

Number 10, August 2022

Concluding Pregnancy Ethically

Uniform definitions surrounding the end of pregnancy are important for women's health providers, policymakers, and advocates. In particular, missed miscarriage, ectopic pregnancy, septic abortion, and previable life-threatening maternal conditions are often cited as conditions that require abortion. This guideline describes a general approach to defining abortion, since not all medical or surgical decisions that surround the end of pregnancy are abortions. Here, abortion is defined as feticide (any drug, device or procedure used to ensure the death of the human being in utero before, during or in the process of separation of the mother and her embryo or fetus) or unnecessary delivery (any previable delivery without proportional danger of maternal death or any post-viable delivery with intentional death of fetus/neonate). Other ways to manage pregnancy are described that avoid abortion. Circumstances that are specifically <u>not</u> defined as abortion include separation of the mother and her embryo or fetus to prevent the mother's death or immediate, permanent, irreversible bodily harm which cannot be mitigated in any other way, including ectopic pregnancy and critical maternal illness.

Background

All pregnancies end. While most pregnancies end in delivery of live offspring, a substantial minority end in delivery of nonviable products of conception. Rarely, pregnancies end at the time of maternal death, with either live birth or stillbirth of the fetus.

Even if pregnancies end with the same outcome, the actions leading to those outcomes can be either ethical or unethical. The outcome itself may be joyous, tragic, or a mixture of the two, but these emotions are separate from the morality of the actions leading to the outcome. Different political and professional groups equivocate on terms such as "abortion," "induction," "delivery," and "termination of pregnancy." These terms refer to outcomes, and do not always clearly indicate what is ethical principles are involved in these endings.

This document considers interventions to conclude a pregnancy according to ethical principles common to much of medicine, viewed through a framework that includes a fetal patient and a maternal patient (see Table 1). These principles include autonomy, non-maleficence, beneficence, and the principle of double effect, a set of four

AAPLOG Practice Guideline. This document was developed by two authors on the Research Committee. Practice Guidelines are evidence-based documents informing pro-life providers with high-quality, peer-reviewed literature.

Ethical Principle	Action
Non-maleficence (fetal)	Dismemberment or disarticulation of a living fetus or embryo.
Non-maleficence (fetal)	Actions utilizing a drug, device or procedure to cause fetal or embryonal death prior
	to or during delivery.
Non-maleficence (fetal)	Actions causative of fetal or embryonal death
Beneficence (maternal),	Previable delivery without proportional risk of maternal death or immediate,
Autonomy (maternal)	permanent, irreversible bodily harm, which cannot be mitigated in any other way, or
	that which is performed without informed maternal consent.
Non-maleficence (fetal)	Post-viable delivery with intentional death of the fetus or neonate
AAPLOG Practice Guideline 10, August 2022.	

Table 1. Unethical actions to end pregnancy

criteria for evaluating the moral status of a proposed action that will cause both good and bad effects:

- The rationally chosen object of the act is morally good, or at least morally neutral.
- b. The agent directly intends only the good effect and not the bad effect.
- c. The good effect is not achieved by means of the bad effect.
- The good effect is proportionate to the bad effect, with no better alternative possible.¹

While discussing issues which carry enormous ethical and medical weight, AAPLOG believes it to be important to carefully define terms and explain their essential differences (see Figure 1), especially since those differences have not been well taught in typical medical education. This document proposes to outline the most common ways that pregnancy ends in order to establish a clear framework for evaluating the ethics of the actions around the conclusion of pregnancy. We seek to guide ways in which medical providers can respond to pregnancy complications both "medically and morally in light of the inviolable dignity and right to life of both the mother and the unborn child."¹ The topics are arranged according to pregnancy outcome, since the term "outcome" is well known to healthcare providers and their patients.

