

## **PELVIS IMAGING GUIDELINES**

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### **MedSolutions, Inc. Clinical Decision Support Tool for Advanced Diagnostic Imaging**

Common symptoms and symptom complexes are addressed by this tool. Imaging requests for patients with atypical symptoms or clinical presentations that are not specifically addressed will require physician review. Consultation with the referring physician may provide additional insight.

***This version incorporates MSI accepted revisions prior to  
11/30/2008***

**ABBREVIATIONS for PELVIS GUIDELINES**

<b>CA-125</b>	<b>cancer antigen 125 test</b>
<b>CT</b>	<b>computed tomography</b>
<b>FSH</b>	<b>follicle-stimulating hormone</b>
<b>GTN</b>	<b>gestational trophoblastic neoplasia</b>
<b>HCG</b>	<b>human chorionic gonadotropin</b>
<b>KUB</b>	<b>kidneys, ureters, bladder (frontal supine abdomen radiograph)</b>
<b>LH</b>	<b>luteinizing hormone</b>
<b>MRA</b>	<b>magnetic resonance angiography</b>
<b>MRI</b>	<b>magnetic resonance imaging</b>
<b>MSv</b>	<b>millisievert</b>
<b>PA</b>	<b>posteroanterior projection</b>
<b>PID</b>	<b>pelvic inflammatory disease</b>
<b>TA</b>	<b>transabdominal</b>
<b>TSH</b>	<b>thyroid-stimulating hormone</b>
<b>TV</b>	<b>transvaginal</b>
<b>WBC</b>	<b>white blood cell count</b>

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## PELVIS IMAGING GUIDELINES

### PV-1~GENERAL GUIDELINES

- Abdominal imaging begins at the diaphragm and extends to the umbilicus or iliac crest.
- Pelvic imaging begins at the umbilicus and extends to the pubis.
- CT imaging is a more generalized modality.
  - CT pelvis with contrast (CPT 72193) is the usual modality unless there is a contrast allergy or the study is to look for a renal stone in the lower pelvis.
- MRI imaging is preferred as a more targeted study, in cases of renal failure, or for patients allergic to iodinated contrast.
  - MRI without contrast (CPT 72195) is the usual modality to view the pelvis.
  - Pelvic MRI without and with contrast (CPT 72197) is appropriate for evaluating the ovary or retroperitoneum.
  - MRI of the pelvis with contrast only is essentially never performed. If contrast is indicated, MRI pelvis without and with contrast (CPT 72197) should be performed.
- Prior to considering advanced imaging, patients should undergo a recent detailed history, careful gynecological and/or urological exam (including appropriate laboratory studies such as blood count, tumor markers, and gonadotropins if indicated), and the use of non advanced imaging modalities such as plain x-ray and transvaginal ultrasound.
- Transvaginal ultrasound (TV) is the optimal study to evaluate pelvic pathology. Transabdominal ultrasound is not a satisfactory substitute.
- Pelvic CT or MRI may be indicated to further evaluate abnormalities seen on other imaging modalities such as plain x-rays, ultrasound, etc. if the results will affect patient management decisions and/or the results will assist in planning surgery.
- To avoid radiation exposure, pregnant women should be evaluated by ultrasound or MRI where it is a clinical option.

## PELVIC SIGNS AND SYMPTOMS — FEMALE

### PV-2~ABNORMAL UTERINE BLEEDING

- Initial evaluation includes transvaginal ultrasound, saline infusion sonography, hysteroscopy and possible biopsy.
  - Premenopausal women should be treated conservatively with hormone therapy. If there is failure to respond to this treatment, evaluation by biopsy and/or hysteroscopy is indicated.
  - Postmenopausal women should be evaluated by biopsy and/or hysteroscopy.
- MRI pelvis without contrast (CPT 72195) is indicated only if transvaginal ultrasound is unable to differentiate a submucous myoma from a polyp and the MRI results will affect surgical planning as stated by the surgeon.
- **References:**
  - *Obstet Gynecol* 2003;102:659-662
  - *Management of Abnormal Uterine Bleeding. Slide presentation modified from: APGO Educational Series on Women's Health Issues*

