CLINICAL SUPPORT GUIDE FOR INTRAUTERINE CONTRACEPTION

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This guide is a comprehensive outline of best practices regarding provision of intrauterine contraception. It includes brief descriptions of what constitutes competency in:

- counseling and informed consent
- patient selection
- necessary supplies
- management of the most common complications
- management of the most common challenges to placement
- detailed descriptions of technical skills for placement for:
  - tenaculum
  - sound
  - each device

This is meant as a guide to supplement the competency checklist when training, supporting and evaluating clinicians new to IUD placement.
Counseling as part of the informed consent process prior to placement. The patient will also sign a written informed consent that is available in the clinic setting.

- Discussions ideally occur while patient holds a sample “demo unit” in their hand
- Describe management or solution for each complication that is described
- Informed consent prior to placement:

1. **Perforation**
   - **1:1000**, most with sound or partial with no sequelae. If IUD perforation has occurred and unable to locate IUD, laparoscopy can be used for retrieval.

2. **Expulsion**
   - **0-5:100**
     - **Watch for and report:**
       - Pregnancy symptoms
       - Sudden cramping or pain
       - Bleeding pattern returns to “pre-placement”
     - **Counseling using sample “demo unit”** in palm to demonstrate strings coming out of cervix (with clenched palm) so that the patient can feel strings
     - **If patient is unable to palpate strings or has symptoms**
       - Use back up contraception
       - Call clinic for advice or RTC asap
       - Get pregnancy test

3. **Infection**
   - Slight increased risk within first 3 weeks due to procedure
   - Bacteria can be introduced during placement
   - Return for evaluation if signs or symptoms of infection occur

4. **Method failure/ pregnancy**
   - Advise patient of need to RTC if any change in bleeding pattern or pelvic pain (i.e. amenorrhea with Paragard, or persistent light spotting with LNG 52)
   - Advise patient of need to take pregnancy test if in doubt

**Signs of possible complication with IUD use:**

1. **If pregnancy sx:**
   - Pregnancy test- if HCG positive, counsel and refer for sonogram re: r/o ectopic

2. **If PID sx within 3 weeks of placement**
   - RTC asap for exam, evaluation and treatment (See detailed management in complications section)

3. **If strings not palpable:**
   - Use back up method
   - Call/RTC
Patient selection Considerations

Utilize either the mobile app or summary chart for US MEC

- **Contraindications for placement of IUD**
  - US MEC 4

- **Consideration reason for MEC 3 and alternatives to placement of IUD; weigh risk vs. benefit**
  - US MEC 3

- **Patient need for non-contraceptive benefits**
  - Menorrhagia, dysmenorrhea, endometriosis or PCOS

- **Bleeding pattern considerations**
  - Patient attitudes about and desired bleeding pattern

  - Menstrual history

Timing of placement of IUD or (implant):

1. **Rule out pregnancy**
   - Either IUD or the implant can be placed at any it is reasonably certain that the patient is not pregnant (See checklist Box 1 by SPR). Waiting for the next menstrual period is unnecessary.
   - If you cannot be reasonable certain that a patient is not pregnant, can use Cu-IUD as EC and can quick-start implant (benefit to patient outweighs any risk).

2. **Cu-IUD:**
   - No additional contraceptive protection (back up) is needed after Cu-IUD placement.
   - Use of Cu IUD as emergency contraception:
     - The Cu-IUD also can be placed within 5 days of the first act of unprotected sexual intercourse as an emergency contraceptive. If the day of ovulation can be estimated, the Cu-IUD also can be placed >5 days after sexual intercourse as long as placement does not occur >5 days after ovulation.
     - Effectiveness is not dependent on patient’s weight or BMI.

3. **LNG-IUDs**
   - If the LNG-IUD is placed within the first 7 days since menstrual bleeding started, no additional contraceptive protection is needed.
   - If the LNG-IUD is placed >7 days since menstrual bleeding started, the patient needs to abstain from sexual intercourse or use additional contraceptive protection (back up) for the next 7 days.
   - If you cannot be reasonably certain that a patient is not pregnant, do not place LNG.
Preparation for placement of intrauterine contraception:

1. **PROPHYLACTIC ANTIBIOTICS ARE NOT RECOMMENDED FOR INTRAUTERINE CONTRACEPTION PLACEMENT**
   - There is a slight risk for PID within the first 21 days after placement. After that time, risk of PID is the same as for the general population.
   - The incidence of PID is low among patients having IUDs placed.
   - The American Heart Association recommends that the use of prophylactic antibiotics solely to prevent infective endocarditis is not needed for genitourinary procedures including IUD placement.
   - Recent expert opinion includes discussion of possible use of antibiotics in patients at high personal risk of Ct or GC on day of placement.

2. **TESTING PRIOR TO PLACEMENT**
   - Hgb or Hct if history or suspicion of anemia prior to Cu-IUD placement.
   - CT/GC testing can be done prior to placement as indicated if:
     - Patient is due for screening (if a patient is 25 years or younger and has not had CT/GC testing in the past year).
   - Patient or partner has a new sex partner in the preceding 90 days or has multiple partners.

   *IUD can be placed the same day as CT/GC testing and prior to receipt of test results.*

3. **INSTRUMENTS TO HAVE IN THE IUD KIT**

   The following instruments and supplies are needed for placement of an IUD. Many providers find it convenient to have everything prepared in an “IUD kit”.

