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Urology Referral Guidelines

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This information is designed to aid practitioners in making decisions about appropriate medical care. These guidelines should not be construed as dictating an exclusive course of treatment. Variations in practice may be warranted based on the needs of the individual patient, resources, and limitations unique to the institutional type of practice.

E-CONSULT DISCLAIMER:

E-consults are based on the clinical data available to the reviewing provider, and are furnished without benefit of a comprehensive evaluation or physical examination. All advice and recommendations must be interpreted in light of any clinical issues, or changes in patient status, not available to the reviewing provider. The ongoing management of clinical problems addressed by the e-consult is the responsibility of the referring provider. If you have further questions or would like clarifications regarding e-consult advice, please contact the reviewing provider. If needed, the patient will be scheduled for an in-office consultation.

All URGENT consultations require provider-to-provider communication. If your patient has a medical emergency, please direct them to the closest emergency room for expedited care.

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FOR EMERGENCY DEPARTMENT OR URGENT CARE PROVIDERS

To allow us to provide access to our division, we ask that non-urgent diagnoses be handled initially in the primary care setting. Patients who have no assigned primary care provider should be referred to panel management (panelmanagement@hhs.sccgov.org).

For conditions that require follow up before a primary care provider can be assigned, the initial follow-up visit will be in urgent care while the patient is awaiting panel assignment. The most common are listed below.

1. Acute renal colic – ureteral stone < 5 mm in size

- a. Most of these stones will pass spontaneously. The first follow up visit should be in urgent care or primary care. If the stone does not pass within 4 weeks, the patient can see us and will be offered surgical removal of the stone.
- b. Obtain a CT renal stone protocol <u>and</u> a KUB. A stone may be followed with subsequent KUBs as it passes. Renal ultrasound is not adequate because it can miss important findings that affect the surgical treatment of stones.
- c. Do not send a referral from the ED. Urgent care or primary care will do this if the stone does not pass.

2. Acute urinary retention

- a. After catheter placement in the ED, the patient should be assessed for indications for admission. Typically, these admissions are to the internal medicine service. Some indications are:
 - i. Febrile urinary tract infection.
 - ii. Acute kidney injury.
 - iii. Congestive heart failure with volume overload.
 - iv. Post-obstructive diuresis.
- b. Start the patient on an alpha blocker. Tamsulosin (Flomax) 0.4 mg daily is easy to dose and is efficacious within 1 week.
- c. Urgent care or primary care visit within 1 week for a void trial.
- d. <u>Do not send a referral from the ED</u>. Urgent care or primary care will refer the patient if the patient fails the void trial.
- e. <u>Do not obtain a PSA in this setting</u> because urinary retention and catheterization lead to falsely elevated results.

3. Hematuria

a. Microscopic hematuria discovered in the ED should be worked up by primary care. Patients should be referred back to their PCP for this.

- Gross hematuria can be a sign of GU malignancy. As such, these patients should have an expedited workup regardless of PCP assignment.
 - i. Obtain a CT IVP for patients with normal renal function.
 - ii. Obtain a renal US for patients with chronic kidney disease or allergies that preclude the use of intravenous contrast.

BENIGN PROSTATIC HYPERTROPHY (BPH)

1. Background

- a. Lower urinary tract symptoms (LUTS) are usually a result of benign prostatic hypertrophy. However, other conditions can cause these symptoms including diabetes, neurological disease, or urinary tract infection.
- Treatment of BPH/LUTS should initially be managed medically in most cases using alpha blockers and/or 5-alpha reductase inhibitors.

2. Pre-referral evaluation and treatment

- a. Evaluation
 - i. Physical exam including genital exam and DRE.
 - ii. UA, urine culture (if UTI is suspected).
 - iii. PSA in select patients, primarily those with a life expectancy ≥ 10 years.
 - iv. Consider an AUA symptom score questionnaire.
 - v. Consider checking a post void residual via one-time catheterization or ultrasound bladder scan if symptoms are severe or there is incontinence.

b. Treatment

- i. Most patients should have a trial of an alpha blocker.
 - 1. Tamsulosin (Flomax) 0.4 mg po daily.
 - Doxazosin (Cardura) 1 mg po qhs, titrate up to 8 mg. Requires blood pressure monitoring.
 - 3. Terazosin (Hytrin) 1 mg po qhs, titrate up to 10 mg. Requires blood pressure monitoring.
- ii. For men with enlarged prostates on DRE, start finasteride (Proscar) 5 mg po daily or dutasteride (Avodart) 0.5 mg po daily.

3. Indications for referral

- a. Failure of an adequate trial of medical therapy: 1 month of an alpha blocker, 3 months of a 5-alpha reductase inhibitor.
- b. Severe outlet obstruction:

- i. Overflow incontinence
- ii. Hydronephrosis
- iii. Chronic kidney disease
- iv. Post void residual > 200 ml
- v. Urinary retention
- c. Recurrent UTI
- d. Gross hematuria
- e. PSA > 4
- f. Incidentally discovered bladder stones

4. Please include the following with your referral

- a. UA, urine culture (if obtained), PSA (if obtained), chemistry panel
- b. Imaging studies (if obtained)
- c. List of agents used and results of medical therapy trial

CONDYLOMA ACUMINATA (GENITAL WARTS)

1. Background

a. Condylomata acuminata are sexually transmitted lesions caused by HPV infection. Certain subtypes of HPV have been strongly associated with cervical dysplasia. The diagnosis of genital warts is based on a typical appearance of a soft, moist, fleshy lesion on genital skin. There is a strong association between genital warts and other STIs.

