Evaluation and Workup for Pelvic Pain in Women: The Critical Role of Family Physicians
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Learning Objectives

By the end of this educational activity, the learner should be better able to:

1. Describe the confluence of symptoms that suggest the need for a workup for endometriosis and differential diagnosis of pelvic pain
2. Integrate evidence-based processes for evaluating a woman with pelvic pain suggestive of endometriosis
3. Outline the benefits and limitations of current and late-stage investigational treatments for the management of endometriosis
Evaluation and Workup for Pelvic Pain in Women: The Critical Role of Family Physicians
Pelvic Pain in the Family Medicine Clinic

- Variable etiologies
- Delayed diagnosis, especially in younger patients

Definition

CPP is defined as persistent or intermittent pain in the lower abdomen or pelvis occurring for a minimum of 6 months and does not occur exclusively with menstruation, pregnancy, or intercourse.
Epidemiology

• Occurs in 15% of reproductive-aged women
• Cited as a diagnosis in up to 10% of all outpatient gynecologic consultations, 40% of all laparoscopies, and 18% of all hysterectomies
• Over $2 billion in estimated annual costs in the U.S.

Epidemiology

- Women with pelvic pain have higher rates of abuse
- Of 713 women seen in a pelvic pain clinic:
  - 46.8% had history of sexual or physical abuse
  - 31.3% had PTSD symptoms
  - Women with trauma history had worse medical symptoms

Epidemiology

- Up to 50% of women with pelvic pain have concomitant depression
- Drug and alcohol abuse predispose to pain
- No difference in prevalence based on race, ethnicity, education, or socioeconomic status

# Categories of Pain

## Categories of Pain

<table>
<thead>
<tr>
<th></th>
<th>Acute Pain</th>
<th>Chronic Nonmalignant Pain</th>
<th>Chronic Malignant Pain</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Duration</strong></td>
<td>Hours to days</td>
<td>Months to years</td>
<td>Unpredictable</td>
</tr>
<tr>
<td><strong>Associated Pathology</strong></td>
<td>Present</td>
<td>Often little or none</td>
<td>Usually present</td>
</tr>
<tr>
<td><strong>Prognosis</strong></td>
<td>Predictable</td>
<td>Unpredictable</td>
<td>Increasing pain with possibility of disfigurement and fear of dying</td>
</tr>
<tr>
<td><strong>Associated Problems</strong></td>
<td>Uncommon</td>
<td>Depression and anxiety</td>
<td>Many, especially fear of loss of control</td>
</tr>
<tr>
<td><strong>Nerve Condition</strong></td>
<td>Rapid</td>
<td>Slow</td>
<td>Slow</td>
</tr>
<tr>
<td><strong>Treatment</strong></td>
<td>Primarily analgesics</td>
<td>Multimodal; often largely behavioral; drugs may play a moderate adjunctive role</td>
<td>Multimodal; drugs usually play a major role</td>
</tr>
</tbody>
</table>

Mean age at diagnosis = 17.8 ± 2.0 years

Recent study (N=138) showed:
- 57% of patients with endometriosis/pelvic pain had 1 or more chronic comorbid pain conditions
- 27% had 2 or more chronic comorbid pain conditions
- 48% had 1 or more mood disorders

COPCs

• Cluster of prevalent pain conditions that frequently co-occur
• Predominantly female
• Increased risk of developing a new COPC as the number of pain conditions a person has increases
• Research priority for National Institutes of Health (NIH)

Venn Diagram of Chronic Overlapping Pain Conditions
The complexity of overlap among COPCs is demonstrated in this figure. Any combination of conditions is possible. Some people may develop 2 disorders—either simultaneously or over the course of their lives—while others may develop 3 or more.