Spontaneous separation

Spontaneous separation <u>after</u> the gestational age of neonatal viability

Spontaneous separation of fetus from mother after neonatal viability is the most familiar group of outcomes, and has historically been termed "parturition" or "live birth." This category includes both term (37+ weeks) and preterm deliveries (prior to 37 weeks), but all occur after 23-24 weeks with a potentially viable fetus. Although the word "viable" is the subject of much equivocation itself, one common use is to denote the gestational age after which a could receive resuscitation neonate approaching a 50% chance of survival,

Figure 1

Abortion

- Feticide: any drug, device or procedure used to ensure the death of the human being in utero before, during or in the process of separation of the mother and her embryo or fetus
- Unnecessary Delivery: an action that causes fetal delivery and results in embryonal, fetal or neonatal death without proportional danger of maternal morbidity or mortality

Not Abortion

- •Separation of the mother and her embryo or fetus to prevent the mother's death or immediate, irreversible bodily harm with proportionate risk to the fetus, which cannot be mitigated in any other way
- •Treatment of ectopic pregnancy
- Treatment for miscarriage
- •Treatment of molar pregnancy

depending upon clinical circumstances. In the United States at the time of publication, this is generally regarded as 23 to 24 weeks with good dating or with an estimated fetal weight of 500 grams or greater. Within the 22- to 24-week range, opinions concerning viability and resultant practice varies widely, and it is beyond the scope of the present document to comment on these variations. It is important to determine the age of viability based upon one's institutional and regional capabilities for neonatal resuscitation and ongoing care.

At their cores, term and preterm deliveries after spontaneous separation resemble each other in two key ways:

- 1) There is no human intervention causing the pregnancy to end.
- The fetal patient is biologically capable of surviving the event in the absence of other disorders.

Thus, there is little moral discussion created by this class of pregnancy outcomes.

Spontaneous separation <u>before</u> the gestational age of neonatal viability

This category includes first- and secondtrimester spontaneous deliveries, including spontaneous abortions and some preterm births between 20 weeks (the cutoff for the medical term "spontaneous abortion") and 23 weeks. Like spontaneous vaginal deliveries after viability, these outcomes typically do not arouse much ethical discussion because they don't involve medical causation.

It may be objected that the age of viability cannot be an essential difference, since this is a moving target and depends not only on human development but on medical science. While the authors acknowledge this fact, they maintain that because life and death are key aspects of a physiological process involving inherent risk to multiple joined living organisms, the cutoff for viability (whenever it is) delineates this classification.

Artificial Separation

Like the above categories, this category is also heterogeneous. Here, the uniting factor is that all the means to end pregnancy are artificial. "Artificial" is taken here in a classical sense, derived from the root *ars*meaning brought about by human action (related to *artifact* and *art*). While "artificial" occasionally has negative connotations in colloquial use, the authors here use it to denote even indisputably good actions, such as medical induction of labor for preeclampsia with severe features at diagnosis after 34 weeks.

Artificial separation <u>after</u> the gestational age of neonatal viability

Although there are many complex medical (and sometimes ethical) decisions involved in artificial separation of mother and fetus after viability, they are beyond the scope of this monograph. In short, the risks of prematurity, fetal wellbeing and maternal morbidity must be carefully weighed to determine optimal timing of delivery, and the patient should be thoroughly counseled so that shared decision-making can be achieved.

Artificial separation <u>before</u> the gestational age of neonatal viability

Artificial separation prior to 23-24 weeks ought only to be undertaken in the most

circumstances, severe of with the understanding of all parties involved that the fetus/neonate will likely not survive more than a few hours after birth. In these tragic, but medically indicated, circumstances, multidisciplinary discussions are kev, involving the patient, her family and/or support system, her nursing team, the neonatology team, her obstetrician and/or her maternal fetal medicine physician. Pastoral care and perinatal palliative services should be offered prior to delivery when available and if time permits.

As per Table 1, medically indicated artificial separation before viability is only ethically undertaken when <u>both</u> of the following criteria are met:

- There is proportional danger of maternal death or severe threat to long-term organ function <u>and</u>
- 2) The maternal patient has provided her informed consent.