2. Pre-referral evaluation and treatment

- a. Screening for other STIs including HIV.
- b. In men, treat with podofilox (Condylox) liquid. Apply to warts BID for 3 days, stop for 4 days. Resume cycle for 1 month. Keep liquid away from urethral mucosa.
- c. Alternatives include topical 5-fluorouracil (Efudex) or imiquimod (Aldara).
- d. If available, warts may be treated with liquid nitrogen application in the office.

3. Indications for referral

- a. Large warts which may require surgical excision.
- b. Persistent warts despite topical therapy.
- c. Urethral or urethral meatal warts.

- a. STI screening results and any treatment if indicated
- b. Topical treatments attempted

CIRCUMCISION

1. Background

- a. Circumcision involves removing the foreskin and can be performed as an infant, child, or adult. The medical need for routine circumcision is controversial.
- b. Our policy is to perform circumcision only if medically necessary. If elective circumcision is desired in children or adults and is not covered by insurance, we will perform the circumcision if the patient or family is willing to accept the financial obligation.
- c. We do <u>not</u> perform neonatal circumcisions, cosmetic circumcisions, or circumcisions for penile pain.

2. Pre-referral evaluation and treatment

a. If the patient has phimosis, they should have a trial of topical steroids. See section on "Phimosis".

3. Indications for referral

- a. Recurrent balanitis
- b. Ballooning of foreskin during voiding from phimosis
- c. Urinary retention or infection from phimosis
- d. Foreskin or penile lesion suspicious for penile cancer
- e. History of paraphimosis

4. Please include the following with your referral

a. Topical treatments attempted

FLANK PAIN

1. Background

- a. Flank pain (loin pain) can be acute or chronic and has a wide range of causes. Common causes include ureteral stones, pyelonephritis, or congenital abnormalities such as UPJ obstruction.
- b. Not all flank or upper back pain is necessarily of urological origin. If imaging studies of the genitourinary tract are negative, there is little role for urological consultation.

2. Pre-referral evaluation and treatment

a. Careful examination of the back and flank. Does the pain localize to one side? Is it lower back pain or truly in the flank? Can the pain be

- reproduced with superficial palpation? If so, unlikely to be renal in origin.
- b. UA to rule out hematuria or infection. Send urine culture if there is pyuria.
- c. Imaging study to rule out obstruction. For most cases, a reasonable start is a renal ultrasound. If there is a high suspicion for stones, consider a non-contrast CT scan or CT IVP.
- d. If hydronephrosis is seen on renal ultrasound, obtain a CT/IVP.

- a. Imaging studies demonstrating significant hydronephrosis.
- b. Renal or ureteral stones 5 mm or greater in size.
- c. Renal masses or tumors.
- d. Do <u>not</u> refer patients with normal imaging or laboratory studies or renal stones smaller than 5 mm in size.

4. Please include the following with your referral

- a. Clinical history
- b. UA and urine culture if obtained
- c. Imaging study results
- d. Results from any prior evaluation

HEMATOSPERMIA

1. Background

a. Blood in the ejaculate can be quite concerning to patients. However, in most cases, it is a benign condition that resolves spontaneously. Causes in most men include inflammation or infection of the prostate and seminal vesicles, prostatic calculi, or rarely tuberculosis. After a bacterial infection has been ruled out, most patients can be reassured. In older men, hematospermia can very rarely be a sign of prostate cancer.

2. Pre-referral evaluation and treatment

- a. Obtain history and timeline of symptoms. Duration of symptoms in critical.
- b. Perform a DRE.
- c. Obtain a UA and a urine culture. If there is a history of unprotected sexual intercourse or symptoms of urethritis, obtain urine specimens for gonorrhea and chlamydia.
- d. Do <u>not</u> obtain a PSA if you suspect a UTI or STD. PSA screening is generally not indicated for men < 40 years old with hematospermia. Obtain a PSA in men ≥ 40 years old.

- e. Send a urine cytology to rule out urothelial carcinoma.
- f. Consider an evaluation for tuberculosis.
- g. Consider an empiric course of antibiotics for two weeks even if culture results are negative.

- a. Hematospermia in a man greater than 40 years old.
- b. Hematospermia lasting more than 4 months AND failing a course of empiric antibiotic therapy.
- c. Hematospermia associated with an abnormal finding (prostate nodule) on DRE, abnormal PSA, or abnormal urine cytology.

4. Please include the following with your referral

- a. Most recent progress note.
- b. The duration of symptoms.
- c. Results of urine cultures, STD testing, PSA testing, and urine cytologies.

HEMATURIA, GROSS

1. Background

a. The most common causes of painless gross hematuria are urinary tract infections, bladder tumors, and disorders of the prostate. Because the incidence of cancer is higher in patients with gross hematuria than in patients with microscopic hematuria, most patients with gross hematuria should undergo urological evaluation. Even if the gross hematuria has resolved, most patients should still be evaluated as some tumors in the GU tract may bleed intermittently.

2. Pre-referral evaluation and treatment

- a. UA and urine culture.
- b. Voided cytology.
- c. CT IVP. For patients with an iodine contrast allergy, obtain an MR urogram. For patients with CKD, obtain a renal US.

