

SHASTA COMMUNITY HEALTH CENTER AMBULATORY CARE GUIDELINES

<b>Policy: Ambulatory Care Guidelines</b>	<b>Manual: Medical Staff &amp; Clinical Policies &amp; Procedures</b>
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**I. Policy:**

It is the policy of Shasta Community Health Center to provide ambulatory care guidelines for clinicians.

**II. Purpose/Goal:**

The purpose of this policy is to provide consistent services to both patients and other medical providers by establishing guidelines for the delivery of primary care services and directives regarding referral consultations.

**III. Procedure:**

See Following:

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ALLERGY

**A. AMBULATORY CARE GUIDELINES**

PRIMARY CARE CLINICIAN SHOULD: [The Allergy Report](#)

1. Do a thorough allergy history including seasonal vs. perennial occurrence, home and work environmental history, identification of aggravation factors including decongestant nasal sprays, and perform physical examinations seeking evidence of allergic disease. Make aggressive use of appropriate environmental controls before consultation.
2. Treat all seasonal allergies whose symptoms do not last more than six weeks per year or whose symptoms occur in low seasons but for less than six weeks each time. Treat the patients with antihistamines, decongestants, or inhaled anti-inflammatory agents including corticosteroids. Brief courses of oral corticosteroids may be necessary, but their repeated use indicates inadequate control and a need for consultation. ***Steroids should not be used under age 16 without a consultation, except for asthma exacerbations.***
3. Treat chronic rhinitis aggressively with at least three sequential medication programs including antihistamines, decongestants, and inhaled corticosteroids or cromolyn. Refer to an allergist if the problem is unresponsive and an allergic cause is suspected by history, examination, or laboratory, e.g. nasal cytology showing eosinophils. Refer to an otolaryngologist if mechanical obstruction is obvious (e.g. adenoids, tonsils, tumor, or septal deviation), and allergy is not felt to be present. Consider consultation for nasal polyps if no response to nasal steroids, or frequently recurring sinusitis.
4. Treat hives aggressively for acute and chronic presentations. ***Hives can probably be treated without any injections; steroids should not be used for hives for anyone under age 16 without a consultation.*** Acute episodes may require subcutaneous epinephrine and an intramuscular antihistamine, or intravenous corticosteroids, or oral medication. If possible, causes such as an infection, foods, non-steroidal anti-inflammatory drugs including aspirin, or other medication should be identified, removed, or avoided. Persistent, recurring, or chronic urticaria should be treated with antihistamines, local measures, and systemic corticosteroids if needed, but repeated systemic corticosteroids use should be avoided. Perform laboratory screening including CBC with differential, ESR, thyroid profile, and other tests as indicated. Consultation should be sought if urticaria or angioedema persists for three months.
5. Refer to an allergist for systemic reactions to insect bites, stings, food, or preservatives.
6. Diagnose and treat asthma, including the reversal of acute episodes and the achievement of effective control of chronic asthma. Pulmonary function tests with and without bronchodilators should be able to be performed. Treatment should consist of inhaled and oral beta-agonists and anti-inflammatories, including corticosteroids. Education should emphasize environmental controls and triggers, including avoidance of smoking and secondhand smoke. Proper inhalant technique and home peak flow measurements should be taught and monitored. Consultation should be sought if control is poor manifested by chronic cough, continued or progressive symptoms, nocturnal awakening due to asthma, repeated absence from school or work, limited activity, repeated emergency room or office visits for

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acute episodes, repeated or persistent use of oral corticosteroids, or for more severe complications such as a need for hospitalization and/or intubation for respiratory failure.

7. Consult for allergy testing and institution of immunotherapy injections if symptomatic control is inadequate.
8. Administer maintenance immunotherapy injections as prescribed by an allergist consultant.
9. **REFERRAL PROCESS:** Allergy Clinic is held at Mercy Family Care Clinic  
Use SCHC Request for Consultation or Referral Form  
and fax to **225-7888**



BREAST CARE

PRIMARY CARE CLINICIAN SHOULD:

1. Schedule breast examination and screening mammogram following the SCHC Preventative Health Guidelines. Following examination and evaluation by the Primary Care Clinician consider referral for the following:
  - a) Breast lump or mass.
  - b) Breast cyst
  - c) Fibrocystic breast disease
  - d) Abnormal sonogram
  - e) Abnormal mammogram including patients with silicone implants.
2. Consider Clinician-to-Clinician referral for males, children < 12 years of age or patients with silicone implant. Consider referral to UCD if unable to refer locally.
3. Complete SCHC referral form and current (< 3 months old) mammogram films. If sonogram is recommended obtain prior to referral
4. When referring any patient to an outside provider for breast care route a copy of the referral form to the breast care referral specialist to ensure appropriate follow-up.
5. See section on “Plastic Surgery” for breast reduction referrals.
6. **REFERRAL PROCESS:** Breast Clinic is monthly at SCHC with Dr. Sandberg



CARDIOLOGY

PRIMARY CARE CLINICIAN SHOULD:

Recognize the significance of non-invasive tests including electrocardiogram and chest x-ray even if he/she does not perform the services. [Prevention and Management of Cardiovascular Disease](#)

1. Recognize congenital and valvular disease by history and physical examination. Include electrocardiogram and chest x-ray in the evaluation if a diagnosis other than a functional systolic ejection murmur is being considered. Consider consultation if patients with murmurs are symptomatic, have confusing physical findings, abnormal electrocardiograms and/or chest x-rays. The potential value of echocardiography could be discussed by telephone consultation if a consultation has not already occurred. Consult when congenital or valvular disease has been diagnosed for determining a plan of treatment and follow-up.
2. Provide education about and prophylaxis against acute rheumatic fever([guideline](#))or bacterial endocarditis ( [guideline](#)) when appropriate. Appropriate antibiotic protocols should be provided to the patient.
3. Consider the referral of neonates to a pediatric cardiologist for:
  - a. Cardiac murmur other than the typical soft systolic ejection murmur.
  - b. Cyanosis, which does not clear with crying.
  - c. Congestive heart failure.
  - d. Tachypnea in the absence of obvious pulmonary disease.
  - e. The absence of the expected pattern of recovery from presumed respiratory disease.
  - f. Diminished pulses in either upper or lower extremities.
  - g. Arrhythmias.
  - h. Syndromes or familial diseases associated with an increased incidence of cardiovascular disease.
  - i. Growth failure of unknown cause.
4. Evaluate and treat coronary risk factors including diabetes, [hyperlipidemia](#), [hypertension](#), and smoking.
5. Recognize and evaluate chest pain by history, physical examination, and electrocardiogram. Chest pain that is not acute, is atypical, and probably not angina, probably requires no further evaluation unless two risk factors are present or the electrocardiogram is abnormal. Identify and treat non-cardiac diagnoses. Consider consultation or stress testing in patients with atypical chest pain and two or more risk factors. Consider consultation if the clinical picture is confusing, if new onset chest pain is suggestive of angina pectoris or if a stable pattern of chest pain changes with increased frequency or duration or decreased threshold for occurrence.

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Patients presenting with acute chest pain with rest pain, prolonged pain, increasing pain or class III-IV angina suggestive of unstable angina or myocardial infarction should have immediate consultation, whether already admitted to a hospital, seen in a rapid treatment site, observation unit, or emergency department, or in an outpatient setting.

6. Treat [angina \(#2\)](#) medically with risk factor/lifestyle modification and with nitrates, beta-blockers, calcium channel blockers, and other medication as appropriate. Consult for:
  - a. Angina, new or escalating.
  - b. Non-invasive tests suggesting a poor prognosis.
  - c. Increasing angina after myocardial infarction.
  - d. Sub-endocardial myocardial infarction with or without angina.
7. Diagnose patients with [acute myocardial infarction](#). Seek immediate consultation for consideration of thrombolysis catheterization, or angioplasty, and for continuing inpatient care, which may require invasive monitoring for hemodynamic complications, or the care of major arrhythmias, if possible. Follow hospitalized patients to establish short and long-term treatment plans with the consultant, and to facilitate patient and family understanding and cooperation.
8. Treat hypertension to achieve satisfactory control. Consult if hypertension is refractory to treatment, if cardiomegaly, chest pain or congestive heart failure is associated, or if more critical complications such as encephalopathy, pulmonary edema, major vascular accidents, or rapidly progressive nephropathy require immediate control. Consider consultation to nephrology if renal function is at all abnormal.
9. Recognize and treat [congestive heart failure](#), particularly [maintenance treatment \(#2\)](#) for those who are stable. Consult for patients with diastolic dysfunction, valvular disease, pericardial disease, or non-ischemic cardiomyopathy. Consult for acute congestive heart failure associated with myocardial infarction, arrhythmia, ischemia, hypertension, or if the cause of acute congestive heart failure is not known. Refer for refractory congestive heart failure and/or consideration for transplantation.
10. Determine if [syncope](#) is cardiovascular, i.e., valvular, arrhythmic, or autonomic. Work-up should include history and physical examination, electrocardiogram, and chest x-ray. Consult if the patient has known heart disease or if a transient cause has not been identified and episodes are recurrent, in which case further testing e.g. echocardiogram, ambulatory monitoring, or tilt testing may be indicated and a long-range treatment plan will need to be developed.
11. Recognize minor and major arrhythmias and their significance. In the absence of known heart disease or sustained symptoms, monitoring is usually not necessary. Treat minor arrhythmias. Consult for patients with successful resuscitation, ventricular tachycardia, symptomatic bradycardia, recurrent paroxysmal atrial fibrillation, Wolff-Parkinson-White syndrome, AV Nodal Re-entrant Tachycardia and for supraventricular arrhythmias refractory to medical treatment. Expect continuing cardiology follow-up of patients with permanent pacemakers, implanted defibrillators or tachyarrhythmia devices or those who have recently undergone electrophysiological ablation.

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12. Distinguish [acute pericarditis](#) from other chest pain syndromes by history, physical examination, and electrocardiogram. Consult for pericardial effusion and other complication of acute or chronic pericardial disease.
13. **REFERRAL PROCESS:** No Cardiology Clinic at SCHC, but refer to cardiologist of your choice or ED for acute problem.



DERMATOLOGY

PRIMARY CARE CLINICIAN SHOULD:

1. Have the resources and experience to diagnose and treat common skin diseases.
  - a. To properly diagnose skin infections, one must have the capability to perform KOH preparations, Tzanck smears, bacterial and fungal cultures.
  - b. The ability to perform intra-lesional injections or administer cryotherapy with liquid nitrogen will allow the effective care of more patients.
  - c. The ability to perform biopsies, all of which must have pathological examination, will expand diagnostic accuracy, and ultimately refine the Clinician's diagnostic skill by inspection and avoid unnecessary biopsies.
2. Explain to patients that the removal of certain lesions for non-diagnostic purposes is usually considered cosmetic by carriers and may not be covered. These lesions might include liver spots, spider veins, wrinkles, skin tags, uncomplicated cysts, flat asymptotic warts, stable lipomas, seborrheic keratoses, non-inflamed papillomas, hereditary hypertrichosis, tattoos, and non-changing pigmented lesions with special risk.
3. Diagnose actinic keratoses and treat them with cryotherapy with liquid nitrogen or Efidex. Refer lesions suggestive of malignant melanoma. Biopsy or refer dysplastic nevi. Excise or refer basal cell or squamous cell [carcinomas](#) or other suspicious lesions. Suspicious characteristics of lesions include: observed or measured enlargement, irregular margins, [color changes](#), bleeding, ulceration, itching, or pain. Refer large or complicated lesions, lesions in immunocompromised patients, and lesions in high-risk areas including: head, neck, face, ears, genital area, and burn scars.
4. Treat acne with:
  - a. [Topical medication](#) including:
    - i. Benzyl peroxide.
    - ii. Antibiotics.
    - iii. Retin-A.
  - b. [Oral](#) broad-spectrum antibiotics.
  - c. Accutane should be reserved for the dermatologist.
  - d. Use at least three modalities over a three-month period.

Consider consultation or referral if after three months improvement has ceased, or for severe cystic acne. Refer if inexperienced in intra-lesional corticosteroid injections or the use of Accutane, or if active scarring is thought to require a procedure. Treat recurrent acne with a regimen that has been successful in the past whether originated by the primary care Clinician or dermatologist.



