Structural Requirements for the Outpatient Treatment of Benign Diseases of the Uterus

Strukturelle Voraussetzungen für die ambulante Behandlung benigner Erkrankungen des Uterus

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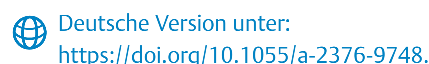

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ABSTRACT

In many cases, outpatient surgical treatment of benign diseases of the uterus has advantages over inpatient care. This has been demonstrated by the healthcare situation in other countries. However, the prerequisite for the provision of outpatient services is that this does not lead to any impairment in the quality of care or of patient safety. The ultimate goal should not be to reduce costs but rather to maintain and, ideally, improve the quality of care. This requires that services are not just defined by the surgical procedure but also by the entire treatment chain, including, for example, psychosocial support, and are remunerated accordingly. It is particularly worrying that the final decision as to whether an outpatient operation is possible is not the responsibility of the operating unit, but of the "Medizinischer Dienst," with the corresponding options and threats of sanctions. This situation is unique internationally and requires a paradigm shift. Furthermore, structural prerequisites must be maintained which currently only exist inadequately in Germany. Since a substantial proportion of planned outpatient operations require immediate or secondary inpatient treatment, there must be a barrier-free transition between the outpatient and inpatient sectors. This will require the creation of networks between outpatient service providers and one or more hospitals that are equipped and competent to manage even complex complications. It is important to create structures that, with intensive involvement of the operating unit, include adequate preoperative evaluation and patient education as well as needs-oriented postoperative care at home. The current separation of sectors is a significant hinderance. Moreover, when expanding and promoting outpatient surgery, the aspect of training and further education of specialist staff must be taken into account, as well as cross-sectoral quality assurance.

Based on a review of the international literature, this article presents 13 recommendations for adequate structures when providing outpatient services which should serve as a prerequisite for the greatest possible guarantee of patient safety.

ZUSAMMENFASSUNG

Die ambulante Erbringung operativer Leistungen bei benignen Erkrankungen des Uterus kann in vielen Fällen Vorteile gegenüber der stationären haben. Dies zeigt die Versorgungssituation in anderen Ländern. Voraussetzung für die ambulante Leistungserbringung ist jedoch, dass sich dadurch keine Beeinträchtigung der Versorgungsqualität und der Patientensicherheit ergibt. Oberstes Ziel darf nicht die Reduktion der Kosten, sondern muss die Erhaltung, optimalerweise die Verbesserung der Versorgungsqualität sein. Dazu ist erforderlich, dass die Leistungen nicht nur durch den operativen Eingriff definiert werden, sondern die gesamte Behandlungskette bis hin beispielsweise zur psychosozialen Unterstützung beibehalten und entsprechend vergütet wird. Besonders bedenklich ist, dass die letztendliche Entscheidung, ob eine ambulante Operation möglich war, nicht der operativen Einheit, sondern dem medizinischen Dienst obliegt mit entsprechenden Sanktionsmöglichkeiten und -drohungen. Diese Situation ist international einmalig und erfordert einen Paradigmenwechsel. Weiterhin sind strukturelle Voraussetzungen vorzuhalten, die gegenwärtig in Deutschland nur unzureichend bestehen. Da ein substanzieller Anteil ambulant geplanter Operationen unmittelbar oder sekundär eine stationäre Behandlung erfordert, muss ein barrierearmer Übergang zwischen ambulantem und stationärem Bereich bestehen. Dies erfordert die Bildung von Netzwerken zwischen ambulanten Leistungserbringern und einer oder mehreren Kliniken, die nach Ausstattung und Kompetenz in der Lage sind, auch komplexe Komplikationen zu beherrschen. Wichtig ist die Schaffung von Strukturen, die unter intensiver Einbindung der operierenden Einheit eine adäquate präoperative Evaluation und Edukation der Patienten genauso beinhalten wie die bedarfsorientierte postoperative Versorgung am Wohnort. Die gegenwärtige Trennung der Sektoren behindert dieses Ziel erheblich. Weiterhin muss bei der Ausweitung und Förderung der ambulanten Operationen zwingend der Aspekt der Aus- und Weiterbildung des Fachpersonals mitgedacht werden, ebenso wie eine sektorenübergreifende Qualitätssicherung.

