SCHOOL OF MEDICINE
DEPARTMENT OF OBSTETRICS & GYNECOLOGY

STANDARD OPERATING PROCEDUE- GUIDELINE

INDUCTION OF LABOR AND D&E FOR PREGNANCY LOSS OR PREGNANCY TERMINATION AFTER 13 WEEKS OF GESTATION

SCOPE/APPLICABILITY:
All clinicians caring for patients with pregnancy loss or pregnancy termination after 13 weeks.

PURPOSE:
This protocol covers care for pregnancy termination and fetal demise after 13 weeks, describing approaches to management of pregnancy termination, including procedural care with dilation and evacuation (D&E) and induction of labor (IOL) in the setting of fetal demise or termination with and without prior uterine surgery.

Most patients presenting for induced abortion or miscarriage management from 13-16 weeks choose D&E. From 16-17 weeks to 24 weeks, patients may generally choose between IOL or D&E, although complications may be more common with IOL than D&E.

With fetal demise or pregnancy termination for fetal/maternal indications after 24 weeks, IOL is preferable. Induction regimen with a non-viable fetus differs according to gestational age. Particularly in the case of prior uterine surgery, risks to the patient of IOL vs. hysterotomy must be balanced in shared decision-making between the physician and patient.

DEFINITIONS:
- Intrauterine fetal demise:
  - Absence of fetal cardiac activity > 20 weeks or
  - Unknown gestational age and products of conception >350 grams without placenta.

GUIDELINE:
Upon Admission:

1) Refer to the "Induction, IUFD, D&E Forms Navigator" on the UNM OBGYN Department wiki.

2) It is the physician's responsibility to:
   a. document ultrasound assessment of gestational age, the patient's diagnosis (e.g, IUFD or indication for IOL), and counseling for options for D&E or induction.
   b. provide the patient with a full explanation of both D&E, if clinically appropriate, and IOL with risks and benefits of each. For IOL, Complex Family Planning (CFP) consult for counseling, options, and/or medication recommendations is available.
   c. obtain specific written or electronic informed consent for D&E or IOL.

3) At or beyond 24-25 weeks, pregnancy termination is considered on a case-by-case basis for maternal or fetal indications.

4) In the case of IOL, Complex Family Planning (CFP) or the primary attending on the L&D team with CFP consulting as clinically appropriate, manages the patient.

5) Patients should be offered:
   a. ANORA or amniocentesis for genetic testing as indicated, in consultation with Maternal Fetal Medicine as needed
   b. A memory box with footprints, etc. and resources for grief counseling as indicated.
   c. Explanation of options for disposition of fetal remains with appropriate forms completed.

Dilation and Evacuation:

1) Most patients between 13-24 weeks choose D&E when offered; some choose IOL for personal reasons or for genetic studies. Studies suggest that D&E results in fewer Dilation and Curettages (D&C) for retained placenta and less infectious morbidity.

2) The Complex Family Planning Service schedules and staffs all D&E procedures.

3) For D&E, contact the on-call Complex Family Planning attending/fellow who arranges the procedure and cervical preparation for the procedure.

4) D&Es may be scheduled in all UNMH Operating Rooms (ORs), including L&D. The Complex Family Planning Service schedules such cases.

5) All patients with prior uterine surgery and low-anterior placenta or placenta previa should have focused sonographic evaluation of the placenta prior to D&E (consider MFM consult).

Induction of labor:

Candidates for IOL include patients after 13 weeks with fetal anomalies, maternal indications or an IUFD.

Literature caveat*: There are scant data on induction of labor after 24 weeks for the above indications in patients with/without prior cesarean delivery. A 2010 Cochrane review summarizes 49 articles including induction in both the 2nd and 3rd trimesters with significantly fewer women in the 3rd trimester. Overall, the review found that a combination of mifepristone and misoprostol is likely most effective, vaginal misoprostol has fewer side effects and possibly a shorter induction to delivery time than other routes of administration, and that use of pre-induction dilators did not reduce induction time. It was not possible to explore differences in induction of the live vs. demised fetus with respect to dosing/interval (not reported separately in the data) nor in the effect of prior cesarean on the induction process because patients with prior*

uterine surgery were often excluded from trials. Additionally, despite a large number of patients in the meta-analysis, it remained underpowered for rare outcomes like uterine rupture. Given the limitations of the data, recommendations are based on case reports, case series and expert opinion.

1) **Induction of labor *without* prior uterine surgery (Appendix A):**

    a. **Mifepristone:**
        i. Administer oral mifepristone 200 mg 24-48 hours prior to induction to reduce induction to delivery times, number of misoprostol doses and the likelihood of unsuccessful induction.

        ii. Simultaneous use of mifepristone and misoprostol is acceptable if the 24-48 hour interval is not feasible or acceptable to the patient.

        iii. Mifepristone is available through the inpatient hospital pharmacy and at the UNM Center for Reproductive Health.

    b. **Misoprostol**:
        i. 13 – 23+6 weeks: 400 micrograms buccal or vaginal misoprostol q 3 hours.

        ii. 24 – 27+6 weeks: 400 micrograms buccal or vaginal misoprostol q 3 hours.

        iii. 28 – 33+6 weeks: 100 micrograms buccal or vaginal misoprostol q 3 hours.

