatment may be useful.

Vaginal swab should not be considered in case of previous PID or suspicions of infection.

Application potential of the recommendations	2
Percentage of uncertainty about the recommendations	47
Index of acceptability/rejection of the recommendations	-0.9
Index of awareness of the recommendations/lack of interest in them	+0,1

**2.4. Technique and instruments of the office hysteroscopy.**

*Recommendations*

The characteristics of the septum (depth) and of the patient (compliance and reproductive history) should be considered in the choice between office hysteroscopy or day surgery

Desogestrel for one month before surgery should be considered.

Metroplastic should always be carried out:

under control by vaginoscopy with office minihysteroscopy,

The 16 French microresector should be used.

Septum resection criteria are defined by 3D ultrasound.

No mechanical or pharmacological presidium should be used in the postoperative period.

In case of residual septum or adhesion, the patient should be reevaluated after the first menstrual cycle.

Application potential of the recommendations	16
Percentage of uncertainty about the recommendations	31
Index of acceptability/rejection of the recommendations	+0.9
Index of awareness of the recommendations/lack of interest in them	+1,2

**2.5. Treatment o of postpartum post-abortion retained placental tissues**

**2.5.1.**

*Recommendations*

Expectant management is the first line treatment of retained placental tissues.

The surgical procedure should be considered in case of bleeding or fever In the latter case it

cannot be deferred.

The hysteroscopy is useful to:

- define the degree of infiltration of the trophoblast in the myometrium.

Resectoscopic surgery should be considered as first line treatment

There are no criteria to guide in the choice between resectoscopic and MVA technique

Application potential of the recommendations	18
Percentage of uncertainty about the recommendations	41
Index of acceptability/rejection of the recommendations	+0,3
Index of awareness of the recommendations/lack of interest in them	+0,4

### 2.5.2. Hysteroscopic technique

#### Recommendations

Energy should not be used, if possible, especially in cases of placenta accreta, due to the high risk of miometrial perforation.

In the case of treatment with resectoscopy it is necessary to keep at values less than 60-70 mm of mercury.

### 2.6. Hysteroscopic treatment of hydrosalpinges

#### Recommendations

Treatment of hydrosalpinges should be considered before ART cycles.

Hysteroscopic occlusion and laparoscopic salpingectomy show the same result.

Application potential of the recommendations	2
Percentage of uncertainty about the recommendations	51
Index of acceptability/rejection of the recommendations	-1,1
Index of awareness of the recommendations/lack of interest in them	0

### 3.1. Bipolar and monopolar technology

#### 3.1.1. Role of Bipolar technology

##### Recommendations

Bipolar technology offers the maximum cutting effect with minimal damage.

Bipolar technology should be preferred in hysteroscopic surgery.

Application potential of the recommendations	6
Percentage of uncertainty about the recommendations	62
Index of acceptability/rejection of the recommendations	-1
Index of awareness of the recommendations/lack of interest in them	-0,6

#### 3.1.2. Indication to the use of different techniques.

##### Recommendations

Polypectomy, metroplastic and adhesiolysis can be performed with monopolar or bipolar technology and laser one

In the case of myomectomy with intramural component, endometrial ablation and in part metroplastic, hysteroscopic niche resection and surgery of the cervix, the use of bipolar technology lower the risk of

- lesion of adjacent organs;
- electrolyte imbalance syndrome.

but increases the costs (consider the use of not disposable loops and thin bipolar electrodes).

Application potential of the recommendations	16
Percentage of uncertainty about the recommendations	32
Index of acceptability/rejection of the recommendations	+0,8
Index of awareness of the recommendations/lack of interest in them	1,1

### 3.2. Training

#### 3.2.1. Role of training

##### Recommendations

The training has four phases:

1. theoretical;
2. use of simulators;
3. observation;
4. tutoring (essential).

Application potential of the recommendations	11
Percentage of uncertainty about the recommendations	39
Index of acceptability/rejection of the recommendations	+0,3
Index of awareness of the recommendations/lack of interest in them	+0,6

**3.2.2. Minimum requirements**

*Recommendations*

Any specialist should be trained in hysteroscopy  
Adequate training needs experience of 200 procedures as first surgeon.

Application potential of the recommendations	17
Percentage of uncertainty about the recommendations	43
Index of acceptability/rejection of the recommendations	+0,2
Index of awareness of the recommendations/lack of interest in them	+0,3

**3.3. Focal endometrial carcinoma**

**3.3.1. General criteria**

*Recommendations*

An operative hysteroscopy may be considered in case of malignant or premalignant endometrial focal lesions in otherwise healthy endometrium. The margins must be widened including the muscle.

Samples of different endometrial areas to confirm the diagnosis should be taken

Post-surgery hormone treatment after hysteroscopy seems to improve pregnancy rates.

Application potential of the recommendations	60
Percentage of uncertainty about the recommendations	36
Index of acceptability/rejection of the recommendations	-1,5
Index of awareness of the recommendations/lack of interest in them	-1,2

**3.3.2.**

*Recommendations*

First line hysteroscopic treatment of endometrial complex atypical hyperplasia should be considered cautiously.