Basierend auf einer Sichtung der internationalen Literatur formuliert der vorliegende Artikel 13 Empfehlungen für adäquate Strukturen zur ambulanten Leistungserbringung, die Voraussetzung sind für eine größtmögliche Gewährleistung der Patientensicherheit.

International Comparisons

To ensure that the treatment given to sick people is successful, what matters is not the place where they sleep at night.

With 7.8 hospital beds per 1000 inhabitants, Germany has among the highest number of beds per person internationally, coming in just after Japan and Korea, and it holds the top position in Europe [1]. But Germany also holds the top position with regards to the number of patients cared for by a single nurse in the hospital (2018: 13.0 patients per nurse). A Dutch nurse, by comparison, only needs to look after half as many patients (6.9 patients) [2]. But providing large numbers of hospital beds is only useful if this is accompanied by adequate medical and nursing care. Based on the above numbers, it is possible that in-hospital care would be better if patients, who were previously treated in hospital, could receive their treatment as outpatients.

International comparisons show that this is entirely possible. 100% of hysterectomies carried out in Germany and Austria and 98% of hysterectomies in the United Kingdom are performed in an inpatient setting. However in Denmark, 57.7% of hysterectomies are executed as outpatient procedures. The picture is similar for breast cancer operations: in Germany, 0.4% of breast-conserving surgeries and 0% of mastectomies are carried out as outpatient procedures whereas in Denmark the respective figures are 88.3% and 45.6% and in the United Kingdom the figures are 77.8% and 21.2%, respectively [3].

However, countries with a high ratio of outpatient surgeries such as Denmark maintain an extended network of outpatient care services. This point has been strongly emphasized in the report of the IGES institute [3]. Currently, there is (as yet) no such structure in Germany [4]. The legal requirements and financial conditions in Germany are also different. According to the IGES report, internationally, the decision whether a patient is admitted to hospital or is treated as an outpatient still rests with the treating physician. The type of operation and its respective complication rates and the postoperative monitoring and therapeutic requirements as well as the patient's physical condition, social environment, and care facilities available at home all affect the decision. Likewise, detailed and structured preoperative patient education and postoperative care and follow-up are very important when expanding the options for outpatient treatments. Organizing contact persons to be available postoperatively as well as providing a measure of care at home are important constituent parts of the treatment process and require detailed planning before surgery [3].

No other countries have a system like the one used in Germany. In Germany, health insurance funds and the Medizinische Dienst (the medical advisory service of the German association of statutory health insurance funds) essentially audit invoices for medical services. An attempt is being made to encourage a shift from inpatient to day-case procedures by implementing sanctions such as reducing the reimbursements for specific procedures. In contrast to the German approach, other countries are creating positive incentives for hospitals to provide medical services on an outpatient basis. The IGES report has specifically pointed out that countries in which a high percentage of procedures are carried out as outpatient interventions have long since recognized the necessity of an efficient quality assurance system and have already set up appropriate systems [3].

Status Quo in Germany

In Germany, the focus has not been on how to amend the patient care structures and thereby increase the numbers of interventions carried out as outpatient procedures. Instead, the focus was and is on creating and expanding a list of outpatient procedures and commissioning the Medizinische Dienst to monitor the use of such services. The clinical reality of the individual case is not sufficiently taken into account, as is the medical assessment by the treating doctors and the actual course of the disease. The IGES report which was commissioned by the National Association of Statutory Health Insurance Physicians, the Central Federation of Health Insurance Funds and the German Hospital Federation could serve as a very good specification document for the structures which need to be put in place. The fact that the push to carry out more medical procedures as outpatient interventions is not driven by the wish to improve patient care and patient welfare but is only promoted as a means of reducing costs is very obvious despite assurances to the contrary. The associated financial risks to existing hospital structures which are responsible for ensuring good care in the first place are implicitly accepted.

Requirements for Patient-oriented, Sustainable Outpatient Procedures

Carrying out surgical procedures as outpatient interventions can improve patient well-being. Patients are not forced to leave their familiar surroundings, receive care and support from familiar persons, and run a lower risk of hospital infections. In many cases, the return to normal daily activities, both private and professional, is quicker [5].

But what matters is that the treatment meets all requirements needed for the patient's recovery. Only if the outpatient intervention meets the patient's needs just as well and achieves the same results as the corresponding inpatient treatment (assuming that disease, stages, patient groups etc. are comparable) will outpatient interventions represent a real advance and a further step on the way to improving general healthcare. The precondition for this is that when inpatient procedures are switched to outpatient procedures, the focus is not only on the actual surgical procedure but on the entire complicated treatment process, which is usually part of inpatient treatment received in hospital and must be amended to meet the needs of an outpatient set-up.