   Some of these items are normally available in an exam room. As noted below, only some of the instruments need to be sterile.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Exam gloves</td>
<td>Sterile gloves are not necessary unless:</td>
</tr>
<tr>
<td></td>
<td>• The provider wants to load ParaGard with their hands instead of in the package</td>
</tr>
<tr>
<td></td>
<td>• The provider wants to bend the end of the metal sound with their hands</td>
</tr>
<tr>
<td>2 Non-sterile speculum</td>
<td>Plastic or metal</td>
</tr>
<tr>
<td>3 Lubricant for a pelvic exam</td>
<td>Use minimal amounts if planning to do cervical testing prior to placement.</td>
</tr>
<tr>
<td>4 Antiseptic solution</td>
<td>Ask about iodine allergy (if using povidone-iodine)</td>
</tr>
<tr>
<td></td>
<td>• In a sterile cup or container</td>
</tr>
<tr>
<td></td>
<td>• It is acceptable to use either povidone-iodine or chlorhexidinegluconate.</td>
</tr>
</tbody>
</table>
   |                              | • If chlorhexidinegluconate is used it is best to use the soap format which contains 4% chlorhexidinegluconate and 4% isopropyl alcohol. This is preferable to the format containing 70% isopropyl alcohol since high alcohol concentrations are drying to the vagina.
<table>
<thead>
<tr>
<th></th>
<th>Equipment Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Cotton balls, OB swab (also known as scopettes, drumstick swab) or 4x4 gauze pads</td>
<td>A scopette can also be used to assist in demarcating the correct place on the cervix prior to placement.</td>
</tr>
<tr>
<td></td>
<td>for applying antiseptic to the cervix prior to placement.</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Tenaculum</td>
<td>Single tooth with rounded or squared edges</td>
</tr>
<tr>
<td></td>
<td>Any of the following types of tenacula will work well. Many providers have opinions about which they prefer:</td>
<td>Atraumatic</td>
</tr>
<tr>
<td></td>
<td>• Single tooth with rounded or squared edges</td>
<td>Metal</td>
</tr>
<tr>
<td></td>
<td>• Atraumatic</td>
<td>Plastic</td>
</tr>
<tr>
<td>7</td>
<td>Uterine sound</td>
<td>An endometrial pipelle is designed for performing an endometrial biopsy. It can be used to sound the uterus, has a smaller diameter (3mm) than most uterine sounds and is disposable.</td>
</tr>
<tr>
<td></td>
<td>Any of the following types of uterine sounds will work well. Most uterine sounds are 3 - 4mm in diameter. Many providers have opinions about which they prefer:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Metal</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Plastic</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Ring forceps</td>
<td>If needed, to hold cotton balls or 4X4 for cleansing the cervix.</td>
</tr>
<tr>
<td></td>
<td>• If needed, to remove the IUD.</td>
<td>If needed, to retrieve strings or cotton balls from the vaginal vault.</td>
</tr>
<tr>
<td></td>
<td>• If needed, to retrieve strings or cotton balls from the vaginal vault.</td>
<td>Long (Kelly) straight or curved forceps are an acceptable substitution (10 inches).</td>
</tr>
<tr>
<td>9</td>
<td>Long curved scissors</td>
<td>It is important that the scissors be sharp so as to avoid incomplete cutting of the strings which can cause you to inadvertently pull the IUD back out after placement.</td>
</tr>
<tr>
<td></td>
<td>Long straight scissors are an acceptable substitution.</td>
<td>In the procedure steps, a description of how to cut the strings using the insertion tube as a guide will be provided.</td>
</tr>
<tr>
<td>10</td>
<td>The IUD device</td>
<td>It is helpful to have 2 devices in the room in case the first device gets contaminated for some reason before the placement is completed.</td>
</tr>
<tr>
<td>11</td>
<td>Monsel’s solution or silver nitrate sticks</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>A ruler/measuring tape or OB tape with centimeter markings (helpful to “read” sounds with worn off markings) Not mandatory.</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Sanitary napkin</td>
<td></td>
</tr>
</tbody>
</table>
Placement steps

1. PERFORM A BIMANUAL EXAM
   Give anticipatory statements to the patient letting them know what you are going to do and how it will feel.

2. DETERMINE UTERINE POSITION
   • Anteverted/flexed
   • Retroverted/flexed
   • Midposition

3. ASSESS FOR SIGNS OF PID

4. ASSESS UTERINE SIZE, SHAPE; SIGNS THAT CONTRAINDICATE OR COMPLICATE PLACEMENT
   • Anatomic abnormalities
   • Enlarged uterus; irregular uterus, myomatous uterus
   • Consider ultrasound assessment prior to placement as indicated.
   Note: There is no need to do 2 speculum exams. Bimanual assessment can be done first, and you can subsequently look for discharge with speculum exam.

5. PLACEMENT OF A SPECULUM
   • The speculum can be metal or plastic and need not be sterile.
   • It is not necessary to use the largest size speculum that the patient can tolerate.
   • It is important that the speculum is positioned in a way that allows you a full view of the cervix and cervical os. If the view is obstructed, it is worth the time to rearrange the position of the patient or placement of the speculum.
   • Use of a larger/wider or sometimes shorter speculum as needed to allow the cervix to be more easily manipulated with a tenaculum.
   • For obese patients consider:
     – Use of a larger/wider speculum as needed
     – Lowering the head of the table if possible
     – Flexing the hips by having the patient grab in front of their knees with their hands and raise their buttocks with legs elevated