### PV-3~AMENORRHEA

- Initial imaging should be by transvaginal (TV) ultrasound, hysterosalpingogram and/or hysteroscopy to look for genital and urinary tract abnormalities.
- Suspicion of a hormonally active adrenal tumor should be evaluated using AB-21.2 Adrenal Endocrine Tumors in the Abdomen guidelines.
- Pelvic imaging (CT pelvis with contrast [CPT 72193]) for androgen secreting ovarian tumors may be necessary if needed to plan surgery.
- Amenorrhea with intact uterus and history of normal puberty should be evaluated with TV ultrasound and endocrine work-up.
  - If pregnancy test is negative, then TSH, LH, FSH, and prolactin levels should be measured.
    - If prolactin is elevated refer to HD-28.1 Pituitary Microadenomas in the Head guidelines.
    - If FSH is lower than reference range, MRI brain without and with contrast (CPT 70553) can be performed.
    - If TSH, LH, prolactin, and FSH are within reference range, then a complete hormone evaluation should be performed (e.g. androgen hormones, etc.)
  - If ultrasound identifies the following entities then advanced imaging is not indicated unless requested for surgical planning by the operating surgeon:
    - Asherman's Syndrome (intrauterine scarring and adhesions)
      - Diagnosis is made using transvaginal ultrasound with/without saline infusion, hysterosalpingography and/or hysteroscopy.

- Polycystic Ovarian Syndrome (PCO)
- Androgen secreting ovarian tumor
- Androgen secreting adrenal tumor
- **Amenorrhea with genital tract abnormalities:**
  - Suspected genital and urinary tract abnormalities should be evaluated initially with ultrasound of the abdomen and pelvis.
  - Patients with absent uterus or foreshortened vagina should have karyotype evaluation.
  - Advanced imaging is not generally indicated
- **Amenorrhea with delayed puberty:**
  - Initial evaluation includes measurement of thyroid function tests, bone age, LH, FSH and prolactin.
    - If LH and FSH are low or within the reference range and bone age is normal, then MRI brain without and with contrast (CPT 70553) can be performed.
    - If prolactin levels are elevated, then MRI brain without and with contrast with attention to the pituitary (CPT 70553) can be performed.
  - Advanced imaging of the abdomen/pelvis is not indicated.
- **Reference:**
  - Bielak KM and Harris GS. *Amenorrhea*. eMedicine, March 12, 2008, <http://www.emedicine.com/ped/TOPIIC2779.HTM>. Accessed November 14, 2008

## PV-4~ADENOMYOSIS

- Adenomyosis is a histologic diagnosis and imaging has limitations.
- Adenomyosis is suspected by history and physical examination.
- If hormonal therapy is going to be tried first, then MRI is not indicated in patients with suspected adenomyosis.
- Transvaginal (TV) ultrasound is the primary screening modality for imaging the female pelvis.
  - TV ultrasonography (along with color Doppler ultrasound) is the diagnostic procedure of choice for the initial evaluation of suspected adenomyosis and is useful to evaluate other potential etiologies of the patient's symptoms.
  - If transvaginal ultrasound is inconclusive or there has been a failure of several months of hormone suppression and a more definitive diagnosis is necessary for surgical planning only, MRI pelvis without contrast (CPT 72195) can be performed.

