Using Investigative Skills to Diagnose Medical Conditions in Children

Any time a patient presents with symptoms that do not conveniently fit into the context of an easily recognized diagnosis, a physician must engage his or her investigative skills. In pediatrics, this challenge is compounded when the patient is very young and nonverbal.

In pediatric orthopedics, for example, a limping toddler could potentially signal an unseen occult fracture, a developmental abnormality, an infection or a condition of neurological origin. In the absence of communication between a young child and the orthopedic surgeon, it is critically important to enlist the parent’s observation skills, as well as his or her communication and translation skills. It also is important to develop the right clinical team, which might include radiology, infectious disease, imaging and other pediatric subspecialties.

“At Swedish,” says Kathleen Moen, M.D., pediatric orthopedic surgeon at Swedish Pediatric Specialty Care, “we are fortunate to work in an extremely collaborative environment in which specialists are resolute in their efforts to investigate jointly a pediatric ‘mystery’ and to reach consensus on the best approach to treating the patient.”

The case study presented on page two reflects that determination to uncover the under-

Epidemiologic studies show an increased prevalence of peripheral arterial disease (PAD) among aging populations. It is estimated that for every patient with intermittent claudication (IC), there are three individuals with asymptomatic PAD. At five years, those with IC have a:

- Mortality risk of 30 percent
- Nonfatal MI and CVA risk of 20 percent
- Major amputation risk of 4 percent

Those with critical limb ischemia (CLI), defined as rest pain, non-healing wounds or dry gangrene of the foot or toes, have a:

- One-year mortality risk of 25 percent
- Five-year mortality risk of 50 percent
- Major amputation risk of 30 percent

Early identification of individuals at high-risk for PAD is critical to addressing this growing problem.

Identifying Patients at High Risk

Risk factors for developing PAD include:

- Gender (males more than females)
- Age (prevalence increases from 1.1 to 5.2 percent from age 40 to age 70)
- Family history of atherosclerosis
- Smoking
- Diabetes
- Hypertension
- Dyslipidemia

PAD is easily diagnosed with risk-factor assessment and non-invasive testing. A joint effort on the part of primary-care providers and vascular specialists would be successful at identifying more high-risk patients, so aggressively managed reversible risk factors could limit the progression of PAD and reduce the associated morbidity and mortality from MI, CVA and other atherosclerotic (continued on page 2)
Diagnosing Medical Conditions in Children

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lying problem in an 18-month-old child who could not verbalize her symptoms. Imaging ordered by the family’s physician, a history of symptoms described by the child’s mother, a thorough evaluation by a pediatric orthopedic surgeon and follow-up specialized imaging contributed to the final diagnosis. A collaborative effort between physicians specializing in pediatric orthopedics and infectious disease led to the successful treatment and positive outcome.

When to Refer to Swedish
Swedish Pediatric Specialty Services

Swedish’s pediatric physicians are board-certified in a wide range of specialties. They are available for initial consults and referrals, as well as second opinions. The pediatric specialty team at Swedish includes:

- More than 400 staff, including pediatric physician specialists, registered nurses and technicians who are dedicated to pediatric care
- In-house pediatric intensive-care physicians and hospitalists available round the clock to care for hospitalized children
- Child-life specialists to help patients and parents with the stress of a hospital stay

For more information about pediatric specialties or to print a referral form, go to www.swedish.org/pediatrics.

Clinic Locations

Swedish/First Hill
1101 Madison, Suite 800
Seattle, WA 98104
T: 206-215-2700
F: 206-215-2702

Swedish/Redmond
18100 N.E. Union Hill Road
Redmond, WA 98052
T: 206-215-2700
F: 206-215-2702

Swedish/Issaquah
751 N.E. Blakely Dr., 5th Floor
Issaquah, WA 98029
T: 425-313-7088
F: 425-313-7185

Case Study: Pediatric Orthopedics
Kathleen Moen, M.D., pediatric orthopedic surgeon, Swedish Pediatric Specialty Care

A primary-care physician referred an 18-month-old female child with concern of an intermittent limp that had been present for two to three weeks. Although intermittent, the parents sensed the limp was worsening over time.

Past Medical History

There was no discrete history of trauma, although there was a suspicion the child may have fallen out of bed at some point during the last few weeks. Symptoms appeared to be localized to the right lower extremity. The child’s mother noted that her daughter seemed to bear weight through the medial border of her foot. The primary-care physician had ordered radiographs of the child’s hips, as well as lower leg/AP/lateral tibia. The radiographs showed no fracture, dislocation or bony anomalies.

