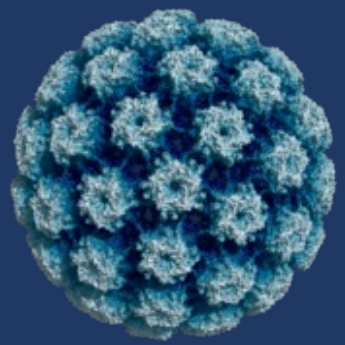

Gynaecologic Cancers: What's New and What Does Everyone Need to Know?

Update on endometrial cancer

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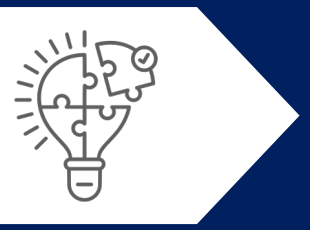
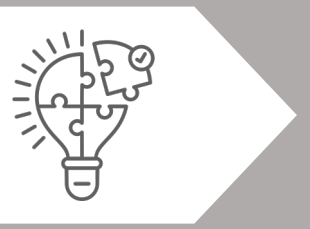
Gynecology Oncology
University of Toronto

Objective



Review prevention, diagnosis and management of abnormal uterine bleeding/endometrial cancer



Review the management strategies for fertility preservation in young women with endometrial cancer/atypical hyperplasia

Case 1

- **37y G0 with heavy menstrual bleeding**
- **PMHx: Healthy, BMI 37**
- **Paps UTD, all N**
- **No menstruation for 40-60 days**
- **Periods heavy, can last up to 10 days**

Does this patient have “abnormal uterine bleeding”?

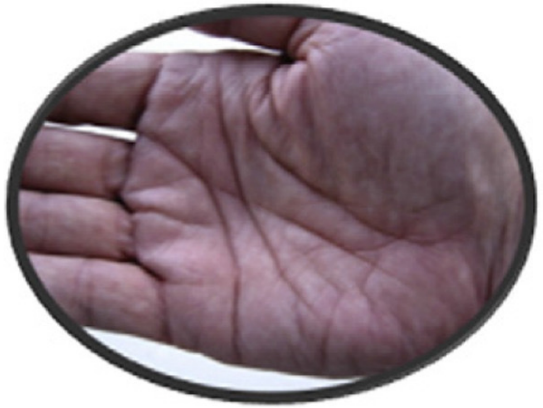
	NORMAL	ABNORMAL
Frequency	24-38 days	<24 days or >38 days
Duration	8 days or less	>8 days
Regularity	Cycle variation 7-9 days	Cycle variation 10+ days
Flow	Patient considers normal	Patient considers light/heavy
Unscheduled	Absent	Present

What could be the etiology of her AUB?

Polyp
Adenomyosis
Leiomyoma
Malignancy & hyperplasia

Submucosal
Other

Coagulopathy
Ovulatory dysfunction
Endometrial
Iatrogenic
Not yet classified



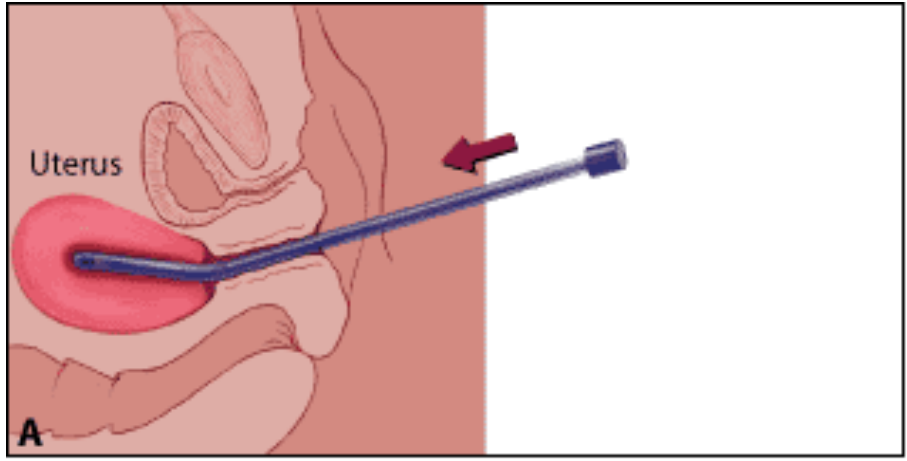
Best next step?