Interstitial Cystitis
Fibromyalgia
Irritable Bowel Syndrome
Vulvodynia
Endometriosis
Temporomandibular Disorders
Chronic Fatigue Syndrome
Chronic Migraine
Chronic Tension-Type Headache
Chronic Low Back Pain

High Psychological Distress

Pelvic Pain

High State of Pain Amplification

Chronic pelvic pain
Severe dysmenorrhea
Subclinical signs & symptoms

ENVIRONMENTAL CONTRIBUTIONS

Demographics
- EtOH
- Low BMI
- Low parity
- Early menarche
- Family history
- HMB

Physical environment
- Retrograde menstruation
- Localized inflammation
- Cytokines
- GFs
- Angiogenesis implants
- Environmental toxins
- Potent estrogens
- DES

Social environment
- Life stressors

Mood
Anxiety
Depression
Stress response
Somatization

Neuroendocrine function
Autonomic function
Impaired pain regulation
Pro-inflammatory state

Common Etiologies of CPP*

Endometriosis
- Adenomyosis
- Adhesions
- Chronic PID
- Uterine fibroids
- Pelvic congestion
- Ovarian remnant
- Residual ovarian syndrome
- Vaginal apex pain

Interstitial Cystitis/PBS
- Urethral syndrome
- Chronic UTI
- Bladder stones

IBS
- Functional bowel disorders
- Chronic appendicitis
- Inflammatory bowel disease
- Hernias
- Diverticular disease
- Intermittent bowel obstruction

Pelvic floor myalgia
- Trigger points
- Idiopathic low back pain
- Disc disease
- SI joint disease
- Coccydynia
- Nerve-entrapment syndromes

Adapted from:

*excludes carcinomas
Diagnostic Workup: The Role of the Physical Exam, Imaging, and Surgery

- Steps in making a differential diagnosis
- The H&P are the most important parts of the evaluation, can give clues to etiology
- Comprehensive H&P form available at https://www.pelvicpain.org/
- Labs have limited value (UA, STI screen, pregnancy test)
- Consider pelvic ultrasonography to exclude ovarian pathology
- Using a systematic approach to examination of the pelvic girdle and related organ systems within the pelvis will aid the clinician in identifying the painful structure(s)
- Treatment of CPP depends on the cause
- Treatments may be directed toward specific causes or may be targeted to general pain management – the most effective therapy may involve using both approaches
History

Pain history

− When did it start?
  ▪ Acutely or insidiously
  ▪ Rate of increase
    » Rapid mood deterioration may be a signal of the patient’s affective resilience, coping skills, support systems
− Descriptors: what does it feel like?
  ▪ Pulling, searing, stabbing, like “my pelvis is going to fall out,” cramping, burning, bloating, “pins and needles,” electric

− Intensity
− Cyclic? Daily? Any pain-free days?
− Triggers
  ▪ Food, activity, intercourse, stress
− Time of day
− Menstrual cyclicity, anchor to menarche/coitarche
− May start cyclicly, can become daily

Clinical Evaluation

• Careful history:
  – PMH, PSH, family history, psychiatric history
  – Experience of pain/impact on daily activities
  – Previous treatments
    ▪ Which were helpful?

• Medical history (includes menstrual history, STDs, pregnancies)

• Surgical history (think about adhesions, torsion, etc.)

• Sexual history (current practices, history of abuse, etc.)

• Psychological history (depression, anxiety, abuse history)

• Ask the patient about her goals and expectations

Physical Exam

1. Q-tip evaluation of the vulvar vestibule
2. Single-digit exam
   - Evaluate pelvic floor muscles
     ▪ Levator ani
     ▪ Obturator internus
     ▪ Piriformis
   - Vaginal walls
   - Vaginal length
   - Cervix
   - Uterosacrals
   - Posterior cul-de-sac
   - Bladder
   - Urethra
3. Speculum
4. Bimanual
Imaging Considerations

• Pelvic ultrasonography is the first-line imaging modality in children and women with pelvic pain
• CT is often used in emergency settings, particularly in patients in whom ultrasonography is inadequate for diagnosis
• MRI may be considered for the evaluation of female pelvic pain and, like ultrasonography, has the benefit of no radiation exposure

Endometriosis – Ultrasonography or MRI
Key Considerations for Effective Patient/Provider Dialogue and Symptom Tracking

- Importance of shared decision making
  - Desired pregnancy vs need for contraception
  - Goals of treatment
  - Management of side effects of potential treatments
- CPP
- Other assessments?
Diagnosis: Endometriosis