Examples of medically indicated previable separation are manifold. Previable induction of labor is justified in cases of intrauterine infection, massive placental abruption, and progressive hypertensive disorders of pregnancy. In countries with modern healthcare infrastructure, medical science is usually advanced enough to support the maternal patient through the 24 hours or less typically required for such inductions. If need be, blood product replacement and intensive care can be employed to protect the maternal life to achieve successful induction of an intact fetal body without resorting to fetal dismemberment.

These discussions, consultations and decisions should be clearly documented in the patient chart, outlining the risks to both the maternal and fetal patient, the affirming maternal consent, and the plan for delivery management, genetic testing if indicated, and planned medical and psychosocial postpartum care.

Artificial Separation Methods

Once a decision for artificial separation has been made, there are various medical and surgical interventions that have been utilized by physicians to cause separation. We will briefly review several pharmacological and procedural interventions, with attention to ethical principles for each.

Medical Action

Medical Action on the Mother's Body

This category is broad and includes medically indicated inductions of labor (before and after viability), elective inductions of labor, and some medical abortions. For the purposes of this document, "medically indicated" here means that there is some condition of the mother or the fetus which requires separation of the two to protect the life of one or the other (or both). "Elective" in this document refers to inductions done in the absence of some condition of the mother or the fetus which requires separation of the two to protect the life of one or the other (or both).

Induction of Labor

Labor can be stimulated with medications and other methods to bring about delivery. Induction can be either medically indicated due to concerns for maternal/fetal health or elective.

While some elective inductions have been shown to offer medical benefit, the medical profession generally tries to avoid ending pregnancy without a compelling healthrelated cause prior to 39 weeks gestation. To date, the medical literature offers no support for the claim that abortion improves mental health or offers protection to mental health. In fact, there is evidence to the contrary. Thus, we consider inductions for the purpose of mental health treatment as elective. of Instead abortion, we recommend mental health therapy as would be indicated outside of pregnancy.

Similarly, "palliative induction" is offered to some patients carrying fetuses with lifelimiting conditions such as anencephaly or renal agenesis. An induction in these cases may be considered between the time of diagnosis and the late preterm period. Improved maternal psychological health is typically the stated indication for "palliative induction," though in some circumstances, earlier induction is offered in order to plan an easier delivery when the fetus is smaller. Since the fetus has a life-limiting condition, this type of induction is thought to confer less risk to the fetus/neonate than preterm induction would place on a fetus with an expectedly normal extra-uterine lifespan. However, this view of "palliative induction" is mistaken because in it, physicians actually accelerate the death of the fetus. They assume the same role that the fetus's disease process does, and they limit life even further. Although AAPLOG recognizes that certain details of anomalous gestations (e.g. head size in certain brain anomalies) can legitimate concern prompt requiring preterm induction, AAPLOG rejects the idea of "palliative inductions" simply to hasten the end of the pregnancy. Instead, AAPLOG proposes perinatal palliative care, which allows parents to be parents for the natural length of their fetus/neonate's lifespan, and allows them to grieve.² AAPLOG also endorses maternal mental health resources as indicated by the individual clinical scenario.

Inductions have also been initiated when there are no fetal anomalies or maternal/fetal health conditions present, but the patient and physician have mutually agreed upon elective termination of pregnancy. In settings where physicians lack training or volume in D&E procedures, inductions are often performed on L&D units to terminate undesired pregnancies. By definition, these elective procedures are not medically necessary. They are, as defined by AAPLOG, abortions.

Medication Abortion

Much earlier in pregnancy, there are several drugs that can be given to bring about separation of mother and fetus, inducing an abortion. This has previously been called chemical or medical abortion.