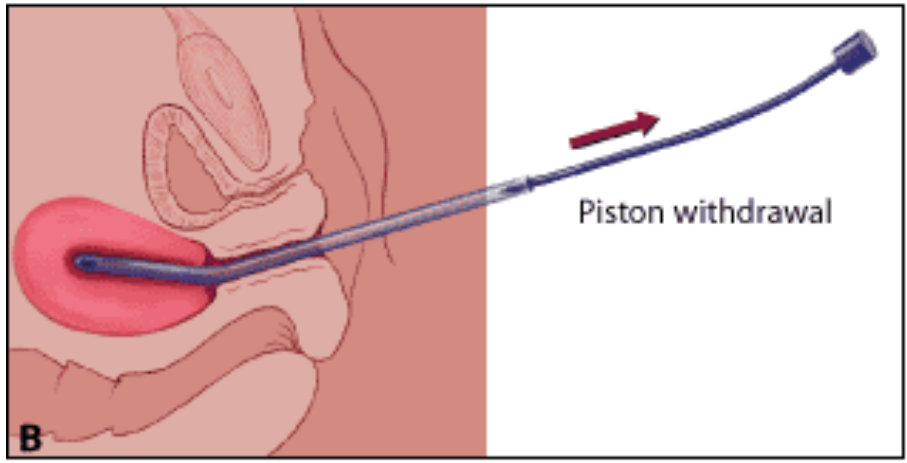
A. Refer to gynecologist for D+C
B. Endometrial biopsy, CBC
C. CBC, TSH and pelvic ultrasound
D. Work up for PCOS with ultrasound and bloodwork
E. Pap smear, cervical cultures, and pelvic ultrasound
F. Sonohysterogram

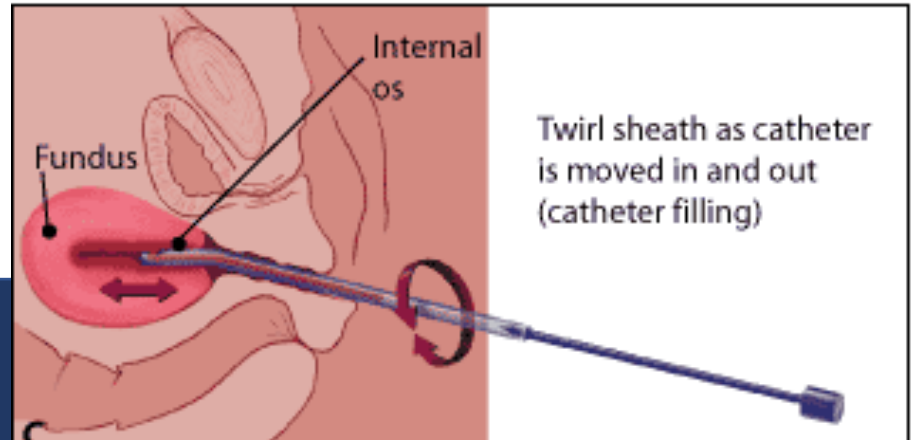
When is endometrial biopsy indicated?

A. Abnormal uterine bleeding
   A. Age >40
   B. Risk factors for endometrial cancer
   C. Failure of medical treatment
   D. Significant intermenstrual Bleeding

B. Infrequent menses suggesting anovulatory cycles







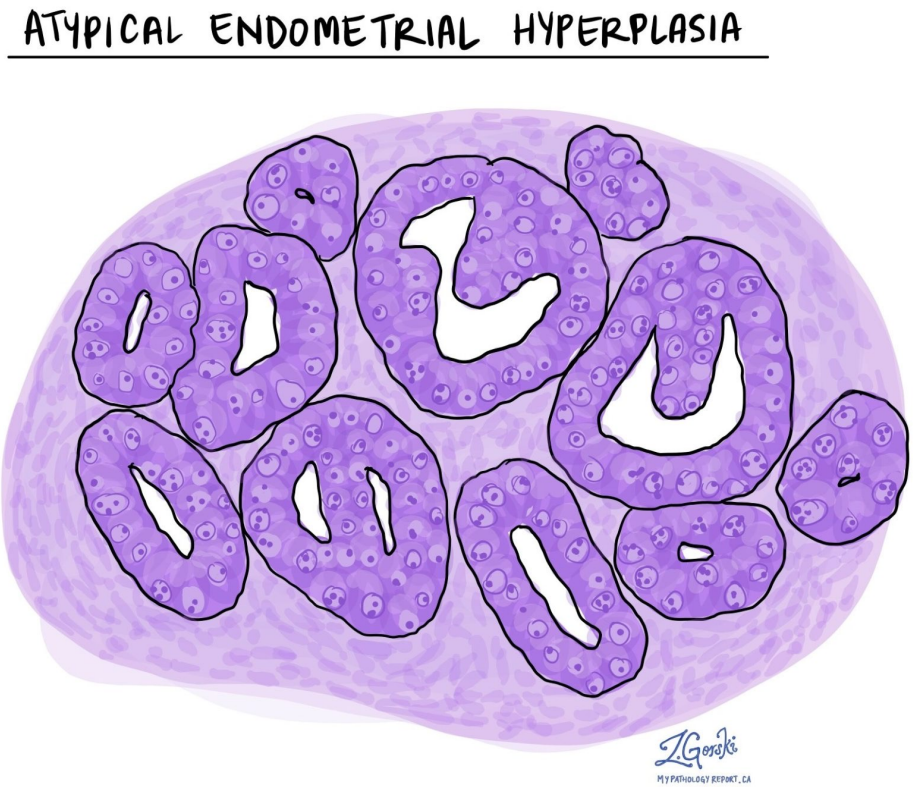
If endometrial biopsy is normal, what is management approach?