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## DOMESTIC VIOLENCE

PRIMARY CARE CLINICIAN SHOULD: ([AAFP Violence Position Paper](#))

1. Consider patient safety as a priority at all points of the screening and referral process.
2. Screen all patients of both genders, at a minimum interval of each annual exam.  
The screening interview should take place in private--intimate partners of either gender, friends or relatives of the patient must not be allowed in the exam room during any questioning regarding domestic violence.
3. Screen obstetrical patients at entry to prenatal care, at least once each trimester and at the postnatal visit.
4. Provide education about domestic violence as part of the screening process and during any health exam when appropriate. In the case of children's exams when a parent may be a victim of domestic violence, consider using the exam as an opportunity to establish a relationship with and educate the parent.
5. Use a professional interpreter if English is not the primary language, rather than friends or family members.
6. Recognize and treat injuries that may be the result of domestic violence.
7. Consider domestic violence as a factor in some medical conditions--sleep disorders, asthma, eating disorders, repeated urinary tract or vaginal infections, substance abuse or psychiatric manifestations.
8. Follow all legal domestic violence reporting mandates, including gathering evidence for court presentation.
9. Refer patients who screen positive for domestic violence to LCSW (contact LCSW while patient is still present in exam room for immediate on site contact), community resources, law enforcement as appropriate.



ENDOCRINOLOGY/METABOLISM

PRIMARY CARE CLINICIAN SHOULD:

1. Manage most [diabetics](#) including stable [type 1](#) and [type 2](#) patients. Provide patient education about diet, fluid balance, exercise, blood glucose monitoring, medication administration, skin care, and foot care. Perform regular examinations, including retinal examinations, at least yearly and at each visit unless the patient is under continuing ophthalmologic care for complications in the eye. Formal education programs may enhance the primary care Clinician's advice, particularly for children and their parents, newly diagnosed patients, new users of insulin, diabetics who are pregnant, and those about to travel.
2. Manage uncomplicated [diabetic ketoacidosis](#).
3. Obtain the following lab on every diabetic patient and prior to referral to endocrinology:
  - a) CSP 20
  - b) Hemoglobin A1C
  - c) Urine Chemistry
    - If urine chemistry is positive for protein obtain a 24 hour urine for protein and creatinine clearance.
    - If urine chemistry is negative, obtain a urine for microalbumin.
4. Obtain consultation for:
  - a. Coma not readily reversible by glucose.
  - b. Poor control manifested by recurrent hypoglycemia, marked hyperglycemia or persistent elevation of glycohemoglobin.
  - c. Consideration of intensive insulin or pump therapy.
  - d. Annual ophthalmology evaluation, especially in patients over 30 and those less than optimally controlled.
  - e. Development and progression of complications, including peripheral neuropathy, skin lesions, impaired renal function, and ischemic symptoms and /or findings.
5. Obtain [thyroid screen](#), following the SCHC preventive health care guidelines. Diagnose and treat hyperthyroidism and [hypothyroidism \(thyroiditis\)](#). Consult for hyperthyroidism in pregnancy, involving endocrinologist and obstetrician. Refer for radioiodine therapy or surgical therapy if considered appropriate. Refer for symptomatic or moderately severe exophthalmos. Consult if refractory to initial treatment.
6. Diagnose and treat multi-nodular goiter with thyroid suppression.

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7. Consult for solitary thyroid nodules for consideration of biopsy and/or surgery.
8. Refer suspected disorders of calcium metabolism, adrenal, gonadal, or pituitary dysfunction after appropriate testing has been obtained with the advice of the intended endocrine consultant.
9. Prior to referral for pituitary dysfunction in women obtain the following lab tests:
  - a) Thyroid panel #2 (T3, T4, T7, TSH)
  - b) Cortisol---A.M. specific (fasting)
  - c) Estradiol
  - d) FSH
  - e) LH
  - f) IGF 1
  - g) Prolactin
10. Prior to referral for pituitary dysfunction in men obtain the following lab tests:
  - a) Thyroid Panel #2 (T3, T4, T7, TSH)
  - b) Cortisol --- A.M. specific (fasting)
  - c) IGF 1
  - d) Prolactin
  - e) Testosterone
11. Prior to referral for hyperparathyroidism obtain the following lab studies:
  - a) Ionized calcium
  - b) Intact PTH
12. Prior to referral for consultation/treatment of hirsutism obtain the following lab studies:
  - a) Testosterone
  - b) LH/FSH
  - c) DHEAS
  - d) Androstiendione
  - e) 17 OH Progesterone
  - f) Cortisol – AM Fasting
13. Diagnose and treat [osteoporosis \(#2\)](#). Prior to referral obtain the following lab studies:
  - a) Bone density
  - b) Ionized Ca, Intact PTH, 25-OH

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- c) Vitamin "D"
- d) TSH

14. Refer growth retardation only when it is established as non-familial or if familial when abnormal bone age is identified.
15. Identify and treat significant [hyperlipidemia](#). Screening should consist of a baseline HDL and total cholesterol repeated fasting if elevated. Treat with diet and exercise as appropriate. Treat with medication if diet has not achieved or made substantial progress towards goal within six months. Refer if the patient has not responded to diet and medication, including two different medications, within one year. Consider earlier referral if the hyperlipidemia is quantitatively severe or if atherosclerosis is known.
16. **REFERRAL PROCESS:** Endocrinology Clinic is monthly at SCHC with Dr. Akman (no children <13 years old)



GASTROENTEROLOGY

PRIMARY CARE CLINICIAN SHOULD:

1. Diagnose lower abdominal pain by history, physical examination, and appropriate lab work. Sigmoidoscopy should be performed if clinically indicated and if trained. Referral to surgery is appropriate for suspected acute abdomen, such as appendicitis or to gynecology for suspected pelvic disorder. GI consultation may be appropriate if the diagnosis remains uncertain or is refractory to initial therapy.
2. Diagnose acute diarrhea with fecal leukocytes, stool culture if fecal leukocytes positive or suspicion of salmonella, ova and parasites, and sigmoidoscopy if indicated. Treat infectious diarrhea if identified. Refer if the diagnosis remains in question or symptoms do not respond within 72-96 hours of the initiation of therapy.
3. Diagnose conditions associated with changes in stool caliber, tenesmus or an alteration in stable bowel patterns. Evaluation may include a barium enema and flexible sigmoidoscopy or colonoscopy. Refer if polyps or other abnormalities are found or if no diagnosis has been established by examination.
4. Diagnose causes for protracted vomiting and nausea by examination, x-ray, and laboratory. Treat with appropriate outpatient rectal or parenteral medications and IV fluids. GI consultation may be appropriate if the diagnosis is uncertain or the patient is refractory to initial therapy. Refer to surgeon for suspected bowel obstruction.
5. Diagnose and treat heartburn([GERD](#)), upper abdominal pain, and symptoms of reflux or acid peptic disease. Refer for persistent or recurrent symptoms for over eight weeks. Early referral may be appropriate for patients over the age of 50 with new symptoms, patients with guaiac positive stool, or patients with dysphagia or weight loss.
6. Diagnose [functional bowel syndrome](#) by history, examination, laboratory or other tests, which may include sigmoidoscopy and barium enema and, if needed, psychiatric evaluation. Treat symptomatically. Refer if abnormalities are found, there is associated bleeding or weight loss, or if symptoms are refractory to therapy.
7. Diagnose jaundice by history, examination, and laboratory including hepatitis serology, ultrasound, and CT scan if indicated. Refer if jaundice is complicated by fever, is progressive, associated with intractable ascites or if there is undiagnosed hepatocellular disease. Refer extrahepatic or intrahepatic bile duct obstruction for GI and surgical consultation.
8. Diagnose and treat patients with [pancreatitis](#), expecting a favorable response to conservative treatment in patients with chronic relapsing pancreatitis. Consult for patients with initial episode of acute pancreatitis, and consider early surgical consultation if course is unfavorable or complicated. Consult for patients with malabsorption secondary to chronic pancreatitis.
9. Diagnose ascites by history, examination, laboratory and paracentesis if qualified. Paracentesis should be done in new onset ascites, fever, altered mental status, or changing

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clinical course. Refer if paracentesis fluid is an exudate, chylous, intractable or if the diagnosis remains in question. Treat with diet and diuretics.

10. Resuscitate for acute upper GI and lower intestinal bleeding and refer immediately for consultation with gastroenterology and perhaps general surgery.
11. Manage stable [inflammatory bowel disease](#) with appropriate medications. Consultation is appropriate for the initial diagnosis, colonoscopy if indicated, or if control is not well maintained. Consult for acute exacerbation of inflammatory bowel disease.
12. Screen for [colon cancer](#) according to a recommended schedule. Guidelines for usual risk patients include an annual digital rectal exam after age 40 or 50, annual fecal occult blood test after age 50, and flexible sigmoidoscopy every three to five years after age 50. In testing for occult fecal blood, the dietary restriction should stress cooked vegetables, avoidance of red meat and non-steroidal anti-inflammatory drugs prior to testing. Earlier or more frequent examinations are indicated for high-risk patients. Consultation for colonoscopy is appropriate for a patient in whom an adequately done stool for occult blood test had been positive in the absence of obvious lower GI tract bleeding.
13. Screen for [Hepatitis](#) as appropriate. If referral for [Hepatitis C](#) is appropriate, see the attached guidelines.

14. **REFERRAL PROCESS:**

Gastroenterology Clinic is twice monthly at SCHC with Drs. Blankenberg and Spinka

Endoscopy referrals can be made directly to their office

Hepatitis C Clinic is twice monthly at SCHC with Dr. Stanfield and Mr. Houston, Hepatitis C video is monthly and must be seen by patient prior to clinic appointment



GENERAL SURGERY

PRIMARY CARE CLINICIAN SHOULD:

1. Evaluate and follow small breast lumps in teenagers every three months for at least two visits for all stable breast lumps. Refer for breast lumps larger than 2 cm in size, any change in size, or associated skin or nipple changes.
2. Order [screening mammography](#) according to an approved schedule. One such schedule could be for a base line mammogram between the ages of 35-40, mammogram every two years between the ages of 40-50, and a mammogram annually over the age of 50. In patients under 50 more frequent screening is appropriate in high risk patients including those with previous breast cancer, family history of breast cancer in first degree female relatives([genetic risk screening](#)) or a breast biopsy showing atypical hyperplasia indicating increased risk. Mammogram should be followed by clinical breast examination.
3. Aspirate breast cysts if trained, being sure to have careful pathological examination on bloody fluid, or if aspiration results in incomplete resolution of the cyst on physical examination.
4. Refer persistent [breast cysts](#), lumps, persistent areas of thickening, suspicious and indeterminate mammograms or breast lesions associated with skin or nipple changes. Undiagnosed masses must have incisional biopsy and/or stereotactic mammographic biopsy. Opportunity exists for the primary care Clinician, general surgeon, and radiologist to determine the best biopsy modality for a given patient and lesion.
5. Refer symptomatic inguinal and abdominal wall hernias, and all femoral hernias.
6. Refer hiatal hernias with symptoms of gastroesophageal reflux disease with evidence of Barrett's esophagitis, persistent bleeding, symptoms of aspiration or stricture after medical treatment, gastroenterological evaluation, and unsatisfactory response to treatment.
7. Diagnose and treat peptic ulcer disease and consult for perforation or obstruction, persistent or recurrent bleeding, or intractability.
8. Diagnose symptomatic gall bladder disease by history, physical examination and ultrasound. Refer if symptomatic. Laparoscopic cholecystectomy is the procedure of choice unless clearly contraindicated.
9. Refer for extrahepatic bile duct obstruction unless gastroenterologist will do ERCP.
10. Refer acute abdominal pain associated with leukocytosis, fever, peritoneal signs or palpable abdominal mass.
11. Diagnose and treat nausea, vomiting, or obstipation and consult for gastric outlet, small bowel, or colonic obstruction.
12. Treat acute [gastrointestinal bleeding](#) with early gastroenterological consultation and early surgical consultation if active bleeding continues.