6. ASSESS THE CERVIX
   • Assess for mucopurulent discharge coming from the os that may be an indication of upper genital tract infection.
   • If you suspect an upper genital tract infection, do not place an IUD that day.
   • A visual inspection for signs of vaginitis can be done at this time.
   • Vaginal infection is not a contraindication to placement of an IUD
   • Any indicated samples that you have determined are needed for testing such as chlamydia, gonorrhea, a wet mount, a Pap or HPV test can be done at this time.
PREPARE THE CERVIX

Antiseptic solution; there are no data to support this practice but by convention, it is done in the following way:

- Dip any one of the following sterile “cotton tips” into the antiseptic solution:
  - A long OB swab (also known as a scopette)
  - A cluster of cotton balls held together with a ring forceps
  - A folded gauze 4X4 grasped by a ring forceps (text not audio: fold it tightly to avoid scratching the vaginal side walls)

- Place the antiseptic soaked cotton tip at the cervical os and draw a spiral outward to the outer edge of the cervix.

- Repeat this for a total of three passes.

Provide anticipatory statements to the patient letting them know that they will feel a somewhat cold antiseptic solution.

If you are going to place a paracervical block, this would be the time.

TENACULUM USE

The following descriptions go step by step through how to hold, place and use a tenaculum for IUD placement.

It is important when placing an IUD that a tenaculum is always used. Experienced inserters sometimes believe that they can easily place an IUD without the aid of a tenaculum but this increases the risk of complications, including perforation, expulsion and malpositioning.

Use of a tenaculum for IUD placement:

- Straightens the cervical canal to enable the uterine sound and the IUD applicator to pass through the os more easily
- Stabilizes the cervix and holds it in place so that pressure from the sound or the IUD applicator doesn’t push the cervix and uterus away from the instrument
- Aligns the uterine body so that curves from anteflexion or retroflexion are minimized to avoid perforation at the point of flexion

The hand position for holding a tenaculum when placing it on the cervix:

- Grasp the tenaculum with your dominant hand
- Later, when you sound the uterus you will switch hands and put traction on the tenaculum with your non-dominant hand while sounding with your dominant hand but for placement the dominant hand is used
- When grasping the tenaculum, hold your palm up and place the thumb through one ring and your middle or ring finger through the other ring. Use your index finger between the other two fingers as a brace and to stabilize. The preferred hand position is with the palm up for placement in order to see above the hand to where the tenaculum will grasp the cervical tissue

Placement Tip

Providers who are new to use of a tenaculum may be reluctant to use the instrument for IUD placement out of fear that it will cause excessive pain or damage the cervix. But the proper use of a tenaculum decreases the risk of complications, including perforation, expulsion and malpositioning.

For clinicians experienced with use of a tenaculum for other procedures but who may not have experience using it for IUD placement note that use for IUD placement requires grasping a minimal amount of tissue (1-2 cm) and only closing the ratchet to one click.
TENACULUM USE (CON’T)

The hand position (cont’d)

- Open the teeth of the working end and place the open teeth on the surface of the cervix (if the cervix is like a clock, anteriorly place the teeth at 11 and 1 o clock, and posteriorly place at 5 and 7 o clock- this will give the desired distance. Once the tenaculum is in contact with the cervix, with the tips 1-2 cm apart, squeeze the teeth together slowly to imbed them in the cervical tissue. Grasp 1-2 cm width of cervical tissue in a bite that is 1-2 cm deep. Try not to take too shallow of a bite. Grasping an adequate amount of tissue prevents the tenaculum from pulling through the cervical epithelium, when you apply traction upon it during sounding and IUD placement. Test your application gently to make sure that it is not too superficial.

Deciding where to position the tenaculum on the cervix:

There are many schools of thought. In general:

- Position it 1-2 cm above, below or to the side of the external os so as not to cover the opening.
- Grasping the anterior lip in an anteflexed uterus or the posterior lip in a retroflexed uterus is often the convention however it is likely to be more helpful to consider the cervical position rather than the flexion or curvature of the uterus. So if the cervix is anterior (facing up towards the upper blade of the speculum), placing the tenaculum on the posterior lip allows you to bring the endocervical canal into alignment for sounding and IUD placement. If the cervix is posteriorly (facing down towards the lower blade of the speculum) placing the tenaculum on the anterior lip allows you to bring the endocervical canal into alignment for sounding and IUD placement.
- In a situation where full visualization of the entire cervix is challenging you can grasp the particular lip or portion of the cervix that is visible and bring the os into full view while straightening the endocervical canal and uterus.
- Close the ratchet so it clicks into place and is held securely
  - Just one click is needed.
  - Practice placing the ratchet into position by clicking down silently so it is inaudible to the patient.
- At this point, you can gently lay the tenaculum down to rest on the posterior blade of the speculum while you pick up the sound.
- Alternately, you can switch hands and hold the tenaculum with your non-dominant hand while you pick up the sound. Usually it is best to let the tenaculum rest while you pick up the sound because: you may need to bend the sound to mimic the flexion of the uterus or straighten the sound if it has been packaged for sterilization in a folded position.

Clinical Pearls

The following are suggestions to minimize the discomfort patients may experience with tenaculum placement. These are based on expert opinion.