A. Protect the endometrial lining (LNG-IUS, OCP or cyclic progestin)
B. Weight loss education and counselling
C. Screen for type II diabetes and hypercholesterolemia
D. Option A and B
E. All of the above

Medical management of AUB

Non-Hormonal	Hormonal
NSAIDS	CHC
Tranexamic Acid	Oral progestins
	DMPA
	IUD
	GnRH Agonist

If endometrial biopsy is atypical hyperplasia?



- **42%** co-exist with G1EC
- **28%** progress to G1EC
- Refer to Gyn/Gyn Onc

If endometrial biopsy is G1 endometrial cancer?

A. Refer to general gynecology
B. Refer to gynecology oncology

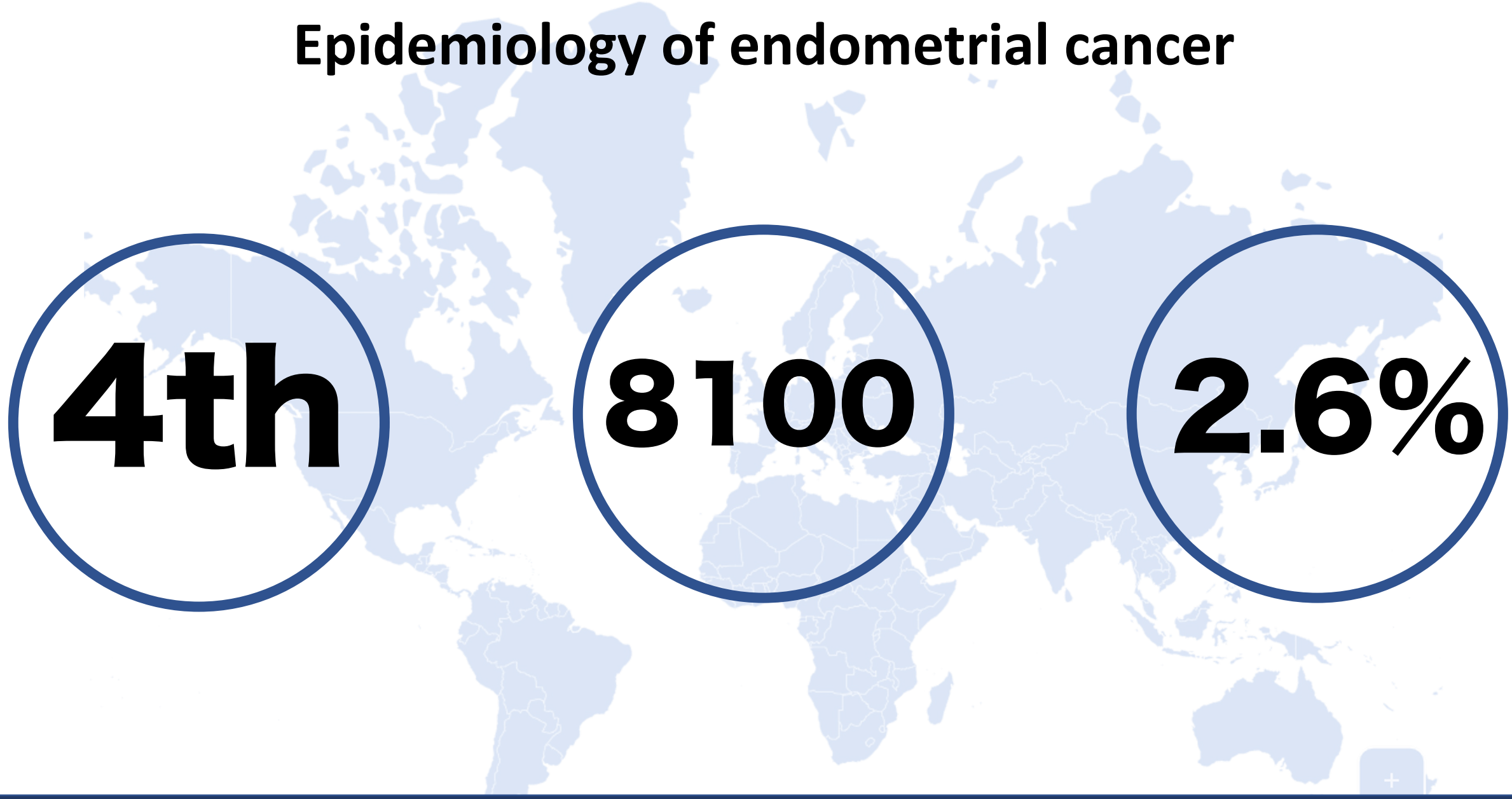
Case 2

- 67y with post-menopausal bleeding
- PMHx: T2DM, HTN, BMI 37
- Paps UTD, all N
- Last period at age 50