Outpatient care structures

The requirements for appropriate outpatient structures after surgery are even higher than for inpatient procedures. The absence of the system of information and care which is immediately available in a hospital setting places higher demands on properly informed and educated patients and their caregivers at home. Postoperative ward rounds by doctors and nursing staff in hospital have to be replaced by a range of outpatient (i.e., mobile) care services provided by trained staff. Some of the services may be partly provided via telemedicine but this too requires an appropriate infrastructure on the part of the patient and the service provider. Other important measures such as wound care must be equally accessible at home and require properly qualified nursing staff who are available for home visits.

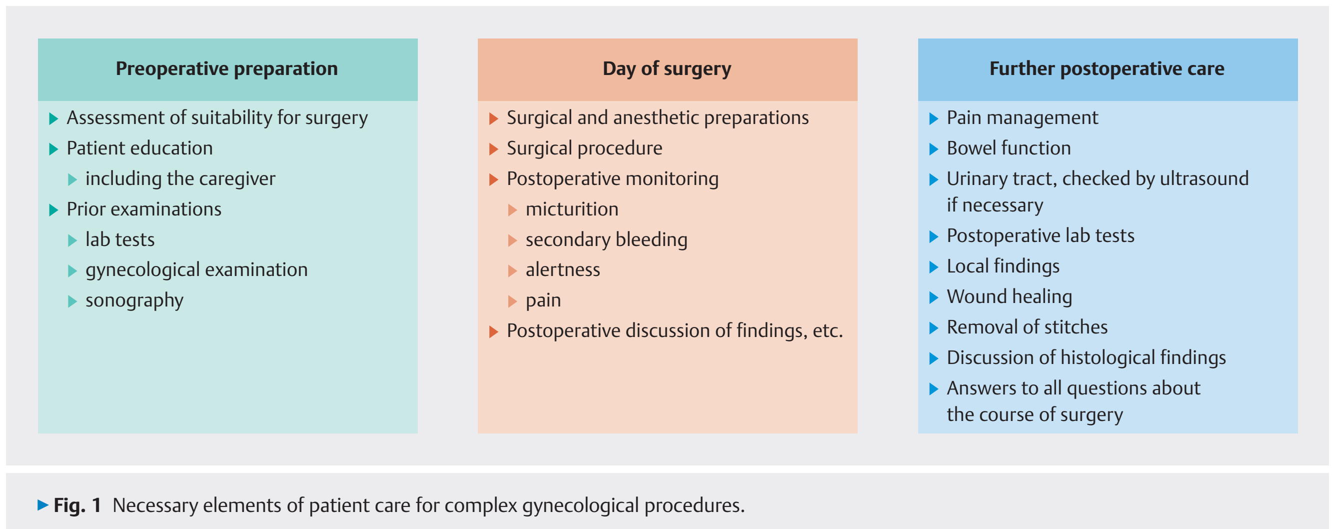
The fixed demarcations between different sectors of the German healthcare system are cumbersome and inconvenient [4]. Nowadays, postoperative medical monitoring and care are not usually provided by the operating surgeon and institutions but by other physicians in private practice. Ensuring proper communication across the different healthcare sectors is crucial here. Knowledge of the type of procedure, the intraoperative and perioperative findings and events, and the potential complications that may arise from them is required. Within the current structure which exists in Germany, information is usually passed on in the form of a doctor's letter, often sent to medical colleagues who do not know each other. Ideally, the doctor's letter should be written by the surgeon who carried out the operation; suboptimally but very commonly, however, the letter is written by a physician who was not even present at the operation and has no direct detailed knowledge of the course of the surgical operation. Improvements in the flow of information, e.g. through effective digitalization, are essential. With increasing outpatient care, it is necessary to carry out immediate perioperative care under the direct supervision of the service provider, since this is the only way to have precise knowledge of the surgical procedure and the resulting needs for perioperative care. Communication with the patient about the procedure and the postoperative phase can only be meaningfully carried out by people who are directly involved in the provision of the surgical service.