There was no history of recent fevers or chills; however, the mother said the child had been a bit “under the weather” recently. Ear tubes had been inserted one month prior to her clinic visit, and the mother had been administering Tylenol® as needed for apparent discomfort from teething.

Initial Examination

At the time of her initial visit, I noted that she stood with her right foot in hind-foot valgus, posturing on the medial border of her foot. She had somewhat antalgic limp and walked with a foot-flat-to-foot-flat gait on the affected side, with limited active ankle range of motion during gait.

She was not overtly tender to palpation over her right thigh, leg or foot. She moved well through the hip and knee, and seemed to have a supple arc of passive motion through her ankle. There was question of a palpable fullness over the anterior aspect of her ankle.

Radiographs of her foot and ultrasound evaluation were negative, which led me to question whether this was an occult injury or an inflammatory process.

Follow-Up Evaluations and Treatment

I saw the patient one week later for a follow-up evaluation. Her condition was not worse, but there had not been any improvement either. She could crawl and bear weight, but was definitely more uncomfortable when her mother wiggled her foot and ankle when attempting to put on her shoe.

Laboratory test results showed:

- WBC (white blood count): 12
- ESR (Erythrocyte Sedimentation Rate): 12
- CRP (C-reactive protein): 2
- ANA (antinuclear antibodies): negative
- RA (rheumatoid arthritis): <7

Because the symptoms persisted, the mother agreed to move forward with a sedation-assisted MRI of the tibia and hind-foot. The MRI revealed a lesion within the talus, which was more consistent with osteomyelitis than with osteonecrosis. With the MRI information, repeat designated X-rays of the ankle allowed visualization of the lesion.

I scheduled the patient for a biopsy. Intra-operative cultures were negative and the pathology evaluation was consistent with chronic active osteomyelitis. Polymerase chain reaction (PCR) evaluation of the biopsy material identified the organism as Kingella kingae, a species of gram-negative aerobic coccobacilli that colonizes in the respiratory and oropharyngeal tract in children. K. kingae can be transmitted among children by close personal contact. When it causes disease, the clinical presentation can often be more subtle, as in this case. It also is an organism that can be difficult to grow in

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A Comprehensive Approach to Breast Care

In its quest to ensure women have access to comprehensive breast care, the Swedish Cancer Institute (SCI) has successfully developed a network of clinical sites in the Greater Puget Sound Area that offer convenient options. In addition to four full-service Breast Centers in Ballard, Edmonds, First Hill and Issaquah, Swedish breast imaging services have been extended to two community-based imaging centers (Redmond and Mill Creek) and through the Breast Care Express. This mobile mammography program features two specially designed mobile clinics that take screening services directly to neighborhoods and places of work throughout western Washington.

“The breadth and depth of our comprehensive network, which is focused entirely on breast-cancer prevention, early detection, treatment and survival, is unmatched in the state,” says Karen McInerney, director of the Swedish Breast Care Network. “More women with breast cancer receive care through the SCI than at any other breast cancer program in Washington.”

The program offers the full scope of diagnostic and therapeutic services. The SCI is a recognized leader in advanced surgical interventions and in the latest radiation therapies, such as stereotactic radiosurgery and Active Breathing Coordinator™. Because the SCI has invested in multiple radiation-therapy platforms – more than any other facility on the West Coast – radiation oncologists are able to personalize treatment plans to specifically meet a patient’s unique medical or lifestyle needs.

“We have brought together a breast-cancer team that is dedicated to fighting cancer with every available tool,” says Patricia L. Dawson, M.D., Ph.D., medical director of the Swedish Breast Program. “Many of our physicians have dedicated their entire careers to defeating cancer. That expertise, along with the commitment of the SCI’s leadership to seek out and make available to us the best, most current technologies, creates a solid foundation for our program.”

After careful evaluation of published results from a large European study, the SCI recently decided to install digital tomosynthesis in its four Breast Centers. The study clearly showed that this technology improves cancer detection and significantly reduces call-backs and unnecessary biopsies. Digital tomosynthesis allows breast radiologists to more thoroughly visualize the entire breast – enhancing their ability to detect tumors and more accurately identify the size, shape and location of any abnormalities. Installation will be complete by the end of September.

Case Study: Pediatric Orthopedics

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culture, making culture-positive diagnosis more challenging.

