

**2012** **CLINICAL  
POLICY  
GUIDELINES**



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NATIONAL  
ABORTION  
FEDERATION





# 2012 Clinical Policy Guidelines

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The National Abortion Federation is the professional association of abortion providers in North America. Our mission is to ensure safe, legal, and accessible abortion care, which promotes health and justice for women.



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## National Abortion Federation

### 2012 CLINICAL POLICY GUIDELINES

## INTRODUCTION

The mission of the National Abortion Federation (NAF) is to ensure safe, legal, and accessible abortion care, which promotes health and justice for women. An important part of this work is to develop and maintain evidence-based guidelines and standards as well as to educate providers in the latest technologies and techniques. NAF's programs make it possible for women to receive the highest quality abortion care.

Like its precursors, the 2012 edition of NAF's *Clinical Policy Guidelines* (CPGs) establishes clinical policy guidelines, which are developed by consensus, based on rigorous review of the relevant medical literature and known patient outcomes. These guidelines are intended to provide a basis for ongoing quality assurance, help reduce unnecessary care and costs, help protect providers in malpractice suits, provide ongoing medical education, and encourage research.

NAF's *Clinical Policy Guidelines*, first published in 1996 and revised annually, are based on the methodology described by David Eddy, MD, in *A Manual for Assessing Health Practices and Designing Practice Policies: The Explicit Approach*. Clinical policy guidelines are defined as a systematically developed series of statements which assist practitioners and patients in making decisions about appropriate health care. They represent an attempt to distill a large body of medical knowledge into a convenient and readily usable format.

When the outcomes of an intervention are known, practitioner choices are limited. But when the outcomes of an intervention are uncertain or variable, and/or when patients' preferences for those outcomes are uncertain or variable, practitioners must be given flexibility to tailor a policy to individual cases. This is addressed by having three types of practice policies according to their intended flexibility: standards, recommendations, and options.

- 1) **STANDARDS** are intended to be applied rigidly. They must be followed in virtually all cases. Exceptions will be rare and difficult to justify.
- 2) **RECOMMENDATIONS** are steering in nature. They do not have the force of standards, but when not adhered to, there should be documented, rational clinical justification. They allow some latitude in clinical management.
- 3) **OPTIONS** are neutral with respect to a treatment choice. They merely note that different interventions are available and that different people make different choices. They may contribute to the educational process, and they require no justification.

NAF's *Clinical Policy Guidelines* include an alphabetic list of bibliographic and cited references for each section when appropriate, and include discussion material in more controversial areas.

These guidelines are meant to be living documents, subject to revision every three years or sooner if new medical evidence should become available.

Note: The *Clinical Policy Guidelines* are not intended to educate members regarding legal and regulatory issues which may affect abortion practice. It is expected that administrators, staff, and clinicians will be aware of pertinent local, state/provincial/territorial, and national legislation as well as the requirements and limitations of their individual duties and scope of professional practice. NAF provider members should ensure that all employees have access to appropriate resources for information and support.

References:

1. Eddy, DM. Clinical decision making: From theory to practice. Designing a practice policy: Standards, guidelines, and options. *JAMA* 1990, 263:3077.
2. Eddy, DM. A Manual for Assessing Health Practices and Designing Practice Policies: The Explicit Approach. Philadelphia: American College of Physicians, 1992.
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## A NOTE ON FORMATTING

As presented here, Standards, Recommendations, and Options are hierarchical in nature. It is therefore expected that clinical practices will favor the highest level of guidance available on a given point. In order to clarify the relationships of Recommendations and/or Options that are subordinate to higher level Standards and/or Recommendations, NAF's guidelines are numbered and formatted according to the following scheme:

Within each main subject heading, Standards are numbered consecutively (e.g., Standard 1).

Recommendations are also numbered consecutively within each main subject heading, with numbers that are placed in the first position to the right of a decimal point (e.g., Recommendation 0.1). Where a recommendation follows from or is related to a Standard, it is indented below the Standard and the number of that Standard will be found to the left of the decimal point (e.g., Recommendation 1.1). Where the recommendation stands alone and is not related to a specific Standard, it is not indented in its placement on the page, and there will be a zero in the position to the left of the decimal point (e.g., Recommendation 0.1).

The consecutive numbers denoting Options within each main subject heading are placed in the second position to the right of a decimal point (e.g., Option 0.01). Where an option follows from or is related to a preceding Standard or Recommendation, it is indented below that Standard or Recommendation and the numbers identifying them will be found to the left of the decimal point and in the first position to the right of the decimal point respectively (e.g., Option 1.01 or Option 1.11, or Option 0.11). Where the Option stands alone and is not related to a specific Standard or Recommendation, it is not indented in its placement on the page, and there will be zeros in those positions (e.g., Option 0.01).



## WHO CAN PROVIDE ABORTIONS

**Policy Statement:** Abortion is a safe procedure when provided by qualified practitioners.

Standard 1: Abortion will be provided by licensed<sup>A</sup> practitioners. This category is intended to include physicians from various specialties as well as nurse midwives, nurse practitioners, physician assistants, registered nurses, and other health professionals.

Recommendation 1.1: If required by law, documentation specifying privileges in accordance with each practitioner's scope of practice should be maintained.

Standard 2: All practitioners providing abortions must have received training to competency in abortion care, including the prevention, recognition, and management of complications.

Recommendation 0.1: Appropriate referrals should be available for patients who cannot be cared for by a practitioner at your facility.<sup>B</sup>

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<sup>A</sup> The term "licensed" is used here to indicate that a person is lawfully entitled to practice their profession in the place in which the practice takes place. The laws are different throughout the United States, Canada, and Mexico City.

<sup>B</sup> This may include the NAF Referral Line.



## PATIENT EDUCATION, COUNSELING, AND INFORMED CONSENT

**Policy Statement:** Obtaining informed consent and assessing that the decision to have an abortion is made freely by the patient are essential parts of the abortion process.

### INFORMED CONSENT

Standard 1: The practitioner must ensure that appropriate personnel have a discussion with the patient in which accurate information is provided about the procedure and its alternatives, and the potential risks and benefits. The patient must have the opportunity to have any questions answered to her satisfaction prior to intervention.

Option 1.01: Information may be provided either on an individual basis or in group sessions.

Standard 2: There must be documentation that the patient affirms that she understands the procedure and its alternatives, and the potential risks and benefits; and that her decision is voluntary.

### PATIENT EDUCATION AND/OR COUNSELING

Standard 3: Each patient must have a private opportunity to discuss issues and concerns about her abortion.

Standard 4: A patient must undergo the abortion as expeditiously as possible in accordance with good medical practice.

Standard 5: Information about clinical procedures, aftercare, and birth control must be available to patients at the facility.

Standard 6: All reasonable precautions must be taken to ensure the patient's confidentiality.

**Discussion:** Informed consent and abortion counseling are two different processes. The goal of informed consent is to assure that the patient's decision is voluntary and informed, and to obtain legal permission for an abortion.

Patient Education and/or Counseling is a discussion of the feelings and concerns expressed by the patient, which may include help with decision-making and contraceptive choices, values clarification, or referral to other professionals. A referral to community services should be

available if that becomes necessary or the needs of the patient are outside the scope of training of clinic staff.

When any third party is involved with payment for abortion, certain protected information will be given to that entity. Depending on applicable laws and regulations, the patient may need to be informed and authorization obtained for the communication of this information.

References:

1. Baker, A. *Abortion and Options Counseling: A Comprehensive Reference*. Granite City, Illinois: The Hope Clinic for Women, 1995.
2. Benson Gold, R. & Nash, E. State abortion counseling policies and the fundamental principles of informed consent, *Guttmacher Policy Review* 2007, 10(4), 8-13.
3. Needle, R. & Walker, L. *Abortion Counseling: A Clinician's Guide to Psychology, Legislation, Politics, and Competency*. Springer Publishing Co., 2008.
4. Baker, A, *et al.* Informed Consent, Counseling and Patient Education. In Paul, M. *et al.* (Eds.), *A Clinician's Guide to Medical and Surgical Abortion*. Philadelphia: Churchill Livingstone, 1999.

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## INFECTION CONTROL

**Policy Statement:** Healthcare personnel and their patients are at risk for exposure to blood borne pathogens and other potentially infectious material. Infectious material may be transmitted to patients when proper engineering and work practice controls which eliminate exposure are not followed.<sup>A</sup>

**Standard 1:** Exposure control plans must be established and observed, in compliance with applicable local, state/provincial/territorial, and federal regulations.