3. Indications for referral

a. Refer all patients with gross hematuria except those in whom the hematuria is shown to be due to UTI and resolves after treatment.

- a. UA and urine culture.
- b. Urine cytology.

c. Imaging results (very important).

HEMATURIA, ASYMPTOMATIC MICROSCOPIC

1. Background

- a. Asymptomatic microscopic hematuria (AMH) is defined as the presence of ≥3 RBC/HPF on a urinary microscopic examination.
- b. Urine dipsticks are very sensitive and can generate false positive results, so microscopic examination is crucial.
- c. The presence of contamination in the UA (epithelial cells) should prompt retesting. Proteinuria, dysmorphic RBCs, and RBC casts are due to nephrologic causes and should be referred to nephrology.

2. Pre-referral evaluation and treatment

- a. For pre-menopausal women, a UA in the middle of the cycle.
- b. If pyuria is present, treat with antibiotics. If hematuria resolves, no further evaluation is needed.
- c. If there is proteinuria (1+ or greater), obtain a spot AM urine protein/creatinine ratio and referral to nephrology if abnormal.
- d. Patients who have AMH who have undergone a full evaluation that was negative do not need to be re-evaluated unless there is a change to the clinical picture.
- e. CT IVP. For patients with an iodine contrast allergy, obtain an MR urogram. For patients with CKD, obtain a renal US.

3. Indications for referral

- a. ≥3 RBC/HPF on a UA
- No evidence of contamination, infection, proteinuria, dysmorphic RBCs

4. Please include the following with your referral

- a. UA results with microscopic examination, urine culture.
- b. Urine cytology results
- c. Results of imaging studies (CT IVP, MR Urogram, Renal US)
- d. Any prior microhematuria evaluations

ERECTILE DYSFUNCTION

1. Background

- a. Most cases of ED have an organic basis. All patients should have had a trial of one of the oral PDE-5 inhibitors prior to referral, unless there are contraindications to therapy.
- b. Generic sildenafil 20 mg tabs are now available at Costco pharmacies for about \$30 for 30 tabs.

2. Pre-referral evaluation and treatment

- a. Serum testosterone level especially if low libido exists.
 - i. If low, obtain a free and total testosterone level, LH, and prolactin level.
 - ii. Consider referral to endocrinology if low testosterone confirmed or other abnormality in lab results.
- b. Identify and, if possible, eliminate any medications that may cause ED. Thiazide diuretics, beta-blockers, and SSRIs may cause ED.
- c. For those without contraindications, a trial of a PDE-5 inhibitor is required.
 - i. A patient is considered a PDE-5 inhibitor failure only after a minimum of 5 doses at the maximum dose.
 - ii. All oral PDE-5 inhibitors are <u>strictly contraindicated</u> for men on nitroglycerin or other nitrates.
 - iii. All oral PDE-5 inhibitors should be taken at least 1 hour prior to sexual activity.
 - iv. To build confidence, encourage men to try their first dose with masturbation rather than sexual intercourse.
 - v. Oral PDE-5 inhibitors require sexual stimulation for success.

3. Indications for referral

- a. Patients who failed an adequate trial of an oral PDE-5 inhibitor <u>and</u> who are willing to perform penile injection therapy or use a vacuum pump device.
- b. Patients unable to take an oral PDE-5 inhibitor (e.g., on nitrates).
- c. Patients with ED and suspected Peyronie's disease.
- d. Patients with ED associated with pelvic trauma.
- e. Do not refer patients who:
 - i. Want free samples or sexual counseling.
 - ii. Have difficulty with sexual desire or achieving orgasm, less forceful ejaculation, or issues with penile size.
 - iii. Patient "requests" for urologic evaluation without trying PDE-5 inhibitors

- a. Testosterone level
- b. Details of medical therapy used and results
- c. Recent progress note with medications and problem list if available

INCONTINENCE

1. Background

- a. After a careful history and physical, most patients with incontinence can be characterized as having predominantly urge incontinence, stress incontinence, overflow incontinence, or mixed incontinence.
- b. A detailed, accurate history is required to accurately characterize the problem. Many patients can be treated empirically without referral or urodynamic evaluation.

2. Pre-referral evaluation and treatment

- a. Focused history to differentiate type of incontinence.
- b. Pelvic exam to evaluate for genital prolapse.
- c. Obtain a urinalysis. If the urinalysis shows evidence of infection, obtain a urine culture and treat with antibiotics.
- d. If possible, obtain a 2-day voiding diary with fluid intake documented.
- e. Stress incontinence
 - i. Kegel exercises (pelvic floor exercises)
 - ii. Consider topical estrogen for atrophic vaginitis especially if history of recurrent UTI's
- f. Urge or mixed incontinence (overactive bladder)
 - i. Timed voiding at regular intervals (e.g. every 3 hours)
 - ii. Avoid alcohol, caffeine, and limit fluids at night
 - iii. Kegel exercises as in stress incontinence
 - iv. Trial of anti-cholinergic therapy. A 4-week trial is usually adequate to assess response. Do not use these agents in men until a post-void residual has been checked to rule out overflow incontinence.
 - 1. Oxybutynin (Ditropan) 5 mg BID or TID
 - 2. Tolterodine LA (Detrol LA) 2-4 mg po daily
 - 3. Ditropan XL (extended release oxybutynin) 5-15 mg daily

3. Indications for referral

- a. Stress or urge incontinence refractory to medical or behavioral therapy.
- b. Post-void residual >200cc or overflow incontinence. Patients with especially high post-void residuals may require indwelling or intermittent catheterization pending urology evaluation.
- c. Incontinence associated with bladder prolapse.
- d. Incontinence associated with hematuria.