## PV-5~SUSPECTED ADNEXAL MASS

- The adnexa includes the ovaries, Fallopian tubes, and ligaments that hold the uterus in place.
- Management of adnexal masses involves either observation or surgical intervention.
- Adnexal masses have a long list of diagnostic possibilities and ultrasound results must be correlated with history, physical exam, and laboratory testing.
  - Tumor markers useful for adnexal mass evaluation include:
    - CA-125 (epithelial cancer, leiomyoma, endometriosis, PID, inflammatory disease such as lupus, and inflammatory bowel disease)
      - Although CA-125 can be elevated with benign entities such as endometriosis, the elevated CA-125 titers generally do not increase over time in these patients.
    - Beta hCG, LDH, and AFP (germ cell tumors)
    - Inhibin A and B (granulosa cell tumor)
- Transvaginal (TV) ultrasound imaging is the initial study of choice. Transabdominal ultrasound may also be done but does not substitute for TV ultrasound.
  - Color Doppler ultrasound may be helpful in selected situations.
- MRI of the pelvis (CPT 72197 or 72195 if pregnant) for the evaluation of a pelvic mass is less sensitive and only slightly more specific than transvaginal ultrasound and usually adds little to the plan of care.
  - MRI may be useful in classifying malignant masses if requested by the operating surgeon.
  - **Reference:**
    - ACOG Practice Bulletin No. 83: Management of adnexal masses, July 2007
- CT of the pelvis without and with contrast (CPT 72194) is helpful as a preoperative study to evaluate for metastatic disease when cancer is known or suspected.
- **PV- 5.1 Simple Adnexal Cysts**
  - If TV ultrasound classifies an adnexal mass as a simple or thin walled cystic mass or follicular cyst (ovarian) or tubular cystic mass (fallopian tube):
    - Follow-up should be with TV ultrasound every 6 months for lesions  $\leq 10$  cm in both premenopausal and post menopausal women.
    - If elevated tumor markers are present, surgical intervention should be considered.
      - Advanced imaging may be appropriate for preoperative planning if



if pregnant) should be considered only if classification of the ovarian mass will affect patient management decisions.

➤ **Reference:**

- ACOG Practice Bulletin No. 83: Management of adnexal masses, July 2007

- **PV- 5.3 Screening for Ovarian Cancer**

- See ONC-20 Ovarian Cancer in the Oncology guidelines
- Screening is done by TV ultrasound.

## PV-6~ENDOMETRIOSIS

- Endometriosis is a surgical diagnosis and imaging is of little value unless the pelvic clinical exam is abnormal.
- Transvaginal (TV) ultrasound is the first line diagnostic exam for suspected endometriosis\*.  
*\*Hum Reprod 2007;22(12):3092-3097*
- In most patients, TV ultrasound followed by medical treatment or laparoscopy should be considered prior to advanced imaging.
  - Laparoscopy remains the definitive test for diagnosis and evaluation of endometriosis in most patients.\*  
*\*Eur Radiol 2006 Feb;16(2):285-298*  
*\*ACOG Committee Opinion, Number 310, April 2005*
- MRI has shown high accuracy for both anterior and posterior endometriosis and can enable complete lesion mapping prior to surgical excision of known endometriosis that was diagnosed during a previous surgery.\*

*\*Eur Radiol 2006 Feb;16(2):285-298*

*\*Aeby TC, Hiraoka MKY. Endometriosis. eMedicine, May 15, 2006  
<http://www.emedicine.com>. Accessed November 20, 2006*

## PV-7~PELVIC INFLAMMATORY DISEASE (PID)

- Ultrasound is the initial study for imaging of pelvic inflammatory disease (PID) that does not respond well to antibiotic therapy or for complicated PID.
- In rare cases where there is extensive abscess formation as determined by ultrasound, CT of the abdomen and pelvis with contrast (CPT 74160 and CPT 72193) may be helpful.
- If a CT-guided percutaneous drainage procedure is planned, then CPT 77012 (CT Guidance for needle placement) should be used to report the procedure rather than codes for diagnostic CT scans of the abdomen and pelvis.