- Applying pressure against the cervix with the tenaculum before closing it may decrease discomfort.
- Closing the tenaculum very very slowly is relatively painless.
- Some providers place the tenaculum more quickly and have the client cough or take a deep breath to obscure the discomfort. If you do this be sure to hold onto the speculum while the client is coughing to prevent dislodging the speculum.
- Some providers place the tenaculum slowly (count to 10) to both minimize discomfort and visualize the “teeth” on the tenaculum in the cervical tissue. Closing the ratchet slowly, you can easily reopen and retack if it’s too shallow.
- Another alternative to minimize pain with tenaculum placement is to instill 1cc of local anesthetic at tenaculum site prior to placing the tenaculum.
- Use lidocaine with epinephrine- using lidocaine without can cause the cervix to bleed and make visualization challenging.
- Letting the patient know they may feel a pinch prior to placing the tenaculum.

Clinical Pearls Bear in mind that when you are holding the tenaculum, it is best to avoid moving the tenaculum except when you are intentionally using it. When you are sounding and placing the IUD, it is important to use the tenaculum to its fullest, but when the tenaculum is not being used, any inadvertent movement could cause patient discomfort. Every time the tenaculum is moved, the patient can feel it, so make your use deliberate.
**TENACULUM USE (CONT’D)**

Hand position for holding the tenaculum when using it for sounding and for placing an IUD

Place your non-dominant hand palm up with the thumb on top of the ratchet and the index, middle and possibly ring finger below the ratchet such that you grasp the tenaculum between the thumb and other fingers. Some providers prefer to hold the tenaculum a bit further down towards the patient (like choking up on a baseball bat)—it is personal preference. It is best not to put your fingers through the rings when holding the tenaculum because you will have less control; it is more likely to cause the ratchet to open inadvertently and you will be more likely to move the tenaculum without intending to.

**Using the tenaculum for sounding and IUD placement:**

- Hold it with the non-dominant hand as described above and apply a moderate amount of steady traction by pulling it straight toward you. If any difficulty is encountered when attempting to pass through the internal os with the sound or the IUD applicator, try putting traction on the tenaculum in a different direction. For example, pull the tenaculum towards yourself and up towards the ceiling, towards yourself and down towards the floor, with traction towards the right or left ...or some combination of these.

- Remember to use the tenaculum to assist in sounding and placement of the IUD. It is easy to forget to put traction on it with the non-dominant hand while also focusing on getting through the internal os with the sound or the IUD with the dominant hand. It is tempting to move the tenaculum out of your field of vision in order to get it out of the way rather than utilize it.

**USE OF SOUND**

The following descriptions go step by step through how to use a sound prior to IUD placement.

**Sounding the uterus prior to IUD placement:**

Insures that the internal os is patent and that there is no anatomic pathology precluding correct placement of the IUD.

Gives you information about the “pathway” through the internal os and within the uterine cavity up to the fundus. This informs your hand motions when you subsequently place the IUD. In general you can expect to apply the same strategy to successfully maneuver the IUD inserter that you found successful when maneuvering the uterine sound. This is because sounding tells you:

- The direction of the internal os and any kinks or peculiarities encountered within the canal.
- The direction and any flexion, curvature or peculiarities within the uterine cavity.

**Rationale for use of a sound**

Some providers who are experienced in IUD placement believe that they can safely skip this step, however placement of an IUD without prior sounding may increase the risk of complications. It also does not easily allow for accurate documentation of uterine depth. Lack of this documentation makes it difficult for subsequent providers to manage complications. Finally, it is recommended that you open the package containing the IUD only after you have successfully sounded the uterus. Successful sounding means that you were able to pass through the os with the sound, there were no significant anatomical distortions in the uterus and the uterus was measured to be an appropriate size for placement of the IUD and consistent with what you noted on bimanual. Once the IUD package is opened, if the IUD is not placed that day, it is contaminated and can’t be used.
USE OF SOUND (CONT’D)

Sounding the uterus prior to IUD placement: (cont’d)

Allows measurement of the inside dimension/length of the uterus.

• According the manufacturer’s instructions the uterus should measure:
  – Between 6-9 cm for ParaGard
  – Between 6-10 cm for Mirena
  – At least 5.5 cm for Liletta
  – Not specified for Skyla
  – Not specified for Kyleena
  – But clearly these devices work in larger uteri (immediate post spontaneous or induced abortion, post partum)

*Type of sound:

You can use either a plastic or metal uterine sound. The plastic sounds are not bendable so the following tips for use of a metal sound will not apply if you are using a plastic sound.

• When a metal sound is put through the autoclave it may be folded or bent at an odd angle to allow it to fit in the package or autoclave. In this case it will come to you needing to be straightened out prior to use. The part of the sound that will be inserted into the uterus (also known as the working end) will need to remain sterile. When you touch the working end of the sound you will need to do so through the sterile packaging or with sterile gloves.

• A metal sound allows you to gently bend the working end to mimic the uterine flexion that you anticipate based your assessment of uterine position during the pelvic exam.

• If you place a bend in the sound, the curve should be in the distal 5-9 cm.

• The best place to hold a metal sound is at the fulcrum. If it is held with a light grip, the sound will give you information about the characteristics of the internal cervical and uterine environment because the handle of the sound serves as a “counterweight.”

While putting adequate traction on the tenaculum with your non-dominant hand, hold the sound with your dominant hand. Hold the sound like a pencil, and use wrist action, like throwing a dart.

• Provide anticipatory statements to the patient letting her know she may feel a strong cramp like a bad menstrual cramp.

Clinical Pearl

Some clinicians like to place the pinky finger on the speculum or the patient’s inner thigh to stabilize the dominant hand while sounding.
USE OF SOUND (CONT’D)

*Type of sound (cont’d):

If you encounter difficulty passing through the internal os:

• Hold gentle firm pressure with the sound for several seconds until the os opens.
• Position the sound at various angles in the os to find the direction of the opening.
• Adjust the curvature of the sound; either increase the curvature or make the sound straighter.
• Put traction on the tenaculum in a different way; for example pulling towards yourself and down, up or to the side.
• Consider re-positioning the tenaculum.
• Try initially going through the internal os with a smaller diameter instrument like a uterine pipelle, small cervical dilator or os-finder.