**Discussion:** Regulatory agency policies (OSHA, CCOHS, etc.) may be helpful in developing exposure plans which protect personnel and patients from potentially infectious material. Proper techniques for collection, labeling, and disposal of biohazardous material are integral to any complete exposure plan. Clinics should protect employees and patients inadvertently exposed to biohazardous material by providing provision of personal protective equipment, hepatitis B vaccine, post exposure evaluation, prophylaxis (when indicated), follow-up, and annual training programs at no cost to employees or exposed patients.

### References:

1. Centers for Disease Control, U.S. Department of Health and Human Services (2003). Exposure to blood: What healthcare personnel need to know. Available at: [http://www.cdc.gov/ncidod/dhqp/pdf/bbp/Exp\\_to\\_Blood.pdf](http://www.cdc.gov/ncidod/dhqp/pdf/bbp/Exp_to_Blood.pdf)
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<sup>A</sup> Engineering control—available technology and devices that isolate or remove hazards from the work place, such as puncture-resistant sharps disposal containers.

Work practice control—an alteration in the way a task is performed that reduces the likelihood that an employee will be exposed to blood or other potentially infectious materials.



## Rh TESTING AND Rh IMMUNE GLOBULIN ADMINISTRATION

**Policy Statement:** Rh alloimmunization may jeopardize the health of a subsequent pregnancy.

Standard 1: Rh status must be documented in all women undergoing abortion.  
a. This documentation may be obtained by on-site testing or outside medical source.  
b. Du (“weak D”) testing is not required. Testing for red blood cell antigens other than D (Rho) is not required.

Option 1.01: The use of approved slide/tube/spot methods is acceptable for on-site testing.

Standard 2: Additional testing for either sensitization or other antibodies is not required in patients undergoing pregnancy termination.

Standard 3: Rh immune globulin administration\* must be offered to Rh(-) women and documented.

Standard 4: If Rh immune globulin is not administered in the facility, one of the following is required:  
a. informed waiver signed by a patient who refuses Rh immune globulin; or  
b. documentation of other arrangements for administration.

**Discussion:** There are as yet no data that support the safety of omitting the administration of Rh immune globulin in very early pregnancies (less than 8 weeks), or that indicate any harm associated with its administration. Until/unless such data is available, the NAF Rh Testing Standards must be applied to pregnancies of any gestation.

\*For Rh(-) patients, Rh immune globulin is administered by standard intramuscular injection; some practitioners inject it into the cervix.

### References:

1. ACOG practice bulletin. Prevention of Rh D alloimmunization. Number 4, May 1999. *Clinical management guidelines for obstetrician-gynecologists*. American College of Obstetrics and Gynecology.
2. Baskett, TF. Prevention of Rh alloimmunization: A cost-benefit analysis. *Can Med Assoc J* 1990, 142:337.
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9. Roberts, H. The use of anti-D prophylaxis in the management of miscarriage in general practice. *Health Bull* 1991, 49:245.

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## LIMITED SONOGRAPHY IN ABORTION CARE

**Policy Statement:** Proper use of ultrasound can inform clinical decision-making and enhance the safety and efficacy of abortion care.

Standard 1: Staff members who perform ultrasound exams and clinicians who interpret those exams must either show documentation that they have completed a program of training or must complete such a program developed by the facility. Training must include a period of direct supervision. Documentation of this training must be maintained. Following initial training, a system for evaluation of ongoing proficiency must be in place and documented.

Option 1.01: The *Ultrasound Training in Abortion Care* CD-ROM developed by ARMS, NAF, and CAPS is a good resource for training and may be utilized as part of a training program.<sup>5</sup>

Standard 2: A system of clinical privileging must be in place for staff members who perform ultrasound exams and clinicians who interpret those exams. This system must include periodic review and renewal of these privileges.

Standard 3: Patients must be informed of the purpose and limitations of the ultrasound exam in the abortion care setting.

Option 3.01: This information may be provided in writing and the patient may be asked to sign a form acknowledging receipt of this information.

Standard 4: The findings of all ultrasound exams and the interpretation of those findings must be documented in the medical record. Photos or another method of storing the ultrasound images must be included as part of the documentation.<sup>3</sup> This documentation must also include the name(s) of the staff members who performed and interpreted the exam.

Recommendation 4.1: A standard form for documenting findings and interpretation should be used.

Standard 5: In the first trimester, the ultrasound exam must include the following:

- a. a full scan of the uterus in both the transverse and longitudinal planes;
- b. measurements to document gestational age;
- c. views to document the location of the pregnancy;
- d. evaluation of fetal number; and
- e. evaluation of the presence or absence of fetal cardiac activity.

Recommendation 5.1: When clinically indicated, evaluation of other pelvic structures (i.e., adnexal structures and the cul de sac) should be performed and documented.

Recommendation 5.2: Technology permitting both abdominal and transvaginal scanning should be available.

Standard 6: In the second trimester, the ultrasound exam must include the following:

- a. fetal measurements to document gestational age;
- b. views to document intrauterine location of the pregnancy;
- c. evaluation of fetal number;
- d. evaluation of the presence or absence of fetal cardiac activity; and
- e. placental localization.

Recommendation 6.1: When placenta previa is suspected in a patient with a prior uterine scar, or when other placental abnormality is suspected, a referral for further diagnostic imaging should be made.

Standard 7: A procedure must be in place for further evaluation or referral of a patient in whom an intrauterine pregnancy has not been definitively identified or for whom an initial finding on the ultrasound may affect abortion management or future patient care.

Standard 8: Real-time ultrasound scanners must be used. Ultrasound equipment must be properly calibrated and maintained.

Standard 9: Ultrasound transducers must be disinfected between patients according to applicable infection control standards.<sup>4</sup> Adequate precautions must be taken to protect both staff members and patients from the potential toxicity of chemical agents.

**Discussion:** The use of ultrasound is not a requirement for the provision of first trimester abortion care. However, over the years, especially in higher resource settings, it has become widely used. Compliance with NAF standards for the use of limited ultrasound in abortion care will enhance the accuracy and reliability of ultrasound findings in this setting, thus improving the quality of care.

According to the American Institute of Ultrasound in Medicine (AIUM), in collaboration with the American College of Obstetrics and Gynecology (ACOG) and the American College of Radiology (ACR),<sup>3</sup> a “limited ultrasound examination” is performed when a specific question requires investigation. In addition to the determination of gestational age and location, limited

ultrasound examination may also be useful in intra-operative and post-abortion care under certain circumstances.<sup>A</sup>

References:

1. ACOG Practice Bulletin # 101, February 2009: Ultrasonography in Pregnancy. American College of Obstetrics and Gynecology.
2. AIUM Official Statement: Limited Obstetrical Ultrasound. Approved November 2009. American Institute of Ultrasound in Medicine.
3. AIUM Practice Guideline for the Performance of Obstetric Ultrasound Examinations. 2007. American Institute of Ultrasound in Medicine.
4. AIUM Guidelines for Cleaning and Preparing Endocavitary Ultrasound Transducers Between Patients. 2003. American Institute of Ultrasound in Medicine.
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6. Menihan, CM. *Limited Sonography in Obstetric and Gynecologic Triage*. Lippincott-Raven, Philadelphia, 1998.
7. *Nursing Practice Competencies and Educational Guidelines for Limited Ultrasound Examinations in Obstetric and Gynecologic/Infertility Settings*. 1993. Carol Ann Gorman, Chairperson. Association of Women's Health, Obstetric and Gynecologic and Neonatal Nursing.

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<sup>A</sup> See *Clinical Policy Guidelines* for Early Medical Abortion, Second Trimester Abortion by D&E, and Evaluation of Evacuated Uterine Contents.



## EARLY MEDICAL ABORTION

**Policy Statement:** Medical induction is an effective method for early abortion. Adequate counseling and follow-up care will enhance its safety and acceptability.

Standard 1: Pertinent medical history must be obtained and documented.

Standard 2: Confirmation of pregnancy must be documented.

Standard 3: The patient must be informed about the efficacy, side effects, and risks, especially excessive bleeding and infection.

Standard 4: The patient must be informed of the need to ensure that she is no longer pregnant and of the teratogenicity associated with the medications to be used.

Standard 5: Patient instructions must include information about use of medications at home and symptoms of abortion complications.

Recommendation 5.1: Written instructions should be given to all patients.