- Initial management (UK NICE guidelines)
  - Lifestyle changes
  - Medications
- Initial management when pregnancy is the goal
  - Limited use of hormonal therapies
  - Temporary nonhormonal options for pain secondary to endometriosis: NSAIDs, opioids, physical therapy, muscle relaxers, SSRIs/SNRIs
- The role of the specialist
  - If fertility is primary goal – referral to gynecologist is appropriate if having trouble managing pain with hormonal treatment
- Key considerations for younger patients: treatment
  - Reminding patients that hormonal treatments will not affect future fertility (though medroxyprogesterone acetate can be associated with a delay to return to baseline up to 18 months)
  - Early treatment may affect future pain or fertility
- What lies ahead

Endometriosis – Symptoms

• Pelvic pain
  – 70-75% of women with endometriosis
  – Severity not related to pathology by laparoscopy
  – Can include:
    ▪ Increasing dysmenorrhea
    ▪ Deep dyspareunia
    ▪ Premenstrual dysmenorrhea
    ▪ Lower abdominal or back pain

• Infertility
Physical Findings

• Tender nodules along the uterosacral ligaments or in the cul-de-sac, especially just before menses
• Pain or induration commonly in the cul-de-sac or rectovaginal septum
• Uterine or adnexal fixation, or an adnexal mass

Laparoscopy/Laparotomy

• Pros:
  – Can also remove lesions

• Cons
  – Invasive procedure
  – Has its own risk of morbidity and, rarely, mortality
  – Costly
  – Still difficult to detect microscopic and/or subperitoneal lesions
  – Accuracy depends on the skill level of the surgeon
  – Does not consider systemic nature of disease

Sites of disease

- Most common
  - Peritoneum
  - Ovaries
  - Cul-de-sac

- Others
  - Pleural cavity
  - Bladder
  - Brain

Subtleties in appearance can lead to misdiagnosis


Photographs courtesy of Jacques G. Donnez, MD, PhD; Daniel C. Martin, MD; and Robert S. Schenken, MD.
Challenges in Diagnosing Endometriosis

- Many primary care providers are uncomfortable making the diagnosis
- Symptoms are nonspecific or associated with other disorders
- Survey of 7,025 women from 52 countries
  - 65% misdiagnosed
  - 46% saw ≥ 5 providers to get the correct diagnosis
- 6.7 to 11 years from symptom onset to diagnosis and treatment

2005 All-Party Parliamentary Group, UK.
Benefits of Early Diagnosis

• Can reduce uncertainty, discomfort, and later complications
• May help to slow later disease progression
• Can increase quality of life
• May benefit long-term fertility
Lifestyle Changes

Sleep
- Sleep deprivation increases pain sensitivity
- Should aim for 7-8 hours of sleep, ideally between 10 pm and 6 am
- REM
  ▪ Ethanol
- Exercise
  ▪ 30 minutes most days of the week

NSAIDs

- Good evidence for treatment of dysmenorrhea
- Insufficient evidence to treat women with endometriosis pain (Cochrane Review)
- Minimal side effects, readily available, reasonable first-line treatment

Evidence-Based Pain Treatment

- OCPs, especially for dysmenorrhea
- Daily high-dose progestin for endometriosis and pelvic venous congestion syndrome
- GnRH analogues for endometriosis
- NSAIDs for moderate pain
- Laparoscopic destruction/excision of endometriosis lesions
- Medical treatment plus counseling is more effective than medical treatment alone

# Estrogen-Progestin Combinations

<table>
<thead>
<tr>
<th>Mechanism of Pain Relief</th>
<th>Drug</th>
<th>Dose</th>
<th>Side Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ovulation inhibition</td>
<td>Monophasic estrogen-progestin</td>
<td>Continuous orally daily</td>
<td>Breakthrough bleeding</td>
</tr>
<tr>
<td>Decidualization/atrophy of lesions</td>
<td></td>
<td>Extended cycle</td>
<td>Breast tenderness</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Nausea</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Headaches</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mood changes</td>
</tr>
</tbody>
</table>

Estrogen-Progestin Combinations

Changes in mean dysmenorrhea score during the 4 menstrual cycle trial:

- Total dysmenorrhea scores significantly decreased at the end of treatment in both the OCP and placebo groups
- The reduction in pain score was significantly higher in the OCP group (−2.0) compared with the placebo group (−0.6) ($P < .0001$)

Continuous rather than cyclic administration appears to be more effective in reducing the recurrence of dysmenorrhea but not noncyclic pelvic pain or dyspareunia.