## PV-8~PELVIC PAIN/DYSPAREUNIA, FEMALE

- Complete clinical pelvic examination and transvaginal (TV) ultrasound are indicated for the initial evaluation of pelvic pain/dyspareunia.
- Pelvic pain/dyspareunia accompanied by fever, elevated WBC, failure of conservative treatment (including the use of hormones or antibiotics when appropriate), or palpable mass should be initially evaluated by TV ultrasound.
  - If TV ultrasound is normal, other causes should be considered such as chronic cystitis or bowel disease. Urological work-up, gastroenterology work-up, and laparoscopy should be performed prior to considering advanced imaging.
  - CT pelvis with contrast (CPT 72193) is only appropriate if TV ultrasound has equivocal findings.\*
  - TV ultrasound with color Doppler should be performed if ovarian torsion is a consideration.  
*\*ACOG Practice Bulletin No. 51: Chronic pelvic pain; March 2004 (Reaffirmed 2008)*
- **Suprapubic pain:** If pain is recurrent or chronic and is associated with bladder urgency and pressure with negative urine cultures, failure of antibiotic treatment, and normal ultrasound and laboratory studies, then cystoscopy is indicated.
  - Imaging is not indicated in the evaluation of chronic suprapubic pain or chronic cystitis.
- **Pelvic pain/Hip pain—rule out Piriformis Syndrome**
  - See PN-2.4 Sciatic neuropathy in the Peripheral Nerve Disorders guidelines and MS-25.8 Piriformis Syndrome in the Musculoskeletal guidelines.

## PV-9~LEIOMYOMATA

- Transabdominal and transvaginal ultrasound are the preferred screening procedures for leiomyomata.
- Abnormal uterine bleeding from suspected submucous leiomyoma should be evaluated by saline sonohysterography or panoramic hysteroscopy\* initially.
  - If these studies are equivocal, and if imaging is needed for surgical planning, MRI pelvis without contrast (CPT 72195) can be performed.  
*\*J Postgrad Med 1992;38:62*
- Preoperative ultrasound should be performed prior to myomectomy.
  - If ultrasound is indeterminate, MRI pelvis without contrast (CPT 72195) may be considered if requested by the operating surgeon for surgical planning.
  - MRI pelvis without and with contrast (CPT 72197) can be performed if leiomyoma necrosis is suspected.
- MRI pelvis without and with contrast (CPT 72197) can be performed in those cases in which arterial embolization is being considered. MRI

accurately assesses the number, location, and size of leiomyomata for pretreatment planning and post treatment response.\*

*\*AJR 2003, 181:851-856*

- For uterine artery embolization, size of the dominant fibroid must be considered. Some studies have reported treatment failure to be more likely with fibroids >8 cm.\*

*\*Obstet Gynecol Surv 2002;57:810-815*

- There is no literature support for the addition of MRA pelvis (CPT 72198) to the preoperative evaluation.
- There are currently no published guidelines regarding follow up MRI in patients who have undergone uterine artery embolization.
  - Although there are no compelling data to support the need for follow up MRI in asymptomatic patients who are status post uterine artery embolization, consensus opinion suggests that one follow up pelvic MRI (CPT 72197) post embolization will be allowed 3 to 6 months after the procedure.
    - MRI results are used for prediction, and for some practitioners, any gadolinium accumulation is followed by another embolization.
  - In patients with persistent or recurrent symptoms, pelvic MRI without and with contrast (CPT 72197) should be performed.
  - In patients with fever, pain, or other acute symptoms status post embolization, pelvic MRI without and with contrast (CPT 72197) should be performed.

*\*J Vasc Interv Radiol 2004;15:115-120*

## **PV-10~PERIURETHRAL CYSTS AND URETHRAL DIVERTICULA**

- Also see AB-43 Urinary Tract Infection (last solid bullet).
- Symptomatic infection of congenital periurethral glands can result in urethral diverticula. Symptoms include pain, urinary urgency, frequency of urination, recurrent urinary tract infection, dribbling after urination, or incontinence.
  - MRI pelvis without and with contrast (CPT 72197) is superior to transvaginal ultrasound for evaluating these entities but should be reserved for patients in whom ultrasound, voiding cystourethrography, or retrograde urethrography are equivocal.\*
  - *\*ACR Appropriateness Criteria, Recurrent Lower Urinary Tract Infections in Women, 2008*

## PV-11~UTERINE ANOMALIES

- In the detection of uterine anomalies, particularly during infertility evaluation, transabdominal and transvaginal ultrasound are the initial imaging modalities of choice.
- If ultrasound defines a complex anomaly, is not definitive, or is requested for surgical planning, then pelvic MRI without contrast (CPT 72195) is recommended.\*