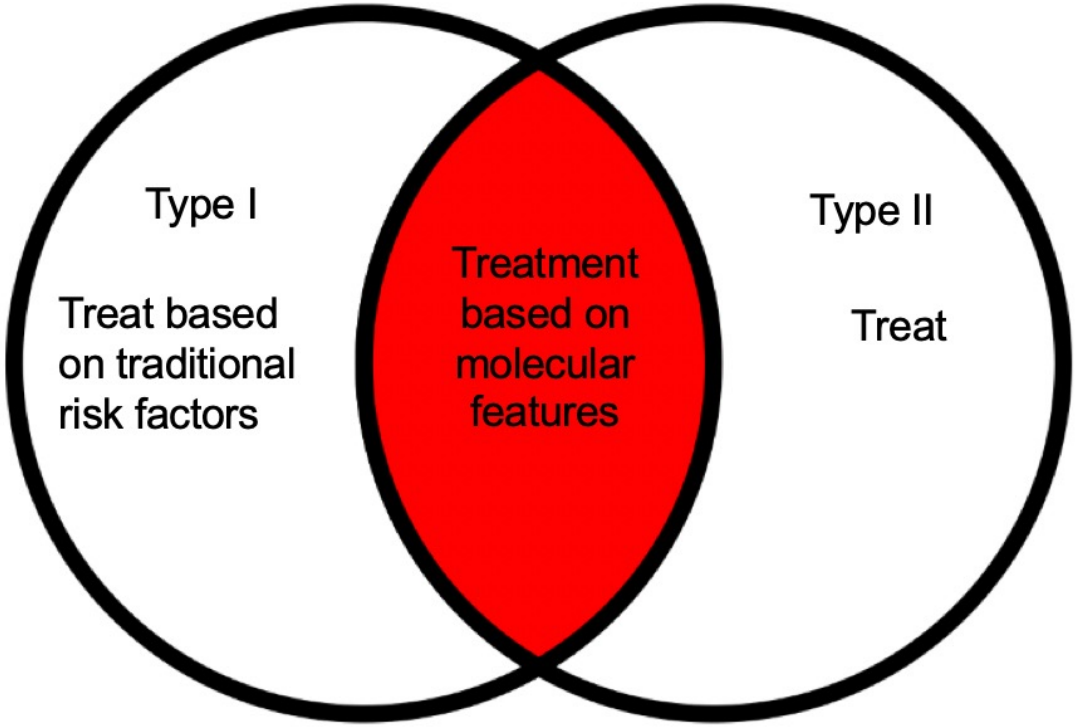
What is the etiology for post-menopausal bleeding?

Etiology	Proportion
Polyp	37.7%
Atrophy	30.8%
Proliferative/secretory	14.5%
CARCINOMA	6.6%
Fibroid	6.2%
Hyperplasia+/- atypia	2.2%