Standard 6: The patient must be informed that a surgical abortion will be recommended if medical abortion fails and this must be documented.

Standard 7: The facility must provide an emergency contact service on a 24-hour basis and must offer or assure referral for uterine aspiration if indicated.

Standard 8: Gestational age must be verified and documented.

Recommendation 8.1: Ultrasonography, using a consistent and published table of fetal measurement, should be used to confirm and document gestational age when physical exam and LMP are substantially discordant.

Option 8.01: Ultrasonography may be used routinely.

Standard 9: If intrauterine gestation has not been confirmed by ultrasound, ectopic pregnancy must be considered. At a minimum, evaluation will include history and physical exam and may also require serology, sonography, and examination of uterine aspirate as well as documented follow-up through either clinical resolution or transfer of care.<sup>A</sup>

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<sup>A</sup> See *Clinical Policy Guidelines* for Management of Pregnancy of Uncertain Location.

Standard 10: Patient comfort level during the abortion procedure must be considered.

Option 10.01: Analgesia or other comfort measures may be used as needed unless there are contraindications.

Standard 11: Completion of the abortion must be documented by ultrasonography, hCG testing, or by clinical means. If the patient has failed to follow-up as planned, clinic staff must document attempts to reach the patient to ensure the abortion is complete. All attempts to contact the patient (phone calls and letters) must be documented in the patient's medical record.

Recommendation 11.1: Ultrasonography should be used to evaluate completion of the abortion when expected bleeding does not occur after medications.

Option 11.01: Ultrasonography may be used routinely.

Standard 12: Rh immune globulin must be offered in accordance with Rh Guidelines<sup>B</sup>

Recommendation 0.1: When mifepristone<sup>C</sup> and vaginal, buccal, or sublingual misoprostol are used, the regimen is recommended for gestations up to 63 days.<sup>5,9</sup>

Recommendation 0.2: When mifepristone<sup>C</sup> and oral misoprostol are used, the regimen is recommended for gestations up to 56 days.

Recommendation 0.3: Where mifepristone is not available and methotrexate and misoprostol are used, the regimen is recommended for gestations up to 63 days.<sup>1</sup>

Recommendation 0.4: Where mifepristone is not available and misoprostol is used, the regimen is recommended for gestations up to 63 days. Combined regimens are more effective than prostaglandin alone.<sup>1</sup>

Recommendation 0.5: Hct or Hgb should be obtained in women with a history of significant anemia.<sup>D</sup>

Recommendation 0.6: Vital signs (e.g., blood pressure, pulse, and temperature) and physical exam should be done as indicated by medical history and patient symptoms.

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<sup>B</sup> See *Clinical Policy Guidelines* for Rh Testing and Rh Immune Globulin Administration.

<sup>C</sup> Abortifacients must only be used within established regimens under protocols which have been shown to be acceptable, safe, and efficacious in published clinical research. See NAF's *Protocol for Mifepristone /Misoprostol in Early Medical Abortion* for further resources.

<sup>D</sup> By establishing a balance sheet of risks, costs, and outcomes, it was discovered that a pre-operative Hct was of relatively questionable value statistically in preventing morbidity and mortality in a healthy woman in the first trimester with no history of anemia or major disease process.

**Discussion:** Many patients prefer pharmacological methods of terminating early pregnancies rather than suction curettage. Medical abortion has several advantages for patients. It avoids surgery and anesthesia and offers women more active participation and control over the abortion process. On the other hand, medical abortion is less effective than surgical abortion (90-98% versus 99% or greater). It also takes longer and may require more office visits.

Extensive research has established the safety and efficacy of methotrexate or mifepristone combined with misoprostol for early pregnancy termination. However, medical methods are still evolving. Investigators continue to explore various pharmacologic agents, dosing regimens, routes of administration, the length of gestation during which they can be used, and the ideal protocols for their use.

Mifepristone is administered orally. Original trials involved a 600 mg dose, but further research indicates that 200 mg provides comparable overall efficacy. The best studied methotrexate regimen involves 50 mg/m<sup>2</sup> (body surface area) given intramuscularly, the same dose used in treating early unruptured ectopic pregnancy. One study found comparable efficacy using a standard 75 mg dose IM, but the results require confirmation. Research also indicates acceptable efficacy when methotrexate is administered orally in doses of 25-50 mg.

Information is also evolving on the types, doses, and routes of administration of the prostaglandin agents used in medical abortion regimens. Highly effective agents used in early European regimens included gemeprost and sulprostone, although the latter was discontinued due to adverse cardiovascular effects. These prostaglandins are not available in the United States. Currently, misoprostol is the favored agent because it is efficacious, cheap, stable without refrigeration, and already FDA-approved for other indications.

Buccal administration of misoprostol has a similar physiological effect on the uterus as vaginal administration and is similarly highly effective for medical abortion to 63 days gestation. Sublingual administration of misoprostol is also highly effective for medical abortion with mifepristone to 63 days gestation. Both buccal and sublingual administrations of misoprostol are associated with a higher frequency of chills. One large retrospective study suggests that a change of route from vaginal to buccal administration of misoprostol after mifepristone was associated with a reduced incidence of serious infection, although absolute risk is low.<sup>2</sup> The effectiveness of medical abortion declines with advancing gestational age.

Whereas the major U.S. medical abortion trials used transvaginal sonography routinely for gestational age assessment and follow-up, the extensive French experience relied more on clinical evaluation and hCG monitoring, reserving sonography for cases of uncertain dating or outcome. Sonography avoids underestimation of gestational age, helps confirm complete abortion, and assists in the diagnosis of ectopic pregnancy. However, no randomized trials have been performed to assess the effects of sonography or clinical evaluation on medical abortion outcomes.

These *Clinical Policy Guidelines* include recommendations for gestational age limits in accordance with the most current evidence-based research.

Pharmacological induction of abortion provides an important alternative to surgical abortion in some circumstances. For example, medical methods may succeed when congenital uterine anomalies or fibroids limit surgical access to the gestational sac. Use of misoprostol may also avoid surgery in cases of incomplete spontaneous abortion.

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1. Aldrich T, Winikoff B. Does methotrexate confer a significant advantage over misoprostol alone for early medical abortion? A retrospective analysis of 8678 abortions. *BJOG* 2007 May; 114(5):555-62.
2. Fjerstad, M, Trussell, J, Sivin, I, Lichtenberg, ES, & Cullins, V. *NEJM* 2009, 361(2):145.
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## FIRST TRIMESTER SURGICAL ABORTION

**Policy Statement:** Legal abortion is one of the safest surgical procedures. The following guidelines enhance this safety.

### PRE-OPERATIVE PROCEDURE

Standard 1: Pertinent medical history must be obtained and documented.

Standard 2: Confirmation of pregnancy must be documented.

Standard 3: Gestational age must be verified and documented.

Option 3.01: Ultrasonography, using a consistent and published table of fetal measurements can be of clinical value in verifying intrauterine pregnancy and gestational age.

Standard 4: If intrauterine gestation has not been confirmed by ultrasound, ectopic pregnancy must be considered. At a minimum, evaluation will include history and physical exam and may also require serology, sonography, and examination of uterine aspirate as well as documented follow-up through either clinical resolution or transfer of care.<sup>A</sup>

Recommendation 0.1: Hct or Hgb should be obtained in women with a history of significant anemia.<sup>B</sup>

Recommendation 0.2: Vital signs (e.g., blood pressure, pulse, and temperature) and physical exam should be done as indicated by medical history and patient symptoms.

### OPERATIVE PROCEDURE

Standard 5: Patient comfort level during the procedure must be considered.

Recommendation 5.1: Analgesic or other comfort measures should be offered unless there are contraindications.<sup>C</sup>

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<sup>A</sup> See *Clinical Policy Guidelines* for Management of Pregnancy of Uncertain Location.

<sup>B</sup> By establishing a balance sheet of risks, costs, and outcomes, it was discovered that a pre-operative Hct was of relatively questionable value statistically in preventing morbidity and mortality in a healthy woman in the first trimester with no history of anemia or major disease process.

<sup>C</sup> See *Clinical Policy Guidelines* for Analgesia and Sedation.

Standard 6: All instruments entering the uterine cavity must be sterile.

Option 0.01: The vagina may be cleansed with a bacteriocidal agent.

Option 0.02: Intra-operative ultrasonography can be of value to locate fetal parts and aid in their extraction, to verify an empty uterus, and to verify an intact uterus.