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13. Treat uncomplicated perirectal disease such as [hemorrhoids](#) and anal fissures with diet, suppositories, sitz baths, and periodic rectal dilation for fissures. Refer for perirectal abscess, fistula in ano, persistent bleeding or prolapsing hemorrhoids. If trained, treat thrombosed external hemorrhoids surgically.
14. Perform incision and drainage of simple soft tissue infections if trained. Refer refractory non-responding soft tissue infections, especially in diabetics or immunocompromised hosts, or complex infections on the hand or fingers.
15. Consult for inflammatory bowel disease to have a cooperative effort between primary care Clinician, gastroenterologist, and general surgeon. After the initial diagnosis and treatment plan has been established with a gastroenterologist, the primary care Clinician should manage uncomplicated disease. Acute exacerbations should be managed in cooperation with a gastroenterologist. Consult surgery for complications such as obstruction from stricture, persistent bleeding, perirectal disease, toxic megacolon and consideration for surgical resection in patients with long-standing ulcerative colitis.
16. Diagnose and treat patients with pancreatitis. Consult gastroenterology and surgery for patients with acute pancreatitis or severe abdominal pain and complications of hemorrhagic or necrotizing pancreatitis.
17. **REFERRAL PROCESS:** Surgery Clinic is twice monthly at SCHC with Dr. Cook



HEMATOLOGY

PRIMARY CARE CLINICIAN SHOULD:

1. Recognize hypochromic microcytic [anemia](#). (#2)
2. Diagnose and treat iron deficiency anemia and identify the cause. Refer for hypochromic microcytic anemia not due to iron deficiency or not responsive to treatment.
3. Recognize macrocytic anemias. Diagnose and treat vitamin B<sub>12</sub> and folic acid deficiency. Refer for macrocytic anemias the cause of which is unknown, or refractory to treatment with vitamin B<sub>12</sub> and folic acid.
4. Recognize hemolytic anemias and institute appropriate testing. Diagnose congenital hemolytic anemias due to hemoglobinopathies or membrane defects. Identify and remove offending chemical, pharmaceutical and physical agents. Diagnose immune hemolysis. Diagnose and manage sickle cell crisis. Refer for complications of sickle cell anemia. Refer patients with spherocytosis, immune hemolytic anemia, thrombotic thrombocytopenic purpura, acute hemolytic episodes and hemolysis of unknown cause.
5. Recognize the anemia of chronic disease.
6. Refer suspected porphyrias and hemochromatosis.
7. Recognize erythrocytosis. Refer if polycythemia is unexplained by hypoxemia or associated with leukocytosis and/or thrombocytosis.
8. Refer pancytopenia for bone marrow examination and possible treatment of leukemia, multiple myeloma, or bone marrow failure.
9. Refer for leukemia, myeloproliferative disorders, myelodysplastic disorders, and lymphomas.
10. Manage stable neutropenia over 1,000 cells per cubic millimeter. Refer for more severe neutropenia, new onset of neutropenia less than 2,000 cells per cubic millimeter, peripheral blasts or other immature cells. Refer for abnormal white blood cell morphologies. Primary care CLINICIAN should manage mildly symptomatic chronic lymphocytic leukemia and infectious mononucleosis.
11. Recognize bleeding disorders and diagnose most [platelet](#) and coagulation disorders. Refer for undiagnosed conditions, suggested initial management, and treat stable inactive abnormalities.
12. Refer patients with undiagnosed splenomegaly, adenopathy, or hypergammaglobulinemia.
13. Identify the need for transfusion of [blood products](#).
14. **REFERRAL PROCESS:** No hematology clinic at SCHC, but referrals to Mercy Cancer Care Consultants easily done.

HIV/AIDS

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### PRIMARY CARE CLINICIAN SHOULD:

1. Be able to identify risk factors for [HIV infection](#) in SCHC patients, offer testing for HIV. The patient is obligated to receive pre- and post-test counseling. This may be performed by the clinician, by referral to the Early Intervention Services (EIS) Coordinator, by the Public Health Department, or by any professional trained in pre- and post-test counseling. Confidential testing is available through routine laboratory testing; anonymous testing is available at the Public Health Department.
2. Refer all new HIV positive patients to EIS Coordinator and arrange for continuing medical care.
3. Stage all HIV/AIDS patients according to current Department of Health and Human Services (DHHS) Guidelines.
  - a. Obtain baseline HIV viral load levels, CD4 cell counts; evaluate for past Opportunistic Infections or AIDS defining illnesses.
  - b. Obtain baseline labs: CBC, metabolic panel, lipid panel, liver panel, and U/A.
  - c. Obtain baseline serology: RPR, Hepatitis A,B, and C, Toxoplasmosis. Consider CMV and VZV.
4. Offer Antiretroviral (ARV) Treatment according to the DHHS Guidelines.
  - a. Obtain consultation from an HIV specialist for direction on choice of ARVs at the clinician's discretion.
  - b. Counsel the patient on medication adherence for ARVs.
5. Monitor progression/status of HIV infection.
  - a. Obtain periodic HIV viral load testing and CD4 cell counts (every 2-6 months, based on patient needs).
  - b. Monitor for lipid and other metabolic disorders. Treat according to standard guidelines.
  - c. Counsel the patient regularly on medication adherence.
  - d. Refer and/or treat for psychological disorders as indicated.
  - e. Refer for HIV specialist consultation for changes in treatment, progression of disease, onset of opportunistic infections. Refer for consultation at clinician's discretion, but also at patient's request.
6. Monitor for malnutrition, AIDS Wasting Syndrome, Fat Redistribution Syndromes and treat according to DHHS Guidelines. Refer to EIS program for nutritional assessment and counseling.
7. Prior to referral to an HIV specialist:
  - a. Ensure labs are recent (HIV viral load, CD4 cell count, CBC, basic metabolic panel, lipid panel, liver panel, and U/A).
  - b. Ensure ARV medication, prophylactic medication, and other medication lists are current.
  - c. Ensure medical problem list is updated: HIV coinfections, AIDS defining illnesses, other medical problems, and allergies.
8. Follow prophylactic treatment protocols per the DHHS Guidelines. Be able to identify and treat Opportunistic Infections. Request consultation at clinician discretion. **Refer all patients suspected of CMV Retinitis infection to the ED or Ophthalmologist on an emergent basis.**
9. Immunize all HIV patients for influenza, S. pneumoniae, Hepatitis A, Hepatitis B, Td as indicated. Perform annual PPD.
10. Provide routine GYN health care to female patients.

## SHASTA COMMUNITY HEALTH CENTER AMBULATORY CARE GUIDELINES

- a. Obtain 2 Pap smears, 6 months apart after initial seroconversion or diagnosis of HIV infection. Then, follow annual Pap smears if the findings are normal. Refer to colposcopy or GYN for abnormal findings.
  - b. Be familiar with Human Papilloma Virsu (HPV) infections and cervical disease in HIV-infected women.
  - c. Monitor for other GYN infections and complications.
11. Refer all pregnant HIV positive women to OB care for high-risk pregnancy. Be Familiar with current DHHS Guidelines for treatment of HIV in pregnancy and treatment of newborn to HIV positive women.
12. Monitor for routine Health Care Maintenance issues in both men and women.

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NEPHROLOGY

PRIMARY CARE CLINICIAN SHOULD:

1. Evaluate [renal failure](#) by laboratory test, ultrasound and scans. If evaluation is indicated because of increased serum creatinine, it should include urinalysis, 24 hour urine for creatinine clearance and protein excretion, and renal ultrasound to look for obstructive uropathy. Treat renal failure by eliminating aggravating factors and advising an appropriate diet. Consult for acute renal failure, progressive renal failure, or nephrotic syndrome with any renal failure. Consult for 50% reduction in creatinine clearance, and consider earlier consultation in diabetics. Refer for obstructive uropathy and end-stage renal disease, to urology or nephrology.
2. Evaluate [proteinuria](#) with 24 hour urine and other laboratory tests. Consult if proteinuria exceeds 1 gram in 24 hours, or if hematuria or elevated BUN/creatinine are present.
3. Evaluate and treat hypertension as discussed in the cardiology section. Consider consultation for patients with onset below age 30 or over age 65, because underlying causes are more likely. Refer if renal failure is associated, if hypertension is severe or of sudden onset, or is unresponsive to standard treatment.
4. Evaluate and treat common electrolyte and acid-base abnormalities. Understand abnormalities of magnesium and phosphate. Consult if abnormalities are at extreme or dangerous levels or if they are refractory to treatment.
5. **REFERRAL PROCESS:** No Nephrology Clinic at SCHC but referrals can be made to Drs. Bartlow and



NEUROLOGY

PRIMARY CARE CLINICIAN SHOULD:

1. Perform neurological history and examination including mental status examination, evaluation of cranial nerves, motor and sensory function, coordination, gait, and reflexes.
2. Evaluate [acute headaches \(utility of neuroimaging\)](#), especially those of sudden onset with severe persistent pain, whether traumatic or atraumatic, with or without altered mental state, and focal neurological findings. Consultation and CT scan may be appropriate.
3. Diagnose and treat chronic cluster, [migraine](#), and tension headaches. Consult for a change in headache pattern, altered mental state, focal finding, if the diagnosis is unclear or if there is an unsatisfactory response to [treatment](#). (#2)
4. Evaluate syncope and [seizures](#). Evaluation of cardiac syncope is described in the cardiology section. If a seizure disorder is suspected, consider initial consultation for confirmation of the diagnosis and establishment of a treatment plan. Provide anti-convulsant treatment if the disorder is controlled. Consult if seizures are recurrent or refractory, (obtain sleep deprived EEG prior to referral), if there are concerns of drug toxicity, or if one is considering discontinuance of anti-convulsants.
5. Diagnose and treat [neuropathies](#), radiculopathies, [myelopathies](#), and myopathies. Consult if the cause is unclear or if there is an unsatisfactory response to treatment. If primary care Clinician feels EMG or NCV is appropriate, these should be done prior to referral (**Defer testing if referring to DR RABIE.**)
6. Diagnose and treat degenerative neurological disorders with respect to their general medical care. Consider consultation for confirmation of the diagnosis. Intermittent consultation for medication adjustment may also be appropriate.
7. Evaluate cerebral ischemic symptoms and consider consultation whether transient, reversible, or persistent. Immediate consultation is urgent for consideration of thrombolytic therapy.
8. Consider consultation for:
  - a. [Dementia](#).
  - b. [Intention tremor](#).
  - c. [Tic douloureux](#).
  - d. Intractable neurological symptoms.
9. If referring for consult, all diagnostic tests, medical records and scans pertaining to the referral are to accompany the patient to the first visit. Discuss previous diagnosis of chronic pain, headache and neck or back pain with the neurologist prior to the referral. If the patient has been seen in the past by any other neurologist, the referral must be pre-authorized by the consulting neurologist.
10. STAT or ASAP referrals require a Clinician-to-Clinician referral authorization.

SHASTA COMMUNITY HEALTH CENTER AMBULATORY CARE GUIDELINES

11. **REFERRAL PROCESS:** Neurology Clinic is twice monthly with Drs. Rabiee and Birk

NEUROSURGERY

PRIMARY CARE CLINICIAN SHOULD:

1. Perform neurological history and examination including objective “give-way” and weakness in patients with provisional diagnosis of severe disc disease. Obtain EMG’s of affected arms and legs prior to referral. Obtain appropriate workup of urodynamics if bladder complaints. Attempt to obtain CT with myelogram or MRI of affected region. Obtain MRI Scan if multilevel disc disease or spondylolisthesis.
2. Examine and evaluate intracranial pathology, obtain CT scan or MRI with and without gadolinium and consider immediate clinician to clinician referral for provisional diagnosis of brain tumor.
3. Evaluate and consider referral of carotid stenosis/TIA’s following carotid ultrasound.
4. Consider neurosurgery referral for, pituitary tumor, sphenoidal tumor, AVM-aneurysms, trigeminal neuralgia, acute hydrocephalus, and cerebral hemorrhage after obtaining CT scan or MRI. Refer for depressed skull fracture after obtaining complete skull series,
5. Evaluate acute headaches, especially those of sudden onset with severe persistent pain, whether traumatic or atraumatic. Consider referral if neurologic symptoms. CT scan may be appropriate before referral.
6. Evaluate syncope and seizures. Evaluation of cardiac syncope is described in the cardiology section. If a seizure disorder is suspected, consider initial consultation for confirmation of the diagnosis and establishment of a treatment plan. Provide anti-convulsant treatment if the disorder is controlled. Consult if seizures are recurrent or refractory, if there are concerns of drug toxicity, or if one is considering discontinuance of anti-convulsants. Obtain sleep deprived EEG prior to referral.
7. Evaluate and refer shunt malfunctions after obtaining MRI of spine. (Dr. Page only)
8. Evaluate and refer carpal tunnel syndrome if a positive finding on EMG/NCV and patient is considering surgery.
9. **REFERRAL PROCESS:** Neurosurgery Clinic is twice monthly with Drs. Page and Chandler



OBSTETRICS/GYNECOLOGY

PRIMARY CARE CLINICIAN SHOULD:

1. Perform routine pelvic examination and Pap smears. These examinations should be carried out on a regular schedule, such as beginning at age 18 or with onset of sexual activity and repeated at one to three year intervals depending on risk. Risk status should be assessed for every patient, including age of onset of intercourse, total number of sexual partners, HPV exposure, HIV status, or presence of previous abnormal Pap smear. With low risk status, and three consecutive normal Pap results, interval can be every three years. Pap screening interval may be every three years after age 65 if there is a 10 year history preceding that of negative pap smears.
2. Diagnose and manage [sexually transmitted diseases \(#2\)](#) ([CDC Guidelines](#)) ([treatment table](#)) including pelvic inflammatory disease. Refer complex or unusual cases. Consultation is suggested for PID when:
  - a. Illness is refractory to usual intravenous antibiotic therapy (or failure to respond appropriately in 24-36 hours).
  - b. Pelvic mass suggesting tubo-ovarian abscess is present.
  - c. Diagnosis is uncertain and laparoscopy is considered.
3. Diagnose and treat [vulvovaginitis](#). Refer for refractory or chronically recurring cases.
4. Evaluate acute lower abdominal pain to distinguish gynecologic from gastrointestinal or urinary tract causes. Evaluation should include a thorough obstetrical and gynecological history including menstrual, sexual and reproductive histories as well as symptoms. Pelvic examination, laboratory tests including urine, blood, wet mount cultures, pregnancy testing and ultrasound as indicated should be done. Consult for suspected or confirmed ectopic pregnancy, for pelvic pain associated with abnormal vaginal bleeding and for uncertain clinical diagnosis, which would benefit from another opinion or laparoscopy.
5. Diagnose abnormal early pregnancy and consider referral for:
  - a. Vaginal bleeding.
  - b. Threatened abortion.
  - c. Incomplete abortion.
  - d. Missed abortion.
  - e. Molar pregnancy.
6. Women for whom pregnancy will represent increased risk for mother or fetus should be referred to pre-pregnancy counseling and obstetricians who specialize in the care of high risk patients.
7. Diagnose abnormal vaginal bleeding by history, examination, and laboratory testing as appropriate. Manage with hormone therapy and iron as appropriate. Refer for endometrial

## SHASTA COMMUNITY HEALTH CENTER AMBULATORY CARE GUIDELINES

biopsy if not trained. Refer for uncontrolled symptoms, profuse disabling bleeding, and/or bleeding accompanied by uncontrolled anemia or abnormal biopsy result.