Once you have successfully passed through the internal os, use a uterine sound to go all the way to the fundus to measure the internal dimension of the uterus.

When you remove the sound from the uterus, you need to note the depth in centimeters that was measured. Traditionally this is done by looking at the sound to see where the “line of glistening” is. This line is the mark where blood, mucous or betadine may be visible. This mark indicates the depth of the inside of the uterus. Plastic sounds are fairly easy to “read” because they are usually white and there is often a visible mark. Occasionally it is not easy to read a plastic sound and very often reading a metal sound is challenging. In addition, metal sounds may not have centimeter markings on them (they may be in inches, have only hatch marks or have all the measurement markings worn away.) New metal sounds are very shiny and it may be hard to differentiate the shiny metal from the line of glistening. In any event, the following tip makes it easy to “read” any type of sound.

• Once the sound is in position at the fundus, pick up a long OB swab and turn it around so you are holding the fat, drumstick end. Place the other end of the swab right alongside the sound at the external os. Continue to hold the swab alongside the sound as you remove the sound and swab together and bring them into view. The place that the swab rests on the sound marks the measurement of the depth of the uterus. An OB measuring tape or ruler can be used at this point to assist you in measuring if the sound doesn’t have visible centimeter marks.

The centimeter measurement should be noted in order to record it in the patient’s chart.
# CLINICAL SUPPORT GUIDE: STEP-BY-STEP PLACEMENT

## PLACEMENT OF IUD

Placement of Cu-IUD

Provide anticipatory statements to the patient letting them know they may feel one more strong cramp similar to the one felt a moment ago (with use of the sound). Let them know when the IUD is in place and they can expect no more pain.

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>Sterile loading of device into insertion tube</strong> Either by using the no-touch technique by loading it in the package or by using sterile gloves.</td>
</tr>
<tr>
<td>2</td>
<td><strong>Set flange</strong> Oval shape designed for the wide aspect to be in the same plane as the arms of the IUD which is also the same plane as the arms of the patient.</td>
</tr>
<tr>
<td>3</td>
<td><strong>White stabilizing rod touches IUD</strong> The stabilizing rod is not to be used as a plunger. The white stabilizing rod functions as an obturator to hold the IUD in place until the loaded insertion tube is in the fundal position and ready to be withdrawn around the IUD.</td>
</tr>
<tr>
<td>4</td>
<td><strong>Pass through internal os</strong> Holding onto the insertion tube with the dominant hand. A light but steady grip “like a pencil”.</td>
</tr>
<tr>
<td>5</td>
<td><strong>Advance the loaded insertion tube to fundus</strong></td>
</tr>
<tr>
<td>6</td>
<td><strong>Hold white stabilizing rod steady</strong> Make sure the white stabilizing rod is touching the bottom of the IUD.</td>
</tr>
<tr>
<td>7</td>
<td><strong>Withdraw insertion tube to release Cu-IUD at fundal position</strong> • If insertion tube is removed slowly, it can hold the threads in the correct position for the provider to cut them. • This allows the arms of the IUD to be released. • The IUD opens at the fundal position within the uterus.</td>
</tr>
<tr>
<td>8</td>
<td><strong>Re-advance insertion tube to fundus</strong> This “re-seats” the IUD and ensures high fundal placement.</td>
</tr>
<tr>
<td>9</td>
<td><strong>Remove white rod</strong> This step can occur prior to step 8. Rationale for removing the white rod first and then removing the insertion tube afterwards: • To prevent the strings from wrapping around the rod inside the tube. • If both are withdrawn together, the strings wrapped around the white rod may inadvertently pull the IUD down into the lower uterine segment or even expel the IUD when withdrawing the insertion tube.</td>
</tr>
<tr>
<td>10</td>
<td><strong>Remove insertion tube</strong></td>
</tr>
</tbody>
</table>
## Placement of Bayer LNG IUDs Mirena, Skyla, and Kyleena

### 1. Sterile loading of device into insertion tube
- Push the slider forward as far as possible in the direction of the arrow thereby moving the insertion tube over the arms of the device to load it into the insertion tube.
- The tips of the arms will meet to form a rounded end that extends slightly beyond the insertion tube.
- Maintain forward pressure with your thumb or forefinger on the slider. **DO NOT move the slider downward at this time as this may prematurely release the device. Once the slider is moved below the mark, the device cannot be reloaded.**

### 2. Set flange
- Using the notch in the sterile packaging, set the upper edge of the flange to correspond to the uterine depth (in centimeters) measured during sounding.
- Alternately you can set the flange with sterile gloves.

### 3. Keep your thumb or forefinger on slider at all times

### 4. Keep the slider in fully forward-most position

### 5. Pass through internal os
- Advance loaded inserter until it is 1.5 to 2 cm from external os.

### 6. Bring slider down to precisely the “first mark”
- This step insures that the arms have fully opened before bringing the device to the fundus.
- This step helps prevent perforation and mal-positioning.

### 7. Wait 10 seconds
- This step helps prevent perforation and mal-positioning.

### 8. Advance inserter to fundus
- Advance the inserter gently towards the fundus of the uterus until the flange touches the cervix.
- Once you encounter fundal resistance do not continue to advance.
- The IUD is now in the fundal position.