\*Radiographics 2003; 23:1401-1421 and 1423-1439

## PREGNANCY RELATED

### PV-12~FETAL MRI

- Ultrasound (ideally performed at a tertiary care center) remains the predominate modality for evaluating disorders related to the fetus and pregnancy overall. MRI is used as an adjunct to ultrasound in evaluating fetal abnormalities.
- Fetal MRI is appropriately reported as an MRI of the pelvis (CPT 72195).
- **Central Nervous System Evaluation:** MRI is used if ultrasound is equivocal and additional information is needed for counseling purposes.<sup>1</sup>
- **Non-Central Nervous System Anomalies:** MRI may be used if needed for surgical planning.
- The use of MRI for evaluating fetal size (estimating weight), growth restriction, dystocia, or amniotic fluid volume as compared to ultrasound has not been established.<sup>1</sup>
- The use of MRI to evaluate placenta accreta or any placenta implantation has not been established to be superior to ultrasound.<sup>1</sup>
- Functional MRI in pregnancy has not been established.<sup>1</sup>
- MRI is helpful in the antenatal evaluation of conjoined twins in whom postnatal separation is being anticipated.
- **Reference:**
  - <sup>1</sup>Obstetrics & Gynecology 2008;112:145-157

## PV-13~MOLAR PREGNANCY AND GESTATIONAL TROPHOBLASTIC NEOPLASIA (GTN)

- A recurrent molar pregnancy is called gestational trophoblastic neoplasia (GTN). These cells are malignant and can metastasize to other organs such as lungs, brain, bone, and vagina.
- Treatment is usually methotrexate.
- Patients should have head CT without and with contrast (CPT 70470), CT abdomen and pelvis with contrast (CPT 74160 and 72193), and chest x-ray as a metastatic work up.
- Weekly HCG tests are performed until they fall to zero.

## PV-14~PELVIMETRY

- Pelvimetry for cephalic dystocia (failure to progress in active labor because of a disproportion between the fetal head and the size of the bony pelvis) is investigational.
- Pelvimetry may be done for breach presentations in which vaginal delivery is anticipated.
- Pelvimetry is usually done with plain x-ray, low dose CT pelvis without contrast (CPT 72192), or MRI pelvis without contrast (CPT 72195).
  - Low dose CT is institution specific and if protocol is not followed, the fetus will receive full ionizing radiation dose.
- **References:**
  - *Obstet Gynecol* 2004;104:647-651
  - *Obstet Gynecol* 2003;102:1445-1454

## PELVIC SIGNS AND SYMPTOMS — MALE

### PV-15~IMPOTENCE/ERECTILE DYSFUNCTION

- Brain MRI without and with contrast (CPT 70553) should be restricted to hypogonadism as documented by low bio-available/free testosterone of <20 ng/dl or total serum testosterone of less than 80% of the lower limit of normal (i.e. <150 ng/dl is lower limits for most labs), or patients with elevated prolactin.
  - Also see HD-28.3 Male Hypogonadism in the Head guidelines
- Erectile dysfunction is frequently an early symptom of peripheral vascular disease.
  - Also see PVD-1 General Guidelines (Bullet 4) in the Peripheral Vascular Disease guidelines.
- Functional MRI or PET studies are considered investigational.
- **Reference:**
  - *J Clinical Endocrinology and Metabolism* 2001;86(6):2391-2394

## PV-16~PENIS–SOFT TISSUE MASS

- Soft-tissue lesions of the penis should be evaluated initially by high resolution Doppler ultrasound.
- If ultrasound is equivocal (not clearly benign, simple cyst or Peyronie's disease) or if primary penile cancer is suspected, MRI of the pelvis without and with contrast (CPT 72197) can be performed.
- **References:**
  - *RadioGraphics* 2001;21:S283-S298
  - *RadioGraphics* 2005;25:1629-1638
  - *Clinical Radiology* 2003;58(7):514-523