Epidemiology of endometrial cancer



Types of Endometrial Cancer- Old



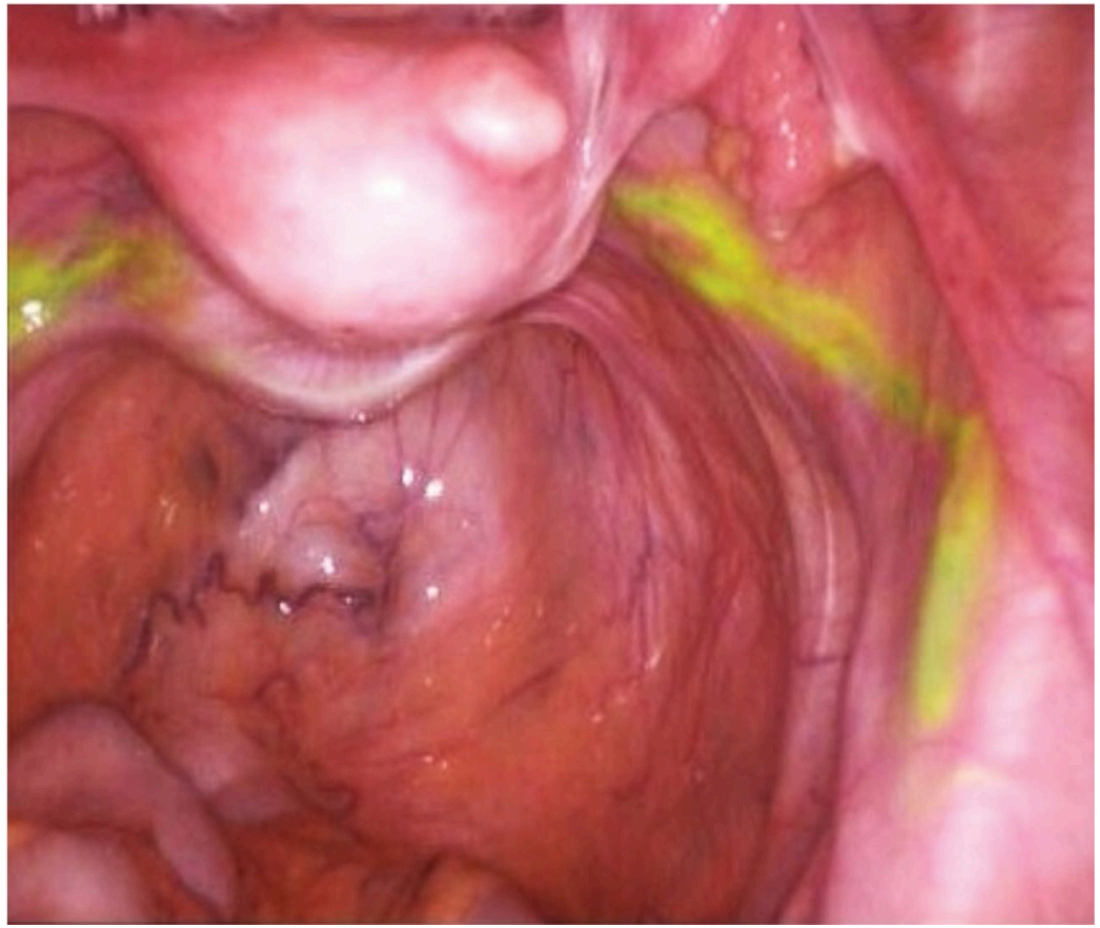
Types of Endometrial Cancer- New

1. Advancing age
2. Obesity – 10-fold BMI > 30
3. Chronic anovulation history/PCOS
4. Diabetes
5. Hypertension
6. Unopposed estrogen therapy
7. Tamoxifen
8. AGC pap smear -
9. Lynch Syndrome – 40 % life time risk
10. Family history of colorectal and/or endometrial cancer
11. Late menopause/ early menarche