Drugs relevant to this category include mifepristone (RU-486 or Mifeprex), a progesterone receptor antagonist which prevents the maternal decidual tissue from signals from receiving maternal progesterone elaboration. This leads to a failure to supply the growing trophoblast, the major working organ of the embryo. The embryo dies of lack of nutrition and oxygen. By the AAPLOG definition, this medication acts to cause an abortion. There are, however, other indications for use of this medication (e.g. spontaneous miscarriage, hyperglycemia in Cushing syndrome) which do not carry the same problematic ethical concerns.

<u>Misoprostol</u> (Cytotec) is a synthetic prostaglandin E1 analogue that induces uterine contractions. It can be used alone to induce abortion or in combination with mifepristone. Misoprostol also has other indications at varying dosage regimens (e.g. incomplete miscarriage, cervical ripening, labor induction, postpartum hemorrhage, gastric ulcer prophylaxis); these indications do not have associated ethical concerns. It is important to note that both aforementioned medications can be used for ethically good or ethically bad indications. The medications themselves are ethically neutral, but the circumstances surrounding their use may be problematic. AAPLOG encourages continued access to ethically appropriate utilization of these medications, under physician and pharmacist supervision.

<u>Ulipristal</u> (Ella) causes a dose-dependent decrease in endometrial thickness, even in doses pharmacologically similar to that used clinically for emergency contraception.³⁻⁶ Such changes in the endometrium lead to biological plausibility for iatrogenic embryo loss, although these changes take weeks for the human eye to appreciate.⁷

<u>Levonorgestrel</u> (Plan B One Step, Next Choice, My Way) is levonorgestrel 1.5 mg once or 0.75 mg in two doses 12 hours apart. This has been hailed as the perfect emergency contraceptive that won't disturb an already-implanted pregnancy, but there are concerns⁸⁻¹⁰ that it may also act after fertilization and/or after implantation. Of note, levonorgestrel at other doses and in other vehicles may be used as a traditional contraceptive, which is different from abortion. As with ulipristal use, there is concern for biologically plausible embryo loss.

All four of these drugs above act on maternal decidua and may alter implantation of an already active and separate human organism. Although the literature is yet

unclear whether ulipristal and levonorgestrel can induce abortion at the doses utilized for emergency contraception, there is enough biological plausibility that it is reasonable for medical providers and faith-based institutions with conscientious objection to opt out of providing either or both.

Medical Action on an Embryo/Fetus's Body

Medications can also be administered that act on the fetal body or placenta. These include but are not limited to methotrexate, which is discussed in a separate bulletin. Methotrexate acts on the trophoblast, the major working organ of the embryo.¹¹ This document does not categorize methotrexate use for ectopic pregnancy as an abortion.

Surgical Action

Surgical Action on the Mother's Body

The most familiar (and most common) surgery performed in pregnancy is the cesarean delivery, whereby pregnancy is concluded by removing the fetus from the mother. There are many indications for cesarean delivery. They may be performed any time after viability, and can (in cases of emergency) be performed extremely quickly; fetal delivery is often possible within one minute of procedure start. Cesarean deliveries can also be performed in cases of already-deceased fetuses. However, cesarean delivery is often avoided after

stillbirth to minimize maternal surgical risks. While there is debate about whether cesarean deliveries are the optimal way to deliver women in certain circumstances, there is little debate about whether cesarean deliveries are morally acceptable in themselves.

In the first trimester, another surgical procedure performed on pregnant women is intervention for ectopic pregnancy, typically by <u>salpingectomy or salpingostomy</u>.¹¹ These open or laparoscopic procedures are necessary and ethical to prevent maternal intra-abdominal hemorrhage and death. Although there may be embryonic cardiac activity at the time of surgery, these procedures meet the AAPLOG criteria set forth in Table 1, and are recommended and appropriate for ectopic pregnancy.

There is reasonable debate amongst lifeaffirming physicians about the ethics of treating ectopic with pregnancy methotrexate and/or salpingostomy. AAPLOG affirm the rights of medical providers and faith-based institutions with conscientious objection to methotrexate or salpingostomy to opt out of providing either or both, but emphasize that treatment of ectopic pregnancy in general is not abortion, and endorse salpingectomy as an option which should by offered.