In coordination with Swedish’s pediatric infectious disease team, including Dianne M. Glover, M.D., and Farah Cassis-Ghavami, M.D., the child has been undergoing antibiotic therapy. Because of the more indolent nature of this infection and her appropriate clinical response to treatment, her entire course of antibiotics could be provided orally, a great advantage over long-term IV antibiotics.

Close monitoring by the infectious-disease team identified a leukocytopenia, which required a change in oral antibiotics from Keflex® to Septra to complete her course.

The child’s limp has improved. She seems more comfortable and her activity level is approaching her baseline. Follow-up X-rays show interval improvement in the lytic lesion. ☺
Genetic Counseling and High-Risk Surveillance

The Hereditary Cancer Clinic at the SCI offers genetic counseling and testing services for cancer patients and their family members. Patients who do not have breast cancer, but are concerned about their family history, are also able to access these services to help determine their cancer risks. A board-certified genetic counselor reviews medical and family histories to determine which, if any, genetic tests are appropriate.

“There are about 40 genes currently linked to breast cancer,” says Bob Resta, M.S., CGC, a genetic counselor at the SCI. “Because each patient’s situation is unique, the tests we order are case specific.”

Resta reassures patients that although genetic testing can be both emotional and expensive, it does not have to be frightening and the clinic can help them work through insurance issues. Many women who have a family history of breast cancer feel empowered by the testing and use their results to help guide their treatment decisions.

The High-Risk Surveillance clinics at Swedish/First Hill and Swedish/Issaquah generally work with women who have a:

- Family or personal history of breast cancer
- Known genetic abnormality
- Personal diagnosis of atypical hyperplasia of the breast
- History of hormone replacement therapy
- Previous diagnosis of lymphoma or Hodgkin’s disease as a teen and received radiation therapy to the chest area

“We collect a detailed family history for each patient who self refers or is referred by her physician,” says Martha Clay, ARNP, MSN, leader of the High-Risk Surveillance Clinic at First Hill. “We also compile a detailed risk assessment using multiple risk calculators to determine the patient’s lifetime risk factor.”

The goal of these specialized clinics is to monitor high-risk breast-cancer patients, to coordinate with their patients’ primary-care providers, and, whenever possible, to help reduce their risk. For example, because there is some indication that maintaining a healthy weight, consuming a plant-based diet, exercising regularly and limiting alcohol intake can help reduce the risk of breast cancer, they counsel and educate patients about the benefits of these lifestyle changes and recommend classes through the SCI Education Centers that provide additional information and support.

“We develop a close partnership with a patient’s primary-care physician,” says Heidi Dishneau, ARNP, AOCNP, who runs the High-Risk Surveillance Clinic at Issaquah. “We are able to support the primary-care provider by helping to manage the surveillance components of a patient’s ongoing care and monitoring some tasks. We can make recommendations for screenings and lifestyle changes, and ensure the patient is getting the services she needs.”

Some patients develop relationships with these nurse practitioners that last for years.

Advancing Breast-Cancer Research

The SCI participates in both federally funded research, primarily through SWOG (formerly the Southwest Oncology Group), and pharma-funded clinical trials.

“We are involved with multiple SWOG studies and are nearing completion of one large randomized SWOG study that has been evaluating a combination of therapies as a way of improving outcomes,” says Tanya Wahl, M.D., a medical oncologist at the SCI at Issaquah. “However, federal funding uncertainties and regulatory changes that are under consideration will change how we compete for national grants in the future.”

Currently, the SCI is the third largest accruing site among the 20 sites involved in the I-SPY 2 clinical trial for women with newly diagnosed advanced breast cancer. I-SPY 2 is a unique public/private partnership and collaboration among Quantum Leap HealthCare Collaborative, the Foundation for the National Institutes of Health, the National Cancer Institute, the Food and Drug Administration, patient advocates and 20 major cancer-research centers and institutional review boards across the United States and Canada. The goal of this study is to learn whether adding an investigational agent to the backbone of standard chemotherapy prior to surgery improves the treatment of breast cancer, and to learn more quickly which investigational drugs may be most beneficial to women with certain tumor characteristics.

“I-SPY 2 is one of the first large-scale, adaptive randomization trials – an exciting advancement in how clinical trials are managed,” says Erin Ellis, M.D., one of the principal investigators at the SCI. “This type of long-term study is fluid. With multiple drugs in the study, we are able to graduate out drugs that signal efficacy, drop out others that do not and add additional drugs with IRB review and approval.”