Ensuring low barriers to access inpatient treatment when necessary

Based on international data, when surgery is carried out in an outpatient setting, up to 6% of patients will need additional inpatient care due to complications or unexpected events [6, 7, 8]. Moreover, it is not always possible to carry out outpatient surgical procedures as planned. A recent systematic literature review of minimally invasive outpatient hysterectomy procedures reported a mean failure rate of 40%. The main reasons why patients could not be discharged home on the day of the operation included unpredicted and unforeseeable causes such as failure of micturition, the need to provide more intensive pain medication, nausea, vomiting and surgery carried out late in the day [8]. From the perspective of patient safety, low barriers to inpatient treatment with full access to all relevant preoperative, intraoperative and perioperative information must be ensured.

Securing and financing the entire treatment chain

Surgical procedures are drastic, often life-changing events which may sometimes be experienced as traumatic or even life-threatening. This is by no means only true for oncological conditions. That is why structures have been created in the inpatient setting that also take the psychosocial and rehabilitative needs of the patients into account, for example in the oncological certification system, but also in endometriosis or pelvic floor centers. However such types of structures have not yet been set up for the outpatient sector. It is essential to avoid patients losing these necessary support and stabilization services due to the cancellation of overnight



▶ **Fig. 1** Necessary elements of patient care for complex gynecological procedures.

stays [9, 10]. In particular, it should be remembered that the costs for these structures are currently covered by the revenues from inpatient services, not as a lump sum, but included in the revenues from individual inpatient services. Reducing inpatient case numbers in favor of expanding outpatient services must not have a negative impact on the financing of existing inpatient structures; instead, any freed-up funds must be used to create the required standby structures. These changes will need to be reflected in the reimbursement of outpatient services, otherwise it will not be possible to maintain these services, leading to a dramatic drop in quality.

Cross-sectoral quality assurance

An exemplary, expensive quality assurance system was created for hospitals in recent decades, especially in gynecology/obstetrics and senology, which functions partly on a voluntary and partly on a statutory basis. Nothing similar exists for the outpatient sector. All attempts at creating a cross-sectoral quality assurance system to date have failed. Internationally, the shift to more outpatient services was accompanied by the establishment of an effective system of quality assurance and improvement [3]. This is urgently required for Germany.

Specialist training for junior doctors

Specialist training and the further education of junior doctors are particular challenges, especially with regards to specialist surgical training. A large part of specialist medical training is carried out in hospitals and most of that occurs in an inpatient setting. The way outpatient surgical procedures are organized and financed does not reflect the requirements for specialist training and medical qualifications. If more and more procedures are carried out as outpatient interventions, this will drastically reduce specialist training and intensify the lack of junior doctors unless decisive countermeasures are taken.

Professional Recommendations (▶ Table 1; ▶ Fig. 1)

A paradigm shift will be necessary if the number of outpatient surgical procedures is going to be expanded in any meaningful way. The primary goal must not be simply to reduce costs. Instead, the primary goal must be to maintain or improve the quality of current processes and outcomes and to focus on patient safety. Only by doing so will it be possible to make the benefits of outpatient services accessible to patients and consequently achieve the desired side effect of reducing costs. But to do so, it will be necessary to first set up the necessary structures, then create incentives for service providers and patients, and finally underpin the whole structure with a carefully considered and efficient quality assurance system.

In the S3-guideline “Benign Diseases of the Uterus” currently being compiled, one chapter will focus on the care structures which are needed to treat benign diseases of the uterus. Because of the current intensive pressure to expand surgical outpatient procedures, the authors considered it advisable not to wait until the guideline was finished but to publish important aspects beforehand in this form. It is important to note that the respective recommendations were not agreed upon in the context of developing the guideline; instead, they reflect the authors’ expert opinion based on a review and analysis of the existing literature.

Organ-preserving surgery

There are many types of organ-preserving surgical procedures. In addition to hysteroscopic procedures, they include resection of endometriosis, myoma enucleation and, depending on the surgical approach, pelvic floor reconstruction. The degree of difficulty of these interventions varies widely and therefore, in many cases, the interventions fall under the definition of “complex gynecological procedures” (▶ **Fig. 2**). The decision whether to perform a procedure as an outpatient or an inpatient approach depends on the overall assessment of medical, surgical, and social context factors and the complexity of the intervention.

▶**Table 1** Recommendations.