8. Refer [abnormal uterine bleeding](#) that is not responding to hormone therapy, abnormal pelvic CT's or sonograms and pelvic pain that is unresponsive to conventional therapy. Prior to referral, obtain blood work – CBC, TSH, T4, FSH, Estradiol; pelvic sono – CT if indicated; PAP GC – chlamydia cultures, wet mounts; and urine HCG.
9. Refer findings of [cervical dysplasia](#) to appropriate clinician for colposcopy screening and treatment to privileged clinician. Refer to gynecologist if colposcopy screening shows that lesions are invasive or if endocervical specimen shows abnormal cells.
10. Diagnose mild [endometriosis](#) or other pelvic pain ([dysmenorrhea](#)) and manage with medications for pain control such as analgesics and/or non-steroidal and anti-inflammatory drugs. Refer moderate or severe endometriosis or undiagnosed pain for consideration of laparoscopy. Depending upon the results of the laparoscopy, decision for more intensive medical therapy or further surgery can be made. Prior to referral, obtain CBC, TSH, T4, FSH, Estradiol. Also obtain pelvic sonogram and CT if indicated, PAP GC – chlamydia cultures, wet mounts, and urine HCG.
11. Diagnose [pre-menstrual syndrome](#) based on history and symptom calendars, and manage with hormones, NSAIDs, diuretics and other symptomatic treatment as appropriate. Refer refractory cases.
12. Diagnose pelvic masses by pelvic exams and optional ultrasound if adnexal and refer if:
  - a. Greater than 5 cm.
  - b. Internally complex by ultrasound.
  - c. Acutely painful suggesting ovarian torsion or tubo-ovarian abscess.
  - d. Present in a post menopausal woman.
  - e. Persistently present and symptomatic.
13. Diagnose fibroids of the uterus by pelvic exam and optional ultrasound. Refer if fibroids are:
  - a. Causing uncontrollable bleeding, pain and/or anemia, or
  - b. Growing rapidly over six months or growing in a post-menopausal woman.
14. Identify [sexual dysfunction/dyspareunia](#). Perform initial evaluation of both partners when possible. Provide office counseling. Refer for unsatisfactory response to treatment.
15. Perform comprehensive [contraceptive counseling](#) including counseling on the most recent methods and management of side effects of each. Supervise oral hormone treatment. Perform removal of Norplant or other implantable contraceptives if trained. Consideration for permanent sterilization of patient or male partner should be thoroughly discussed prior to specialist referral.
16. Evaluate the [infertile](#) couple including history, physical exam, semen analyses and assessment of ovulation. Refer for:
  - a. Infertility of greater than two years duration.

## SHASTA COMMUNITY HEALTH CENTER AMBULATORY CARE GUIDELINES

- b. Anovulation.
  - c. Suspicion of tubal disease or endometriosis.
  - d. Women more than 30 years of age.
17. Diagnose amenorrhea and perform the initial evaluation including assessment for abnormal pubescence, pregnancy, chronic anovulation, systemic disease or hypothalamic amenorrhea, etc. Refer to gynecology and/or medical endocrinology as appropriate.
18. Provide counseling about and manage [estrogen replacement therapy](#) including management of common side effects. Refer for complications of therapy or for alternate therapeutic considerations. Refer for endometrial biopsy if not trained, abnormal biopsy result or for refractory complications of therapy.
19. **REFERRAL PROCESS:**
- Obstetrics (low risk) is done by Drs. Bosworth, Runyon, Porter and Orloff and also by Mercy Maternity Clinic
- Gynecology Clinic is weekly with Drs. Livolsi and Nasise

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OPHTHALMOLOGY

PRIMARY CARE CLINICIAN SHOULD: ([Handbook of Ocular Disease Management](#))

1. Perform a thorough ophthalmologic history including vision and symptoms.
2. Perform basic eye examination including external examination of lids, conjunctiva, sclera, cornea, iris, alternate cover testing, gross extraocular movements, pupillary responses, distant and near visual acuity, color vision screening, confrontation visual field tests, undilated fundus examination, and red reflex examination in patients.
3. Treat uncomplicated ocular trauma including:
  - a. Corneal or conjunctival abrasions.
  - b. Contusions of the eye.
  - c. Superficial conjunctival or corneal foreign bodies that are not embedded, metallic, central, or requiring sharp instrumentation.

Refer for complications of ocular trauma including:

- a. All corneal burns after initial irrigation.
  - b. Embedded, metallic, central, or unremovable foreign bodies.
  - c. Lacerations of the cornea or sclera or deep lid lacerations.
  - d. Hyphema.
  - e. Irregular pupil.
  - f. Proptosis.
  - g. Edema.
  - h. Suspected retinal detachment or intraocular foreign body.
  - i. Sudden visual loss.
  - j. Persistent severe pain without obvious cause.
  - k. Absent red reflex.
4. Diagnose and treat common non-sight-threatening conditions including: blepharitis, chalazion, hordeolum, pingueculum, subconjunctival hemorrhage, and dacryocystitis.
  5. Diagnose and treat allergic and infectious conjunctivitis including bacterial, chlamydial, and viral conjunctivitis. Distinguish from iritis that is suggested by injection of the bulbar conjunctiva, greater pain and photophobia, miotic pupil, or hypopyon with clouding of the anterior chamber with white cell collections. Refer suspected iritis, and inflammation unresponsive to treatment for conjunctivitis within two or three days.
  6. Refer suspected herpes simplex keratitis.
  7. Refer for increased intra-ocular pressure.

## SHASTA COMMUNITY HEALTH CENTER AMBULATORY CARE GUIDELINES

8. Refer for congenital strabismus, [pediatric patients](#) with disconjugate gaze, patients with acute diplopia or limited eye movement, sudden visual change or loss, visual change accompanied by pain, gradual change in visual acuity, any loss of visual field, suspected optic neuritis, unexplained abnormality on fundoscopic examination, cataract with intolerable visual impairment, unexplained anisocoria, acute ptosis, new onset of flashing lights or floaters. Consult for periodic examinations of diabetics for annual examinations over age 30 or those who are poorly controlled, and periodic examinations of patients taking Plaquenil.
  
9. **REFERRAL PROCESS:** No Ophthalmology Clinic at SCHC but referrals easily made to local ophthalmologists and optometrists



ORTHOPEDICS

PRIMARY CARE CLINICIAN SHOULD:

1. Be aware of any patient who may be involved with a sports medicine program, either as a member of an organized team or voluntarily as an individual. Understand and explain what may be health plan benefits or exclusions. Explain and fulfill one's responsibility to coordinate care.
2. Evaluate atraumatic low back pain with history and examination. Treat with brief periods of rest and exercises as appropriate. Patients with a history of acute trauma or fall should have radiographic studies early in their course. **(Prior to referral for possible surgical treatment it is recommended that the following be tried:**
  - a. **X-ray AP and Lateral standing**
  - b. **Bracing – for cervical spine use a soft collar, for lumbar spine use “Warm and Form” or possible lumbar-sacral support orthotic.**
  - c. **NSAIDs if tolerated.**
  - d. **Analgesics and muscle relaxants as appropriate.**
  - e. **Physical Therapy referral with follow-up during/after course of treatment.**
  - f. **CT Myelogram or MRI if pain is persistent for over 4-6 weeks and patient will consider surgery.**
  - g. **If appropriate, consider EMG/NCV testing for neuromuscular deficits.**
  - h. **At this point, depending upon diagnostic findings, consider referral for surgical consult.)**
3. Treat sprains, strains, and overuse syndromes with ice, heat, non-steroidal anti-inflammatory drugs, analgesics, and specific supports or physical measures.
  - a. Neck sprains can generally be treated expectantly with rest and medication. Patients should not hold a telephone with their shoulder. A soft conforming pillow and workstation modification may be helpful. A cervical collar should be used for one or two days. A single physical therapy visit to learn exercises may be useful.
  - b. Rotator cuff sprains should be treated, in addition to rest and medication, with avoidance of painful movements, shoulder abduction posture and consideration of corticosteroid injections into the sub-acromial space. Consider MRI for chronic conditions to rule out tear.
  - c. Consider splinting for comfort, for wrist sprains.
  - d. Knee sprains should be treated with elevation, restricted weight bearing, a removable knee splint, and exercises which may be introduced in one to three physical therapy visits. Consider MRI for suspected cartilage or ligament disruptions. If examination reveals instability, consider referral.

## SHASTA COMMUNITY HEALTH CENTER AMBULATORY CARE GUIDELINES

- e. Ankle sprains are treated with elevation, restricted weight bearing, splinting, and exercises that may be introduced in one to three physical therapy visits. Referral should occur for grade 3 sprains with instability.
4. Diagnose and treat non-displaced fractures of the clavicle, scapula, humerus, radius, ulna, hand, fingers, pelvis, patella, fibula, metatarsals, and toes. These fractures will generally be treated by splints or slings or fiberglass casts. Fractures of the middle thirds of the humerus, radius and ulna should be considered for stat referral because of a tendency to displace. Horizontal patellar fractures should be referred.
5. Diagnose and treat acute regional inflammatory problems such as lateral epicondylitis, Achilles tendonitis, and plantar fasciitis with heat, ice, non-steroidal anti-inflammatory drugs, and activity restrictions directed at pain avoidance. One to two physical therapy visits to teach an effective stretching program are often helpful.
  - a. Lateral epicondylitis may benefit from wrist/elbow splinting, and local infiltration with an anesthetic and a corticosteroid may be helpful.
  - b. Achilles tendonitis may benefit from a removable walking boot. Corticosteroid infiltration of the Achilles tendon is contraindicated.
  - c. Plantar fasciitis may benefit from corticosteroid infiltration with an anesthetic, and orthotics and PT recommendations and/or handout.
6. Treat chronic hip, knee, ankle, and elbow problems in adults. Referral should occur for persistent problems in children. In addition to rest and medication, appropriate measures may include weight reduction, correction of poor posture, non-impact exercise, stretching to improve flexibility, and assistive devices. Referral should occur if there is a chronic non-union fracture, aseptic necrosis, a locked knee, an unstable joint, obvious or apparent ligament tear, a history of trauma, acute or sub-acute effusions, or progressive disability despite conservative treatment. Joint injections may be helpful if the primary care CLINICIAN has been trained and is experienced in their performance.
7. Manage chronic pain problems if consultation has ruled out surgery. Do not refer for management of chronic non-surgical conditions. A one-time consultation may be requested for an orthopedist's recommendations for PCC care.
8. Diagnose and treat common foot problems. Conservative care should include education about hygiene, proper cutting of toenails, removal of ingrown toenails, and the treatment of corns and calluses including paring, chemical treatment, and education for home debridement by the patient. Patients with bunions and/or diabetic neuropathy or peripheral vascular disease should have particular attention to appropriate footwear. Treat superficial infections of the foot. Refer for deep abscess, suspicion of gangrene, or osteomyelitis. Discuss with wound care or orthopedic nurse.
9. **REFERRAL PROCESS:** Orthopedic Clinic meets 8 times monthly with Drs. Snider, Schwartz, Ferraro, Lange and Mr. Hartland



OTOLARYNGOLOGY

PRIMARY CARE CLINICIAN SHOULD:

1. Diagnose and treat [tonsillitis](#) and [streptococcal infections](#) including scarlet fever.
2. Refer for consideration of tonsillectomy if the patient has:
  - a. Tonsillar hemorrhage.
  - b. Suspected tonsillar malignancy with progressive unilateral tonsillar enlargement.
  - c. Prolonged or recurrent peritonsillitis/peritonsillar abscess.
  - d. Acute tonsillitis unresponsive to four weeks of antibiotic treatment.
  - e. Recurrent tonsillitis with three documented episodes in four months, four in six months, or six in one year.
3. Evaluate and treat other oropharyngeal infections such as stomatitis, herpangina, or herpes simplex.
4. Diagnose [otitis externa](#) and treat it topically. Refer if the patient fails to improve in 48 hours, or immediately in diabetics, immunocompromised patients, patients with herpes zoster, and patients with persistent otalgia.
5. Diagnose and treat acute [otitis media \(#2\)](#) with up to three different 10-day courses of antibiotics if it is unresolved. Treat persistent effusion for up to three months if unresolved. Treat recurrent otitis media, that is three episodes within six months, with continuous low-dose prophylactic antibiotics for three to six months. Refer if acute otitis media continues toxic for 48 hours despite treatment, because of consideration for tympanocentesis. Refer for mastoiditis, facial weakness, or chronic draining ear or hearing loss in adults. Prior to a referral for a diagnosis of hearing loss, an audiogram screen will be done at SCHC. If the results are abnormal, then schedule with an audiologist for screening with Tympanograms.