Risk factors for endometrial cancer

Treatment of endometrial cancer

EARLY STAGE (1/2): Surgery

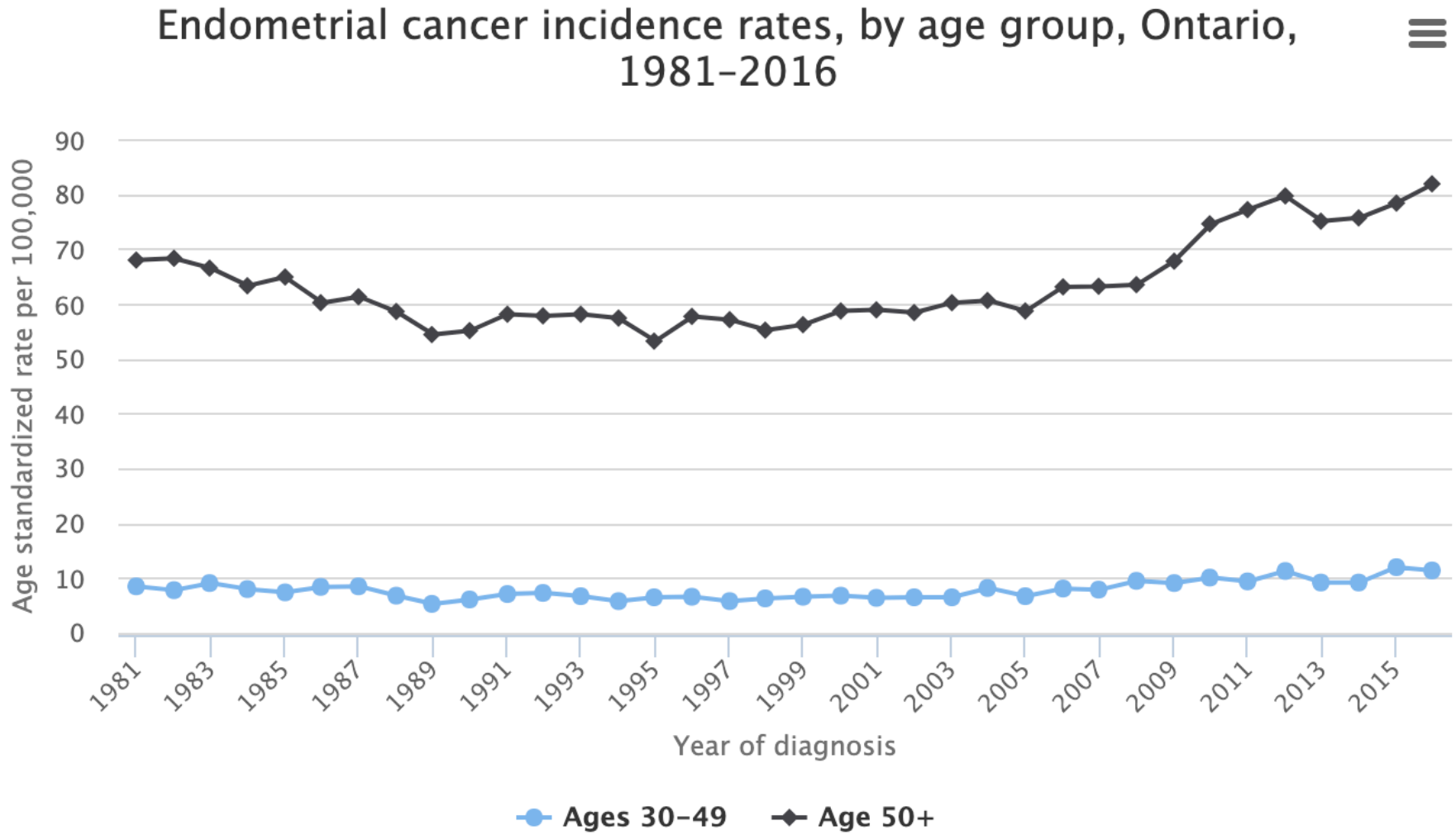


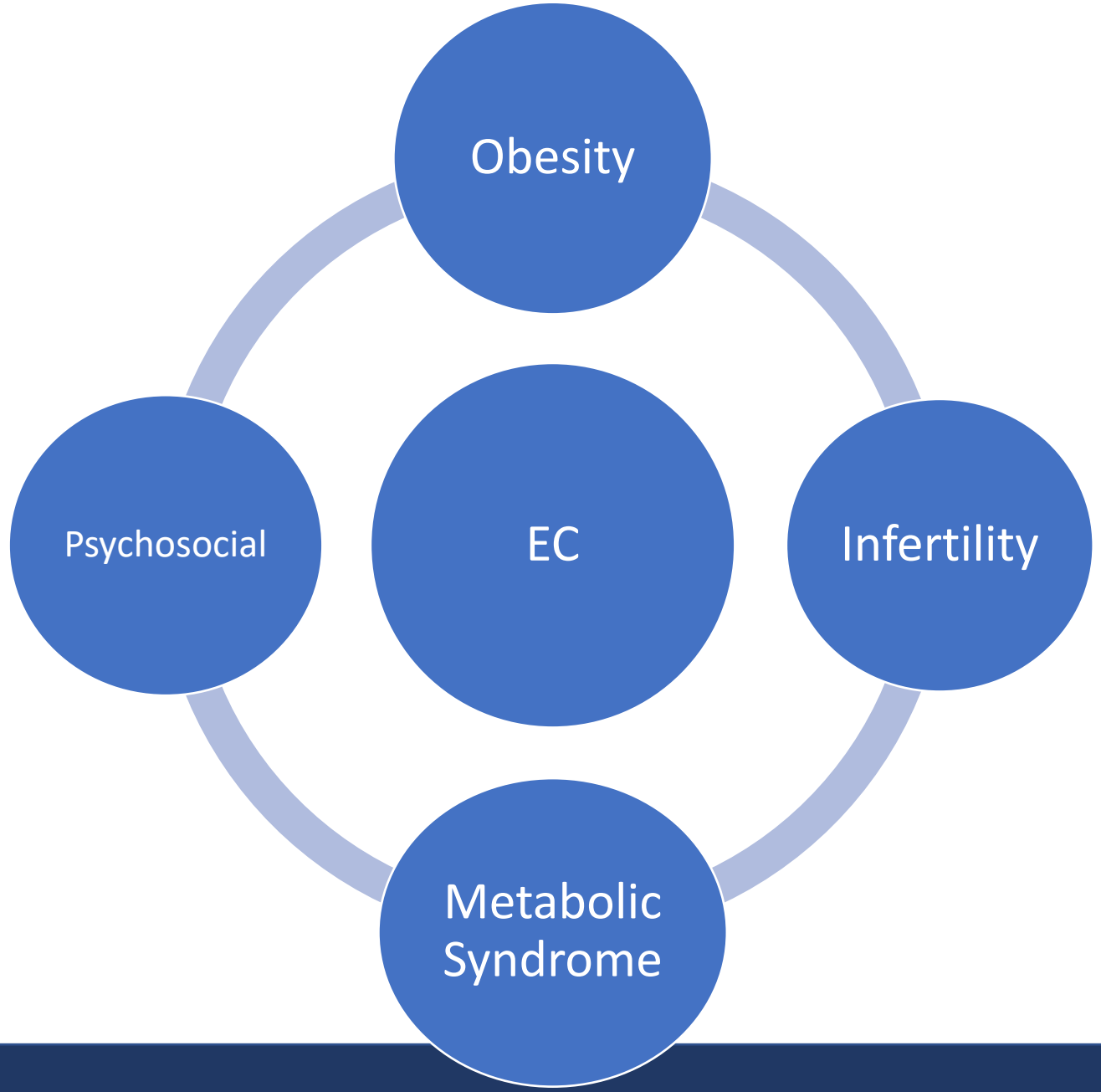
LATE STAGE (3/4): Chemo/RT

Case 3

- 32y with G1 endometrial cancer
- PMHx: T2DM, HTN, BMI 45
- Paps UTD, all N
- Wants to preserve fertility