- e. Incontinence associated neurological lesions, symptoms, or signs.
- f. Recurrent or persistent symptoms after incontinence surgery.

4. Please include the following with your referral

- a. UA and urine culture results.
- b. Medical therapy trial results.
- c. Suspected type of incontinence.

INFERTILITY

We do not offer fertility services at SCVMC. Consider referring patients to Dr. Michael Eisenberg at Stanford.

Phone: 650-723-3391 Fax: 650-724-9608

NEPHROLITHIASIS, ACUTE

1. Background

- a. Acute renal colic is the sensation of flank pain associated with nausea and vomiting, usually severe and unpredictably episodic.
 Renal colic implies ureteral obstruction. The most common cause is a ureteral stone, although other causes exist.
- b. Some patient with renal colic will actually have pyelonephritis or other diagnoses. A non-contrast CT scan of the abdomen and pelvis is the study of choice for a patient with acute renal colic. Approximately 90% of stones less than 5 mm in diameter pass spontaneously.

2. Pre-referral evaluation and treatment

- Treat pain and nausea. Ketorolac (Toradol) 15-30 mg IM/IV is often very effective in addition to narcotics. Hydrate as needed with IV fluids.
- b. Obtain a CBC, chemistry panel, UA, and urine culture. Blood cultures if febrile.
- c. Obtain a non-contrast CT abdomen and pelvis <u>and</u> a KUB. A KUB allows one to easily follow a stone at without needing additional CT scans. Renal ultrasound does not visualize ureteral stones well and misses important anatomic details.
- d. If a ureteral stone less than 5 mm in diameter and the patient is afebrile, the patient may be discharged once the pain and nausea

- are controlled. The patient should be advised to stay hydrated, to strain all urine, and to take pain medications and anti-emetics.
- e. If the pain resolves and the stone passes, no further evaluation is required.
- f. Once the acute episode has resolved, referral should proceed according to the guidelines listed under "Nephrolithiasis, Recurrent".

- a. Presence of fever, chills, bacteriuria with an obstructing stone (**Urgent! Page 408-275-4320**).
- b. Solitary kidney or acute kidney injury due to obstructing stone (**Urgent! Page 408-275-4320**).
- c. Obstructing stone \geq 5 mm.
- d. Intractable pain, nausea, or vomiting.
- e. Failure of the stone to pass over the course of 1 month.

4. Please include the following with your referral

- a. The side, size, location (UPJ, proximal/mid/distal ureter, UVJ) of stone.
- b. Presence or absence of hydronephrosis.
- c. CBC, P7, UA, urine culture, and blood culture results (if done)
- d. Imaging study results
- e. <u>Consults with vague statements such as "kidney stone" or "multiple stones" without any substantiating documentation will be closed.</u>

NEPHROLITHIASIS, ASYMPTOMATIC

1. Background

a. It is not unusual for a renal stone to be discovered incidentally on an imaging study. The natural history of asymptomatic stones is usually benign, but may suggest an underlying metabolic abnormality.

2. Pre-referral evaluation and treatment

- a. UA, urine culture to rule out infection stones.
- b. Chemistry panel, serum calcium and PTH, and serum uric acid.
- Obtain a non-contrast CT abdomen and pelvis <u>and</u> a KUB. A KUB allows one to easily follow a stone at without needing additional CT scans.

3. Indications for referral

- a. Evidence of obstruction (hydronephrosis) on imaging studies mentioned above.
- b. Stones 5 mm or greater in size <u>and</u> patient interested in surgical treatment.
- c. Stones associated with recurrent urinary tract infections.
- d. Staghorn calculi.
- e. Stones that have grown on serial imaging.
- f. Multiple stones <u>and</u> patient interested in metabolic evaluation.
- g. If you elect to <u>not</u> refer the patient, here are some guidelines for stone prevention:
 - i. Drink 8 glasses or more of water with lemon juice per day
 - ii. Limit dietary sodium and animal protein
 - iii. Annual KUB to assess stone growth
- h. Do <u>not</u> refer patients:
 - i. Who have stones smaller than 5 mm who do not have symptoms.
 - ii. Patients <u>not</u> interested in surgical treatment or stone prevention evaluation.

4. Please include the following with your referral

- a. UA and urine culture
- b. Chemistry panel, serum calcium and PTH, serum uric acid
- c. Imaging study results (<u>required</u>)
- d. Indication for referral as listed above

NEPHROLITHIASIS, RECURRENT

1. Background

a. The recurrence rate of calcium stones is about 15% at 1 year and 50% at 5 years. A metabolic evaluation in the properly selected patient has been shown to reduce the risk of new stones and be cost-effective. Patients who present acutely should be managed according to the guidelines under "Nephrolithiasis, Acute".

2. Pre-referral evaluation and treatment

- a. Chemistry panel, serum calcium and PTH, serum uric acid.
- b. KUB to assess residual stone burden.

3. Indications for referral

- a. Patients who have passed more than 1 stone in a 5-year period.
- b. Patients who have passed a single calcium oxalate stone but who have a strong family history of nephrolithiasis.