Another set of procedures performed on pregnant women are transvaginal resections of products of conception, such as dilation and curettage (D&C) or dilation and extraction (D&E). While these procedures are surgical procedures that affect the mother's body, the effect on the fetal body is much more dramatic and thus they are placed in their own section.

Surgical Action on the Fetus's Body

There are ways of ending a pregnancy by ending the life of one of the joined organisms. Examples include resection of the fetus in D&C, dismemberment and disarticulation of a living fetus in D&E, and selective reduction of one or more fetuses in multiple gestations.

Removal of a fetus from its implantation site in the first trimester during a procedure such as <u>dilation and curettage</u> scrapes the fetus and the extraembryonic organs it has built (e.g. the chorion and amnion) away from its site of obtaining nourishment and may break up the fetal body itself.

Dilation and extraction similarly divides the body parts of an older fetus and fetal death ensues. Death most often occurs from exsanguination when the umbilical cord is disconnected or when iunctional hemorrhage occurs from disconnected extremities. Fetal death can also come about by neurological trauma when the calvarium is crushed or disconnected from the rest of the body. Physicians who perform D&Es know that fetal movement is occasionally palpable during these procedures, as there is alreadv enough neuromuscular development for the fetus to relay some

sensory input¹² and act in consequence. D&E does not allow for postnatal autopsy, and cuts short many cultural rituals of grieving, causing potential long-term effects on future pregnancy counseling and maternal mental health.

Some physicians opt to perform <u>feticide</u> and end the life of the fetus prior to performing D&E by injecting intra-cardiac potassium chloride or digoxin or by transecting the umbilical cord, believing this is a more humane or less painful way of performing the procedure. Regardless, it ends the life of a human being and does not acknowledge the fetus as a patient.

Finally, <u>selective reduction</u>, often performed by radiofrequency ablation of the umbilical cord, bipolar coagulation of the umbilical cord, or by intra-cardiac potassium chloride injection, also causes death of a previouslyliving fetus in the setting of multiple gestation. Ablation of the umbilical cord causes terminal fetal bradycardia and acidosis because the fetus loses its ability to conduct gas exchange.

Selective reduction is often done to preserve at least one live birth by lowering the risks associated with multiple gestation, such as extremely preterm birth, growth restriction, and conditions such as twin-twin transfusion syndrome or twin anemia-polycythemia sequence. Regardless, the act remains the same. In its essence, it is an action that ends the life of one human being in order to attempt to protect the life of another. It is important to note two details regarding this section:

- None of the foregoing text applies to resection of a deceased fetus (i.e. missed miscarriage or stillbirth). In those cases, pregnancy has already fundamentally concluded, but there is a delay in completion of the process of miscarriage or delivery.
- 2) None of the authors of the present document doubt the sincere concern that many physicians have in performing the above-described procedures on living fetuses, given that good effects may result (preserving the life of the mother or of other fetuses). However, the authors believe it important to separate the means from the consequences.

In conclusion, AAPLOG urges the profession of obstetrics and gynecology to cultivate a life-affirming way to practice the specialty, in which both the maternal and fetal patients are treated with human dignity and respect.

Clinical Questions and Answers

Q When is it acceptable to move towards delivery for a medical comorbidity that threatens the mother's life during pregnancy?

It is acceptable to deliver a patient before the gestational age at which the fetus could survive outside the womb only if the mother's life or health is in danger, which is proportional to the danger the fetus/neonate will face at birth. To be clear, this means the mother is facing death or immediate irreversible bodily harm which cannot be mitigated in any other way, including ectopic pregnancy and critical maternal illness. These situations are rare.