### 9. Bring slider down fully to the furthermost position
- Holding the inserter firmly in place, release the IUD by moving the slider all the way down.

### 10. Remove inserter
- Continue to hold the slider all the way down while you slowly and gently withdraw the inserter from the uterus.
## Placement of Liletta IUD with original two-handed inserter

### 1. Sterile loading of device into insertion tube
- Place the rod into the insertion tube (alongside the IUS threads) to about the 5 cm marking
- While holding the insertion tube and the rod firmly between your fingers and your thumb, pull downward on both blue threads to draw the IUS into the insertion tube
- The arms of the IUS should be kept in a horizontal plane, parallel to the flat side of the flange. Do not pull the IUS all of the way through the insertion tube; only pull the thread until the IUS is loaded at the top of the insertion tube.

### 2. Set flange
- **Maintain Firm Pinch** of the insertion tube and rod to hold IUD in position
- With the other hand, adjust the position of the flange by moving the tube to correspond to the sound measurement
- Adjust the flange through the sterile packaging if not using sterile gloves
- The top end of the flange should be at the measurement corresponding to the sounded depth of the uterus

### 3. Slide loaded insertion tube through cervical canal
- **Maintain a Firm Pinch** at the bottom of the insertion tube
- Apply gentle traction on the tenaculum to straighten the alignment of the cervical canal with the uterine cavity
- Slide the loaded insertion tube through the cervical canal until the upper edge of the flange is approximately 1.5 cm - 2 cm from the cervix

### 4. Deploy the IUD
- While holding the rod still with one hand, relax the firmness of the pinch on the tube, AND PULL THE INSERTION TUBE BACK to the edge of the second (bottom) indent of the rod

### 5. Wait 10 seconds
- This step insures that the arms have fully opened before bringing the device to the fundus
- This step helps prevent perforation and malpositioning

### 6. Advance inserter to fundus
- Apply gentle traction with tenaculum before advancing IUS.
- Gently advance both the insertion tube and rod simultaneously up to the uterine fundus
- You will feel slight resistance when the IUS is at the fundus
- The flange should be touching the cervix when the IUS reaches the uterine fundus

### 7. Release the IUD and remove inserter
- Hold the rod still while pulling the insertion tube back to the ring on the rod
- Withdraw the rod from the insertion tube. Completely remove the insertion tube.
- Removing the rod first and then the tube prevents the IUS from being pulled out of the uterus
## Placement of Liletta IUD with single-handed inserter

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
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| 1    | **Sterile loading of device into insertion tube**  
- Remove the inserter and hold it with the buttons facing up  
- Ensure both sliders are pushed fully forward and aligned with their respective markings  
- To load the IUS into the inserter, maintain forward pressure on the BLUE slider and pull the threads until you feel a hard stop  
- Pull and lock the threads into the cleft at the bottom of the handle  
- Maintain forward pressure with your thumb or forefinger on the blue slider. **DO NOT move the slider downward at this time as this may prematurely release the threads of the IUD.** |
| 2    | **Set flange**  
- Using the notch in the sterile packaging, set the upper edge of the flange to correspond to the uterine depth (in centimeters) measured during sounding  
- Alternately you can set the flange with sterile gloves |
| 3    | **Keep your thumb or forefinger on slider at all times** |
| 4    | **Keep the slider in fully forward-most position** |
| 5    | **Pass through internal os**  
- Apply traction to cervix with the tenaculum  
- Advance loaded inserter until it is 1.5 to 2 cm from external os |
| 6    | **Gently slide only the BLUE slider back until the BLUE and GREEN sliders form a common thumb recess • This will allow the IUS arms to open** |
| 7    | **Wait 10 seconds**  
This step insures that the arms have fully opened before bringing the device to the fundus  
- This step helps prevent perforation and malpositioning |
| 8    | **Advance inserter to fundus**  
Advance the inserter gently towards the fundus of the uterus until the flange touches the cervix  
- Once you encounter fundal resistance do not continue to advance  
- The IUC is now in the fundal position |
| 9    | **Move both sliders down the handle until a click is heard**  
The GREEN indicator at the bottom of the handle should now be visible  
- Remove the inserter from the uterus  
- Look at the cleft to ensure the threads were properly released; if not released, grab the threads and gently pull the threads out of the cleft |
| 10   | **Remove inserter**  
Continue to hold the slider all the way down while you slowly and gently withdraw the inserter from the uterus |
**CLINICAL SUPPORT GUIDE: STEP-BY-STEP PLACEMENT AND REMOVAL**

**11 CUT STRINGS**

- Appropriate length
  - 3-4 cm. This should be approximately 0.5 cm longer than the posterior lip of the patient’s cervix
  - To allow the strings to wrap around the posterior lip
- Straight across
  - Cutting strings at an angle can make the tips sharply pointed and may poke the partner.
- Sharp scissors are helpful so as not to incompletely cut into the strings such that they are only bent within the blades of dull scissors and therefore still. This can result in the IUD being pulled out along with the scissors.
- Trimming strings inside the cervical canal can be considered for women experiencing reproductive or sexual coercion and who wish to conceal IUD use from a partner.
- Document length of strings.
- Offer patient supportive resources, including counseling and referral for safe shelter.