**Progestins**

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dose</th>
<th>Mechanism of Pain Relief</th>
<th>Side Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQ medroxyprogesterone acetate*</td>
<td>• 104 mg SQ q 3 months</td>
<td>• Decidualization/atrophy of lesions</td>
<td>• Acne</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Angiogenesis inhibition</td>
<td>• Weight gain</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Suppression of metalloproteinase-facilitated growth of ectopic endometrium</td>
<td>• Mood changes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Inhibition of ovulation (DMPA, implant)</td>
<td>• Headache</td>
</tr>
<tr>
<td>Etonogestrel-releasing implant</td>
<td>• 3 year</td>
<td></td>
<td>• Breakthrough bleeding</td>
</tr>
<tr>
<td>Norethindrone acetate</td>
<td>• 5-15 mg orally daily</td>
<td></td>
<td>• Breast tenderness</td>
</tr>
<tr>
<td>Levonorgestrel-releasing IUS</td>
<td>• 5 year</td>
<td></td>
<td>• Lipid abnormalities</td>
</tr>
<tr>
<td>Oral medroxyprogesterone acetate</td>
<td>• 30 mg orally for 6 months, then 100 mg IM q 2 weeks, then 200 mg IM monthly for 4 months</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*=risk of bone loss with long-term use

Progestins

- Limited clinical evidence supports a possible adverse effect of the long-term use of OCPs on endometriosis pain and progression
- In contrast, randomized, controlled trial data support the use of oral progestin-only treatment for pelvic pain associated with endometriosis and lesion suppression
- Argument for progestins as first-line treatment for endometriosis before OCPs

Levonorgestrel IUD for Endometriosis

- Systematic review after surgery for endometriosis
- Efficacy of LNg-IUD vs expectant management for the reduction of painful periods
  - Statistically significant reduction in the recurrence of painful periods in the LNg-IUD group compared with expectant management (RR 0.22, 95% CI 0.08 to 0.60, 95 women, I² = 0%, moderate strength of evidence)
- Lower pain scores compared with women on GnRH agonists (non-significant)
  - (MD -0.16, 95% CI -2.02 to 1.70, 40 women)

Abou-Setta AM, Cochrane Database of Syst Rev. 2013:CD005072.
Progestins

- Progestin implant and progestin IUD had equal efficacy for decreasing pain from endometriosis
- Each had close to a 50% reduction in pain
- Clinical study, no control group

# GnRH Agonists

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dose</th>
<th>Mechanism of Action</th>
<th>Side effects</th>
<th>Duration of treatment</th>
</tr>
</thead>
</table>
| Leuprolide<sup>1</sup> | • 3.75 mg IM every month  
   OR  
   • 11.25 mg IM every 3 months | • GnRH analogues; inhibit gonadotropin secretion | • Hot flashes, vaginal dryness, reduced libido, mood swings, decreased bone density | • 6 months or 12 months if add-back therapy used  
   • Add back estrogen for symptom control |
| Goserelin<sup>2</sup> | • 3.6-mg implant SC every 28 days         |                                           |                                                             |                                                                                       |
| Nafarelin<sup>3</sup>| • 400 mcg/day intranasally<sup>a</sup>   |                                           |                                                             |                                                                                       |

<sup>a</sup>Administer as 1 spray (200 mcg) into one nostril in the morning and the other nostril in the evening; start treatment between days 2 and 4 of menstrual cycle.