- c. Proven uric acid, struvite, cystine, or xanthine stones, or presence of cystinuria.
- d. Patients with primary hyperparathyroidism should be referred to both Urology and ENT for parathyroidectomy.
- e. Patients suspected of having renal tubular acidosis (fasting urine pH > 6.0, non-anion gap metabolic acidosis, pure calcium phosphate stone, or nephrocalcinosis).
- f. Any patient < 18 years old who has a stone.
- g. Any African American patient with a history of stones.
- h. Do not refer patients who:
 - i. Are not interested in stone prevention.
 - ii. Just had their first stone episode.
 - iii. Have a history of non-compliance or poor compliance.

4. Please include the following with your referral

- a. Brief history of stone episodes (how many times they passed a stone, how many stone procedures).
- b. Lab test results from chemistry panel, serum calcium and PTH, and uric acid.
- c. Imaging study results.

ORCHALGIA

1. Background

- a. An ill-defined discomfort or heaviness in one or both testicles is a common complaint. The etiology is not known, but is likely not infectious in chronic cases.
- Orchalgia is distinguished from disorders like acute epididymoorchitis by a chronic course, less tenderness, and the absence of swelling or a testicular mass.
- c. One should always keep testicular neoplasms in the differential diagnosis, which can be ruled out with a physical exam, and testicular ultrasound as indicated.

2. Pre-referral evaluation and treatment

- a. Complete physical examination look for hernia, testicular torsion, and epididymo-orchitis.
- b. Urine for gonorrhea and chlamydia screens.
- c. UA and urine culture.
- d. Scrotal ultrasound if symptoms persist despite conservative management:
 - i. If positive STI test, these should be treated.
 - ii. If urine culture positive, treat with antibiotics for 4 weeks.

- iii. Trial of NSAIDs for 4 weeks.
- iv. Soak in hot water (Sitz baths) for 20 minutes per night for 4 weeks.
- v. Scrotal elevation with scrotal support (jock strap) for 4 weeks.
- vi. Minimize heavy lifting, strenuous activity, and exercise for 4 weeks.

- a. Patients who <u>have failed conservative management</u> as outlined above.
- b. Do not refer patients who have groin pain.
- c. Do not refer patients with pain due to inguinal hernias. These referrals should be directed to general surgery.

4. Please include the following with your referral

- a. UA, urine culture, STI test results.
- b. Scrotal ultrasound results (this is absolutely required).
- c. Antibiotic and medical treatments used.

PEYRONIE'S DISEASE

1. Background

a. Peyronie's Disease, a fibrosing penile disorder of unknown etiology, may be asymptomatic, create functional deformity, or cause painful erections. Patients may be unable to have sexual intercourse in severe cases. Selected patients with stable disease are candidates for surgery. Medical therapy is the initial step.

2. Pre-referral evaluation and treatment

- a. Diagnosis is made by patient history of penile curvature with erections and palpation of plaques in the penile shaft.
- Asymptomatic patients require no therapy and may be safely observed

3. Indications for referral

- a. Pain or difficulty with intercourse and failure of medical therapy.
- b. Associated ED failing medical therapy.
- c. Do not refer patients who are asymptomatic (no pain, no ED, able to have intercourse).
- d. Do not refer patients not interested in surgical treatment.

a. Recent progress notes detailing response to medical therapy.

PHIMOSIS

1. Background

- a. Phimosis is defined as the inability to retract the foreskin over the glans penis. In uncircumcised boys a physiological phimosis exists. Typically, by age 5 years, the foreskin is retractable in over 90% of boys.
- b. Forceful retraction of the foreskin is <u>not</u> recommended in infants and young boys less than age 4. Adhesions to the glans should not be broken, as they will form again. As the penis grows, these adhesions will soften and break without intervention.
- c. Circumcision for religious, cultural, or cosmetic reasons is not covered by most insurance plans. See "Circumcision" section. Patients must be willing to pay for the procedure if they are interested in circumcision for these reasons.

2. Pre-referral evaluation and treatment

- a. For children older than age 5 and persistent phimosis, or children under age four with recurrent balanitis, try topical steroid therapy
- b. Apply triamcinolone cream 0.1 % bid to the foreskin while gently retracting it back. The parents should massage the cream into the foreskin and pull back on it twice a day.
- c. Two-thirds of patients respond to topical therapy.
- d. If there is no improvement in 8 weeks, then refer to urology.
- e. Treat balanitis with topical antifungal agents if fungal infection suspected. Use Keflex if bacterial infection suspected.

3. Indications for referral

- a. Phimosis that has failed topical therapy trial as above.
- b. Phimosis with recurrent UTIs (these must be documented with urine cultures).
- c. Phimosis with ballooning of foreskin from urine or urinary retention.
- d. Phimosis with recurrent balanitis.
- e. Recurrent paraphimosis.
- f. Foreskin lesions suspicious for penile cancer.
- g. Do not refer patients who:
 - i. Want a circumcision for religious or cultural reasons.
 - ii. Have not tried topical therapy.
 - iii. Have glanular adhesions and are less than 5 years old.

- a. Indication for circumcision.
- b. Medical therapy used and duration.

PROSTATE NODULE

1. Background

a. Approximately 25% of palpable prostate nodules are prostate cancers. Measurement of serum PSA cannot be relied on to rule out prostate cancer in a man with a palpable nodule as a certain percentage of localized prostate cancers are associated with a normal PSA.