The beauty of adaptive randomization is its nimbleness to pivot away from an investigational drug that shows little promise to evaluate another agent without being encumbered by too much regulatory red tape. Investigators use molecular testing, including MammaPrint® testing, to identify patients who fit the parameters of the investigational drugs.

The SCI is committed to advancing this innovative type of breast-cancer research, which potentially can add investigational drugs to a patient’s treatment plan. Treatment modalities that are based on a tumor’s molecular characteristics hold great promise for improving outcomes.

If you would like additional information about the Swedish Breast Care Program, or would like to consult with a specialist about a patient, please call 1-855-XCANCER (1-855-922-6237).
From the beginning, the Swedish Breast Cancer Program has supported patients as they transition out of active treatment. Counselors, social workers and educators have taken active roles in those efforts.

In 2011, the Commission on Cancer (CoC) of the American College of Surgeons (ACS) mandated a new patient-focused standard requiring ACS-credentialed cancer programs provide more coordination among disciplines and incorporate a comprehensive survivorship component by 2015, including:

- A thorough treatment summary following active treatment presented to cancer patients and their primary-care providers
- A detailed follow-up care plan that defines future clinical visits, recommended screenings and other services, and community resources

The Swedish Cancer Institute (SCI) is one of the 1,500 hospitals credentialed by the CoC and is well positioned to meet these new requirements because it has been providing survivorship services to its cancer patients and the community for many years. Survivorship services at Swedish include:

- Patient education centers and an extensive menu of classes and podcasts
- Facilitated support groups
- Naturopathic care
- “Life to the Fullest” survivorship newsletter
- PsychoOncology services
- Genetic counseling and testing
- High-risk surveillance
- Nutrition care
- Rehabilitation and onco-physiatry care

Currently, the SCI is in the final stages of enhancing the coordination among these programs and developing templates in Epic (the system’s electronic medical record) to support and document survivorship activities. The program charged with this extra coordination and tracking will be the SCI Cancer Survivorship Program, which will launch in early fall of this year – well ahead of the 2015 deadline.

Any patient with a cancer diagnosis will have access to the program. In the case of a breast-cancer patient, as she approaches her last treatment appointment, her oncologist will introduce her to the survivorship program’s nurse practitioner who will develop the patient’s personalized follow-up care plan. The NP will also schedule an appointment for three to six weeks after the patient completes treatment to discuss the plan and to identify any unique needs and the Swedish and community resources that are available to meet those needs. The patient’s primary-care provider also will receive a copy of the plan. This approach will continue existing efforts to help address many of the psycho-social issues that often appear after active treatment, such as:

- Body image
- Re-entry into the work force
- Family relationships
- Sexuality
- Fertility
- Chemobrain
- Fatigue

The program also will ensure patients receive the support they need as they transition back into their daily routines. A breast-cancer patient’s relationship with her oncologist is ongoing, but it doesn’t replace the strong relationship she has with her primary-care provider.

“For breast-cancer patients, we envision the SCI’s Survivorship Program and the patient’s personalized follow-up care plan enhancing many of the services we already provide,” says Andy Case, R.N., MSN, OCN, director of medical oncology services. “We see it as a supportive bridge between our breast-cancer team, our patients and their primary-care providers – a bridge that will help patients make the transition from breast-cancer patient to breast-cancer survivor.”

The July opening of a new Level II Nursery makes it possible for premature and ill newborns - born as early as 34 weeks gestational age - to remain at Swedish/Issaquah, rather than be transferred to other hospitals.

“Since the hospital at Issaquah opened, we’ve had to transfer nearly 30 premature or ill babies to other hospitals for neonatal care,” said neonatologist Eric Demers, M.D., medical director of the Level II Nursery and a Pediatrix Medical Group physician specializing in the care of these newborns. “Now that we have our Level II Nursery, these babies can remain with their moms, and we can provide them expert, specialized neonatal care.”

The family-focused nursery features eight private, state-of-the-art hospital rooms that have space for parents to stay overnight. Seven additional rooms will be added in 2014, which will allow babies delivered as young as 32 weeks gestational age to remain at Swedish/Issaquah. Pediatrix Medical Group also staffs Swedish’s Level III Neonatal Intensive Care Unit at Swedish/First Hill.

For information, go to www.swedish.org/issaquahnursery.
disease. In symptomatic patients, medical therapy and revascularization, when appropriate, would be offered to preserve quality of life and limb.