Recommendation 1 Responsibility for decision-making	The decision on whether the surgical procedure should be performed on an outpatient or inpatient basis should be made by the treating physician, not by an external control mechanism [3].
Recommendation 2 Reimbursement	The reimbursement of outpatient surgical procedures must be sufficient and cover the costs and should initially be guided by the reimbursements paid for inpatient services including all necessary perioperative measures (minus the costs of accommodation and food) [3].
Recommendation 3 Patient perspective	For organ-preserving non-complex surgical procedures in benign diseases of the uterus, preference should be given to outpatient care if it is medically and organizationally justifiable and possible from the patient's point of view [5].
Recommendation 4 Inclusion and exclusion criteria for female patients	Systematic reviews have defined which patients may be considered for short-stay or outpatient gynecological procedures. Patients with multiple comorbidities are not suitable for short-stay or outpatient procedures. In general, the patient should be ASA status 1 or 2. A multidisciplinary approach with agreed patient assessment protocols which includes inclusion and exclusion criteria for short-stay or outpatient procedures is required. Patients with multiple comorbidities, ASA 3 or ASA 4, older than 70 years, lack of social network, should not be surgically operated on as an outpatient [11, 12].
Recommendation 5 Patient safety	When choosing the appropriate structure to carry out complex gynecological procedures/hysterectomies, the top priority must be patient safety.
Recommendation 6 Choice of surgical approach	Minimally invasive procedures, whether performed endoscopically or vaginally, are associated with better perioperative results, less pain, fewer perioperative complications such as wound infections or thrombosis, and shorter convalescence times compared to laparotomy. This makes them especially suitable for short-stay or outpatient gynecological operations. A minimally invasive (laparoscopic, robot-assisted) or vaginal approach should be used to carry out complex gynecological interventions/hysterectomies if they are short-stay or outpatient procedures [13, 14, 15].
Recommendation 7 Surgical risk	Important surgical criteria which affect the decision to carry out complex gynecological procedures/hysterectomies as outpatient or inpatient procedures are the size of the organ, the risk of secondary hemorrhage, the patient's status after previous operations, and the expected duration of the operation [11].
Recommendation 8 Surgeon's assessment	The surgical suitability for a short-term inpatient or outpatient performance of a complex gynecological procedure/hysterectomy should be assessed by the surgeon.
Recommendation 9 Network	To carry out outpatient operations, structures should be established in close coordination with clinics qualified to provide any potentially necessary inpatient treatment. This network must meet the clinical and organizational requirements for safe outpatient/short-stay complex procedures. Every outpatient network must include a hospital which is equipped and capable of managing even complex complications. Appropriate organizational, institutional and, where necessary, contractual agreements must be in place between the institution carrying the day-case surgery and the network hospital. Perioperative and postoperative care after short-stay or outpatient procedures must be carried out under the responsibility and in accordance with the requirements of the network hospital.
Recommendation 10 General preconditions for carrying out interventions as outpatient procedures	The following conditions must be met to carry out minimally invasive gynecological surgery as a short-stay or outpatient procedure: ▪ patient education and optimization preoperatively ▪ anesthetic-sparing multimodal anesthesia ▪ prophylaxis against nausea, wound infections and thrombosis ▪ maintenance of euvolemia ▪ early mobilization ▪ well-developed outpatient care structures which include – postoperative medical aftercare (discussion of intraoperative findings, histology, postoperative complaints, consequences of the findings – poss. via telemedicine) provided by or in close cooperation with the primary service provider – local care (patient's place of residence) by qualified nursing staff (registered caregivers or nurses – at least some postoperative home visits) is available including regulated adequate pain therapy – an established care pathway if complications arise which require inpatient treatment ▪ [5, 16]
Recommendation 11 Time-frame to perform outpatient surgery	Procedures with operating times of more than 90 min should not be carried out as outpatient/day-case procedures. Surgery must end before 4 p.m. to allow sufficient time for postoperative monitoring and the patient should be discharged by 10 p.m. at the latest. Some criteria can only be assessed intraoperatively. In principle, when planning complex gynecological procedures/hysterectomies or complex procedures which require removal of an organ, there must always be an option to provide further care in hospital, if needed [5, 6, 7].