It is deeply felt by the authors that this point is not clearly grasped by many women's health advocates and that many physicians do not seek alternative paths that could support maternal health during a pregnancy, but instead choose to end the pregnancy out of fear or blind adherence to what they are taught. There is relatively little literature on support of women with serious chronic health conditions through pregnancy, and the authors call on obstetricians and maternal-fetal medicine physicians to publish cases and protocols they utilize to find ways to preserve the mother's safety during a pregnancy. Before viability, a prolife physician should exhaust all avenues of safeguarding the mother's health while she is joined to the fetus before recommending delivery.

After viability, the physician should still consider the mother's and fetus's proportion of risk, but there is not almost-certain risk of neonatal death and so induction can be initiated with greater ethical freedom. Induction criteria have been established for medical indications by other professional bodies including the American College of Obstetricians and Gynecologists and the Society for Maternal-Fetal Medicine.

Q Is feticide (including medication abortion, D&C, or D&E) ever medically necessary?

Elective abortions (performed purely for family planning) are medically unnecessary because of their elective nature (Figure 1). However, maternal-fetal separation may be offered ethically in circumstances of maternal life or health endangerment, if that threat is proportional to the peril faced by the neonate at birth.

AAPLOG expresses significant concern with the inappropriate overuse of "maternal health" when the true reason for the termination of pregnancy is psychosocial stress, fear of consequences of pregnancy, discomforts of pregnancy, lifestyle changes required by pregnancy, or pure autonomy. This is not medical necessity; rather, it is assertion of one human organism's power over another because of social problems that should be addressed in other ways.

AAPLOG recognizes that there are certain serious maternal medical conditions which worsen in pregnancy, and other conditions that arise *de novo* and require treatment to preserve the life of the maternal patient.

Before viability, grave maternal medical conditions may significantly endanger the life of the mother and fetus alike, with high risk of maternal mortality. Although not exhaustive, Table 2 provides a list of clinical scenarios that embody the type of severe risk that *may* place maternal life at proportional risk to fetal life. These are *not* automatic indications for maternal-fetal separation, but are circumstances in which proportional risk could be considered. Some of these clinical scenarios warrant rapid treatment with maternal-fetal separation to preserve the life of the mother, while others allow more time for consideration and consultation.

In the rare circumstances where maternal and fetal risk are proportionate, AAPLOG supports several ways of iatrogenically ending pregnancy. These ways largely include induction and cesarean section, which do not dismember the fetus. When maternal-fetal separation occurs in the setting of expected neonatal death, comfort care can and should be employed for the neonate born alive.

After viability and into the third trimester, life-threatening maternal conditions can usually be managed with delivery, either by induction of labor, or by cesarean section. If 24-48 hours is an acceptable time period in which to expect delivery, an induction can be carried out since there are regimens that cause delivery this quickly. If a more rapid delivery is required, a cesarean section is a good option. Many physicians are repelled by the idea of performing a cesarean section (possibly with a classical uterine incision) in order to avoid dismembering the fetus. However, it is AAPLOG's position that classical cesarean delivery should not cause Table 2. Conditions in pregnancy that mayendanger maternal life or major bodilyfunction

Condition	Details
Cardiovascular	May be associated with
collapse	obstetric (amniotic fluid
	embolism) or non-obstetric
	conditions
Exogenic	A pregnancy implanted within
cesarean scar	the defect or "niche" of an
pregnancy	incompletely healed cesarean
	scar (also called Type 2 CSP or
	"in-the-niche" CSP)
Ectopic	A pregnancy that is not located
pregnancy	within the uterine cavity
Active	Active bleeding into the
hemorrhage	peritoneal cavity, pelvic cavity,
	pelvic organs, or through the
	cervical canal associated with a
	maternal hemodynamic
	instability not resolved with
	usual treatments (transfusion,
-	etc.)
Intrauterine	As per the current standard
infection	clinical definition
Preeclampsia	As per the current standard
with severe	clinical definition. Includes
features before	eclampsia and HELLP
22 weeks	syndrome
Substantial	As defined by WHO Class III and
cardiovascular	IV with current hemodynamic
disease	compromise
Other	Acute fatty liver of pregnancy,
conditions	acute or chronic kidney
	disease, current maternal
	malignancy, hemolytic uremic
	syndrome, partial molar
	pregnancy, prior or planned
	solid organ transplant,
	thrombotic thrombocytopenic
	purpura, poorly controlled
	autoimmune disease

more repulsion than dismemberment or disarticulation of a living human fetus.