**Simple Steps in PAD Surveillance**

The first steps in identifying PAD are assessing a patient’s PAD risks and symptoms, and performing a physical examination during regular office visits. These initial evaluations can be accomplished in either a primary-care setting or during a referral visit to a vascular specialist.

“The vascular specialists at Swedish are available for initial consultations and referrals, as well as second opinions,” says Brian C. Lange, M.D., a vascular surgeon with Swedish Vascular Surgery. “Primary-care providers are at the front line of health care. They have the closest relationship with their patients and are often the first to identify either the risks that could signal asymptomatic PAD or the symptoms of early PAD.”

Testing individuals with suspected PAD begins with measuring resting ankle-brachial indices (ABI), and may include an exercise exam for IC and other imaging to confirm the diagnosis. In trained hands, the ABI is quite sensitive and specific for PAD. An ABI of 1.00 to 1.40 is normal, while 0.90 to 0.99 is considered borderline abnormal. Values less than 0.90 or greater than 1.40 are abnormal and indicative of PAD.

**Risk Reduction and Treatment**

Vital steps in preventing PAD, reducing PAD progression and, most importantly, reducing MI- and CVA-related morbidity and mortality include:

- Smoking cessation
- Diabetes, hypertension and dyslipidemia management
- Antiplatelet therapy
- An exercise program, with the addition of cilostazol when appropriate
- A non-atherogenic diet

Primary-care providers often initiate and supervise the preliminary steps for individuals with mild to moderate IC. If testing is not available on site, the diagnosis is unclear or initial treatment is unsuccessful, a vascular specialist is able to provide a thorough evaluation and recommend additional therapies and/or interventions.

Surgical or endovascular interventions are usually limited to severe claudication or CLI. Interventions may include:

- **Endovascular**: percutaneous transluminal angioplasty (PTA), atherectomy and/or stenting
- **Open revascularization**: endarterectomy and/or bypass grafting
- **Hybrid**: a combination of endovascular and open procedures

**Summary**

Patients who have asymptomatic or symptomatic PAD, and those who are at risk for PAD, benefit most from the prevention, identification and treatment of the associated risk factors. In turn, those efforts help reduce disease progression, and the risk of MI, CVA and death.

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**When to Refer to Swedish**

**Swedish Vascular Surgery**

T: 206-215-5921  
F: 206-215-5922

Swedish Vascular Surgery specializes in diagnosing and treating a wide range of vascular disorders, including aneurysms, carotid disease, peripheral arterial disease, varicose veins and vascular access. Vascular surgeons are available for initial consultations and referrals, as well as second opinions. Vascular lab testing also is available. There are four Swedish Vascular Surgery locations, making it possible for patients to choose a clinic that is close to home or work. A referral form is available online at www.swedish.org/VascularSurgery.

**Swedish Vascular Surgeons**

- Rocco G. Ciocca, M.D.
- Brian C. Lange, M.D.
- Roman Wong, M.D.

**Clinic Locations**

- **Swedish/Ballard**  
  1801 N.W. Market St., Suite 207  
  Seattle, WA 98107  
- **Swedish/First Hill**  
  801 Broadway, 5th Floor  
  Seattle, WA 98122

- **Swedish/Issaquah**  
  751 N.E. Blakely Dr., Suite 3020  
  Issaquah, WA 98029

- **West Seattle**  
  Professional Clinic  
  3400 California Ave S.W., Suite 210  
  Seattle, WA 98116

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David Myers, R.N. (left) and Brian C. Lange, M.D., FACS
**Case Study: Left Lower Extremity Claudication**

*Brian C. Lange, M.D., FACS, Swedish Vascular Surgery*

A 79-year-old female presented with a multi-year history of left lower extremity (LLE) claudication, characterized by left calf pain with exertion.

**Medical History**

In 2007, she presented with left calf pain after walking three to four blocks. The pain severely restricted walking and hiking with friends, which was her chief means of relaxation. She continued risk-factor management and antiplatelet therapy, and also began a three-month trial of exercise with cilostazol.

Improvement was unsatisfactory, so she underwent successful stenting of the proximal left superficial femoral artery (SFA), resulting in complete resolution of her symptoms.

In 2008, she was diagnosed with Stage IV non-small cell lung cancer (NSCLC) and began indefinite palliative chemotherapy, which was modified several times in subsequent years based on tumor response and the side effects she experienced. She continued walking on a daily basis and frequently hiked in the mountains.

Recently her claudication returned. She was again discouraged by her inability to walk long distances, especially in the face of ongoing treatment for her cancer.