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Efficacy of Depot Leuprolide

95 women completed the study

- 49 in the leuprolide group and 46 in the placebo group
- Women in the leuprolide group had clinically and statistically significant ($P \leq 0.001$) mean improvements from baseline after 12 weeks of therapy in all pain measures – dysmenorrhea, pelvic pain, and pelvic tenderness
- 38 (78%) of 49 and 40 (87%) of 46 patients in the leuprolide and placebo groups, respectively, had laparoscopically confirmed endometriosis after 12 weeks of treatment
Efficacy of Goserelin and Nafarelin

• Goserelin\(^1\) vs. OCP: After 6 months, no clear evidence of a difference between groups for self-reported pain
  – Visual analogue scale (scale 1 to 10) (MD -0.10, 95% CI -1.28 to 1.08; 1 RCT, 50 women; very low-quality evidence) or a verbal rating scale (scale 0 to 3) (MD -0.10, 95% CI -0.99 to 0.79; 1 RCT, 50 women; very low-quality evidence)
  – Side-effects include hot flashes, sweating, headache, dizziness

• Nafarelin\(^2\) (intranasal 200 mcg twice daily) vs. oral danazol (200 mg 3 times daily):
  – After 12 months of treatment, endometriosis growth and symptoms significantly improved during treatment in both groups (\(P < .001\))
  – Side effects include hot flushes, headaches, decreased libido, muscle pain, vaginal dryness, oily skin/acne

## GnRH Antagonists*

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dose</th>
<th>Mechanism of Pain Relief</th>
<th>Side Effects</th>
<th>Duration of treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elagolix</td>
<td>• 150 mg orally daily</td>
<td>• Inhibition of gonadotropin secretion</td>
<td>• Hot flushes</td>
<td>• 150 mg once daily for 24 months</td>
</tr>
<tr>
<td></td>
<td>OR</td>
<td>• Down-regulation of ovarian steroidogenesis</td>
<td>• Lipid abnormalities</td>
<td>OR</td>
</tr>
<tr>
<td></td>
<td>• 200 mg orally twice daily</td>
<td></td>
<td>• Decreased bone density</td>
<td>• 200 mg twice daily for 6 months</td>
</tr>
</tbody>
</table>

* Need concomitant contraception


Elagolix Prescribing Information.
Elagolix – Approved by FDA in 2018
• Improved dysmenorrhea, non-menstrual pain, and dyspareunia in phase 3 clinical trials
• Symptom improvement seen by 3 months and sustained throughout 6-month study
• Treated for up to 6 months

Safety
• Majority continue to have menses during treatment, but flow was lighter
• Ovulation not fully suppressed during treatment
• Successful pregnancies reported during treatment
• Adverse effects
  – Dose-dependent decreases in bone mineral density
  – Hot flushes
  – Headache
  – Nausea

Effects of Elagolix on Nonmenstrual Pelvic Pain

The statistical significance vs. placebo is indicated for $P < .05$ (*), $P < .01$ (**), and $P < .001$ (***)

# Aromatase Inhibitors

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dose</th>
<th>Mechanism of Pain Relief</th>
<th>Side Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letrozole†</td>
<td>• 2.5 mg orally daily</td>
<td>• Blockade of aromatase, preventing conversion of androgens to estrogen</td>
<td>• Hot flushes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Headaches</td>
</tr>
<tr>
<td>Anastrozole†</td>
<td>• 1 mg orally daily</td>
<td></td>
<td>• Decreased bone density</td>
</tr>
</tbody>
</table>

- Not approved by the FDA
- Must be combined with oral contraceptives, progestins, or GnRH agonists to avoid unwanted ovarian cyst development and pregnancy

†=off-label

Aromatase Inhibitors

• 15 premenopausal women who had tried and failed at least 2 forms of endometriosis treatment completed the study
• 14/15 who completed the study had a significant reduction in pain levels throughout the study
• 1 mg anastrazole† and continuous one tablet 20 μg ethinyl estradiol/0.1 mg levonorgestrel orally daily
• Mean and median pain scores fell starting at month 1 and continued to decrease with each subsequent month of treatment

†=off-label

Letrozole Efficacy

- After 6 months of treatment, intensity of pain symptoms was significantly lower in patients treated with letrozole (2.5 mg/day) vs. those treated with placebo
- Adverse effects include hot flashes, hair loss, joint/bone/muscle pain, fatigue, nausea, diarrhea
# Androgenic Steroids