Recommendation 12 Criteria to receive further care as an outpatient	If the patient is discharged on the day of surgery, the patient must meet all of the following criteria: *Surgical criteria:* ▪ Surgery ended before 4 p.m. ▪ No intraoperative complications ▪ No unusual loss of blood *Patient criteria:* ▪ Blood pressure, pulse and respiratory rate are normal ▪ Oxygen saturation > 92 % ▪ Afebrile ▪ Awake and reasonably alert ▪ Pain is sufficiently controlled with oral medication (pain intensity: VAS ≤ 4/10) ▪ Minimal nausea, no vomiting ▪ Patient is able to walk independently ▪ Spontaneous micturition or permanent catheter in situ [16]
Recommendation 13 Criteria to receive further care as an inpatient	Inpatient care after minimally invasive gynecological surgery must be available for all patients who do not meet the above-listed criteria for discharge on the day of surgery and/or who exhibit one or more of the following criteria: *Patient criteria:* ▪ Sociodemographic data: poor social network, no caregiver who can be reached by telephone to provide care in the first 24 hours when the patient is home ▪ Distance between the hospital and the patient's place of residence > 50 km ▪ Age ≥ 70 years ▪ Limited understanding ▪ Limited mobility (e.g., ECOG ≥ 2) *Medical criteria:* ▪ ASA status ≥ 3 ▪ Prior history of anesthetic complications ▪ Sleep apnea ▪ Poorly controlled asthma or COPD ▪ Therapeutic anticoagulation ▪ Prior history of arrhythmia, CHF, pacemaker/AICD, or hypertension with – type I diabetes or poorly managed type 2 diabetes (preoperative blood sugar > 180 mg/dl) – significant renal disease (GFR < 30 ml/min, dialysis) – cirrhosis of the liver – daily alcohol intake > 2 drinks [16]

Organ resection procedures

Organ resection procedures include all types of hysterectomy procedures. Hysterectomies are surgical interventions where the level of difficulty is moderate to high. To date, almost all hysterectomies in Germany are carried out as inpatient surgery. This serves the purposes of providing adequate pain relief and monitoring for possible perioperative and postoperative complications such as increased blood loss, secondary hemorrhage, urinary retention, and delayed defecation.

In other countries, hysterectomies and other complex gynecological procedures are carried out under certain circumstances as short-stay procedures (the patient is discharged within 24 h) or even on an outpatient basis (patient is discharged home on the same day) [8].

Recommendation 1

The decision on whether the surgical procedure should be performed on an outpatient or inpatient basis should be made by the treating physician, not by an external control mechanism [3].

Recommendation 2

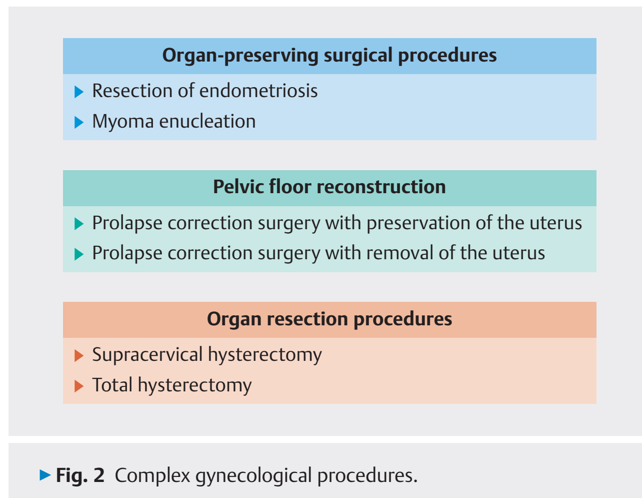
The reimbursement of outpatient surgical procedures must be sufficient, cover the costs and should be initially guided by the reimbursements for inpatient services, including all necessary perioperative measures (minus the costs of accommodation and food) [3].

Recommendation 3

For organ-preserving non-complex surgical procedures in benign diseases of the uterus, preference should be given to outpatient care if it is medically and organizationally justifiable and possible from the patient's point of view [5].

Recommendation 4

Systematic reviews have defined which patients may be considered for short-stay or outpatient gynecological procedures. Patients with multiple comorbidities are not suitable for short-stay or outpatient procedures. In general, the patient should be ASA status 1 or 2. A multidisciplinary approach with agreed patient as-



▶ **Fig. 2** Complex gynecological procedures.

sessment protocols which include inclusion and exclusion criteria for short-stay or outpatient procedures is required.

Patients with multiple comorbidities, ASA 3 or ASA 4, older than 70 years, lack of social network, should not be surgically operated on as an outpatient [11, 12].

Recommendation 5

When choosing the type of structure in which to carry out complex gynecological procedures/hysterectomies, the top priority must be patient safety.