Recommendation 0.3: The cervix should be dilated gently and gradually.

Option 0.31: Adequate dilation may be achieved by osmotic dilators or misoprostol.

Option 0.32: At very early gestational age, cervical dilation may be facilitated by delaying the procedure.

## POST-OPERATIVE PROCEDURE

Standard 7: Completion of the procedure must be verified and documented.<sup>D</sup>

Standard 8: Rh immune globulin must be offered per Rh policy guidelines.<sup>E</sup>

Standard 9: *Clinical Policy Guidelines* for Post-Operative Care must be followed.<sup>F</sup>

### References:

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<sup>D</sup> See *Clinical Policy Guidelines* for Evaluation of Evacuated Uterine Contents.

<sup>E</sup> See *Clinical Policy Guidelines* for Rh Testing and Rh Immune Globulin Administration.

<sup>F</sup> See *Clinical Policy Guidelines* for Post-Operative Care.

## MANAGEMENT OF PREGNANCY OF UNCERTAIN LOCATION

**Policy Statement:** The early identification of ectopic pregnancy will reduce morbidity related to rupture and increase the likelihood of successful non-surgical management.

**Standard 1:** The patient's medical history and physical exam must be evaluated in order to assess for the risk of ectopic implantation in early pregnancy. Certain signs and symptoms, such as vaginal bleeding and/or pelvic pain, should alert providers to the importance of following policies and procedures for ruling out ectopic pregnancy.

**Option 1.01:** In addition to physical exam, evaluation may include:

- sonography;
- uterine aspiration; and
- serial quantitative hCGs.

**Recommendation 1.1:** Each provider site should have a written protocol to evaluate ectopic pregnancy.

**Option 1.11:** Clinical algorithms for the evaluation of possible ectopic pregnancy may be useful in developing practice protocols.<sup>4,9,10</sup>

**Recommendation 1.2:** All relevant staff at the site should be familiar with the protocol.

**Standard 2:** The patient must be evaluated for ectopic pregnancy if:

- transvaginal ultrasonography shows no intra-uterine pregnancy and serum quantitative hCG exceeds 2000 mIU/ml;<sup>A</sup> or
- abdominal ultrasonography shows no intra-uterine pregnancy and serum quantitative hCG exceeds 3600 mIU/ml; or
- a suspicious adnexal mass is found on ultrasound or pelvic exam; or
- no pre-abortion sonography demonstrating an IUP has been performed, and there is minimal or no bleeding in response to abortifacient medications OR there are no products of conception identified in the uterine aspirate.<sup>B</sup>

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<sup>A</sup> All hCG values used in this document are based on the Third International Standard (originally referred to as the First International Reference Preparation).

<sup>B</sup> Intrauterine gestation is confirmed when an ultrasound demonstrates a gestational sac with a yolk sac or when chorionic villi are identified in the uterine aspirate. Sonographic or tissue confirmation of an intrauterine pregnancy makes concurrent ectopic pregnancy extremely unlikely in naturally conceived pregnancies (1/4,000 – 1/8,000).<sup>4-6</sup>

**Standard 3:** All patients with a pregnancy of uncertain location must be informed about the possibility of ectopic pregnancy, the symptoms and dangers associated with ectopic pregnancy, and have a plan for when and how to seek emergency medical attention. This should be documented in the medical record.

**Recommendation 3.1:** Each provider site should have a patient education handout describing ectopic warning signs and the medical record should reflect that the patient has received this handout.

**Standard 4:** The patient must not be released from follow-up care until either:  
a. the diagnosis of ectopic pregnancy has been excluded;  
b. clinical resolution of a possible ectopic pregnancy has been ensured; or  
c. transfer of care to an appropriate provider has been made and documented.

**Standard 5:** Patients experiencing symptoms suspicious for rupturing ectopic pregnancy should be emergently evaluated for possible surgical management.

**Standard 6:** If either a medical or aspiration abortion is initiated for a patient with a pregnancy of uncertain location, resolution of the pregnancy must be verified and documented. This may be demonstrated by either the examination of aspirated tissue or by following serial BhCG levels according to evidence-based regimens.<sup>c</sup>

**Discussion:** A combination of clinical assessment, pelvic ultrasound, serum quantitative hCG, and examination of uterine aspirate is often needed to distinguish between an early intrauterine gestation, a miscarriage, and an ectopic pregnancy.<sup>6</sup> With early gestations, pre-procedure ultrasound may fail to identify an intrauterine pregnancy, leaving the clinician uncertain about the viability and location of the pregnancy. Although a gestational sac can usually be seen 4 to 5 weeks from LMP on transvaginal ultrasound, it may be confused with a pseudo-sac associated with an ectopic pregnancy.<sup>1</sup> Visualization of a yolk sac or embryo is therefore needed to definitely confirm an intrauterine pregnancy on ultrasound.

From 7 to 20% of women with a pregnancy of uncertain location are subsequently found to have an ectopic pregnancy and approximately 25-50% of women with ectopic pregnancies initially present with pregnancy of uncertain location.<sup>1</sup> Although it is an important cause of pregnancy-related morbidity and mortality, ectopic implantation has been reported to occur in less than 1% of pregnancies in women presenting for induced abortion.<sup>3,5</sup>

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<sup>c</sup> See *Clinical Policy Guidelines* for Evaluation of Evacuated Uterine Contents.

References:

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## SECOND TRIMESTER ABORTION BY D&E

**Policy Statement:** Second trimester<sup>A</sup> abortion by dilation and evacuation (D&E) is a safe outpatient surgical procedure when performed by appropriately trained clinicians in medical offices, freestanding clinics, and ambulatory surgery centers.

### PRE-OPERATIVE PROCEDURE

Standard 1: Pertinent medical history must be obtained and documented.

Recommendation 0.1: A patient with a suspected or actual placenta previa and prior uterine scarring should be evaluated for placental abnormality, such as accreta.

Recommendation 0.2: Physical examination should be done as indicated by medical history and patient symptoms.

Recommendation 0.3: A pre-operative Hgb or Hct should be done.

Standard 2: Gestational age must be verified by ultrasonography, using a consistent and published table of fetal measurements, prior to the termination of a pregnancy clinically estimated to be more than 14 weeks LMP.

Option 0.01: In later second trimester abortions, intra-amniotic or intra-fetal injection may be given to cause fetal demise in utero prior to abortion. (See Discussion).

### OPERATIVE PROCEDURE

Standard 3: Patient comfort level during the abortion procedure must be addressed.<sup>B</sup>

Recommendation 3.1: Analgesic or other comfort measures should be offered unless there are contraindications. Such measures should be based on the woman's needs and the medical context.

Standard 4: Appropriate dilation of the cervix must be obtained.

Recommendation 4.1: Dilation should be achieved gently and gradually.

Recommendation 4.2: Osmotic dilators, misoprostol, and/or other cervical ripening agents should be used to facilitate adequate dilation.

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<sup>A</sup> For the purposes of these guidelines, second trimester begins at approximately 14 weeks LMP. (Cunningham, FG, *et al. Williams' Obstetrics; 22nd Ed.* Columbus OH: McGraw-Hill Inc., 2005: Chapter 4)

<sup>B</sup> See *Clinical Policy Guidelines* for Analgesia and Sedation.

Standard 5: When osmotic dilators, misoprostol, and/or other cervical ripening agents are used, a plan for emergency care prior to the scheduled procedure must be in place and communicated to the patient.

Recommendation 0.4: IV access should be established prior to evacuation.

Standard 6: All instruments entering uterine cavity must be sterile.

Standard 7: Uterotonics must be available to aid in control of uterine bleeding.

Option 0.02: Prophylactic vasopressin may be used intracervically or paracervically to reduce blood loss.

Option 0.03: Intra-operative ultrasonography can be of value to locate fetal parts and aid in their extraction, to aid in verifying an empty uterus, and to aid in diagnosis of uterine perforation.

## POST-OPERATIVE PROCEDURE

Standard 8: Completion of the procedure must be verified and documented by the operator.<sup>c</sup>

Standard 9: *Clinical Policy Guidelines* for Post-Operative Care must be followed.

Option 0.04: Uterotonic agents may be prescribed at discharge.

**Discussion:** Second trimester procedures comprise approximately 10% of abortions in the United States today. The dilation and evacuation procedure requires special training, techniques, and equipment appropriate for gestational age. Dilation and evacuation is now the predominant second trimester abortion procedure in the United States.