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dose</th>
<th>Mechanism of Pain Relief</th>
<th>Side Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Danazol</td>
<td>• 100-400 mg orally twice daily</td>
<td>• Inhibition of pituitary gonadotropin secretion</td>
<td>• Hair loss</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Local growth inhibitor</td>
<td>• Weight gain</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Inhibitor of estrogenic enzymes</td>
<td>• Acne</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Hirsutism</td>
</tr>
</tbody>
</table>

Danazol Safety/Efficacy

- In a 6-month randomized trial, danazol significantly ($P < .001$) improved endometrial lesions and pain symptoms in 81 women with endometriosis
  - No significant differences between danazol and leuprolelin acetate groups
- 18.5% of patients withdrew from study due to adverse events
- Treatment duration limited to 6 months
- Should not be used in women with liver disease or hyperlipidemia
- Women using danazol must also use effective contraception during danazol treatment

## Selective Progesterone Receptor Modulators

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dose</th>
<th>Mechanism of Pain Relief</th>
<th>Side Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mifepristone†</td>
<td>50 mg orally daily</td>
<td>• Inhibition of ovulation, agonist or antagonist, at the progesterone receptor</td>
<td>• Spotting</td>
</tr>
<tr>
<td>Ulipristal acetate</td>
<td>15 mg orally every other day</td>
<td>• Highly experimental for treatment of endometriosis</td>
<td>• Cramping</td>
</tr>
<tr>
<td>Asoprinsnil*‡‡</td>
<td></td>
<td></td>
<td>• Dizziness</td>
</tr>
<tr>
<td>Telapristone*‡‡</td>
<td></td>
<td></td>
<td>• Headache</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Nausea</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Severe but rare liver toxicity</td>
</tr>
</tbody>
</table>

* = investigational; † = off-label; ‡ = trials terminated or withdrawn

Mifepristone Safety/Efficacy

- Cochrane Database of Systematic Reviews reported:
  - Moderate-quality evidence that mifepristone reduces dysmenorrhea
    (OR 0.08, 95% CI 0.04 to 0.17; one RCT, n = 352)
  - Low-quality evidence that it reduces dyspareunia
    (OR 0.23, 95% CI 0.11 to 0.51; one RCT, n = 223)
  - Common side effects were amenorrhea and hot flashes

Ulipristal Acetate Safety/Efficacy

• Cochrane did not find enough data to determine efficacy
• Case reports demonstrate improvement in symptoms
  – Pain scores decreased to a median of 0 \( (P < .05; \text{patient became amenorrheic}) \)

Immediate fertility not desired; pain without endometrioma/deep infiltrating disease

- OCP +/- NSAIDS
- Progestin therapy
- GnRH antagonists
- GnRH agonists

Immediate fertility not desired; pain with endometrioma/deep infiltrating disease

- Hormone therapy trial
- Consider referral to gynecologist if trial failed

Immediate fertility desired

- Attempt conception for 6-12 months
- NSAIDs/pain management at menses
- Referral to gynecologist for surgical intervention

Endometriosis Treatment Algorithm

Expert opinion; figure courtesy of Drs. Schrager, Carey, and Taylor
When Medications Aren’t Enough: Next Steps

• Referrals
  – Gynecologist
  – Pain specialist
  – Pelvic floor physical therapy

• Trigger point injections of the pelvic floor muscles (levator ani, obturator internus)

• Botulinum Toxin* of the levator ani muscles

• Nerve blocks – pudendal, obturator

* = off-label

When to Refer to a Gynecologist

• Pregnancy desired but not accomplished after 6-12 months of unprotected intercourse
• Pain not controlled with hormonal treatment and GnRH antagonist ( +/- GnRH agonist)
• Pain not controlled with hormonal treatment in young adolescents
• Evidence of large endometrioma, adhesive disease, or deep infiltrating disease
Conclusions

• Pelvic pain due to endometriosis is common in primary care
• Primary care providers can effectively diagnose endometriosis and treat the majority of women
• Early diagnosis is important to slow future progression of the disease