2. Pre-referral evaluation and treatment

a. Obtain a serum PSA. It is acceptable to draw the sample after a DRE.

3. Indications for referral

a. All patients with a prostate nodule except those over the age of 80 or patients in extreme poor health.

4. Please include the following with your referral

- a. Recent progress note documenting abnormal DRE.
- b. PSA results.

PROSTATE SPECIFIC ANTIGEN (PSA), ELEVATED

1. Background

- a. The American Urological Association and the Division of Urology at SCVMC recommends routine PSA screening of men over age 50. Men with a family history of prostate cancer or African American men should start screening at age 40. Routine screening remains controversial, as some cancers detected may not be clinically significant.
- b. At minimum, PSA screening, with its benefits and risks, should be discussed with all patients meeting the criteria above. The main potential benefit of the PSA is in identifying patients who will benefit from local therapy of prostate cancer with surgery or radiation before the disease has metastasized.
- c. Generally, treatment of prostate cancer does not prolong life in those with a life expectancy of less than 10 years. Therefore, in patients with a short life expectancy, we would not routinely

- recommend PSA screening. Patients older than 70, unless extraordinarily healthy, should not undergo PSA screening.
- d. Patients referred for an elevated PSA will be offered transrectal ultrasonography (TRUS) and biopsies of the prostate. The procedure is done in the clinic with local anesthesia and is well tolerated with a low incidence of complications.

2. Pre-referral evaluation and treatment

- a. Obtain a PSA:
 - i. Can be drawn after a DRE.
 - ii. Should NOT be drawn after a man has been catheterized.
 - iii. Should NOT be drawn if UTI is suspected.
 - iv. Should NOT be drawn after vigorous prostatic massage.
- b. Obtain a UA and urine culture. Treat infection and draw a PSA 8 weeks after.
- c. Perform and document DRE findings (this is essential).

3. Indications for referral

- a. PSA > 4 in men older than 50
- b. PSA > 2.5 in men younger than 50
- c. PSA has risen more than 0.75/year on 3 consecutive measurements
- d. Referral may be withheld after shared decision making between the primary care physician and the patient for those over the age of 80 or with a life expectancy of less than 10 years from due to other medical problems.
- e. Do not refer those who have or will refuse a prostate biopsy.

4. Please include the following with your referral

- a. Recent progress notes.
- b. PSA results (as many as you have).
- c. Findings on DRE.
- d. Prior prostate biopsy results.

PROSTATITIS OR PROSTATODYNIA

1. Background

- a. The 4 categories of painful disorders of the prostate are:
 - i. Acute bacterial prostatitis (acute onset fever, pain, new urinary symptoms)
 - ii. Chronic bacterial prostatitis
 - iii. Chronic nonbacterial prostatitis (prostatic fluid with WBC but no bacteria)

- iv. Prostatodynia (neither WBCs nor bacteria in prostatic secretions)
- Enteric bacteria cause most cases of acute and chronic bacterial prostatitis. These two categories of prostatitis apply to a <u>minority</u> of patients.
- c. The cause of chronic nonbacterial prostatitis and prostatodynia is unknown.
- d. Prostatic massage is contraindicated in cases of acute prostatitis.

2. Pre-referral evaluation and treatment

- a. UA and urine culture.
- b. GC and chlamydia screen for men younger 35 years or men in high risk groups.
- c. Perform DRE and, if possible, perform prostatic massage. Firmly massage the prostate for approximately one minute. <u>Do not perform prostatic massage in suspected cases of acute bacterial prostatitis as this can lead to life-threatening infection.</u>
- d. Have patient provide a "post-massage" urine specimen and send for urine culture.
- e. Do not obtain a PSA if acute bacterial prostatitis is suspected.
- f. Treatment:
 - Acute Bacterial Prostatitis: Septra DS one tab bid or Cipro 500 mg po bid for at least 21 days. Consider admission for patients with systemic symptoms.
 - ii. Chronic Bacterial Prostatitis (post-massage urine culture positive): tailor treatment to urine culture results.
 - iii. Chronic Non-Bacterial Prostatitis or Prostatodynia: Empiric treatment with a 6-week course of Sitz baths bid and NSAIDs.

3. Indications for referral

- Patients suspected of having acute prostatitis or presence of a fluctuant prostatic mass suggesting prostatic abscess. (Urgent! Page 408-275-4320)
- b. Febrile acute prostatitis. (**Urgent! Page 408-275-4320**)
- c. Refractory or recurrent chronic bacterial prostatitis.
- d. Refractory or recurrent nonbacterial prostatitis or prostatodynia failing conservative therapy described above.

- a. Urine culture results.
- b. Antibiotic and medical therapy previously attempted.
- c. Recent progress note.

RENAL MASS

1. Background

a. In general, most renal masses or complex renal cysts require urological evaluation. If there is any question, please refer these patients. Contact the urology resident on call (408-275-4320) to expedite the referral.

2. Pre-referral evaluation and treatment

- a. If a solid renal mass or complex renal cyst is seen on ultrasound or non-contrast CT scan, please obtain a <u>CT abdomen and pelvis with contrast</u>. At SCVMC, obtain a <u>CT renal mass protocol</u>. A non-contrast CT is useless in this situation.
- b. If a patient has an iodinated contrast allergy, an <u>MRI abdomen and</u> pelvis with contrast is a reasonable alternative.
- c. If a patient has CKD that precludes both iodinated contrast and gadolinium, an MRI abdomen and pelvis without contrast is reasonable.
- d. Obtain a CBC, chemistry panel, and LFTs.