Q When is it acceptable to induce labor for a life-limiting fetal anomaly?

AAPLOG recommends using the terminology "life-limiting fetal anomaly" rather than "incompatible with life." Given that a fetus with cardiac activity is presently alive, the term "incompatible with life" is a misnomer.

There do exist conditions, such as trisomy 6, which are fatal in the early first trimester. Other conditions are compatible with intrauterine life but not an average lifespan outside the uterus. Such conditions include trisomy 13, trisomy 18, renal agenesis and anencephaly, but are not limited to these. When a fetus is given a diagnosis for which little to no extra-uterine life is anticipated, the diagnosis is better described as "lifelimiting."

With the term "life-limiting" in hand, it is easier to see that an induction for fetal anomaly actually further limits life. The healthcare provider in this case is acting in concert with the disease rather than combating it or helping patients to cope with it. As is true in the case of pediatric or adult life-limiting diagnoses, it is never appropriate to shorten the life of one person for the mental, emotional or social benefit or another. The physician can and should act in accord with her or his profession by promoting normal grieving and enabling the maternal patient (and her family if applicable) to savor and celebrate the extent of fetal and neonatal life lived, however limited.13

Another way to see the mistake behind such "palliative inductions" is to note the absence of a proportion between the danger to the mother's life and the danger to the fetus's life. There is no equivalence between the danger to the mother and the danger to the fetus, so it is imperative that pregnancy be continued until such an equivalence develops. For example, if at 34 weeks a hydrocephalic fetus with holoprosencephaly has a head circumference of 40 weeks, the danger posed to the mother of a traumatic vaginal delivery or the risks inherent to a difficult cesarean section begin to approach the *a priori* risks to the fetus of respiratory distress due to prematurity.

Conclusion

Utilitarian solutions should not be engaged without moral and ethical reflection. There are very few ethically problematic ways of separating a mother and a fetus. These include dismemberment or disarticulation of a living fetus or embryo; actions that utilize a drug, device or procedure to cause fetal/embryonal death prior to or during delivery; actions causative of fetal/embryonal death; previable delivery without proportional risk of maternal death or immediate, permanent, irreversible bodily harm which cannot be mitigated in any other way; or post-viable delivery with intentional death of the fetus or neonate. Any other delivery is ethically

acceptable and encouraged by AAPLOG when medically appropriate.

Summary of Recommendations and Conclusion

The following recommendations are based on good and consistent scientific evidence (Level A):

- There exist medical conditions that imminently endanger a pregnant woman's life such that it is proportional to fetal risk, which necessitate maternal-fetal separation.
- Cesarean delivery is a rapid alternative to induction of labor, in the setting of insufficient time or level of care for a 24-hour process to bring about delivery.
- 3. Mifepristone works to cause the demise of an already formed and living embryo if one is present.
- Palliative inductions have not been demonstrated to benefit parents of fetuses with life-limiting conditions.
- 5. Centuries-old ethical principles outline when pregnancy can be artificially ended (even when neonatal death is expected): when maternal risk equals or exceeds expected neonatal risk, delivery by a method which does not cause fetal demise (e.g. induction of labor or

cesarean section) is morally acceptable or good.

The following recommendations are based on limited and inconsistent scientific evidence (Level B):

- Levonorgestrel as an emergency contraceptive may affect embryos which have already formed.
- 2. Perinatal palliative care offers some benefits to parents without excessive maternal risk.