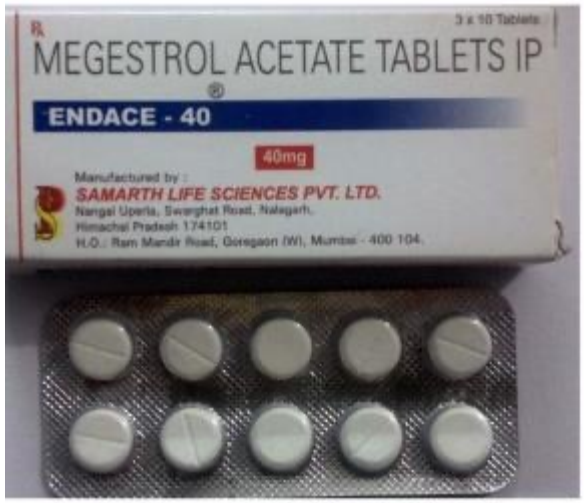
Rising rates of endometrial cancer in young women

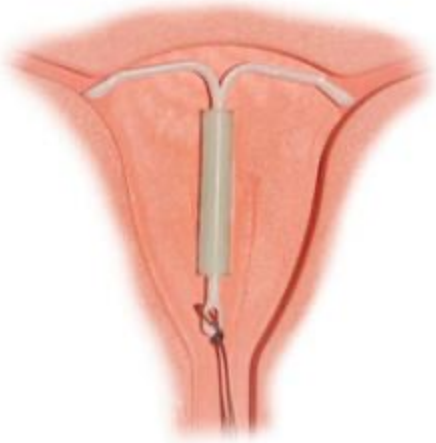


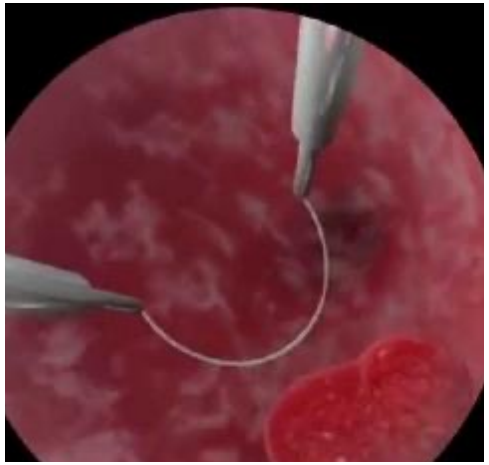


Complex interplay between EC, obesity, infertility, metabolic syndrome, psychosocial issues