3. Indications for referral

- a. Any solid renal mass or complex renal cyst.
- b. Do not refer patients with:
 - Simple renal cysts. Unless these patients are asymptomatic (usually the cyst has to be very large, greater than 10 cm, to cause pain or mass effect).
 - ii. Questionable findings on non-contrast CT. If there is a question, obtain a <u>CT abdomen and pelvis with contrast</u>.

4. Please include the following with your referral

- a. Results from CBC, chemistry panel, and LFTs.
- b. Imaging test results.

SCROTAL SWELLING OR MASS, PAINLESS

1. Background

a. The differential diagnosis of a painless scrotal swelling or mass includes hydrocele, spermatocele, varicocele, testicular tumor, and inguinal hernia. A carefully performed physical examination is extremely helpful. In questionable cases, obtain a scrotal ultrasound.

2. Pre-referral evaluation and treatment

- a. If a testicular tumor is suspected, obtain a beta-HCG, alphafetoprotein, LDH, and a scrotal ultrasound. (Urgent! Page 408-275-4320)
- b. If one is uncertain about the exam, obtain a scrotal ultrasound. Consider the ultrasound an adjunct to the physical exam.

3. Indications for referral

- Testicular tumors diagnosed on ultrasound should be considered an urgent and should be referred via telephone. (Urgent! Page 408-275-4320)
- b. Inguinal hernias in patients who are surgical candidates should be referred to general surgery.
- c. Refer varicoceles only if:
 - i. On the right side (associated with renal cell carcinoma)
 - ii. Symptomatic
 - iii. Associated with infertility
 - iv. Boys < 18 years old
- d. Do not refer:
 - i. Painless hydroceles or spermatoceles or epididymal cysts.
 - ii. Painless left varicoceles.
 - iii. Inguinal hernias.

4. Please include the following with your referral

- a. Current symptoms bothering the patient.
- b. Imaging test results.
- c. Recent progress note.

SCROTAL SWELLING OR MASS, PAINFUL

1. Background

- a. The differential diagnosis of painful scrotal swelling includes epididymitis, orchitis, testicular torsion, inguinal hernia, and hemorrhage into a testicular tumor.
- b. The presence of pyuria or bacteriuria suggests a diagnosis of epididymitis. Testicular torsion is a true surgical emergency and should be sent to the emergency room for expedited care. Ultrasonography with color doppler is available at SCVMC and may be used to check for the presence of testicular blood flow, but should not delay emergent consultation.

2. Pre-referral evaluation and treatment

a. UA and urine culture.

- b. In younger (less than 35 years old), sexually active men, obtain urine for GC and chlamydia. In older men, enteric bacteria are the most common pathogens.
- c. If pyuria is absent and the history and exam are consistent with testicular torsion, an emergent testicular ultrasound (with doppler) to rule out testicular torsion if time permits. After the onset of testicular pain, the testicle will not be salvageable after about 12 hours. This ultrasound should be of high priority (secondary only to trauma cases). (Urgent! Page 408-275-4320)
- d. If the history and physical suggests a testicular tumor, a beta-HCG, alpha-fetoprotein, and LDH, and emergent testicular ultrasound should be obtained. (**Urgent! Page 408-275-4320**)
- e. Treatment:
 - For epididymitis/orchitis in men < 35 years old, treat empirically GC and chlamydia for a total of 10-14 days. If symptoms resolve, these patients do NOT need to be referred to urology.
 - ii. For epididymitis/orchitis in men > 35 years old, treat empirically with Septra DS one tab bid or Cipro 500 mg bid for 21 days.
 - iii. If testicular torsion is suspected or diagnosed by ultrasound, page the urology resident immediately. (Urgent! Page 408-275-4320)
 - iv. For chronic testicular pain, please see guidelines regarding "Orchalgia".

- a. Suspected testicular torsion (**Urgent! Page 408-275-4320**)
- b. Suspected testicular tumor (**Urgent! Page 408-275-4320**)
- c. Recurrent epididymitis
- d. Epididymitis associated with scrotal abscess
- e. Epididymitis associated with signs of systemic infection
- f. Epididymitis in men > 50 years old with obstructive urinary symptoms

4. Please include the following with your referral

- a. Urinalysis and urine culture results
- b. Ultrasound results (if obtained)

TESTICULAR MICROLITHIASIS

1. Background

a. With the increased use of testicular ultrasound, microcalcifications are often incidentally noted in the testis. Controversy exists as to the significance of this finding. Some authors feel testicular microlithiasis indicates an increased risk for germ cell tumor in the affected testis, while large population based studies do not support this conclusion. As always, an informed discussion with the patient is critical.

2. Pre-referral evaluation and treatment

a. Scrotal ultrasound

3. Indications for referral

- a. Focal or clustered calcifications on ultrasound.
- b. Microcalcifications in a patient with a history of infertility.
- c. Microcalcifications in a patient with a history of testicular cancer.
- d. Any patient under the age of 18.
- e. Patient incapable of performing testicular self-exam, with an abnormal testicular physical exam, or desiring urological consultation.
- f. Do <u>not</u> refer those with diffuse microcalcifications (starry sky appearance) as reported on ultrasound with a normal testicular exam. <u>These patients should be taught to perform testicular self-exam monthly and to report any abnormal findings or changes.</u> Routine ultrasound follow-up is not mandatory.