The following recommendations are based primarily on consensus and expert opinion (Level C):

- 1. The need to end a pregnancy for a chronic medical condition is rare.
- There is biological plausibility for an embryo-toxic, post-fertilization mechanism of action of ulipristal.
- "Life-limiting" is preferred terminology compared to "not compatible with life" or "nonviable" when referring to conditions which can be tolerated in utero but shorten life outside the womb.
- 4. The expected maternal emotional effect of delivering a living child as a result of these recommendations (compared to a dead conceptus in situations otherwise managed by termination of pregnancy) require intense emotional support, and need further study.

Y Evidence-Based Guidelines for Pro-Life Practice

References

- Medical Intervention in Cases of Maternal-Fetal Vital Conflicts, A Statement of Consensus. National Catholic Bioethics Quarterly 14.3 (Autumn 2014): 477-489. doi: 10.5840/ncbq20141439.
- AAPLOG. Practice Bulletin 2: Fetal Pain. Issues Law Med. 2018;33(2): 237–246. pubmed.ncbi.nlm.nih.gov/30831014/.
- Glasier AF, Cameron ST, Fine PM, Logan SJ, Casale W, Van Horn J, Sogor L, Blithe DL, Scherrer B, Mathe H, Jaspart A, Ulmann A, Gainer E. Ulipristal acetate versus levonorgestrel for emergency contraception: a randomised noninferiority trial and meta-analysis. *Lancet*. 2010 Feb 13;375(9714):555-62. doi: 10.1016/S0140-6736(10)60101-8.
- Hillemanns P, Hepp H. Letter to the Editor: K. Gemzell-Danielsson et al. Emergency contraception - mechanisms of action. *Contraception* 87 (2013) 300-308. doi: 10.1016/j.contraception.2013.03.009.
- Mozzanega B, Cosmi E, Nardelli GB. Ulipristal acetate in emergency contraception: mechanism of action. *Trends Pharmacol Sci.* 2013 Apr;34(4):195-6. doi: <u>10.1016/j.tips.2013.02.003</u>.
- Rosato E, Farris M, Bastianelli C. Mechanism of action of ulipristal acetate for emergency contraception: a systematic review. *Front Pharmacol*. 2016 Jan 12;6:315. doi: <u>10.3389/fphar.2015.00315</u>.
- Williams AR, Bergeron C, Barlow DH, Ferenczy A. Endometrial morphology after treatment of uterine fibroids with the selective progesterone receptor modulator, ulipristal acetate. Int J Gynecol

Pathol. 2012 Nov;31(6):556-69. doi: 10.1097/PGP.0b013e318251035b.

- Raviele KM. Levonorgestrel in cases of rape: How does it work? *Linacre Q*. 2014 May;81(2):117-29. doi: 10.1179/2050854914Y.0000000017.
- Kahlenborn C, Peck R, Severs WB. Mechanism of action of levonorgestrel emergency contraception. *Linacre Q.* 2015 Feb;82(1):18-33. doi: 10.1179/2050854914Y.000000026.
- Schneider AP 2nd, Kubat C, Zainer CM. Appreciation for analysis of how levonorgestrel works and reservations with the use of meloxicam as emergency contraception. *Linacre Q*. 2016 Feb;83(1):52-68. doi: 10.1080/00243639.2016.1145894.
- 11. AAPLOG. Practice Bulletin 9: Ectopic Pregnancy. <u>aaplog.org/wp-</u> <u>content/uploads/2020/03/Practice-</u> <u>Bulletin-9-Ectopic-Pregnancy.pdf.</u>
- 12. AAPLOG. Practice Bulletin 2: Fetal pain. Issues Law Med. 2018 Fall;33(2):237-246. pubmed.ncbi.nlm.nih.gov/30831014/
- 13. AAPLOG. Practice Bulletin 1: Perinatal Hospice. 2021. <u>aaplog.org/wp-</u> <u>content/uploads/2021/12/PG-1-Perinatal-</u> <u>Palliative-Care-1.pdf</u>.

Y Evidence-Based Guidelines for Pro-Life Practice