**12 FOLLOW UP AFTER PLACEMENT OF INTRAUTERINE CONTRACEPTION**

- No routine follow-up visit is required.
- Specific populations that might benefit from more frequent follow-up visits include adolescents, persons with certain medical conditions or characteristics, and persons with multiple medical conditions.
- Advise a patient to call return at any time to discuss side effects or other problems, if they want to change the method being used, and when they desire removal or need replacement of the IUD.
- At other routine visits, health-care providers who see IUD users should:
  - Assess the patient’s satisfaction with their contraceptive method and whether they have any concerns about method use.
  - Assess any changes in health status that would change the appropriateness of the IUD for safe and effective continued use on the basis of U.S. MEC.
  - Consider performing an examination to check for the presence of the IUD strings.
  - Consider assessing weight changes and counseling women who are concerned about weight changes perceived to be associated with their contraceptive method.

**Removal**

**UNCOMPPLICATED**

- Speculum exam to fully visualize cervical os with strings in view.
- Clasp strings with ring forceps and clamp forceps.
- Pull straight towards clinician with a steady direct movement.

**COMPLICATED (SEE MANAGEMENT OF COMPLICATIONS)**

**SWITCHING FROM A CU-IUD:**

Refer to the U.S. Selected Practice Recommendations for Contraceptive Use for comprehensive information on switching between methods. Accessible at DOI: [http://dx.doi.org/10.15585/mmwr.rr6504a1](http://dx.doi.org/10.15585/mmwr.rr6504a1)

If the patient has had sexual intercourse since the start of their current menstrual cycle and it has been >5 days since menstrual bleeding started, theoretically, residual sperm might be in the genital tract, which could lead to fertilization if ovulation occurs. A health-care provider can consider providing ECPs at the time of removal of a Cu-IUD if the patient wants to avoid pregnancy.
Management issues & complications

1. BLEEDING AT TENACULUM SITE
   - Remove tenaculum slowly
   - Apply pressure for 60 seconds
   - Chemical cautery
     - Silver nitrate
     - Monsel’s solution

2. VASOVAGAL REFLEX (NEUROCARDIOGENIC SYNCOPE)
   Pathophysiology:
   A reflex characterized by a somewhat sudden reduction in both blood pressure and pulse that cause a decrease in blood supply to the brain. The decreased blood supply can lead to syncope if the reflex is not averted.
   - The reflex begins with excessive pooling of blood in the extremities. Subsequent to this, is a paradoxical lowering of the pulse and drop in blood pressure.
   - Prodromal signs of an early vasovagal reflex:
     - Facial pallor (distinct green hue)
     - Yawning
     - Pupillary dilatation
     - Nervousness
   - Prodromal symptoms of an early vasovagal reflex:
     - Weakness
     - Light-headedness
   - Diaphoresis
   - Visual blurring
   - Headache
   - Nausea
   - Feeling warm or cold
   - How to avert syncope once you notice prodromal signs or symptoms indicating that a vasovagal reaction has begun
     - Instruct the patient to isometrically contract the muscles in their extremities
       » Intense gripping of the arm, hand, leg and foot muscles
       » No need to move the muscles or bring the legs together or change position—just tense the muscles
     - These contractions activate the skeletal-muscle pump to augment venous return and abort the reflex by pushing the blood out of the periphery and back into the center of the body

3. UTERINE PERFORATION
   - More likely to occur in relation to
     - Breastfeeding or postpartum
     - Posterior uterine position
     - Extreme flexion
     - Skill/experience of provider
     - Placement 2 days-4 weeks after childbirth
     - Typical location is midline at uterine flexure or fundus
     - Suspect if sounding is much deeper than expected
   - If occurs during sounding before placement of IUD, stop procedure
   - If during placement of IUD, remove IUD
   - Monitor for 30-60 min for excessive bleeding, pain
   - Provide alternative method of contraception
   - Based on expert opinion, can re-schedule placement in 4-6 weeks
   - If ultrasound is available it can be extremely helpful in detecting a potential perforation
4 INFECTION WITH IUD IN PLACE

Treat chlamydia, gonorrhea and vaginal infections as you would in a patient not using an IUD.

PID:
• Treat the PID according to the CDC Sexually Transmitted Diseases Treatment Guidelines.
• Provide comprehensive management for STDs, including counseling about condom use.
• The IUD does not need to be removed if the patient needs ongoing contraception.

• Reassess the patient in 48–72 hours. If no clinical improvement occurs, continue antibiotics and consider removal of the IUD.
• If the patient wants to discontinue use, remove the IUD sometime after antibiotics have been started to avoid the potential risk for bacterial spread resulting from the removal procedure.
• If the IUD is removed, consider ECPs if appropriate. Counsel the patient on alternative contraceptive methods, and offer one if desired.

CDC SPR algorithm for management of PID with an IUD in place

Patient wants to continue with IUD

Reassess in 24-48 hours

Clinical improvement
• Continue IUD
• Offer another contraceptive method
• Offer emergency contraception

No Clinical improvement
• Continue antibiotics
• Consider removal of IUD

Patient wants to discontinue IUD

Remove IUD after beginning antibiotics

• Offer another contraceptive method
• Offer emergency contraception

5 NO VISIBLE STRINGS

Possibilities:
• Strings present but not visible because they are in canal
• Strings present but not visible because they are in uterus
• Expulsion
• Pregnancy with IUD in situ and strings pulled into uterus
• Embedment
• Perforation
NO VISIBLE STRINGS (CONT’D)