Recommendation 6

Minimally invasive procedures, whether performed endoscopically or vaginally, are associated with better perioperative results, less pain, fewer perioperative complications such as wound infections or thrombosis, and shorter convalescence times compared to laparotomy. This makes them especially suitable for short-stay or outpatient gynecological operations.

A minimally invasive (laparoscopic, robot-assisted) or vaginal approach should be used to carry out complex gynecological interventions/hysterectomies if they are short-stay or outpatient procedures [13, 14, 15].

Recommendation 7

Important surgical criteria which affect the decision to carry out complex gynecological procedures/hysterectomies as outpatient or inpatient procedures are the size of the organ, the risk of secondary hemorrhage, the patient's status after previous operations, and the expected duration of the operation [11].

Recommendation 8

The surgical suitability for a short-term inpatient or outpatient performance of a complex gynecological procedure/hysterectomy should be assessed by the surgeon.

Recommendation 9

To carry out outpatient operations, structures should be established in close coordination with clinics qualified to provide any potentially necessary inpatient treatment. This network must meet the clinical and organizational requirements for safe outpatient/short-stay complex procedures.

Every outpatient network must include a hospital which is properly equipped and capable of managing even complex complications. Appropriate organizational, institutional and, where necessary, contractual agreements must be in place between the institution carrying the day-case surgery and the network hospital.

Perioperative and postoperative care after short-stay or outpatient procedures must be carried out under the responsibility and in accordance with the requirements of the network hospital.

Recommendation 10

The following conditions must be met to carry out a minimally invasive gynecological procedure as a short-stay or outpatient procedure:

- preoperative patient education and optimization
- anesthetic-sparing multimodal anesthesia
- prophylaxis against nausea, wound infections and thrombosis
- maintenance of euvolemia
- early mobilization
- well-developed outpatient care structures which include
  - postoperative medical aftercare (discussion of intraoperative findings, histology, postoperative complaints, consequences of the findings – poss. via telemedicine) provided by or in close cooperation with the primary service provider
  - local care (patient's place residence) provided by qualified nursing staff (registered carers or nurses – at least some home visits postoperatively) incl. regulated adequate pain therapy
  - an established care pathway if complications arise which require inpatient treatment

[5, 16].

Recommendation 11

Procedures with operating times of more than 90 min should not be carried out as outpatient/day-case procedures. Surgery must end before 4 p.m. to allow sufficient time for postoperative monitoring, with the patient discharged by 10 p.m. at the latest. Some criteria can only be assessed intraoperatively.

In principle, when planning complex gynecological procedures/procedures which require removal of an organ, there must always be an option to provide further care in hospital, if needed [5, 6, 7].

Recommendation 12

If the patient is discharged on the day of the operation, all of the following criteria must be met:

Surgical criteria:

- Surgery must be completed before 4 p.m.
- No intraoperative complications
- No unusual loss of blood

Patient criteria:

- Blood pressure, pulse and respiratory rate are normal
- Oxygen saturation > 92 %
- Afebrile
- Awake and reasonably alert
- Pain is adequately controlled with oral medication (pain intensity: VAS ≤ 4/10)
- Minimal nausea, no vomiting
- Patient is able to walk independently
- Spontaneous micturition or permanent catheter in situ

[16].

Recommendation 13

All patients who do not meet the above-listed criteria for discharge on the day of surgery and/or who meet one or more of the criteria listed below must remain in hospital after minimally invasive gynecological surgery:

Patient criteria:

- Sociodemographic data: poor social network, no caregiver who can be reached by telephone to provide care in the first 24 hours when the patient is home
- Distance between hospital and patient's place of residence > 50 km
- Age ≥ 70 years
- Limited understanding
- Limited mobility (e.g., ECOG ≥ 2)

Medical criteria:

- ASA status ≥ 3
- Prior history of anesthetic complications
- Sleep apnea
- Poorly controlled asthma or COPD
- Therapeutic anticoagulation
- Prior history of arrhythmia, CHF, pacemaker/AICD or hypertension with
  - type I diabetes or poorly managed type 2 diabetes (preoperative blood sugar > 180 mg/dl)
  - significant renal disease (GFR < 30 ml/min, dialysis)
  - cirrhosis of the liver
  - daily alcohol intake > 2 drinks

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Conflict of Interest

The authors declare that they have no conflict of interest.

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