Refer for persistent infection after three courses of antibiotics, for [persistent effusion](#) lasting greater than three months despite continued antibiotic treatment and for failure of prophylaxis. Refer if there is persistent hearing loss or delayed speech and articulation in children under the age of three. Evaluate with tympanograms or audiograms. Refer if there is persistent retraction of tympanic membranes. Obtain lateral nasopharyngeal x-rays as appropriate.

6. Diagnose and treat acute and chronic [sinusitis](#) with up to two courses of antibiotics for up to 20 days. Refer if infection is not responsive within 72 hours, or even sooner in frontal sinusitis, or for the presence of periorbital cellulitis. Refer if symptoms are persistent after 20 days, headache is persistent, or if recurrent infections occur. Prior to referral obtain a sinus CT.
7. Diagnose and treat allergic or vasomotor [rhinitis](#) aggressively with antihistamines, decongestants, or inhaled corticosteroids as necessary. Refer for nasal obstruction despite three months of treatment.

## SHASTA COMMUNITY HEALTH CENTER AMBULATORY CARE GUIDELINES

8. Treat epistaxis. Refer for post-operative, posterior, persistent, or recurrent bleeding and if hemodynamic consequences have occurred.
9. Remove earwax with hydrogen peroxide, curettement, or irrigation, but avoid irrigation with a possible perforated eardrum.
10. Treat nasal polyps with measures including nasal corticosteroids but refer if polyps are obstructive or unresponsive.
11. Diagnose and treat acute parotitis and acute salivary gland infections with antibiotics. Refer if a mass or hardness suggests abscess, calculus, or neoplasm. Refer for failure to respond to antibiotics within one week or for recurrent infections.
12. Treat hearing loss attributed to fluid or wax. Refer for acute, persistent, progressive, unilateral, or posttraumatic hearing loss.
13. Treat acute [hoarseness](#). After ruling out epiglottitis, refer if hoarseness is associated with trauma, stridor, dysphagia, or if hoarseness persists greater than 4-6 weeks.
14. Diagnose and treat acute [vertigo](#). Refer if vertigo is associated with unilateral hearing loss, tinnitus, facial weakness, or ear drainage. Refer for Meniere's disease unresponsive to salt restriction and diuresis.
15. Diagnose and treat [Bell's palsy](#). Refer for patients whose findings fail to resolve in six weeks or for any persistent progressive facial paralysis.
16. Treat uncomplicated nasal fractures but refer for breathing difficulty, or significant external or septal deformities.
17. Refer for:
  - a. Non-inflammatory head and neck masses.
  - b. Apparent inflammatory head and neck masses with progressive painless enlargement.
  - c. Any upper airway obstruction.
  - d. Suspected sleep apnea.
  - e. Persistent head and neck pain.
  - f. Hemoptysis.
18. **REFERRAL PROCESS:** ENT Clinic meets monthly at SCHC with Dr. Buxa

PLASTIC SURGERY

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PRIMARY CARE CLINICIAN SHOULD:

1. Obtain past medical history with any information on previous treatments or procedures. Physical exam and history usually isolate the “suspicious” lesions.
2. Evaluate skin cancers, nevi, lumps and bumps and melanomas, biopsy as appropriate.
3. Evaluate patients who may require breast reduction using the following criteria:
  - a. Surplus breast tissue – larger than a “D” cup.
  - b. Symptomatic – includes neck, back, or chest discomfort from breast weight; shoulder grooving from bra straps; submammary intertrigo or interference with physical activities.
  - c. Patient should be within 15-20% of their ideal body weight corrected for height and age. If patient is overweight, provide with a monitored weight loss and exercise program. Obtain an orthopedic consult for back pain.
  - d. Consider referral after patients have lost weight and begun a monitored exercise program. Patients who are overweight/obese have poorer results, are a higher surgical risk, and have lower satisfaction with results.
4. Diagnose chronic ulcer conditions such as stage III/IV decubitus ulcer as appropriate. Consider referral for diabetic foot ulcer, venous stasis ulcer, or tattoo removal (Dr. Wong only.)
5. If condition is acute clinician may call and speak to covering plastic surgeon.
6. Evaluate burn injury sequelae. Consider referral for skin defects requiring skin grafts or sequelae causing functional problems.
7. **REFERRAL PROCESS:** Plastic Surgery Clinic meets twice monthly at SCHC with Drs. Wong, Mendez and Ball

# SHASTA COMMUNITY HEALTH CENTER AMBULATORY CARE GUIDELINES

## PRE-OPERATIVE NON-CARDIAC SURGERY H & P GUIDELINES

### PRIMARY CARE CLINICIAN SHOULD:

1. The clinician should do a complete medical history and review of systems including all negatives. This must include past surgical procedures, chronic health problems, medications that have been prescribed for the patient, even if the patient is not currently taking the medication. Ask about any recent consultations, lab or radiological tests or cardiovascular or pulmonary evaluation. Ask about Advanced Directives/Durable Power of Attorney.
2. Document any drug allergies or untoward reactions to medications or latex.
3. Document any untoward event that followed administration of anesthesia or any surgical procedure.
4. Document findings of a complete physical assessment including findings of active lung disease, CAD (angina, MI, CHF, arrhythmia), liver dysfunction, or complicated DM.

Obtain a cardiac consultation for unstable angina, active CHF (on diuretics), dyspnea on mild exertion, MI within 6 months or arrhythmia. ([Perioperative Cardiovascular Evaluation for Noncardiac Surgery](#))



**PRE-PROCEDURAL ANXIOLYSIS AND ANALGESIA**

Many diagnostic and therapeutic procedures in medicine may be anxiety provoking, physically uncomfortable, and sometimes painful on an individual bases. For this reason, it is the SCHC policy to offer patients information and choices regarding anxiolytic and pain reducing medication prior to any procedure. Factors to consider will include the patient's physical and mental capacity, medical history, medications, allergies, and availability of transportation home.

This policy applies to patients 18 years or older. The intent of the use of these medications is to reduce anxiety and pain, not to induce conscious sedation or anesthesia. If the patient is at risk for respiratory or cardiac compromise with the medications the clinician may elect to defer use of these medications or to provide additional monitoring as deemed necessary.

The choice of medications may include one or more, but are not limited to those on the following list. The medications should be administered an appropriate amount of time preceding the procedure, either PO or IM:

- Acetaminophen 500-1000 mg.... P.O.
- ASA 325-650 mg. ...P.O.
- Ibuprofen 200-800 mg. ...P.O.
- Acetaminophen with Codeine ...P.O.
- Acetaminophen with hydrocodone ... P.O.
- Diazepam 5-20 mg.... P.O. or I.M.
- Chloral Hydrate 500-2000 mg. ...P.O.
- Meperidine 25-100 mg. ...I.M.

For patients who receive Diazepam, Chloral Hydrate, or medications containing narcotics, post-procedure care will include the following:

- The patient will be observed for a period of time the clinician deems appropriate following the administration of the medication to determine the presence of stable vital signs.
- Vital signs will be taken, documented in the patient chart, and the clinician notified before the procedure, after the medication, and immediately prior to discharge.
- The patient's condition on discharge from the clinic will be documented in the chart.
- The driver for the patient will be identified and brought to the exam room to join the patient on discharge.
- Discharge, follow-up instructions and medical information will be given to the patient both verbally and in writing.



PSYCHIATRY

PRIMARY CARE CLINICIAN SHOULD: ([The Psychiatric Review of Symptoms](#))

1. Perform developmental and psychosocial histories and mental status examinations when indicated by psychiatric or somatic presentations, in addition to complete medical history and physical examination. Important somatic presentations include fatigue, anorexia, over-eating, headaches, pains, digestive problems, altered sleep patterns and acquired sexual problems.

Depending on other clinical features, extended psychosocial histories and complete mental status examinations may require more time than has been scheduled for a particular appointment. Determine whether crises such as suicidal ideation, threats of physical harm or psychomotor agitation exist and refer if so. If a crisis does not exist, and these evaluations have not been completed, reschedule the patient within a week for completion of psychosocial history and mental status examination.

Refer children with developmental delays either to a child psychiatrist, trained pediatrician, or a pediatric neurologist, depending on the presentation.

2. Diagnose physical disorders with behavioral manifestations.
3. Make presumptive diagnoses of psychosis, major depressive disorders, other mood disorders including manic or hypo-manic episodes, dementia, substance abuse, eating disorders, anxiety disorders, attention deficit disorder and other common childhood disorders, adjustment disorders, and personality disorders. Anxiety disorders include acute stress disorder, generalized anxiety disorder, obsessive-compulsive disorder, panic disorder, post-traumatic stress disorder, and specific phobias.
4. Recognize the potential role of antecedent medication in psychiatric presentations and remove potentially offending agents.
5. Institute psychopharmacological intervention when considered appropriate for target symptoms in the conditions listed in point 3, above.
6. Institute adjunctive supportive psychotherapy to accompany any psychopharmacological intervention for the conditions listed in point 3, above or as an initial attempt to treat the presenting symptoms in 1, above.
7. Refer persistent substance abuse to an intensive recovery program.
8. Refer for noncompliance with, or abuse of, psychopharmacological medication or for non-compliance with, or abuse of, any prescribed medication or over the counter medication if initial advice does not result in appropriate behavior.
9. Refer any patient with a psychotic disorder for psychiatric care.
10. Refer for psychiatric care any patient with suicidal ideation, plan, or intent, or depression with vegetative symptoms.

## SHASTA COMMUNITY HEALTH CENTER AMBULATORY CARE GUIDELINES

11. Refer patients with severe dissociative disorders such as multiple personality disorder. Refer for other major disorders such as borderline personality disorder, severe eating disorders, particularly anorexia nervosa, panic disorder, and post-traumatic stress disorder.
12. Refer patients with suspected attention deficit disorder if the specific DSM-IV diagnostic criteria are not met or if there is an unsatisfactory response to initial medication. Adjunctive supportive counseling is essential if referral has not occurred.
13. Refer for patient request for consultation or persistent dysfunction without resolution of the presenting symptoms.
14. Provide maintenance medication management after stabilization by a psychiatrist or if longer-term psychotherapy continues with a non-clinician therapist. Consider the need for other primary care services or the potential advantage of having medication management and psychotherapy by the same person.

Many managed care plans “carve out” mental health care to multidisciplinary networks to which patients have direct access without primary Clinician referral. In such plans, the role of the primary Clinician will be limited to referral when needed. However, primary Clinicians must recognize mental illness and symptoms when seeing patients and can avoid excessive resource consumption for somatic symptoms when a psychiatric diagnosis is the underlying cause.

For dangerous or disabling psychiatric conditions, it is appropriate that consultation be with a psychiatrist for consideration of hospitalization or medication. The psychiatrist and primary care Clinician should confer about the appropriate treatment plan and discipline of therapist for the patient.

Care of those with chronic severe mental illness usually requires a multidisciplinary team approach, which often includes help with many aspects of living such as employment and living arrangements. Special attention should be given to educating families about mental illness.



