## **Contraception for Women with LAM**

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- Estrogen is known to impact disease progression in LAM. All premenopausal LAM patients should be counseled on the potential risks of pregnancy, and to avoid exogenous estrogen supplementation.
- Non hormonal contraceptive methods (condom, diaphragm, copper intrauterine device [IUD]) should be recommended as first-line for LAM patients. However, the CDC recommends using back-up methods to prevent pregnancy due to high rates of failure.

Failure rates:

Copper IUD failure rate: 0.8% Diaphragm failure rate: 17% Male condom failure rate: 13%

- TCu380A copper IUD is approved by the US Food and Drug Administration FDA to remain in place for 10 years
- Patients considering the copper IUD should be counseled that menses may be heavier, longer, or more painful, particularly in the first several cycles after insertion. In a study of over 3800 women using either the TCu380A or the Lenvonorgestrel IUD (LNg 52/5), at three months the copper IUD users had more cramping (63 versus 32 percent), increased bleeding volume (71 versus 12 percent), and increased bleeding frequency (41 versus 33 percent) than LNg 52/5 users. These symptoms improved rapidly, and at six months the copper IUD users reported symptom reduction to levels similar to the LNg 52/5 users (Diedrich et al, Am J Obstet Gynecol. 2015 Jan).
- **Contraindications**: Allergy to copper; pregnancy; abnormalities resulting in distortion of the uterine cavity; acute pelvic inflammatory disease (PID), or high risk for PID; postpartum endometritis or postabortal endometritis in the past 3 months; uterine or cervical malignancy; genital bleeding of unknown etiology; mucopurulent cervicitis; Wilson disease.
- Progestin only contraception can be offered as a second-line option. There are many different formulations and delivery methods. The following summaries include progestin dose, key considerations, and CDC failure rates to help select the best option for patients:
  - a) Progestin only pills (POPs): Norethindrone and Desogestrel. Norethindrone is the only POP available in the United States (0.35 mg tablets, commercial names include Camila and Errin). The dose is substantially lower than what is found combination oral contraceptive pills, it requires continuous dosing (ie, no pill free or nonhormonal pill week), and has the highest risk of pregnancy compared to other oral hormonal contraceptives.
    - Desogestrel is a POP available outside of the United States as a 75 mcg formulation. The contraceptive efficacy of Desogestrel is comparable to combined estrogen-progestin contraceptive pills.

- Failure rate: ranging from 1%-13% with higher failure rates using Norethindrone and an overall average of 7% (Hatcher, Contraceptive Technology. 2009)
- b) Depot medroxyprogesterone acetate (Depo-Provera) is an injectable progestin-only formulation that provides three-month-long contraception and 100 to 600mg of progestin weekly. This formulation is helpful for patients who have trouble remembering to take daily medications. Weight gains of an average of ten pounds per year while using Depo-Provera have been reported and weight gain should be considered before beginning treatment. Failure Rate: 4%
- c) Etonogestrel Implant (Nexplanon) can provide up to 3 years of contraception after placement. Implanon, and earlier formulation of this IUD, has been discontinued in the United States because of complications due to improper placement. Dosing varies over the course of treatment with an initial exposure of 60 to 70 mcg/day, decreasing to 35 to 45 mcg/day at the end of the first year, to 30 to 40 mcg/day at the end of year 2, and then to 25 to 30 mcg/day at the end of year 3.

Failure rate: 0.01%

 d) Lenovogestrel Intrauterine Device (IUD) or Mirena releases an average of 20 mcg of progestin/day and provides up to 5 years of contraception.

Failure Rate: 0.1-0.4%

 Progestin and estradiol combinations of hormonal contraception such as the birth control pill should not be used in LAM patients.

## Disclaimer:

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