Clinicians who provide second trimester D&E procedures should provide the safest procedure possible for their patients. The United States Supreme Court has upheld a law banning some abortion procedures. Although the law does not require the use of fetocidal injections, some providers may choose to use them in order to avoid violating the law.

Clinicians must tailor surgical techniques to suit individual circumstances mindful of current legal implications and the need to maintain patient safety. As always, it is incumbent upon each clinician to be aware of the laws pertinent to their clinical practice.

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<sup>c</sup> See *Clinical Policy Guidelines* for Evaluation of Evacuated Uterine Contents.

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## SECOND TRIMESTER ABORTION BY MEDICAL INDUCTION

**Policy Statement:** Medical induction is a safe and effective method for termination of pregnancies beyond the first trimester<sup>A</sup> in appropriate clinical settings by trained clinicians. As gestational age increases, complications and risks increase.

Standard 1: Personnel capable of surgical management and the necessary equipment, including a clinician who can perform a timely curettage for retained placenta or bleeding, must be available until post-abortion discharge. The NAF *Clinical Policy Guidelines* for Second Trimester Abortion by D&E (pp. 23-26 of this document) will be relevant when surgical intervention is indicated.

Standard 2: A clinician must be available for emergency care from initiation of cervical pretreatment until post-abortion discharge.

Standard 3: Pertinent medical history must be obtained and documented.

Recommendation 0.1: Physical examination should be done as indicated by medical history and patient symptoms.

Standard 4: Gestational age must be verified by ultrasonography, using a consistent and published table of fetal measurements, prior to the termination of a pregnancy clinically estimated to be more than 14 weeks LMP.

Recommendation 0.2: A patient with a suspected or actual placenta previa and prior uterine scarring should be evaluated for other placental abnormalities.<sup>4</sup>

Recommendation 0.3: A pre-abortion Hgb or Hct should be done.

Standard 5: Patient comfort level during the abortion procedure must be considered.

Recommendation 5.1: Analgesic or other comfort measures should be offered unless there are contraindications.<sup>B</sup>

Option 0.02: Pretreatment with mifepristone 24-48 hours prior to misoprostol has been shown to reduce the induction-to-abortion interval. (See Discussion).

Option 0.03: In later second trimester abortions, intra-amniotic or intra-fetal injection may be given to cause fetal demise in utero. (See Discussion).

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<sup>A</sup> For the purposes of these guidelines, second trimester begins at approximately 14 weeks LMP. (Cunningham, FG, *et al. Williams' Obstetrics; 22nd Ed.* Columbus OH: McGraw-Hill, Inc., 2005: Chapter 4).

<sup>B</sup> See *Clinical Policy Guidelines* for Analgesia and Sedation.

Option 0.04: Prostaglandins and/or oxytocin may be used to induce labor.

Standard 6: Patients must be advised that administration of prostaglandins for priming or induction may precipitate rapid onset of uterine contractions and expulsion.

Standard 7: Patients must be given detailed instructions for how to contact the health care facility. Patients must also be given detailed instructions on how to proceed when signs of labor are noted, including a plan for management of unscheduled delivery and recognition of related complications.

Standard 8: Once regular contractions have been confirmed, patients must be observed by a health care worker trained to monitor contractions and expulsion.

Recommendation 0.4: IV access should be established prior to expulsion.

Standard 9: Completion of the procedure must be verified and documented by the operator.<sup>c</sup>

Recommendation 0.5: Uterotonics should be available to aid in control of uterine bleeding.

Standard 10: *Clinical Policy Guidelines* for Post-Operative Care must be followed.

Option 0.05: Uterotonic agents may be prescribed at discharge.

Standard 11: Patients suspected of having any type of post-abortion complication must be evaluated by a trained clinician.

**Discussion:** Osmotic or mechanical dilators, prostaglandins, and/or mifepristone have been used to achieve cervical preparation for induction and expulsion. Current data support use of the following regimens:

200 mg oral mifepristone, followed 36-48 hours later by 600-800µg vaginal misoprostol. Thereafter, 400 µg oral or vaginal misoprostol may be utilized every three hours to a maximum of five doses.<sup>1, 7, 10</sup>

Good evidence also supports use of 400 µg vaginal misoprostol every six hours until delivery.<sup>5</sup>

Rates of retained placenta related to medical induction abortion have been reported to occur at widely varying rates (between 13-15%). Uterotonics or surgical intervention may be necessary to complete the procedure.

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<sup>c</sup> See *Clinical Policy Guidelines* for Evaluation of Evacuated Uterine Contents.

There is no evidence that the use of misoprostol increases the risk of uterine rupture in a previously scarred uterus in the second trimester compared to other induction agents. While the risk of uterine rupture during second trimester induction in women with scarred uteri is unknown, there is a recognized risk at term and there have been case reports in the second trimester. At term, women with placenta previa and uterine scarring—especially multiple or vertical cesarean scars—are at increased risk for the rare occurrence of placenta accrete.<sup>4</sup>

In light of the relevant medical and legal context in which the abortion takes place, the use of intra-fetal and intra-amniotic injection to cause fetal demise in utero may be beneficial in later second trimester procedures. In addition to the references below, NAF Members may look to the *NAF Clinical Practice Bulletin for Digoxin Administration* for further information.

As always, it is incumbent upon each clinician to be aware of the laws pertinent to their clinical practice.

#### References:

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## ANALGESIA AND SEDATION

**Policy Statement:** Anxiolysis, analgesia, or anesthesia should be provided during abortion procedures for any patient in which the benefits outweigh the risks.

ON THE USE OF SEDATION IN GENERAL - All medications used in procedural sedation have the potential for serious risk. This risk may be reduced to a minimum by adherence to established practice guidelines. Guidelines developed by other organizations concern themselves with anesthesia and sedation delivered primarily in hospital settings and to patients varying widely in age and general health. Whether it be local anesthesia, oral analgesia, or procedural sedation, it is the degree of CNS depression rather than any type of modality *per se* that is the basis for the establishment of NAF guidelines.

NOTE: These guidelines do not address the use of deep or general anesthesia except to identify appropriate providers of such care, who are expected to follow their professional standards in the delivery of anesthesia services.

The promulgation of guidelines for the delivery and monitoring of anesthesia care issued by organizations such as the American Society of Anesthesiologists (ASA), the Canadian Anesthesiologists' Society (CSA), the American Dental Society of Anesthesiologists (ADSA), American Society of Gastrointestinal Endoscopists, and others have clarified many of the issues related to anesthesia care.

It is recognized that patient comfort and reduced anxiety are not dependent only on pharmacologic measures, but are significantly affected by patient counseling and by a supportive staff. It is also recognized that there is a wide range of alternative modalities (such as acupuncture, yoga, hypnosis) that are helpful for many patients. The focus of NAF guidelines for analgesia and sedation, however, is on the safe provision of pharmacologic methods generally used in outpatient abortion facilities.

### DEFINITIONS<sup>A</sup>

1. Local Anesthesia - Elimination or reduction of sensation, especially pain, in one part of the body by topical application or local injection of a drug. In the context of abortion practice, this almost always signifies paracervical block.

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<sup>A</sup> Based on *Continuum of Depth Sedation: Definition of General Anesthesia and levels of Sedation/Anesthesia*, 2009, of the American Society of Anesthesiologists. A copy of the full text can be obtained from ASA; 520 N. Northwest Highway; Park Ridge, Illinois 60068-2573.

2. Minimal Sedation (Anxiolysis) - is a drug-induced state during which patients respond normally to verbal commands. Although cognitive function and physical coordination may be impaired, airway reflexes, ventilatory, and cardiovascular functions are unaffected.
3. Moderate Sedation/Analgesia (“Conscious Sedation”) - is a drug-induced depression of consciousness during which patients respond purposefully\* to verbal commands, either alone or accompanied by light tactile stimulation. No interventions are required to maintain a patent airway, and spontaneous ventilation is adequate. Cardiovascular function is usually maintained but may be impaired.
4. Deep Sedation/Analgesia - is a drug-induced depression of consciousness during which patients cannot be easily aroused but respond purposefully following repeated or painful stimulation. The ability to independently maintain ventilatory function may be impaired. Patients may require assistance in maintaining a patent airway, and spontaneous ventilation may be inadequate. Cardiovascular function is usually maintained but may be impaired.
5. General Anesthesia - is a drug-induced loss of consciousness during which patients are not arousable, even by painful stimulation. The ability to independently maintain ventilatory function is often impaired. Patients often require assistance in maintaining a patent airway, and positive pressure ventilation may be required because of depressed spontaneous ventilation or drug-induced depression of neuromuscular function. Cardiovascular function may be impaired.