The patient returned, seeking medical treatment for claudication to ensure she would be able to continue her walking/hiking routine, which was an important way for her to socialize with friends and reduce the stress of her diagnosis and treatment.

**Clinical Examination**

An examination showed:

- Normal bilateral groin and right popliteal/pedal artery pulses on palpitation. No palpable pulses below the groin on the left.
- Left foot mildly ruborous with dependency and pallid with elevation
- Resting ankle-arm index (AAI) of 1.01 on right and 0.54 on left
- Exercise AAI unchanged on right and 0.00 on left
- Duplex ultrasound showed a severe left SFA stenosis with a peak systolic velocity (PSV) of 500 cm/second

Maximum medical therapy had already been accomplished, so her treatment choices were either living with her symptoms or revascularization. Given her diagnosis of incurable cancer, the former option would typically have been chosen. However, because her cancer was well contained five years after diagnosis and she derived so much satisfaction from walking long distances, we discussed another catheter-based intervention – one that could be accomplished as an outpatient in our office’s interventional suite, rather than in the hospital, which would significantly reduce the time and cost of the procedure.

**Procedure**

The catheter-based intervention was performed in the office using local anesthesia. An angiogram demonstrated wide patency of the previous stent in the distal SFA, but new severe, tandem stenoses at its mid-point.

The lesions were debulked with laser atherectomy and angioplastied. A final angiogram showed minimal persistent stenosis and excellent run-off to the ankle.

The patient recovered in the office. Afterwards, her foot was warm and pink with a resting AAI of 1.02 on the treated side. She was prescribed a six-week course of clopidogrel. The same nurse cared for her throughout her four-hour stay in the office, and she had a light snack before a friend took her home.

**Follow Up**

During her follow-up visit two weeks post procedure, the patient said that she had already returned to her daily walking routine and was planning a hike. The dorsalis pedis pulse was palpable on the left and her resting AAI was 1.18. Duplex ultrasound demonstrated wide patency of the left SFA and normal run-off below the knee. The patient indicated she was planning to maintain her active lifestyle during her new chemotherapy regimen, which was due to begin shortly.
CME Course Listing – September - November 2013

Physicians from across the region and around the world come to Swedish Medical Center’s Continuing Medical Education (CME) courses to learn about new research and innovative treatment techniques.

For times and locations, go to www.swedish.org/cme or call 206-386-2755.

Intensive Update in Neurology, 2013
Thursday-Friday, Sept. 12-13

Telehealth: Improving Access to Healthcare
Friday, Sept. 20

17th Annual Pain Management Symposium: Sherlock and the Mystery of Pain
Friday, Sept. 27

Cardiology for the Primary-Care Provider
Friday, Sept. 27

11th Annual West Coast Colorectal Cancer Symposium
Friday, Oct. 25

Transradial Approach: A Case-based and Hands-on Training Course
Friday-Saturday, Nov. 8-9

Diabetes Management Update 2013
Friday, Nov. 15

Controversies in Neurological Restoration: Clinical Strategies and Case Presentations
Friday, Nov. 22

Otolaryngology for the Primary-Care Provider
Friday, Nov. 22

Join our email list at swedish.org/CMEProfile

Swedish Medical Center is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

Note: Swedish does not offer CME courses in August and December.

The Newest Members of the Swedish Medical Staff

The following individuals joined Swedish during the third quarter of 2013. We invite you to view their online profiles at www.swedish.org/physicians.

Tyler Albert, M.D. (Critical Care)
Abigail Alt, M.D. (Internal Medicine/Hospitalist)
Michele Arnold, M.D. (Physical Medicine & Rehabilitation)
Marlon Balauag, M.D. (Family Medicine)
Christopher Carlson, M.D. (Gastroenterology)
Charles Cobb, M.D. (Neurosurgery)
Nancy Foote, M.D. (Family Medicine)
Melinda Hawkins, M.D. (Colorectal Surgery)
Sara Jurek, M.D. (Orthopedic Surgery)

Renee Low, Ph.D. (Neuropsychology)
Aaron Stayman, M.D. (Neurology)
Mark Sullivan, M.D. (Critical Care)
Brian Sung, M.D. (Bariatric Surgery)
Barbara Troiano (Internal Medicine)
Alan Velander, M.D. (Neurology/Hospitalist)
Dan Welch, M.D. (Physical Medicine & Rehabilitation)
Anthony West, D.O. (Physical Medicine & Rehabilitation)