Application potential of the recommendations	4
Percentage of uncertainty about the recommendations	63
Index of acceptability/rejection of the recommendations	-1,5
Index of awareness of the recommendations/lack of interest in them	-0,7

**3.3.3. Criteria for the choice of hysteroscopic treatment in young woman.**

*Recommendations*

Treatment of endometrial cancer by hysteroscopy can be considered if:

- the lesion is unifocal and not extended beyond 2 cm;
- the lesion is easily treated by resectoscope;
- the patient is of fertile age and with desire of pregnancy.

Application potential of the recommendations	34
Percentage of uncertainty about the recommendations	64
Index of acceptability/rejection of the recommendations	-0,9
Index of awareness of the recommendations/lack of interest in them	-0,8

**3.4. Endometrial ablation in heavy menstrual flows**

*Recommendations*

Medical treatment is the first line approach at heavy menstrual flows. Hysterectomy is effective. Endometrial ablation should be offered to all women in consideration of the high satisfaction rate, the earlier recovery and lesser postoperative complications than hysterectomy.

Adequate counselling is need in consideration of the need for contraception and on the possibility of a second surgery, re-ablation or hysterectomy, which occurs up to 20% of the cases, at 10 years. Total or partial endometrial ablation, elective or complementary to other interventions, is always effective.

The main determinants of endometrial ablation failure are:

- age;
- the presence of myomas or polyps;
- adenomyosis;
- tubal occlusion;
- obesity;
- previous cesarean section;
- uterine malformation;
- dysmenorrhoea.

Second-generation techniques are simpler and faster and less, but the rate of satisfaction and success are similar to first generation techniques.

Application potential of the recommendations	13
Percentage of uncertainty about the recommendations	56
Index of acceptability/rejection of the recommendations	-0,4
Index of awareness of the recommendations/lack of interest in them	-0,3

### 3.5. Treatment of myomas with an intramural component

#### 3.5.1. Role of myometrial free margin

##### Recommendations

The myometrial free margin should not be considered a limiting factor

Application potential of the recommendations	60
Percentage of uncertainty about the recommendations	36
Index of acceptability/rejection of the recommendations	+0,7
Index of awareness of the recommendations/lack of interest in them	+0,8

#### 3.5.2. Hysteroscopic Techniques

##### Recommendations

Resection with cold electrode of the myoma lowers the rate of post-surgical adhesions than any other treatment.

Bipolar Treatment is associated with a greater risk of echoes than Monopolar one.

Resection with thermal loop allows to overcome the safety limiting factor: the myometrial free margin.

Treatment by resectoscope is the best treatment of submucosal myomas.

Resection with cold electrode is the best treatment of the intramural part of the myoma.

Application potential of the recommendations	62
Percentage of uncertainty about the recommendations	34
Index of acceptability/rejection of the recommendations	+0,9
Index of awareness of the recommendations/lack of interest in them	+1

### 3.6. Intrauterine pathologies and reproductive prognosis

#### 3.6.1. General criteria

##### Recommendations

Evaluation of the uterine cavity is a fundamental part of the diagnostic work up of the infertile patient.

Hysteroscopy represents the gold standard for the effective diagnosis and treatment of intra-uterine pathologies. Intra-uterine lesions may affect spontaneous fertility and the outcome of ART.

Hysteroscopy should be considered in patients with repeated implant failures after ART.

Application potential of the recommendations	8
Percentage of uncertainty about the recommendations	60
Index of acceptability/rejection of the recommendations	-0,8
Index of awareness of the recommendations/lack of interest in them	-0,5

#### 3.6.2. Indications to operative hysteroscopy.

##### Recommendations

In patients with uterine septum and primary/sine causa infertility, metroplastic is associated with an improvement in the reproductive prognosis

Endometrial polyps resection increases spontaneous and ART related pregnancy rates.

Submucosal myoma resection increases pregnancy rate.

In case of "T shape" or hypoplastic uterus Metroplastic increases pregnancy rates

The treatment of moderate severe Ascherman's Syndrome increase pregnancy rates.

Application potential of the recommendations	16
Percentage of uncertainty about the recommendations	45
Index of acceptability/rejection of the recommendations	+0,1
Index of awareness of the recommendations/lack of interest in them	+0,2

### 3.7. Hysteroscopic niche resection

##### Recommendations

Niche should be suspected in women with a previous Caesarean section reporting smelly vaginal discharge, acute pain during vaginal examination, dyspareunia, heavy menstrual flows, secondary infertility.

During ART, in case of niche, the risk of cervical pregnancy is increased. In case of persistence of the symptoms re-intervention is possible. In case of persistent DUB, LNG-IUS should be considered.

Microresector does not require cervical dilatation, lowering the risk of complications.

Application potential of the recommendations	6
Percentage of uncertainty about the recommendations	53
Index of acceptability/rejection of the recommendations	-0.4
Index of awareness of the recommendations/lack of interest in them	-0,1

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