Because sedation is a continuum, it is not always possible to predict how an individual patient will respond. Hence, practitioners intending to produce any level of sedation should be able to rescue\*\* patients whose level of sedation becomes deeper than initially intended.

\* *Reflex withdrawal from a painful stimulus is NOT considered a purposeful response.*

\*\* *Rescue corrects adverse physiologic consequences of the deeper-than-intended level of sedation (such as hypoventilation, hypoxia, and hypotension) and returns the patient to the originally intended level of sedation.*

## PERSONNEL AND MONITORING

Standard 1: When minimal, moderate, deep sedation, or general anesthesia is to be given patients must be given information about the risks, benefits, and side effects of the medications to be used.

Recommendation 1.1: Documentation of this education should include precautions relevant to transient mental impairment.

- Standard 2: The supervising practitioner must be immediately available when sedation is administered.
- Standard 3: When local anesthesia or sedation is provided, the practitioner responsible for the treatment of the patient and/or the administration of drugs must be appropriately trained.
- Standard 4: The potential need for IV access must be considered prior to administering any level of sedation.
- Recommendation 4.1: When more than minimal sedation is intended, IV access should be maintained.
- Standard 5: When sedation is provided, monitoring must be adequate to detect the respiratory, cardiovascular, and neurological effects of the drugs being administered, and this monitoring must be documented.
- Recommendation 5.1: Pulse oximetry should be available to enhance this monitoring.
- Recommendation 5.2: The patient should be checked frequently for verbal responsiveness.
- Recommendation 5.3: For patients in ASA P-3, P-4, and P-5 provision of care by an anesthesia professional should be considered. (See *page 37 of this document*).
- Standard 6: A person other than the clinician performing the procedure, and who is trained to monitor appropriate physiological parameters, must be present. This person must not be performing duties other than monitoring if the patient's responsiveness has declined from baseline and must be prepared to provide respiratory support.<sup>B</sup>
- Standard 7: The practitioner administering deep sedation or general anesthesia must not be the practitioner performing the abortion.
- Standard 8: The practitioner administering deep sedation or general anesthesia must be certified according to applicable regulations and adhere to established professional standards of care.
- Standard 9: N2O/O2 must be self-administered by the patient.
- Standard 10: The provision of N2O/O2 must follow guidelines for patient monitoring which are consistent with Standards 7 and 8 above, and requires dedicated monitoring personnel.

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<sup>B</sup> See *Clinical Policy Guidelines* for Emergency Procedures.

- Standard 11:** Equipment for the delivery of N<sub>2</sub>O/O<sub>2</sub> must:
- a. provide a concentration of N<sub>2</sub>O of no more than 70% inspired;
  - b. provide a maximum of 100% and minimum of 30% O<sub>2</sub> conc.; and
  - c. be checked and calibrated regularly.

**Recommendation 11.1:** Equipment for the delivery of N<sub>2</sub>O/O<sub>2</sub> should be outfitted with an oxygen analyzer.

**Recommendation 11.2:** Due to the potential for occupational exposure, room or personnel monitoring for levels of gases should be conducted (see Discussion below).

**FACILITIES AND EQUIPMENT:** See *Clinical Policy Guidelines* for Emergency Procedures.

## DISCUSSION:

**ON THE USE OF PULSE OXIMETRY** - There have been no trials evaluating the benefit of pulse oximetry to young women undergoing outpatient abortion, who only rarely have respiratory or hemodynamic compromise. Given the low risk of morbidity and mortality associated with this procedure it is unlikely that there will be studies large enough to assess pulse oximetry on the basis of outcomes. The major correlation with prolonged oxygen desaturation is advancing age and cardiovascular function deficits; however, the use of pulse oximetry has become the standard of care for any patient who has received medication which alters the level of consciousness or the respiratory drive.

**ON THE USE OF N<sub>2</sub>O/O<sub>2</sub>** - Nitrous oxide has a long history of use for analgesia and sedation, as well as an excellent safety record in the hands of both anesthesiologists and non-anesthesiologists. Attention must be paid to the level of sedation provided and the clinician must be prepared to recognize and care for changes in these levels. Occupational exposure to N<sub>2</sub>O has been associated with increased risks of neurologic impairment, spontaneous abortion, subfertility, and hepatic and renal disease. Although there is no OSHA standard for N<sub>2</sub>O, NIOSH recommends that airborne levels of N<sub>2</sub>O be kept below 25 ppm (1995) through well-designed scavenger systems and other engineering controls, equipment maintenance, exposure monitoring, and safe work practices.

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## ANALGESIA AND SEDATION

American Society of Anesthesiologists

### CONTINUUM OF DEPTHS OF SEDATION: DEFINITION OF GENERAL ANESTHESIA AND LEVELS OF SEDATION/ANALGESIA<sup>c</sup>

Committee of Origin: Quality Management and Departmental Administration  
(Approved by the ASA House of Delegates on October 27, 2004, and amended on  
October 21, 2009)

	<i>Minimal Sedation/ Anxiolysis</i>	<i>Moderate Sedation/ Analgesia “Conscious Sedation”</i>	<i>Deep Sedation/ Analgesia</i>	<i>General Anesthesia</i>
<i>Responsiveness</i>	Normal response to verbal stimulation	Purposeful ** response to verbal or tactile stimulation	Purposeful** response following repeated or painful stimulation	Unarousable even with painful stimulus
<i>Airway</i>	Unaffected	No intervention required	Intervention may be required	Intervention often required
<i>Spontaneous Ventilation</i>	Unaffected	Adequate	May be inadequate	Frequently inadequate
<i>Cardiovascular Function</i>	Unaffected	Usually maintained	Usually maintained	May be impaired

\*\* Reflex withdrawal from a painful stimulus is NOT considered a purposeful response.

<sup>c</sup> Excerpted from *Continuum of Depth of Sedation, Definitions of General Anesthesia and Levels of Sedation/Analgesia*. 2009, reprinted with the permission of the American Society of Anesthesiologists. A copy of the full text can be obtained from ASA; 520 N. Northwest Highway; Park Ridge, Illinois 60068-2573.

## ANALGESIA AND SEDATION

American Society of Anesthesiologists

### PHYSICAL STATUS DEFINITION<sup>D</sup>

The following represents the American Society of Anesthesiologists classification and should be used in evaluation of patients.

#### CLASSIFICATION OF PHYSICAL STATUS

P-1 - A normal healthy patient.

P-2 - A patient with mild systemic disease.

P-3 - A patient with severe systemic disease.

P-4 - A patient with severe systemic disease that is a constant threat to life.

P-5 - A moribund patient who is not expected to survive without the operation.

P-6 - A declared brain-dead patient whose organs are being removed for donor purposes.

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<sup>D</sup> *ASA Relative Value Guide*. 2012. Reprinted with permission of the American Society of Anesthesiologists; 520 N. Northwest Highway; Park Ridge, Illinois 60068-2573.



## USE OF ANTIBIOTICS IN ABORTION

**Policy Statement:** Prevention and treatment of infection will reduce post-abortion morbidity.

**Recommendation 0.1:** All women should receive antibiotics at the time of surgical abortion.

**Option 0.01:** Antibiotics may be given to women choosing medical abortion.

**Recommendation 0.2:** Empiric treatment of Chlamydia should be considered for patients at high risk for pre-existing infection.<sup>A</sup>

**Recommendation 0.3:** For documented infections of the reproductive tract, CDC guidelines should be followed.<sup>3</sup>

**Option 0.02:** Antibiotics may be initiated at the time of insertion of osmotic dilators.

**Option 0.03:** Patients with non-cardiac prostheses may be given peri-operative antibiotics.<sup>B</sup>

**Discussion:** Our review of the literature supports universal antibiotic treatment of all women undergoing surgical abortion. There is one large retrospective analysis which supports the use of antibiotics in medical abortion.<sup>5</sup>

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<sup>A</sup> Patients at high risk for Chlamydia are defined as those with any of the following:

- a. age 25 or under;
- b. new or multiple sexual partners;
- c. mucopurulent discharge;
- d. presence of any STD; or
- e. history of pelvic inflammatory disease.