PULMONARY

PRIMARY CARE CLINICIAN SHOULD:

1. Evaluate symptoms and findings including: chest pain, cough, dyspnea, hypersomnolence, increased or decreased breath sounds, rales, wheezes, cyanosis, or clubbing. Obtain pulmonary function tests with and without bronchodilators.
2. Diagnose and treat [asthma](#), including the reversal of acute episodes and the achievement of effective control of chronic asthma. Treatment should consist of inhaled and oral beta-agonists and anti-inflammatories including corticosteroids depending on the severity of the asthma. Education should emphasize environmental controls and triggers including avoidance of smoking and secondhand smoke. Proper inhalant technique and home peak flow measurements should be taught and monitored. Consultation should be sought if control is poorly manifested by chronic cough, continued or progressive symptoms, nocturnal awakening due to asthma, repeated absence from school or work, limited activity, repeated emergency room or office visits for acute episodes, repeated or persistent use of oral corticosteroids, or more severe complications such as the need for hospitalization and/or intubation for respiratory failure. Consultation with an allergist should occur if allergy testing is thought indicated.
3. Diagnose and treat [acute bronchitis](#) and [pneumonia](#). Consult for poor response to treatment including pneumonia unresolved within eight weeks or recurrent pneumonia.
4. Diagnose and treat chronic obstructive pulmonary disease ([COPD](#)), [chronic bronchitis](#), and emphysema with periodic antibiotics, inhaled or oral bronchodilators and/or corticosteroids or other anti-inflammatories. Obtain the results of pulmonary function tests, peak flow rates, arterial blood gases, and drug levels as appropriate. Consider advanced testing at RMC to be read by Dr. Trevor. Refer patients for respiratory failure or poor response to treatment. Examples of poor response include: frequent emergency room visits, frequent or sustained use of oral corticosteroids, progressive dyspnea, hypoxemia, or hypercapnia, or unexplained functional impairment.
5. Manage home aerosol medications, oxygen use, and respiratory therapy as needed.
6. Diagnose possible tuberculosis or fungal infections with skin tests, sputum tests, and serological tests. Provide appropriate anti-tuberculosis prophylaxis. Refer for treatment of these conditions.
7. Recognize occupational lung disease.
8. Recognize opportunistic infections as possible manifestations of immunodeficiency.
9. Order chest x-rays, special views, and CT scans as appropriate.
10. Consult for consideration of bronchoscopy, percutaneous lung biopsy, pleural biopsy, or supraclavicular node biopsy.

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11. Consult for unexplained pleural effusion, hemoptysis, lung masses, sarcoidosis, unusual infections, interstitial lung disease or acute lung injury.
12. Refer suspected [sleep apnea](#) to Dr. Trevor. Prior to referral, screening CSP and TSH must be obtained and ABGs and PFTs must be done at RMC and read by Dr. Trevor. Mr. Houston will then see the patient for initial OSA screening and referral evaluation (**if patient is subsequently referred to Dr. Trevor, the patient must be smoke-free or enrolled in a smoking cessation class prior to the appointment.**)
13. Promote smoking cessation by repeated advice, screening pulmonary function testing, controlled nicotine administration. Programs for behavior modification or education may be advantageous if available.
14. **REFERRAL PROCESS:** Pulmonary Clinic meets monthly at SCHC with Dr. Trevor (no children <13 years old)



RHEUMATOLOGY

PRIMARY CARE CLINICIAN SHOULD:

1. Diagnose crystal diseases ([gout](#)) by history, physical examination, arthrocentesis, crystal analysis, other laboratory tests and possibly x-rays. Treat those conditions with non-steroidal anti-inflammatory drugs, colchicine, and/or allopurinol. Consult if one is not experienced in small joint arthrocentesis. Refer if an episode of crystal arthropathy is unresponsive to non-steroidal anti-inflammatory drugs, if recurrent episodes occur despite appropriate treatment, if progressive erosive arthritis is identified, or if deforming, disabling tophi are present.
2. Diagnose and treat rheumatoid arthritis and inflammatory arthritic diseases with all available medications and modalities, including injections and physical therapy. Consult if, at initial onset or reactivation, manifestations are so severe as to suggest aggressive treatment immediately, if manifestations fail to respond to non-steroidal anti-inflammatory drugs in several months, if a continuous requirement for corticosteroids suggests the potential for immunosuppressive drugs to allow tapering of corticosteroids, if one is not experienced in small joint injections and they appear to be of potential benefit, or if progressive manifestations such as joint erosions, new deformities, sublimation of joints, or functional deterioration suggest a need for reconsideration of a long-range treatment plan. Consultation with a rheumatologist is appropriate if surgical treatment is being considered or if extra-articular manifestations occur, even when non-rheumatological consultation may be indicated.
3. Diagnose and treat degenerative joint disease with analgesics, non-steroidal anti-inflammatory drugs, and the judicious use of steroid injections if experienced. Consult if one is not experienced in joint injections, if there has been no response to treatment after three months, if there is significant functional impairment despite treatment, or if progressive functional limitations and decreased range of motion are manifest in large joints.
4. Diagnose and treat uncomplicated collagen vascular diseases ([systemic lupus erythematosus](#)), cutaneous and systemic vasculitides. Consult if the condition is refractory to initial treatment measures. Consider consultation or referral depending on the extent and severity of manifestations or complications. Consult if a continuing corticosteroid requirement suggests the potential for immunosuppressive treatment to allow tapering of corticosteroids. Consult immediately for temporal arteritis. Consult if there is diagnostic uncertainty.
5. Diagnose and treat non-articular, regional, musculoskeletal syndromes:
  - a. Syndromes of spinal origin.
  - b. Bursitis/tendonitis.
  - c. Overuse syndromes.
  - d. Soft tissue syndromes.
  - e. Traumatic injuries.

Treat with heat, ice, limited physical therapy and stretching, analgesics, non-steroidal anti-inflammatory drugs, muscle relaxants, and anti-depressants. Provide appropriate injections if

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trained and experienced. Consult if progressive dysfunction or intractable pain continue despite standard treatment measures.

**REFERRAL PROCESS:**

Rheumatology Clinic meets twice monthly at SCHC with Drs. Reeder and Peters



UROLOGY

PRIMARY CARE CLINICIAN SHOULD:

1. Diagnose and treat initial and recurrent [urinary tract infections](#) including pyelonephritis with follow-up examinations to ensure clearing of the infection. If infections are persistent, or for initial infections [in children](#), especially boys, obtain prompt anatomical evaluation by IVP or ultrasound, and/or voiding cystourethrogram. If infection is recurrent and anatomical evaluation has not been done, proceed to do so. If no [anatomical abnormality](#) is found on imaging, provide prolonged suppressive prophylaxis if as many as three separate infections occur within a 12 month period. Consult for identified anatomical abnormalities or persistent or recurrent infections despite chemoprophylaxis. Patients with marked urinary frequency or irritability ([dysuria-women](#)) ([dysuria-men](#)) with negative urinalyses and cultures should have urinary cytology tests.
2. Diagnose and treat sexually transmitted diseases, including appropriate tests for chlamydia and gonorrhea. Treat partners as well. Refer for urethral stricture or other complications.
3. Evaluate gross hematuria and [microscopic hematuria](#) confirmed on an uninfected catheterized specimen. Evaluate by IVP, perhaps with nephrotomography, and urinary cytology for persistent hematuria or new hematuria in older patients. Consult if hematuria is due to a mass or with abnormal cytology, or if it is unexplained and persistent or recurrent.
4. Evaluate urinary [incontinence](#) by physical examination, and IVP in males. In females try initial treatment with exercises, weight reduction, and anti-cholinergics. Refer if anatomic or neurologic abnormalities are identified or if the condition is severe and/or unresponsive to treatment.
5. Diagnose and treat epididymitis with antibiotics and symptomatic treatment including NSAIDs. Refer for acute onset in younger males suggesting testicular torsion, and if post-vasectomy.
6. Diagnose and treat [prostatitis](#). Consult for recurrent infections.
7. Evaluation for prostatism and prostatic enlargement or nodules by history and routine rectal examination in all males over 40. Evaluation should include PSA if abnormal findings on rectal exam and may include post voiding residual urine measurement. Treat symptomatic benign prostatic hypertrophy with Cardura, Hytrin, or Proscar. Refer if findings are suspicious for malignancy based on examination or elevated PSA. Refer if severe obstructive symptoms persist despite non-surgical treatment. Prior to referral for prostate evaluation, a PSA, fasting, should be obtained if requested by the specialist.
8. Differentiate scrotal or peritesticular masses from [testicular masses](#) by physical examination, transillumination, and scrotal ultrasound if a testicular tumor is questioned. Consult for all testicular masses, and for hydroceles, spermatoceles, and varicoceles if their large bulk causes intolerable symptoms.
9. Manage [urinary stones](#) on an outpatient basis. Provide expectant care for small (4 mm or less) stones, which are distal or progressing well, down the ureter. Consult for the presence

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of fever and/or larger or proximal stones for consideration of lithotripsy, stenting, or surgical removal. Prior to referral for kidney stone, a KUB with prep should be obtained.

10. Perform circumcision on infants without urethral abnormalities by Plastibell or Gomco clamp methods.
11. Evaluate male factor infertility by examination and several semen analyses. Refer if an abnormality is identified. Endocrine studies and consultation may be indicated.
12. Evaluate [impotence](#) by examination and endocrine studies including testosterone and blood sugar levels. Treat readily correctable factors such as the elimination of medications that may be responsible. Refer if the patient has small testes, Peyronie's disease, or is unresponsive to other treatment. Endocrine or psychiatric consultation may be appropriate depending on other findings. Prior to referral for impotence, PSA and A.M. testosterone tests should be obtained.
13. Refer patients with developmental genital problems or urinary retention, unless the latter problem is transitory due to post-operative status or medication.
14. If patient has had surgery in the past, obtain H&P, operative report, pathology and any biopsy and send prior to scheduled appointment or with the patient.
15. **REFERRAL PROCESS:** Urology Clinic meets monthly at SCHC with Dr. Niazi

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## TELEMEDICINE

SCHC is using telemedicine consultation clinics. The referral process is by using the standard SCHC Request for Referral or Consultation Form and including "Telemedicine" in the box for the specialty.

As of November, 2001, the following telemedicine clinics are available at SCHC.

### **SPECIALTY TELEMEDICINE CLINIC**

### **PROVIDER**

Adult Developmentally Disabled Psychiatry	UC Davis Medical Center
Adult Endocrinology (no children <12 years old)	UC Davis Medical Center
HIV Psychiatry	UC Davis Medical Center
Pediatric Developmentally Disabled Psychiatry	Cedars-Sinai Medical Center
Pediatric Neurology	Cedars-Sinai Medical Center

For information contact:

Dr. Patty Sand-----5742-----SCHC Telemedicine Medical Director

Marie Roberts-----5877-----SCHC Telemedicine Clinical Coordinator

Melinda Connor-----5775-----SCHC Site Coordinator



VASCULAR SURGERY

PRIMARY CARE CLINICIAN SHOULD:

1. Diagnose [abdominal aortic aneurysms](#) by examination and ultrasound. Refer those which are symptomatic, enlarging, or 5 cm in diameter or greater.
2. Diagnose thoracic aneurysms by exam, chest x-ray, and CT exam. Refer those which are 5 cm in diameter or greater, have aortic insufficiency, or aortic dissection.
3. Diagnose venous disease by history, physical examination, and duplex scan. Treat with anticoagulation as appropriate. Refer for uncertain diagnosis and complications e.g., refractory stasis ulcers or embolization despite adequate anticoagulation.
4. Refer arterial problems such as gangrene, [ischemic ulcers](#), or ischemic rest pain.
5. Diagnose and manage intermittent [claudication](#). Refer patients with significant disability. Consultation with radiologist and vascular surgeon may assist the primary care CLINICIAN to coordinate an appropriate treatment plan.
6. Diagnose transient ischemic attacks by history and physical examination. Obtain carotid imaging whether or not a bruit is present. Refer if a classic ischemic attack or recurrent attacks are associated with a carotid lesion appropriate to the neurologic deficit and for surgery.

7. **REFERRAL PROCESS:** see Surgery

**B. DIAGNOSTIC**



**IMAGING MODALITIES GUIDELINES**

**HEAD – BRAIN**

1. **Computerized Axial Tomography (CT Scans)** – CT without contrast is the best way to evaluate acute trauma and suspected acute hemorrhage or hemorrhagic infarction within the first 48 hours. Bone artifacts diminish accuracy in the posterior fossa. Indications include:
  - a. Acute head trauma with suspected intracranial bleeding.
  - b. Suspected subarachnoid hemorrhage.
  - c. Suspected cerebral infarction.
  - d. Contraindication to MRI, particularly an uncooperative patient.
  