            1. Consider additional use of cervical balloon catheter and early artificial rupture of membranes.

        iv. ≥34 weeks: 25-50 micrograms vaginal misoprostol q 4 hours or term labor induction protocol.

2) **Induction of labor *with* prior uterine surgery (Appendix B):**
Note: There is even less evidence on the best mode of delivery for patients with prior uterine surgery with fetal demise or who are terminating a pregnancy in the 3rd trimester. Vaginal delivery may be preferred over hysterotomy because surgical morbidity increases with increasing number of uterine scars and increases risk in future pregnancies. Risks from uterine rupture in the setting of TOLAC are focused on maternal morbidity. Risk with uterine rupture should be balanced against the risk of surgical morbidity from a hysterotomy or cesarean delivery including possible need for hysterectomy or blood transfusion. The patient should undergo an informed consent

process with an understanding of the risks of induction of labor and the risks of abdominal surgery (hysterotomy/cesarean).

a. All patients with prior uterine surgery and low-anterior placenta or placenta previa should have focused sonographic evaluation of the placenta prior to IOL (consider MFM consult).

b. Patients with a single low transverse cesarean section (LTCS) should be advised that IOL with prostaglandin is safe but not without risk.

c. Patients with two prior LTCS should be advised that the absolute risk of IOL with prostaglandin is slightly higher than with a single previous LTCS.

d. Patients with more than two LTCS deliveries or classical/T incisions or other uterine surgery (e.g. transmural myomectomy) should be advised that the safety of IOL is unknown.

e. Mifepristone:
   i. Administer oral mifepristone 200 mg 24-48 hours prior to induction to reduce induction to delivery times, number of misoprostol doses, and the likelihood of unsuccessful induction.

   ii. Mifepristone is available through the inpatient hospital pharmacy and at the UNM Center for Reproductive Health.

f. **Misoprostol**:
   i. **For patients with one prior uterine scar**:

      1. 13 – 23+6 weeks: 400 micrograms buccal or vaginal misoprostol q 3 hours. Complex Family Planning consult is recommended.

      2. 24 – 27+6 weeks: 200 micrograms buccal or vaginal misoprostol q 3 hours. Complex Family Planning consult is strongly recommended.

      3. ≥ 28 weeks: Complex Family Planning consult is required.

   ii. For patients with two prior uterine scars, Complex Family Planning consult is required.

CONSULTATION FOR FETAL DEMISE OR TERMINATION IOL:

Twenty-four-hour consultation is available through Tiger Connect or by calling the Division of Complex Family Planning (Reproductive Health PALS) service at the University of New Mexico Hospital through PALS.

1. Complex Family Planning consult is recommended for all inductions > 28 weeks.

2. Complex Family Planning consult is recommended for patients with pregnancy < 24 weeks with one prior transmural uterine surgery (e.g., cesarean delivery, myomectomy).

3. Complex Family Planning consult is strongly recommended for patients with pregnancy 24 – 28 weeks with one prior transmural uterine surgery (e.g., cesarean delivery, myomectomy).

4. Complex Family Planning consult is *required for patients ≥ 28 weeks with one prior transmural uterine surgery (e.g., cesarean delivery, myomectomy).*

5. Complex Family Planning consult is *required for patients with two or more uterine surgeries (e.g., cesarean deliveries, myomectomy)* for specific medication recommendations, which may include misoprostol dose reductions and/or required 24-hour interval between mifepristone and misoprostol administration.

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APPENDICES:

Appendix A:

Misoprostol dosing for induction of labor *without* prior uterine surgery, following oral mifepristone 200mg

Gestational age	12w0d – 23w6d	24w0d – 27w6d	28w0d – 33w6d	>34w0d
Misoprostol dose – NO uterine scar	Misoprostol 400 mcg q3h buccal or vaginal	Misoprostol 400 mcg q3h buccal or vaginal	Consider CFP consult. Misoprostol 100 mcg q3h buccal or vaginal +/- cervical balloon catheter and/or early rupture of membranes	Consider CFP consult. Misoprostol 25-50 mcg vaginally q4h OR term labor induction protocol

Appendix B:

Misoprostol dosing for induction of labor *with* prior uterine surgery, at least 24 hours following oral mifepristone 200mg

Gestational age	12w0d – 23w6d	24w0d – 27w6d	28w0d – 33w6d	>34w0d
Misoprostol dose - one uterine scar	Misoprostol 400 mcg q3h buccal or vaginal. CFP consult recommended.	Misoprostol 200 mcg q3h buccal or vaginal. CFP consult strongly recommended.	CFP consult	CFP consult
Misoprostol dose - 2+ uterine scars	CFP consult	CFP consult	CFP consult	CFP consult

APPROVALS:

SOP Owner:	Division of Complex Family Planning	Date: 5/18/23
Chair Approval:		Date: 5/18/23
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