4. Please include the following with your referral

Results of scrotal ultrasound

URINARY TRACT INFECTION (UTI) IN MEN

1. Background

- a. Urinary tract infections are unusual in men under age 50 and are most commonly manifested as prostatitis. Rarely, an underlying urologic abnormality may be present.
- b. In older men, a common cause of UTI is bladder outlet obstruction with incomplete emptying of the bladder. In general, men greater than 50 years old with urinary tract infection should be referred.

2. Pre-referral evaluation and treatment

- a. UA and urine culture (urine cultures are absolutely mandatory).
- b. Perform a genital exam and DRE.
- c. In men with obstructive voiding symptoms, measure a post-void residual by catheterization or ultrasound bladder scan if possible.

- d. In men with recurrent infections despite culture-specific antibiotic therapy, obtain a CT IVP to rule out stones or obstruction.
- e. Do NOT obtain a PSA in any man with a suspected UTI.
- f. Treatment:
 - Men with the cystitis and no discernible complicating factors can be treated with a 7-day regimen of Septra DS or Cipro.
 A post-treatment culture should be obtained to verify cure.
 - ii. Men who relapse after a 7-day course of an appropriate antibiotic may be considered for empiric treatment for chronic prostatitis, a 6-week regimen of Septra DS or Cipro. See section on "Prostatitis".
 - iii. Antibiotic prophylaxis is rarely indicated in men. Urological evaluation should be performed prior to initiating chronic therapy.

- a. Recurrent UTI's despite culture-specific antibiotic therapy.
- b. Anatomic abnormality on imaging studies (stone, obstruction).
- c. UTI's associated with obstructive voiding symptoms or elevated post-void residual.
- d. Recurrent UTI associated with neurological abnormality (spinal cord injury).
- e. Do not refer:
 - i. Men with simple prostatitis that responds to antibiotic therapy.
 - ii. Men < 45 years old with a simple UTI that responds to antibiotic therapy.

4. Please include the following with your referral

- a. All urine culture results.
 - i. Consults without urine culture results showing UTI will be closed.
- b. Prior courses of antibiotic therapy.
- c. Results of imaging studies.

URINARY TRACT INFECTION (UTI), RECURRENT, IN WOMEN

1. Background

a. More than 90% of recurrent urinary tract infections in young women are episodes of exogenous re-infection. Urine cultures (not just UAs) are important in documenting this and sparing the patient a more extensive/invasive evaluation.

- b. It is rare for such patients to have identifiable anatomical abnormalities of the urinary tract.
- c. Asymptomatic bacteriuria in older women <u>should not be treated</u> as multiple studies have shown little benefit.

2. Pre-referral evaluation and treatment

- uA and urine culture. Always obtain a urine culture in patients with recurrent UTI to help determine if this is a re-infection or bacterial persistence.
- Obtain a catheterized specimen if a reliable clean catch cannot be obtained (morbidly obese patients, patients with limited mobility, patients with poor upper limb dexterity).
- c. Perform a pelvic exam to rule out anatomic problems (pelvic organ prolapse, urethral diverticulum).
- d. Treatment:
 - i. Treat the recurrent infection for 5 days based on culture results and repeat the urine culture one week later for proof of cure. If the repeat culture is negative, the presumed problem is re-infection. If the woman uses a diaphragm or spermicide, change the contraceptive method. If the woman is postmenopausal, treat with topic estrogens if not contraindicated.
 - ii. Women with re-infection can be treated with 1 of 3 approaches.
 - 1. Daily prophylaxis using a regimen like Septra SS ½ tab or nitrofurantoin 50 mg qhs.
 - 2. Patient-initiated therapy using a 3-5 day regimen of antibiotics at the onset of symptoms.
 - 3. Post-coital prophylaxis for women with UTI temporally related to sex.
 - iii. For women with a positive post-treatment culture, consider a CT-IVP and administer a 2-6 week trial of full dose antibiotic therapy.

3. Indications for referral

- a. Women with exogenous re-infection who fail the above therapy.
- b. Women with a persistent UTI who fail a prolonged course of antibiotics.
- c. Women with an anatomic abnormality and recurrent infections.
- d. Women with stones and recurrent infections

4. Please include the following with your referral

a. All urine culture results.

- i. Consults without urine culture results showing UTI will be closed.
- b. Prior courses of antibiotic therapy.
- c. Results of imaging studies.

Revision History:

- 01/1999: Original
- 02/2003: Significant revisions by Rajesh Shinghal MD
- 05/2004: Major revisions by Rajesh Shinghal MD and Beth Scoby NP
- 06/2005: Added Infertility and Hematospermia sections, minor revisions to Hematuria section
- 11/2007: Added Testicular Microlithiasis section. First page contact information updated. Added line in Microhematuria section on high risk patients and when to refer.
- 11/2013: Minor editing of Orchalgia section to add "Who not to refer".
- 11/2013: Major editing of "Infertility" section with redirection to Stanford.
- 01/2017: Major content and format changes, added dynamic table of contents with links by Tin Ngo MD.
- October 2017: formatting