2. **Magnetic Resonance Imaging (MRI)** – MRI is the best way to evaluate the brain when acute subarachnoid hemorrhage is not an issue. If MRI is available and not contraindicated, CT should be omitted in all other circumstances. Indications include:
  - a. Suspected, but undiagnosed, hemorrhage in posterior fossa or brain stem.
  - b. Suspected, non-hemorrhagic cerebral infarction:
    - i. Dementia, suspected from multiple infarcts.
  - c. Suspected intracerebral aneurysms or arteriovenous malformations.
  - d. Suspected sagittal sinus thrombosis.
  - e. Suspected brain tumor, including, particularly:
    - i. Meningiomas.
    - ii. Posterior fossa tumors.
    - iii. Acoustic neuromas.
  - f. Suspected intracerebral metastases:
    - i. Bulky tumors.
    - ii. Tumor seeding of meninges or any intradural locus.
  - g. Suspected lymphoma.
  - h. Suspected pituitary tumor or lesion.
  - i. Suspected intra-orbital or visual pathway lesions.
  - j. Suspected intracranial infections such as cerebritis, meningitis, when lumbar puncture is not diagnostic, particularly:
    - i. Brain abscess.
    - ii. Toxoplasmosis.
  - k. Suspected multiple sclerosis. (MRI of the brain is the first choice over MRI of the spine, or evoked responses.)
  - l. Suspected multifocal leukoencephalopathy.

- m. Any suspected intracranial pathology in a patient with AIDS.

***Should have CLINICIAN review before approval of MRI for the following:***

- a. Headaches.
  - b. Tension headaches.
  - c. Migraine.
  - d. Cluster headaches.
  - e. Dizziness.
  - f. Vertigo.
3. **Nuclear Medicine Scans** – Nuclear medicine brain scans are not routinely indicated in the evaluation of intracranial abnormalities, even if other modalities are unavailable, due to relatively poor spatial resolution and limited specificity. Indications include:
- a. Evaluation of brain death in patients with closed head injuries.
  - b. Nuclear cisternography (cerebrospinal flow studies) may be useful in the evaluation of patients with suspected normal pressure hydrocephalus, ventricular shunt malfunction, or CSF rhinorrhea.

Generally, neurological or neurosurgical consultation will have preceded the study.

4. **Ultrasound** – Ultrasound has limited application for diagnosis of intracranial pathology and is not routinely indicated. It could be indicated for:
- a. Suspected germinal matrix hemorrhage in neonates.
  - b. Suspected hydrocephalus in neonates.
  - c. Suspected congenital anomaly of the brain in neonates.

**HEAD AND NECK (CRANIAL AND EXTRACRANIAL)**

1. **Computerized Axial Tomography (CT Scans)** – CT is the best way to evaluate cortical bone, such as the bony calvarium. It is best for the middle ear, ossicles, and cholesteatoma. CT is vastly superior to plain radiographs for the evaluation of large air spaces such as sinuses and mastoids, and adjacent bone. Indications include:
- a. Evaluation of bony abnormalities. Plain radiographs of the skull are rarely indicated.
  - b. Suspected middle ear disorders or mastoiditis.
  - c. Suspected disorders of paranasal sinuses after intense medical treatment and/or if endoscopic sinus surgery is planned. Limited coronal sections are most cost-effective.
  - d. Evaluation of severe facial and deep neck infections, especially with respect to bony relationships.
  - e. Indications for MRI when MRI is contraindicated.

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- f. Staging of head and neck malignancies with contrast enhancement. The preference of surgeon or oncologist will determine whether CT or MRI is used for this purpose.
  - g. Evaluation of the bony orbit for fractures, infections, and tumors.
2. **Magnetic Resonance Imaging (MRI)** – MRI and CT can identify and evaluate soft tissue masses with respect to their origin, their precise location and extension, and for staging known malignancies. Advantages of MRI include the lack of ionizing radiation or need for contrast injection in most patients. MRI is also best for the assessment of the temporomandibular joint if imaging is necessary. It is preferred to TMJ arthrograms or tomograms. Indications for use include:
- a. Staging of head and neck malignancies.
  - b. Evaluation of severe facial and deep neck infections.
  - c. Evaluation of the extent of thyroid malignancies.
  - d. Evaluation of thyroid or parathyroid masses if neither radionuclide scan nor ultrasound is used.
  - e. Evaluation of masses of nasopharynx, hypopharynx, larynx, parotid or submandibular glands.
  - f. Evaluation of ocular and orbital lesions.
  - g. Evaluation of temporomandibular joint dysfunction.
3. **Nuclear Medicine Scans** – Nuclear medicine scans have a limited role in head and neck diagnosis. Indications include:
- a. Evaluation of a dominant thyroid nodule after a non-diagnostic or equivocal fine needle aspiration.
  - b. Localization of parathyroid adenomas to aid in preoperative planning.
  - c. Evaluation of thyroid function.
  - d. Metastatic survey of known thyroid cancer.
4. **Ultrasound** – Ultrasound is not routinely indicated except in the evaluation for carotid disease. Indications include:
- a. Suspected carotid stenosis, by duplex Doppler.
  - b. Evaluation of parathyroid adenomas, preoperatively, if desired by the surgeon.
  - c. Evaluation of thyroid masses. Ultrasound has been getting progressively less important as experience with fine needle aspiration has grown.

## SPINE

1. **Computerized Axial Tomography (CT Scans)** – CT is useful for the assessment of the spine when MRI is contraindicated or unavailable, but is only rarely superior, such as in the evaluation of fractures. In evaluating patients with radiculopathy, CT myelography with intrathecal contrast may be helpful. Indications for use include:

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- a. Suspected spinal fracture.
  - b. Indications for MRI when MRI is contraindicated.
  - c. CT myelography if needed for surgical planning.
2. **Magnetic Resonance Imaging (MRI)** – MRI is best for the evaluation of known or possible tumors, including primary bone tumors, skeletal metastases and intradural masses. It can provide a non-invasive, non-radiating serial evaluation of the response to anti-cancer treatment. It is best to show infection such as spondylitis, osteomyelitis, diskitis, and abscesses. It is best to show the demyelination of multiple sclerosis if the spinal cord is involved and MRI of the brain is negative. It is best to diagnose spinal disc herniation, distinguish it from facet or spur problems, and to diagnose spinal cord diseases. It reduces the need for myelography and may make it unnecessary prior to disc surgery. It is best for all levels of the spine. Indications are:
  - a. Suspected vertebral, paraspinal or intraspinal metastases or infections.
  - b. Suspected primary bone tumors.
  - c. Suspected multiple sclerosis or spinal cord disease.
  - d. Suspected disc herniation, based on progressive neurologic deficit or persistent symptoms of back and leg pain, lasting six to eight weeks without improvement despite treatment including rest, exercise, medication, and possible manipulation.
  - e. Radiculopathy of unknown cause.
  - f. Follow-up of treatment for malignancy or infection.
  - g. Evaluation of recurrent symptoms after spinal surgery, if desired by the surgeon.
3. **Nuclear Medicine Scans** – Scintigraphy is not specific for the cause of any abnormalities. It is not as sensitive for identifying metastases as MRI, but is significantly more sensitive than plain radiographs and can access the entire skeleton. It is often falsely negative when multiple myeloma is present. Indications include:
  - a. Suspected metastatic involvement of the vertebrae when primary diagnosis is known.
  - b. Screening for metastatic involvement of the skeleton.
4. **Ultrasound** – Ultrasound is not routinely indicated but could be used in cases of suspected tethered spinal cord in neonates and young infants.

## ABDOMEN

1. **Computerized Axial Tomography (CT Scans)** – CT is particularly good for the evaluation of abdominal trauma. It is the examination of choice for the evaluation of the pancreas. It is comparable to MRI for the evaluation of lymph node enlargement. It is excellent for the evaluation of the liver. A choice of CT or MRI for abdominal

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disorders may depend on local availability of equipment or expertise. Indications include:

- a. Blunt abdominal trauma.
- b. Suspected or known abdominal aortic aneurysm with abdominal pain.
- c. Suspected intraperitoneal lymphadenopathy or mass, including staging of malignancies.
- d. Suspected pancreatic disorders such as tumor, pancreatitis, or pseudocyst.
- e. Suspected metastatic or infiltrative disease of the liver.
- f. Suspected diverticulitis, which is moderate or severe, when the diagnosis is in doubt, or without response to initial treatment.
- g. Suspected intra-abdominal abscess.
- h. Suspected acute appendicitis, if desired by surgeon.
- i. Suspected pheochromocytoma, adrenal adenoma, or metastases.
- j. Suspected splenic abnormalities such as abscess, infarction, or mass.
- k. Support interventional radiologic biopsy or drainage procedure.

***N.B. Coincident pelvic CT scans may be required.***

2. **Magnetic Resonance Imaging (MRI)** – MRI is most sensitive for complete identification of hepatic metastases and appropriate prior to segmentectomy for metastases, but requires a cooperative patient. It is usually a complementary problem-solving modality after another study of the abdomen. Indications include:
  - a. Suspected metastases of the liver are surgical or medical treatment will vary depending on the most sensitive identification of disease and the patient will cooperate with the study. Otherwise, CT is preferred.
  - b. Differentiation of hemangiomas of the liver from malignant tumors.
3. **Nuclear Medicine Scans** – Cholescintigraphy is a complementary examination to ultrasound in the evaluation of patients with suspected acute cholecystitis. Scintigraphy is excellent in the evaluation of patients with fairly brisk lower GI bleeding to determine if arteriography is necessary. Sufficient resolution may allow localization precise enough to serve as preoperative evaluation. It is also the preferred method to evaluate patients with Meckel's Diverticulum as a suspected cause of gastrointestinal bleeding. Captopril renograms can evaluate patients with suspected renovascular hypertension in whom the clinical index of suspicion is low to moderate. Indications include:
  - a. Suspected acute cholecystitis if ultrasound is inconclusive.
  - b. SPECT study for hemangioma.
  - c. Suspected non-rectosigmoid lower GI bleeding prior to arteriographic evaluation and/or to assist in preoperative evaluation.
  - d. Suspected bleeding Meckel's Diverticulum.

- e. Suspected renovascular hypertension in patients with a low to moderate index of suspicion. Arteriography is preferred in patients with a high index of suspicion.
4. **Ultrasound** – Ultrasound is an excellent modality to evaluate the abdomen and pelvis for a wide variety of abnormalities. It is best in thin patients. Indications include:
- a. Suspected acute or chronic cholecystitis.
  - b. Suspected gall bladder or common duct stones.
  - c. Suspected biliary pancreatitis or to follow pseudocysts of the pancreas.
  - d. Pulsatile abdominal mass.
  - e. Suspected acute appendicitis if desired by surgeon.
  - f. Evaluation of renal colic, along with a KUB, in patients in whom IVPs are contraindicated, such as pregnant patients.

## THORAX

1. **Computerized Axial Tomography (CT Scans)** – CT is very good for mediastinal and hilar detail, and for staging lung cancer. It is excellent for the evaluation of pleural abnormalities, including fluid, plaques and tumors, and supports interventional biopsy or drainage.

Newer spiral CT imaging units are excellent in the evaluation of patients with suspected thoracic aortic dissections, but older scanners may have limited diagnostic sensitivity. A thoracic surgeon familiar with local resources and expertise may choose one of several diagnostic approaches to this problem.

High-resolution uses a special imaging algorithm and is excellent for the evaluation of bronchiectasis and interstitial lung disease. Pulmonary consultation may determine its appropriateness. Indications for use include:

- a. Staging of known lung cancer.
  - b. Suspected mediastinal or hilar abnormality.
  - c. Evaluation of pleural effusion or thickening.
  - d. Evaluation of pulmonary nodules.
  - e. Suspected bronchiectasis.
  - f. Suspected interstitial lung disease.
  - g. Suspected aortic dissection. Aortography and MRI provide superior evaluation of the great vessels. Transesophageal echocardiography may be preferred depending on local resources and expertise.
2. **Magnetic Resonance Imaging (MRI)** – MRI is advantageous for vascular definition and is best for non-invasive delineation of great vessels. It may solve problems after equivocal CT results. Indications are:

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- a. Suspected abnormalities of the aortic arch.
  - b. Suspected neural tumors of the mediastinum.
  - c. If results of contrast-enhanced CT are equivocal, MRI may be helpful to differentiate pulmonary arteries from hilar masses.
  - d. Preoperative planning in the treatment of neoplastic disease, if requested by the thoracic surgeon.
3. **Nuclear Medicine Scans** – Scintigraphy is the best way to diagnose pulmonary embolism but may be indeterminate in patients with underlying COPD. In conjunction with cardiology consultation and exercise testing, it can enhance the diagnosis of myocardial or coronary disease. Indications include:
- a. Suspected pulmonary embolism.
  - b. Suspected reversible coronary perfusion defect.
  - c. Suspected ischemic cardiomyopathy.
4. **Ultrasound** – Ultrasound may be useful to identify pleural effusions and support interventional radiologic drainage procedures. Echocardiography is the best way to evaluate the pericardium and is highly useful in the evaluation of congenital, valvular, myocardial and intracavitary conditions. Indications for use are:
- a. Suspected pleural effusion, not clear from plain radiographs.
  - b. Suspected pericardial effusion.
  - c. Suspected congenital, valvular, myocardial or intracavitary abnormalities.