## PV-17~PROSTATITIS/PUDENDAL NEURALGIA/ CHRONIC PELVIC PAIN

- Suspected prostatitis should be evaluated by physical exam, urinalysis, and digital rectal exam with evaluation of prostate secretions. Initial treatment is 2 to 4 weeks of antibiotics.
  - Failure to improve with initial treatment should be evaluated with transrectal ultrasound.
    - CT pelvis with contrast (CPT 72193) may be used to differentiate between abscess and tumor if ultrasound is equivocal.\*  
\*Hedayati T and Kwon DS. *Prostatitis*. eMedicine, updated November 5, 2007, <http://www.emedicine.com/emerg/topic488.htm>. Accessed November 13, 2008
- Chronic prostatitis is a clinical diagnosis and advanced imaging is not indicated.
  - Physical examination, including digital rectal examination, should be performed.
  - Treatment is a 4 week trial of antibiotics
    - Failure to improve should be evaluated by transrectal ultrasound.
      - CT pelvis with contrast (CPT 72193) may be used to differentiate between abscess and tumor if ultrasound is equivocal.\*  
\*Hedayati T and Kwon DS. *Prostatitis*. eMedicine, updated November 5, 2007, <http://www.emedicine.com/emerg/topic488.htm>. Accessed November 13, 2008
- Urology consultation is helpful in patients with Pudendal Neuralgia/ Chronic Pelvic Pain, including patients with chronic prostatitis who have failed antibiotics and have a negative ultrasound.
  - Confirmatory tests include Pudendal Nerve Terminal Motor Latency Test and Quantitative Sensory Threshold Test.
  - MRI of the lumbar spine without contrast (CPT 72148) and/or sacral plexus MRI without contrast (CPT 72195) may be requested but are rarely abnormal. \*  
\*Antolak SJ, Jr. *Male Pelvic Pain*. *International Pelvic Pain Society*, Atlanta, GA, October 2005

## PV-18~SCROTAL PATHOLOGY

- Acute scrotal pain, masses, trauma, inguinal hernia, varicocele, or inflammation should be evaluated by ultrasound. MRI in these patients is not supported by evidence-based data.\*

*\*ACR Appropriateness Criteria, Acute Onset of Scrotal Pain, 2007*

**UNDESCENDED TESTIS—See PACPV-14 in the Pediatric and Congenital Pelvis Guidelines**

## MISCELLANEOUS

### PV-19~FISTULA IN ANO

- MRI pelvis without and with contrast (CPT 72197) is indicated for the assessment of complex or recurrent fistulas. Preoperative MRI frequently alters the surgical approach and MRI guided surgery can significantly decrease postoperative recurrence in complex cases by 75%.\*

*\* AJR 2004;183:135-140*

### PV-20~FECAL INCONTINENCE

- The initial evaluation should be by transrectal ultrasound.
- MRI pelvis without and with contrast (CPT 72197) or MRI colpocystography may be useful for surgical planning prior to anal sphincter surgery when external sphincter atrophy is suspected due to negative or equivocal Pudendal Nerve Terminal Latency. The need for MRI should be determined by the operating surgeon.\*

*\*Am J Gastroenterol 2004;99(8):1585-1604*

### PV-21~PATENT URACHUS

- **Patent urachus** which is suspected due to umbilical discharge should initially be evaluated by ultrasound.
  - The urachus is a “tube” connecting the fetal bladder to the umbilical cord. It is usually obliterated during fetal growth, but if it remains patent, there can be a connection between the bladder and the umbilicus.
- CT pelvis with contrast (CPT 72193) can be performed if ultrasound is equivocal or if needed for surgical planning.