<sup>B</sup> “The statement concludes that antibiotic prophylaxis is not indicated for dental patients with pins, plates, or screws, nor is it routinely indicated for most dental patients with total joint replacements. However it is advisable to consider premedication in a small number of patients who may be at potential increased risk [1. All patients during first two years following joint replacement; 2. Immunocompromised/immunosuppressed patients; and 3. Patients with comorbidities (previous joint infections, malnourishment, hemophilia, HIV-infected, Insulin-dependent type-1 diabetes, malignancy)] of experiencing hematogenous total joint infections.”<sup>1</sup>

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## PRE-OPERATIVE ENDOCARDITIS PROPHYLAXIS AT THE TIME OF SURGICAL ABORTION

**Policy Statement:** Endocarditis is a potential risk of surgical procedures.

**Standard 1:** The AHA no longer recommends that patients with mitral valve prolapse *with or without a murmur* be given antibiotics prior to the procedure.

**Option 0.01:** Patients with a prosthetic heart valve, previous bacterial endocarditis, or surgically repaired congenital heart defect with prosthetic material or device are at increased risk of bacterial endocarditis and may be given pre-operative prophylactic antibiotics on the recommendation of their cardiologist or primary care provider.

**Discussion:** In 2007, the AHA revised its endocarditis prophylaxis recommendations. The statements below are quotations from those recommendations.

“Antibiotic prophylaxis solely to prevent infective endocarditis is not recommended for GU or GI tract procedures, including diagnostic esophagogastroduodenoscopy or colonoscopy (Class III, LOE B). This is in contrast to previous AHA guidelines that listed GI or GU tract procedures for which IE prophylaxis was recommended and those for which prophylaxis was not recommended.”

“The cases of IE temporally associated with a GI or GU tract procedure are anecdotal, with either a single or very small number of cases reported. No published data demonstrate a conclusive link between procedures of the GI or GU tract and the development of IE. Moreover, no studies exist that demonstrate that the administration of antimicrobial prophylaxis prevents IE in association with procedures performed on the GI or GU tract.”

“Patients with infections of the GI or GU tract may have intermittent or sustained enterococcal bacteremia. For patients with the conditions listed in Table 3 (1. Prosthetic cardiac valve or prosthetic material used for cardiac valve repair, 2. Previous IE, 3. Completely repaired congenital heart defect with prosthetic material or device, whether placed by surgery or by catheter intervention, during the first 6 months after the procedure, 4. Cardiac transplantation recipients who develop cardiac valvulopathy) who have an established GI or GU tract infection or for those who receive antibiotic therapy to prevent wound infection or sepsis associated with a GI or GU tract procedure, it may be reasonable that the antibiotic regimen include an agent active against enterococci, such as penicillin, ampicillin, piperacillin, or vancomycin (Class IIb, LOE B); however, no published studies demonstrate that such therapy would prevent enterococcal IE.”

References:

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## COMPLICATIONS: BLEEDING

**Policy Statement:** One of the most serious complications of an abortion procedure is hemorrhage. Early recognition of the source of bleeding can reduce morbidity and mortality.

### PRE-OPERATIVE BLEEDING

Recommendation 0.1: An ectopic pregnancy or spontaneous abortion should be considered.

### PERI-OPERATIVE BLEEDING

Standard 1: When there is excessive bleeding, the provider must institute measures to identify the etiology of the bleeding and control it.

Recommendation 1.1: IV access should be established.

Recommendation 1.2: The provider should consider incomplete procedure, atony, fibroids, lacerations, perforations, placenta accreta, cervical or cornual pregnancy, and coagulopathy.<sup>A</sup>

Option 1.21: Ultrasonography may be useful to determine whether the uterus is empty and to detect occult bleeding.

Option 1.22: When a cervical bleeding source is suspected, hemostasis may be achieved by compressing the cervix at the lateral fornices with ring forceps or placing a suture.

Option 1.23: When atony is suspected, uterine massage and uterotonics<sup>B</sup> may be useful.

Option 1.24: When coagulopathy is suspected, blood may be drawn for coagulation parameters and transfusion of blood or blood products may be necessary.

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<sup>A</sup> See *Clinical Policy Guidelines* for Complications: Perforation.

<sup>B</sup> methergine (intracervical or IM); oxytocin (intracervical, IM, or IV); prostaglandins (e.g. Prostin, intracervical or IM)

**Recommendation 0.2:** When excessive bleeding continues, the following measures should be instituted:

- a. monitor and document blood pressure, pulse, clinical status;
- b. uterotonics;
- c. maintain IV access;
- d. initiate appropriate volume replacement; and
- e. prepare for transfer to a hospital facility if necessary.<sup>c</sup>

**Standard 2:** The patient must be transferred to a hospital facility when the bleeding does not respond to therapeutic measures or when the patient is hemodynamically unstable.<sup>c</sup>

## DELAYED BLEEDING

**Standard 3:** When a patient reports excessive bleeding<sup>d</sup> after discharge from the abortion facility, she must be evaluated by that facility or an emergency contact service.

**Discussion:** Excessive bleeding in the peri-operative and in the post-operative period is almost always due to uterine atony, often complicated by incomplete emptying of the uterus. Therefore, the most important initial efforts should be directed at assuring complete evacuation of the uterus and at increasing uterine tone through uterotonics.

Problems arise when bleeding is ignored or its severity underestimated. Clinicians must always remember to do the simple things when confronted with a developing bleeding problem: continue assessment of the blood loss, measure and record blood pressure and pulse frequently, and assure intravenous access.

Many clinicians give uterotonics and vasoconstrictors as a preventive measure. Although there are data to support the routine use of vasopressin in the paracervical block, there is little evidence in the literature for other routine prophylactic strategies. However, experienced clinicians have found the following regimens useful:

In the paracervical block:

- a. 2-6 units of vasopressin;
- b. 4-8 units of oxytocin (e.g., 10 units in 50 cc of lidocaine, using 20 cc of the lidocaine for the block, or 4 units total dose);
- c. epinephrine (20 cc of 1:200,000 in lidocaine, equivalent to 0.1 cc of 1:1,000); or
- d. none of the above.

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<sup>c</sup> See *Clinical Policy Guidelines* for Emergency Procedures.

<sup>d</sup> Saturation of more than one pad per hour for more than three hours.

Post-operatively, the following measures may be used for treatment of post-abortion hemorrhage:

- a. methergine 0.2mg po, IM, intracervical, or IV;
- b. oxytocin 10units IM or 10-40 units IV;
- c. misoprostol 800-1000mcg pr or 800mcg sl (has been used for PPH);
- d. Hemabate 0.25mcg IM;
- e. Intrauterine pressure (e.g., Foley or Bakri balloon, or pack); or
- f. Vaginal pack.

When bleeding continues after assurance of complete uterine emptying and when there are no visible cervical or vaginal lacerations, the clinician must consider other complications such as perforation, coagulopathy, or placenta accreta.<sup>E</sup>

References:

1. Hakim-Elahi, E. & Tovell, H. Complications of first-trimester abortion: A report of 170,000 cases. *Obstet Gynecol* 1990, 76:129.

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<sup>E</sup> See *Clinical Policy Guidelines* for Complications: Perforation.



## COMPLICATIONS: PERFORATION

**Policy Statement:** Uterine perforation is a complication of abortion that can lead to significant morbidity.

Standard 1: If, in the clinician's judgment, an instrument passes farther than expected, then uterine perforation must be considered.

Standard 2: If a perforation occurs, even if the patient is asymptomatic, close observation and follow-up must be done.

Option 2.01: Antibiotic coverage may be instituted.

Option 2.02: Uterotonics may be administered.

Option 2.03: The patient may be transferred to a hospital.

Option 2.04: If a perforation occurs and *the pregnancy has not been disrupted*, the completion of the procedure may occur immediately, after a delay, or by referral to another provider.

Recommendation 2.1: If a perforation occurs and *the pregnancy has been disrupted*, the abortion should be completed as soon as feasible.

Option 2.05: The uterine evacuation may be completed under direct ultrasonography.

Option 2.06: The abortion may be completed under laparoscopic visualization.

Standard 3: The patient must be hospitalized for definitive care if:

- a. intra-abdominal viscera are detected in the uterine cavity, cervix, vagina, suction tubing, or on tissue examination;
- b. fetal parts are detected in the abdominal cavity;
- c. expanding intra-abdominal or retroperitoneal hematoma is detected; or
- d. hemodynamic instability is present.