### FEMALE PELVIS

1. **Computerized Axial Tomography (CT Scans)** – CT is superior to ultrasound in the evaluation of extrauterine disease, although ultrasound is usually done first and may provide satisfactory information. Indications include:
  - a. Staging of pelvic malignancies.
  - b. Suspected pelvic mass or abscess, although tubo-ovarian abscess is initially and usually satisfactorily identified by ultrasound.
  - c. Support for interventional procedures.
2. **Magnetic Resonance Imaging (MRI)** – MRI is most sensitive for staging cervical or endometrial cancer, but this sensitivity is not usually necessary, as clinical, intraoperative, ultrasound or CT findings usually suffice. MRI and CT are relatively equivalent in the evaluation of pelvic adenopathy. Indications are staging of known carcinoma of the bladder, cervix, endometrium, ovary or rectum, if desired by the surgical specialist or oncologist, particularly if CT or ultrasound have been equivocal.
3. **Nuclear Medicine Scans** – Radionuclide cystography may be helpful in the evaluation of pediatric patients with vesicoureteral reflux. Indications are:
  - a. Suspected skeletal metastasis.

- b. Suspected vesicoureteral reflux in pediatric patients.
4. **Ultrasound** – Ultrasound is the modality of choice in the evaluation of obstetrical or gynecological abnormalities. Transabdominal and/or transvaginal techniques provide superior detail of the uterine and adnexal structures. Ultrasound is limited in extrauterine evaluation due to obscuration of anatomical structures, secondary to bowel gas. Indications include:
- a. Determination of fetal age and viability. Exclusion of fetal anomalies.
  - b. Suspected ectopic pregnancy.
  - c. Suspected ovarian cysts, masses, or torsion.
  - d. Evaluation of uterine masses, particularly leiomyomas.
  - e. Suspected pelvic inflammatory disease/tubo-ovarian abscess.
  - f. Undiagnosed pelvic pain.
  - g. Suspected acute appendicitis. Compressive ultrasonography is useful if the clinical diagnosis is equivocal.

#### MALE PELVIS

1. **Computerized Axial Tomography (CT Scans)** – CT is useful in evaluating adenopathy for staging malignancies. Indications include:
- a. Staging of pelvic malignancies when advanced disease is suspected. In the evaluation of prostate cancer, CT is not useful in the evaluation of capsular transgression or local spread.
  - c. Suspected pelvic masses when MRI is contraindicated or unavailable.
2. **Magnetic Resonance Imaging (MRI)** – MRI is best for the staging of bladder and seminal vesicle neoplasms. It may be superior to CT for staging prostate cancer. It is not usually required unless it is likely to influence care decisions. Indications for use include staging of known carcinoma of bladder, prostate, or seminal vesicle.
3. **Nuclear Medicine Scans** – Radionuclide scans are useful for the identification and evaluation of skeletal metastases. Indications are:
- a. Staging of patients with known prostate cancer with bone pain or PSA elevated above 10 Ng/ml. Skeletal metastases are extremely unlikely in patients with lower PSA levels.
  - b. Suspected vesicoureteral reflux in pediatric patients.
4. **Ultrasound** – Transrectal ultrasound is useful in the evaluation of the prostate gland. Indications include.
- a. Palpable nodule on digital rectal exam.
  - b. Significantly elevated or rising PSA.
  - c. Guidance for prostate biopsy.

### EXTREMITIES – GENERAL

1. **Computerized Axial Tomography (CT Scans)** – CT is useful in the evaluation of the bony anatomy of complex intra-articular fractures. Indications are:
  - a. Indications for MRI when MRI is contraindicated or unavailable.
  - b. Evaluation of complex intra-articular fractures.
2. **Magnetic Resonance Imaging (MRI)** – MRI is useful for the evaluation and staging of bone and soft tissue tumors. It is a sensitive method to diagnose stress fractures, particularly in elderly patients. Indications include:
  - a. Suspected or known tumor of bone or soft tissue.
  - b. Staging of known bone or soft tissue malignancy.
  - c. Suspected osteomyelitis of the foot in diabetic patients, particularly when neuropathic or other bony abnormalities, evident on plain radiographs, may confuse scintigraphic interpretation.
  - d. Suspected stress fractures, particularly in the elderly.
3. **Nuclear Medicine Scans** – Radionuclide scans are less specific and sensitive than other studies but have limited usefulness such as screening studies, clarification of incidental findings on plain radiographs, or the evaluation of some compression fractures, some stress fractures or some infections. Indications include:
  - a. Characterization of incidental findings of bone lesions on plain radiographs.
  - b. Suspected skeletal metastases.
  - c. Suspected osteomyelitis of the foot in non-diabetics or diabetics with completely normal plain radiographs.
  - d. Suspected stress fractures in the active young.
4. **Ultrasound** – Ultrasound may be useful in the evaluation of popliteal masses and the vascular system. It is the preferred non-invasive modality for the evaluation of the deep venous system. Indications for use are:
  - a. Suspected popliteal (Baker's) cyst.
  - b. Suspected femoral or popliteal artery aneurysm.
  - c. Suspected deep vein thrombosis.
  - d. Evaluation of intermittent claudication by arterial Doppler.

### EXTREMITIES – ANKLES

1. **Computerized Axial Tomography (CT Scans)** – CT is best for the evaluation of complex intra-articular fractures. Indications include evaluation of complex ankle fractures, especially those involving the calcaneus.

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2. **Magnetic Resonance Imaging (MRI)** – MRI will usually provide, within one study, information that might require multiple other studies. Indications include:
  - a. Suspected bony injuries.
  - b. Suspected ligamentous and/or tendon abnormalities.
  - c. Suspected osteomyelitis in patients with diabetes and confusing radiographic abnormalities.
  - d. Suspected tumors of bone or soft tissue.
3. **Nuclear Medicine Scans** – Radionuclide scans may be useful to rule out infection. Indications are:
  - a. Suspected fractures not diagnosed by plain radiographs.
  - b. Suspected skeletal metastasis.
  - c. Suspected osteomyelitis.
4. **Ultrasound** – Ultrasound is not routinely indicated.

### EXTREMITIES – HIPS

1. **Computerized Axial Tomography (CT Scans)** – CT is useful for the evaluation of fractures, which are visualized suboptimally on plain radiographs and would be indicated for clarification of possible or complex hip, acetabular and pelvic fractures.
2. **Magnetic resonance Imaging (MRI)** – MRI provides superior anatomic delineation of the hip, including joints, bones and surrounding soft tissues. Indications include:
  - a. Suspected avascular necrosis of the femoral head.
  - b. Suspected osteomyelitis or septic arthritis.
  - c. Suspected radiographically occult hip fractures, particularly in elderly patients.
  - d. Evaluation of suspected bone or soft tissue tumors.
3. **Nuclear Medicine Scans** – Radionuclide scans have value for screening the skeleton as well as the region of interest for metastases. Indications include:
  - a. Suspected skeletal metastasis.
  - b. Suspected loosening of joint replacements.
  - c. Suspected pelvic stress fractures, particularly in the elderly.
4. **Ultrasound** – Ultrasound is not routinely indicated in adults but would be indicated for:
  - a. Evaluation of infants with congenital hip dysplasia before the age of three to six months.

- b. Suspected joint effusion, particularly in patients less than three to six months of age.

### **EXTREMITIES – KNEES**

1. **Computerized Axial Tomography (CT Scans)** – CT is best for the evaluation of complex intra-articular fractures.
2. **Magnetic Resonance Imaging (MRI)** – MRI is generally preferred for the evaluation of the knee. It is the best imaging method to evaluate cartilage, ligaments, and menisci for both acute injuries and chronic dysfunction. It can also detect subarticular abnormalities not visible at arthroscopy such as subarticular stress fractures or bone bruises. Selection of the diagnostic approach may depend on the judgement of an orthopedic consultant. Indications include:
  - a. Suspected internal derangement of knee.
  - b. Suspected subarticular stress fracture or bone bruise.
  - c. Suspected tumor of bone or soft tissue.
3. **Nuclear Medicine Scans** – Radionuclide scans have limited value but are indicated for:
  - a. Suspected skeletal metastasis.
  - b. Suspected osteomyelitis.
  - c. Suspected loosening of joint replacements.
4. **Ultrasound** – Ultrasound is useful in the evaluation of the popliteal space. Indications are:
  - a. Suspected popliteal (Baker's) cyst.
  - b. Suspected femoral or popliteal artery aneurysm.

### EXTREMITIES – SHOULDERS

1. **Computerized Axial Tomography (CT Scans)** – CT is useful for the evaluation of complex fractures, including scapular fractures.
2. **Magnetic Resonance Imaging (MRI)** – MRI is useful for the diagnosis of rotator cuff tears. It is superior for definition of the capsular structure, including ligaments and labral structures. Indications are:
  - a. Suspected rotator cuff tears.
  - b. Suspected impingement syndrome.
  - c. Suspected labral lesions.
3. **Nuclear Medicine Scans** – Radionuclide scans have no specific value but could be used for suspected skeletal metastasis or suspected osteomyelitis.
4. **Ultrasound** – Ultrasound is not routinely indicated. In some locations where there has been particular interest and expertise, it may be useful for the evaluation of rotator cuff abnormalities.

### EXTREMITIES – WRISTS

1. **Computerized Axial Tomography** – CT is useful for the evaluation of complex fractures.
2. **Magnetic Resonance Imaging (MRI)** – MRI is a useful modality for the evaluation of the wrists. It may show findings not evident on plain films or sooner than they would be evident on plain films. Indications include:
  - a. Evaluation of the unstable wrist, if plain radiographs with stress is inconclusive.
  - b. Suspected fibrocartilage or ligamentous tears.
  - c. Suspected avascular necrosis.
3. **Nuclear Medicine Scans** – Radionuclide scans have limited value. Indications include:
  - a. Suspected skeletal metastasis.
  - b. Suspected osteomyelitis.
  - c. Evaluation of reflex sympathetic dystrophy.
  - d. Suspected scaphoid (navicular) fracture or avascular necrosis.
4. **Ultrasound** – Ultrasound is not routinely indicated.

**EXTREMITIES – FEET**

1. **Computerized Axial Tomography (CT Scans)** – CT is useful in the evaluation of complex intra-articular fractures.
2. **Magnetic Resonance Imaging (MRI)** – MRI is useful for the evaluation of soft tissue and infections. Indications include:
  - a. Suspected osteomyelitis in diabetic patients, particularly when neuropathic or other bony abnormalities, evident on plain radiographs, may confuse scintigraphic interpretation.
  - b. Suspected tumors of bone or soft tissue.
  - c. Suspected complex ligamentous or tendon abnormalities.
3. **Nuclear Medicine Scans** – Radionuclide scans are useful for evaluation of infection or bone damage. Indications include:
  - a. Suspected osteomyelitis in non-diabetics or diabetics with completely normal plain radiographs.
  - b. Suspected stress fractures in the active young.
  - c. Suspected avascular necrosis.

**Ultrasound** – Ultrasound is not routinely indicated.

**C. VITAL SIGNS**

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**TEMPERATURES**

**PEDIATRICS:**

1. It is not necessary to take temperatures of children who are being seen for a well-child exam, regularly scheduled follow-up appointments, or for acute visits that usually do not involve a fever, e.g., rule out fractures, skin rashes, etc.
2. If the parent or care provider who has one of the above types of appointments thinks the child has a febrile illness, the temperature should be checked.
3. All children under the age of two years who present with an acute illness should have their temperatures taken rectally.
4. If there is any question as to the accuracy of an ear temperature taken on a child over the age of two years it should be checked with either an oral or rectal thermometer.

**ADULTS:**

1. For adults, ear temperatures are adequate for screen on all well visits.
2. Adult patients who present with UTI, SOB, dysuria, or sore throat require oral temperatures.
3. If an ear temperature is under 96 or over 99, recheck with oral thermometer.

Clinicians may always ask nursing staff to take a temperature in an alternate manner for individual case as indicated.

**IV. Forms:**

None