Treatment options for fertility preservation



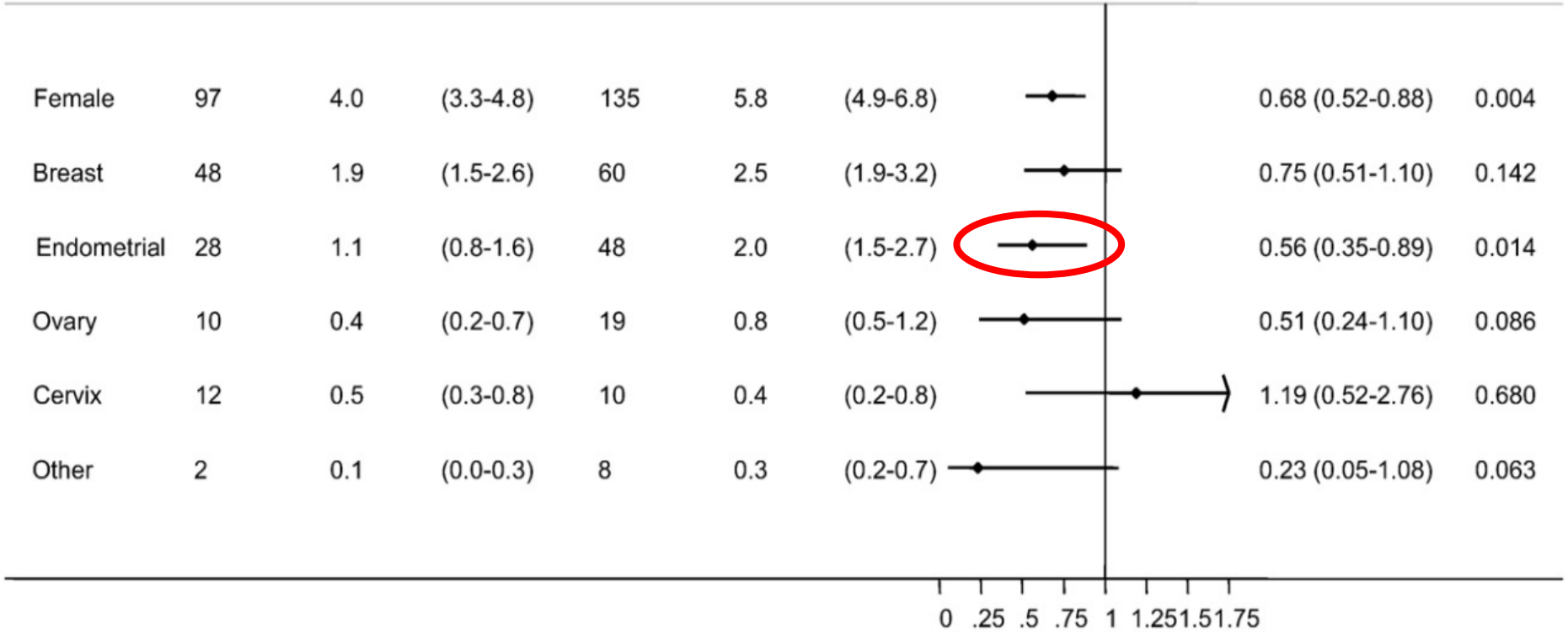




Recurrence is high

Sustained weight loss is key

Cancer type	Surgery: Number of events	Surgery: IR/1000 p-yrs	Surgery: 95% CI	Control: Number of events	Control: IR/1000 p-yrs	Control: 95% CI	Hazard Ratio (95% CI)	p-value
Female	97	4.0	(3.3-4.8)	135	5.8	(4.9-6.8)	0.68 (0.52-0.88)	0.004
Breast	48	1.9	(1.5-2.6)	60	2.5	(1.9-3.2)	0.75 (0.51-1.10)	0.142
Endometrial	28	1.1	(0.8-1.6)	48	2.0	(1.5-2.7)	0.56 (0.35-0.89)	0.014
Ovary	10	0.4	(0.2-0.7)	19	0.8	(0.5-1.2)	0.51 (0.24-1.10)	0.086
Cervix	12	0.5	(0.3-0.8)	10	0.4	(0.2-0.8)	1.19 (0.52-2.76)	0.680
Other	2	0.1	(0.0-0.3)	8	0.3	(0.2-0.7)	0.23 (0.05-1.08)	0.063



Bariatric Surgery for Fertility-Sparing Treatment of Atypical Hyperplasia and Grade 1 Cancer of the Endometrium (B-FiERCE)

- Dr. Sarah Ferguson (gynecology oncology)
- Dr. Tim Jackson (bariatric surgery)
- Dr. Allan Okrainec (bariatric surgery)
- Dr. Andrea Simpson (general gynecology)
- Dr. Ted Brown (reproductive endocrine biology)
- Dr. Alicia Tone (translational biology/genomics)
- Dr. Satya Dash (endocrinology/obesity)
- Dr. Ellen Greenblatt (reproductive science/REI)
- Dr. Cynthia Maxwell (maternal fetal medicine/obesity)
- Dr. Amit Oza (medical oncology)
- Dr. Blaise Clarke (pathology)

Objective

To assess the ***feasibility*** of the addition of bariatric surgery to progestin therapy in women with obesity who have EC/AH who desire fertility preservation.

Methods

- Pilot RCT 1:1 allocation
  - Bariatric surgery vs no intervention
- All treated with progestin IUD

Eligibility

- Age >18 and ≤ 41 yo
- Grade 1 EC or complex atypical hyperplasia
- BMI ≥ 35
- **Fertility preservation desired**
- Clinical Stage 1 on MRI, CT and clinical exam
- No evidence of myometrial invasion
- Can tolerate progestin IUD

Prevention of endometrial cancer

Modify risk factors

Protect endometrium

Screen for symptoms

Take home points

- Endometrial biopsy is the mandatory test
- Pelvic ultrasound is the optional test
- PMB/AUB is concerning for malignancy
- Endometrial cancer is common
- Obesity is the biggest modifiable risk factor
- Please refer your patients for BFIERCE!

What about postmenopausal women with asymptomatic endometrial thickening?

- **SOGC guideline (2010)**
- **In average-risk women, ultrasound should NOT be used as screening for endometrial cancer**
- **Who you should sample/refer to gynecology:**
  - **Any endometrial thickening >11 mm**
  - **Endometrial thickening + other findings on U/S (increased vascularity, inhomogeneity of endometrium, particulate fluid)**
  - **Endometrial thickening + other risk factors (e.g. obesity, hypertension, late menopause)**
- **It's never wrong to biopsy**