Standard 4: When uterine perforation is suspected and the cannula has been inserted into the uterine cavity, suction must be released immediately before the cannula is withdrawn.

**Discussion:** Perforations may be difficult to identify correctly. When a perforation is suspected, it is safest to proceed as if there has been a perforation until that possibility has been excluded.

Most perforations are midline and/or fundal in location, especially in the first trimester. Perforations are often occult and usually do not present a problem. In second trimester abortions there is an increased risk of serious perforations because the myometrium is more vascular and less resistant to damage by larger instruments. Lateral perforations are more likely to damage uterine vascularity. Perforations are more likely to occur in the following situations:

- a. marked uterine anteversion or retroversion;
- b. cervical internal os stenosis requiring more force to dilate;
- c. uterine abnormalities; and
- d. difficult and prolonged uterine evacuation.

Uterine perforation is likely if:

- a. an instrument extends without resistance further into the uterine cavity than expected;
- b. the patient experiences more than the expected amount of pain during the procedure; or
- c. the patient experiences inordinate and persistent pain in the immediate recovery period.

Several factors may help prevent perforations:

- a. accurate assessment of gestational age;
- b. accurate assessment of uterine position;
- c. straightening the axis of the uterus; and
- d. cervical preparation beyond the first trimester.<sup>A</sup>

References:

1. Cervical preparation for second-trimester surgical abortion prior to 20 weeks of gestation. *Contraception* 2007, 76:486.
2. Cervical preparation for surgical abortion from 20-24 weeks' gestation. *Contraception* 2008, 77:308.
3. Elchalal, *et al.* Ultrasound-directed diagnosis and treatment of pelvic hematoma after therapeutic abortion. *J Clin Ultrasound* 1993, 21:55.
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<sup>A</sup> See *Clinical Policy Guidelines* Second Trimester Abortion by D&E.

## POST-OPERATIVE CARE

**Policy Statement:** Most serious abortion complications are detectable in the immediate post-operative period. Appropriate and accessible follow-up care is essential to patients' well-being.

Standard 1: Completion of the abortion must be verified and documented.<sup>A</sup>

Standard 2: Rh immune globulin must be offered in accordance with Rh guidelines.<sup>B</sup>

Standard 3: All patients must be observed during the recovery period by a health care worker trained in post-operative care.

Standard 4: A clinician must remain in the facility until all patients are medically stable.<sup>C</sup>

Standard 5: The following criteria must be documented prior to discharge: the patient must be ambulatory with a stable blood pressure and pulse, and bleeding and pain must be controlled.

Standard 6: The patient must be given instructions outlining the signs and symptoms of post-anesthesia effects and post-operative complications.

Recommendation 6.1: Written instructions should be given to all patients.

Standard 7: The facility must provide an emergency contact service on a 24-hour basis where calls are triaged in accordance with applicable regulations. The facility must assure physician referral if indicated.

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<sup>A</sup> See *Clinical Policy Guidelines* for Evaluation of Evacuated Uterine Contents.

<sup>B</sup> See *Clinical Policy Guidelines* for Rh Testing and Rh Immune Globulin Administration.

<sup>C</sup> Clinician is defined as a physician, nurse practitioner, physician assistant, or nurse midwife.



## EVALUATION OF EVACUATED UTERINE CONTENTS

**Policy Statement:** Complete removal and identification of products of conception help prevent complications of abortion.

**Standard 1:** Completion of abortion must be confirmed prior to the woman leaving the facility.

- a. When a fetal pole is not seen with pre-procedure ultrasound, evacuated uterine contents must be examined before the woman leaves the facility.
- b. In other cases either tissue exam or ultrasound must be used to confirm evacuation.

**Recommendation 1.1:** Evacuated uterine contents should be examined before the woman leaves the facility.

**Recommendation 1.2:** In first trimester terminations, flotation of tissue with backlighting should be used to identify products of conception, including gestational sac.

**Option 1.01:** Pathological examination of evacuated uterine contents is not required.

**Standard 2:** When insufficient tissue or incomplete products of conception are obtained, or ultrasound findings unclear, the patient must be reevaluated.

**Recommendation 2.1:** Follow-up pelvic ultrasonographic examination should be considered.

**Recommendation 2.2:** Resuctioning should be considered.

**Recommendation 2.3:** Serial quantitative hCG or sensitive urine pregnancy tests should be considered.<sup>A</sup>

**Standard 3:** If insufficient tissue is present after adequate patient evaluation, a protocol to rule out ectopic pregnancy must be followed, and the patient must be informed of symptoms and dangers of ectopic pregnancy.

**Recommendation 3.1:** If the uterine cavity is determined to be empty, serial quantitative hCG tests should be measured.

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<sup>A</sup> Sensitive urine pregnancy test is positive at 25 MIU of  $\beta$ -hCG.

Standard 4: The patient must not be released from follow-up care until the diagnosis of ectopic pregnancy has been excluded or an appropriate referral has been documented.

Recommendation 4.1: A 48-hour post-procedure serum quantitative hCG test should be done. If there is a decrease of 50% or more, no further ectopic follow up is necessary.<sup>1</sup>

Recommendation 4.2: If 48-hour post-procedure serum quantitative hCG testing shows no change, or a subnormal increase in value, ectopic pregnancy evaluation and definitive treatment should be instituted and documented, or a referral made and documented.

Standard 5: In second trimester abortions, placenta and all major fetal parts must be removed from the uterus.

Recommendation 5.1: If the above are not identified, ultrasonographic evaluation and repeat uterine exploration under ultrasound guidance should be considered.

Recommendation 5.2: The clinician should continue care of the patient until completion of the abortion has been determined.

References:

1. Creinin, MD. Change in serum beta-human chorionic gonadotropin after abortion with methotrexate and misoprostol. *Am J Obstet Gynecol* 1996 Feb; 174(2):776-8.

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## FETAL TISSUE HANDLING, STORAGE, AND DISPOSAL

**Policy Statement:** The improper handling, storage and disposal of tissue can lead to spread of infectious disease, and can increase the risk of theft or misplacement of tissue. Because of the possible infectious nature of tissue removed during the abortion procedure, guidelines for proper fetal tissue handling, storage, and disposal are established.

**Standard 1:** All surgically removed tissue must be considered biohazardous and be handled, stored, and disposed of in accordance with applicable governmental regulations. A proper protocol for tissue handling, storage, and disposal must be in place.

**Standard 2:** Adequate engineering and work practice controls for handling potentially infectious materials must be observed.<sup>A</sup>

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<sup>A</sup> Engineering control—available technology and devices that isolate or remove hazards from the work place, such as puncture-resistant sharps disposal containers.

Work practice control—an alteration in the way a task is performed that reduces the likelihood that an employee will be exposed to blood or other potentially infectious materials.



## EMERGENCY PROCEDURES

**Policy Statement:** Optimal management of abortion emergencies reduces morbidity.

Standard 1: Functioning equipment and current medications must be available on-site to handle medical emergencies and must include: an oxygen delivery system, oral airways, uterotonics, and epinephrine.

Recommendation 1.1: Facilities should have a specified area for emergency equipment to include oxygen, medications, and supplies.

Recommendation 1.2: Protocols should be in place to ensure ongoing training of staff in the use of emergency equipment, the management of emergencies, and the indications for emergency transport.

Recommendation 1.3: Medications should include IV crystalloids, and, in clinics using IV sedation, appropriate antagonists.

Recommendation 1.4: Clinics should consider developing an inter-site transfer agreement with a hospital outlining the means of communication and transport, and the protocol for emergent transfer of care.

Standard 2: When abortion procedures are being performed, a current CPR-certified staff member must be available on-site for emergency care.

Recommendation 2.1: All medical staff should have current CPR certification.

Option 0.1: The following supplies may be used:

<u>Type of Emergency</u>	<u>Prevention, Treatment</u>
1. Anaphylaxis	Corticosteroids, epinephrine
2. Allergic reactions	Diphenhydramine (Benadryl), epinephrine, albuterol inhalers
3. Respiratory arrest	Oxygen, suction, ambu bag, airways
4. Hemorrhage, shock	IV crystalloid (normal saline or Ringers Lactate), uterotonics, compression balloon (Bakri or Foley)
5. Cardiac arrest	CPR, AED
6. Seizure	Diazepam (Valium), midazolam (Versed)
7. Respiratory depression	Pulse oximeter, oxygen





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NATIONAL  
ABORTION  
FEDERATION