### **Evidence Based Clinical Support PV-4~ADENOMYOSIS**

- Adenomyosis is characterized by benign invasion of ectopic endometrium into the myometrium with hyperplasia of adjacent smooth muscle.
- Common symptoms include dysmenorrhea, menorrhagia, and abnormal uterine bleeding, and enlarged uterus.
- Differentiation of adenomyosis from leiomyoma is important because treatment will differ. Hysterectomy is the only definitive treatment for symptomatic adenomyosis. Embolization of adenomyosis has poor long term results with only 55% of treated patients showing clinical improvement after 2 years.\*  
*\*[Radiology 2005;234:948-953](#)*
- The only way to accurately diagnose adenomyosis is pathologically after hysterectomy.
- Transvaginal ultrasound has a reported sensitivity of 53%-89% in diagnosing adenomyosis, and a specificity of 67%.  
*\*[Radiographics 2005;25:21-40](#)*
- MRI has a sensitivity of 78%-88% and specificity of 67%-93% in diagnosing adenomyosis.\*  
*\*[Radiographics 2005;25:21-40](#)*

### **Evidence Based Clinical Support PV-5~SUSPECTED ADNEXAL MASS**

- A study of 505 consecutive resected adnexal masses over 3.5 years showed that 457 (90%) were benign. Lesions smaller than 4 cm were benign in 211 of 218 cases (97%). 246 of 287 lesions (86%) larger than 4 cm were benign. Every lesion that did not have a solid component was benign. Every non-benign lesion had some solid component. 244 of 250 (98%) of lesions without Doppler flow were benign, while lesions with flow were benign in 76 of 106 (72%) cases.\*  
*\*[RSNA meeting 2003](#)*

### **Evidence Based Clinical Support PV-6~ENDOMETRIOSIS**

- Transvaginal ultrasound has a better sensitivity, specificity, positive predictive value, negative predictive value and accuracy in cases of deep retro-cervical and recto-sigmoid endometriosis when compared with MRI and digital vaginal examination and is an important preoperative examination for the definition of surgical strategies.\*  
*\*[Hum Reprod 2007;22\(12\):3092-3097](#)*

**Evidence Based Clinical Support**  
**PV-14~PELVIMETRY**

- Low Dose CT utilizes a single view with 0.25 mSv radiation exposure, but most facilities will do multiple views with total exposure of 10 mSv (same as a normal CT pelvis).

## PELVIS GUIDELINE REFERENCES

### **PV- 2~Abnormal Uterine Bleeding**

- Breitkopf D, Goldstein SR, Seeds JW. ACOG Committee on Gynecologic Practice. ACOG technology assessment in obstetrics and gynecology. Number 3, September 2003. Saline infusion sonohysterography. *Obstet Gynecol* 2003;102:659-662.
- *Management of Abnormal Uterine Bleeding*. Slide presentation modified from: *APGO Educational Series on Women's Health Issues*.

### **PV- 3~Amenorrhea**

- Bielak KM and Harris GS. *Amenorrhea*. eMedicine, March 12, 2008, <http://www.emedicine.com/ped/TOPIIC2779.HTM>. Accessed November 14, 2008

### **PV- 5~Suspected Adnexal Mass**

- ACOG Practice Bulletin No. 83: *Management of adnexal masses* July 2007

### **PV- 6~Endometriosis**

- Abrao MS, Goncalves MOC, Dias JA, et al. Comparison between clinical examination, transvaginal sonography and magnetic resonance imaging for the diagnosis of deep endometriosis. *Hum Reprod* 2007;22(12):3092-3097.
- Kinkel K, Frel KA, Balleyguier C, Chapron C. Diagnosis of endometriosis with imaging: a review. *Eur Radiol* 2006 Feb;16(2):285-298.
- *ACOG Committee Opinion*, Number 310, Endometriosis in Adolescents. *Obstet Gynecol* 2005 April;105:921-927.
- Aeby TC, Hiraoka MKY. *Endometriosis*. eMedicine, May 15, 2006 <http://www.emedicine.com>. Accessed November 20, 2006.

### **PV-8~Pelvic Pain/Dyspareunia, Female**

- ACOG Practice Bulletin No. 51: *Chronic pelvic pain* March 2004 (Reaffirmed 2008)

### **PV- 9~Leiomyomata**

- Parasnis HB and Parulekar SV. Significance of negative hysteroscopic view in abnormal uterine bleeding. *J Postgrad Med* 1992;38:62.
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