Initial management:
- Advise/prescribe back-up contraceptive method until intrauterine location is confirmed
- Pregnancy test if appropriate
- Probe for strings in cervical canal:
- Cytology brush to tease strings from canal
- Endocervical speculum, 10° Kelly, alligator, straight forceps to help open the external os sufficiently to see the strings if they are buried in the endocervical canal
  - Endocervical speculum or forceps in a closed position into external os, open it once it is inside but do not advance it through the internal os. An excellent light and magnification (a colposcope) can assist in visualizing strings if they are there
  - An thread retriever can be used to attempt to bring the strings down from the cervical canal or the lower uterine segment
- Pass the thread retriever into the endocervical canal up to the level of the internal os, turn it ¼ to ½ turn and gently sweep down the canal with the hook towards the external os in an attempt to sweep the strings into view. Repeat this with the hook in slightly different orientations, taking care not to pull on the strings if you feel them or if they are recovered
- If attempts to visualize the strings are unsuccessful and it is determined that the IUD is in situ (intrauterine) and the patient desires continuation, **leave in place for remainder of IUD lifespan**

Desires removal

- Ultrasound
  - IN SITU
    - Extract with / without ultrasound guidance
      - Extracted
      - Refer for hysteroscopy
  - ABSENT

Desires retention

- Ultrasound
  - IN SITU
    - ABSENT
  - FLAT PLATE OF ABDOMEN
    - ABSENT
      - PERFORATED
      - EXPPELED
    - PRESENT
      - Ultrasound
        - IN SITU
          - ABSENT
        - ABSENT

Missing IUD String

- No IUD string in canal
- Pregnancy test negative
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**COMPLICATED IUD REMOVAL**

If attempts to visualize the strings are unsuccessful, and the patient desires removal:

Strings not visible after searching
- Best to determine if IUD is in the uterus (see management of missing strings) prior to attempting removal
- Rule out pregnancy
- If patient is not pregnant and strings are not visible, they should be referred for possible removal under ultrasound guidance or via hysteroscopy by an advanced provider.
- Bimanual exam to determine position (flexion) and size of uterus
- Place paracervical block (optional)
- Use straight or “alligator” forceps (best with simultaneous real time pelvic ultrasound)
  - Cleanse os (as usual prior to IUD placement)
  - Apply tenaculum
  - Sound for direction of cavity and to determine if IUD tip can be palpated (optional)
  - Pass closed forceps through the internal os and advance 1 cm. into the endometrial cavity
  - Feel for the lower tip of the IUD (the place where the strings attach at the bottom of the plastic T) with the teeth of the forceps
  - Gently open and close the jaws of the forceps until the IUD can be grasped. Each time, rotate the forceps into a different position while remaining in the lower endometrial cavity
  - Once a there is a good purchase on the IUD, close the forceps.
  - Holding the IUD firmly with the forceps, use a steady even-paced motion and pull the IUD out through the os with the forceps

- Crochet/IUD hook is best for circular IUDs; it is less helpful with T-shaped IUDs however, if extraction with the forceps is unsuccessful and the IUD is in the cavity, extraction with the hook can be attempted
  - While applying outward traction with a tenaculum, pass the hook through the internal os and advance the tip toward the fundus. First, sweep the hook down the anterior uterine wall toward the internal os and remove. If unsuccessful, repeat by sweeping the hook down the posterior uterine wall
- If it is determined that the IUD is in the uterus, yet extraction with a forceps and hook is unsuccessful, extract via operative hysteroscopy.
- For settings without immediate access to hysteroscopy alternate management options include:
  - Attempting with a paracervical block prior to instrumentation
  - Using suction from an endometrial pipelle or MVA with a 5-6 mm curette to bring strings beyond external os
  - Attempting in clinic with moderate sedation

Strings present and visible but initial attempt at removal unsuccessful
- If Strings break off, attempt extraction with alligator forceps with ultrasound guidance
- IUD embedded and unable to remove IUD by pulling strings or by extraction with forceps or hook, remove with hysteroscopic guidance

If IUD not felt during above assume it is not in uterus and send patient for KUB
- If it is determined that the IUD is translocated (IUD in peritoneal cavity), extract via operative laparoscopy

If basic skill set for removal of IUD is unsuccessful, the patient should be referred to a provider with experience in advanced skill sets for IUD removal. The referral can be to any clinician with GYN expertise in cervical dilation procedures.
PREGNANCY WITH IUD IN SITU

Determine site of pregnancy (IUP or ectopic)

If intrauterine pregnancy confirmed

- If patient does not want to continue the pregnancy, counsel about options.
- If patient wants to continue the pregnancy, advise that there is an increased risk for spontaneous abortion (including septic abortion that might be life threatening) and of preterm delivery if the IUD is left in place. The removal of the IUD reduces these risks but might not decrease the risk to the baseline level of a pregnancy without an IUD.
- If patient chooses to keep the IUD, advise to seek care promptly if there is heavy bleeding, cramping, pain, abnormal vaginal discharge, or fever.
- No greater risk of birth defects expected as the device is extra-amniotic.

IUD Strings Are Visible or Can Be Retrieved Safely from the Cervical Canal

- Advise the patient that the IUD should be removed as soon as possible.
- If the IUD is to be removed, remove it by pulling on the strings gently.
- Advise the patient that they should return promptly if there is heavy bleeding, cramping, pain, abnormal vaginal discharge, or fever.

IUD Strings Are Not Visible and Cannot Be Retrieved Safely

- Do not manipulate cervix to search for strings.
- Refer to OB/GYN for management.
- Advise the patient to seek care promptly if there is heavy bleeding, cramping, pain, abnormal vaginal discharge, or fever
- If ultrasound is available, consider performing or referring for ultrasound examination to determine the location of the IUD.