Gynecologic Oncology

- Every year, in the US, more than 90,000 women are diagnosed with a gynecologic cancer and approximately 30,000 die from a gynecologic cancer

- GYN oncologists are specialists who provide consultation on comprehensive management of patients with gynecologic cancers:
  
  Outpatient evaluation
  Surgery
  Chemotherapy
  Radiation therapy
  Postoperative, intensive and palliative care

<table>
<thead>
<tr>
<th></th>
<th>2015 New Cases</th>
<th>2015 Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cervical</td>
<td>12,340</td>
<td>4,030</td>
</tr>
<tr>
<td>Ovarian</td>
<td>21,290</td>
<td>14,180</td>
</tr>
<tr>
<td>Uterine</td>
<td>54,870</td>
<td>10,170</td>
</tr>
<tr>
<td>Vaginal</td>
<td>4,070</td>
<td>910</td>
</tr>
<tr>
<td>Vulvar</td>
<td>5,150</td>
<td>1,080</td>
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</tbody>
</table>
### Surgeries for Gynecologic Cancer

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Description</th>
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<tbody>
<tr>
<td>Staging surgery</td>
<td>This will help determine the best course of treatment as cancers in different stages may be treated differently.</td>
</tr>
<tr>
<td>Debulking surgery</td>
<td>Reduce tumor burden, often in preparation for chemotherapy.</td>
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<tr>
<td>Total hysterectomy</td>
<td>Removal of the uterus, including the cervix.</td>
</tr>
<tr>
<td>Radical hysterectomy</td>
<td>Removal of the uterus, cervix, and part of the vagina.</td>
</tr>
<tr>
<td>Omentectomy</td>
<td>Removal of the omentum.</td>
</tr>
<tr>
<td>Lymph node removal</td>
<td>Removal of all or a portion of lymph nodes.</td>
</tr>
</tbody>
</table>

### Beyond Treatment

- Genetic counseling and testing for women with family history of gynecologic cancer
- Oncofertility services to maximize the reproductive potential of cancer patients and survivors
- Evaluation, counseling and management of cancer-related sexual issues

### Female Pelvic Medicine and Reconstructive Surgery (FPMRS/Urogynecology)

- Specialists who provide evaluation, diagnosis, and treatment of conditions that affect the muscles and connective tissue of the female pelvic organs
- Pelvic floor conditions that urogynecologists commonly treat include urinary incontinence, fistulas, overactive bladder, and pelvic organ prolapse.

### Burden of Incontinence

- In the US, the cost among adults was estimated at $19.5 billion (2000)
- A majority of costs are attributed to resources used for incontinence management (absorbent pads, protection, laundry)

#### Figure 1

- [Graph showing data related to the Burden of Incontinence](#)
Non-Surgical Treatments

- Pelvic floor physical therapy
- Biofeedback
- Pessary
- Injections or instillations
  - Botox
  - Bulking agents
- Pharmacologic therapies
  - Anticholinergics

Surgical Treatments

- Anal sphincteroplasty
- Colpocleisis
- Cystocele/rectocele/enterocele repair
- Perineorrhaphy
- Sacral neuromodulation
- Urethral diverticulectomy
- Fistula repair
- Sacrocolpopexy
- Mid-urethral sling

Reproductive Endocrinology and Infertility

- Scope of the problem: 1 in 8 couples have trouble getting pregnant or sustaining a pregnancy
Clinical Services

- Oncoreproductive health and oncofertility management
- Reproductive health and hormone management for menopausal women
- Endocrine disorders which impact reproductive function
- Recurrent pregnancy loss
- Same-sex and single partner fertility care
- Reproduction utilizing donor gametes
- Elective fertility preservation (gamete/embryo cryopreservation)
- Surgical management of Mullerian anomalies
- Surgery focused on restoration of the reproductive tract in the context of fertility optimization

Family Planning

- Subspecialist training in research, teaching and clinical practice in abortion and contraception
- Provision of reproductive services for treatment of miscarriage, contraceptive care, and induced abortion

Reproductive Infectious Disease

- Collaboration with obstetricians, gynecologists, microbiologists, reproductive epidemiologists, and pharmaceutical specialists
- Study of:
  - Unique organisms responsible for infections in OB/GYN patients
  - Clinical manifestations and sequelae of obstetrics and gynecologic infections including sexually transmitted diseases
  - Clinical manifestations and sequelae of fetal/perinatal infections
Pediatric and Adolescent Gynecology

- Evaluation and treatment of patients from infancy and childhood through adolescence and young adulthood, giving special consideration to the physical and emotional needs of young women, and providing support in their transition from pediatric care to gynecologic care

PAG Conditions

- Obstructive anomalies of the female reproductive system, such as imperforate hymen or transverse vaginal septum
- Other Mullerian anomalies
- Ovarian cysts and other pelvic masses
- Menstrual disorders
- Amenorrhea
- Preventative health
- Adolescent sexual health
- Disorders of sexual differentiation
Benign Gynecology

- Menstrual disorders
  - Dysmenorrhea
  - Abnormal uterine bleeding
- Uterine fibroids
- Endometriosis
- Ovarian cysts
- Chronic pelvic pain
- Menopause
- Vulvar health
  - Vulvar dermatoses
  - Vulvodynia

Leiomyomas
Mature Cystic Teratoma (Dermoid Cyst)

Endometrioma

Minimally Invasive Gynecologic Surgery (MIGS)

Laparoscopic, robotic, vaginal or hysteroscopic surgeries performed as alternatives to traditional open surgery

Benefits
- Significantly less pain
- Less blood loss and need for transfusion
- Less risk of infection
- Shorter hospital stay
- Quicker recovery and return to normal activities
- Small incisions for minimal scarring
- Better patient satisfaction
Laparoscopic Excision of Endometriosis
LSC Bilateral Salpingo-Oophorectomy
LSC Reduction of Adnexal Torsion
Laparoscopic Hysterectomy Step-by-Step
**Future Directions in GYN Research**

- Urinary microbiome and its role in incontinence and other conditions
- Selective progesterone receptor modulator (SPRM) for long-term treatment of uterine fibroids
- Male "biological clock" - fertility treatment is less likely to be successful for couples in which the male partner is older than 40
- Novel ovarian cancer drug inhibits thymidylate synthase and selectively enters cancer cells by mimicking the folic acid receptor, which is commonly overexpressed on cancer cells

**Good Luck and Have Fun!**

- Know your patient
- Know the anatomy
- Ask questions
- You are part of the team!