Dear Colleagues,

Welcome to the inaugural issue of Specialty Insights.

The Virginia Hospital Center Physician Group created this quarterly publication for members of our referring community. Our goal is to provide you with news and information relative to your daily practice and interaction with your patients.

As physicians, we receive questions from patients every day and witness new developments in healthcare all the time. In this issue, members of the Virginia Hospital Center Physician Group provide knowledge and insight on a wide range of healthcare topics that we hope you find resourceful.

Thank you for your interest in Virginia Hospital Center. We look forward to working with you and continuing to provide the highest quality of care to your patients.

John R. Garrett, MD, FACS
Chief, Cardiac, Vascular & Thoracic Surgery
Chairman, Board of Directors
Director of Physician Services

Next Steps After “Dense Breast” Notification

On July 1, 2012, Virginia became the third state in the country to enact a breast density notification law. The American College of Radiology identifies four categories of breast tissue: (1) almost entirely fatty (less than 25% glandular), (2) scattered fibroglandular densities (25–50% glandular), (3) heterogeneously dense (51–75% glandular), and (4) extremely dense (more than 75% glandular). Dense breast tissue reduces the sensitivity of mammography. Under the new law, the physician’s office or facility that performed the mammography must notify women with density above 50% (category 3 and 4). Many patients are learning this for the first time and are unsure about the implications, noted Molly Sebastian, MD, FACS, one of two dedicated breast surgeons who are part of the team at the Reinsch Pierce Family Center for Breast Health.

Keep in Mind

- As of July 2012, Virginia law requires that women with dense breasts receive notification from the facility or physician’s office where the mammogram was performed.
- Dense breasts do not necessarily place a woman in a high-risk category.
- The American College of Radiology identifies four types of breast density, from almost entirely fatty to extremely dense.
- The Center for Breast Health follows NCCN guidelines to help determine further screening.

Erectile Dysfunction: A Range of Causes, A Range of Treatments

While erectile dysfunction (ED) is often associated with aging, it can be caused by a variety of other factors, according to Gregory Bernstein, MD, FACS, of Washington Urology: physical conditions, such as high blood pressure, high cholesterol, or diabetes; lifestyle issues, such as smoking or obesity; mental or emotional conditions, such as depression; and treatments for other diseases, most notably prostate cancer.

Dr. Bernstein said none of these necessarily cause ED; rather, they are risk factors and conditions to consider. More importantly, ED in younger men can be a harbinger of other conditions such as cardiovascular disease. Thus, he said, “a referring physician may have a lower threshold about when to refer a patient to a urologist than with older patients.”

Oral Meds as First-Line Treatment

Dr. Bernstein characterized oral medications as the first line of treatment. He often suggests PCPs give patients a trial dosage, unless contraindicated because of other medical conditions. If...
Thyroid Nodules: An Increasing Clinical Problem

The importance of thyroid nodules rests in the malignant potential, according to Hatem El Halabi, MD, FACS, Director of Surgical Oncology at Virginia Hospital Center. As defined by the American Thyroid Association (ATA), a thyroid nodule is a discrete lesion within the thyroid gland that is radiologically distinct from the surrounding thyroid parenchyma. Although a patient may see an enlargement or have other symptoms, more likely a nodule is discovered in a routine physical exam or when the patient has imaging for an unrelated condition.

A nodule >1 cm needs further evaluation. As per the ATA, a TSH and a neck ultrasound are the first two assessments. If the TSH is low, a radionuclide thyroid scan could be performed. A hot nodule is rarely malignant.

For patients with thyroid nodules >1 cm and with normal or elevated TSH; with nodules <1 cm but with suspicious features; or at high risk for thyroid cancer (see box on page 4), an ultrasound-guided fine needle aspiration (FNA), an office-based procedure, is the gold standard, said Dr. El Halabi.

The Bethesda Criteria

In evaluating FNA results, specialists refer to the Bethesda Criteria:

- Nondiagnostic or unsatisfactory (in which case, the FNA is usually re-done)
- Benign (0–3% malignant)
- Atypia of undetermined significance or follicular lesion of undetermined significance (5–15% malignant)
- Follicular neoplasm or suspicions for a follicular neoplasm (15–30% malignant)
- Suspicious for malignancy (60–75% malignant)
- Malignant (97–99% malignant)

Mutational analysis and/or gene expression testing are now used with categories III–V to further delineate the malignant potential and sometimes alter the treatment plan.

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Talking with Patients about Why They Need Colorectal Screening

Ninety percent of colorectal cancers caught in their early stages can be cured—yet they are the second leading cause of U.S. cancer deaths (51,690 in 2012). This paradox underscores why screening is critical, according to Rebekah S. Kim, MD, of Washington Colorectal Surgery.

### Compliance and Colorectal Cancer

Dr. Kim has conducted research to correlate prior compliance with colonoscopy screening in patients who had surgery for colorectal cancer. She presented the results at the 2012 annual meeting of the Society of American Gastrointestinal Endoscopic Surgeons.

“Our study showed that about 75% of surgical patients for colorectal cancer were not compliant with screening guidelines,” she said. “Most patients in the study had a colonoscopy because they already had symptoms as opposed to being screened preemptively.”

#### 1 in 20 Chance

A person has a 5 percent chance of having colorectal cancer in his or her lifetime. The disease affects both sexes, and more often those above age 50. Risk factors include family history of colorectal cancer or polyps; smoking, inflammatory bowel disease; and prior breast, ovarian, or endometrial cancer. Incidence is up among African Americans and Hispanics, and they are more likely to come in with more advanced stages, underscoring the role of early screening.

Symptoms may include rectal bleeding, a change in bowel habits, or unexplained weight loss. However, Dr. Kim stressed, 50% of cases have no symptoms until the cancer has advanced.

Guidelines are to screen beginning at age 45 for African Americans and smokers, and age 50 for asymptomatic individuals without risk factors, through age 75. Those with a family history should begin screening at age 40 or 10 years before the age when the family member was affected, whichever is earlier.

### Overcoming Reluctance

Screening options include a digital rectal exam and fecal occult blood test every year, flexible sigmoidoscopy every five years, and colonoscopy every 10 years. A study published in the May 2012 *New England Journal of Medicine* (http://www.nejm.org/doi/full/10.1056/NEJM-Moa1114635) found sigmoidoscopies reduced the incidence of colorectal cancer by 21% and mortality by 26%. “Every patient who presents with rectal bleeding at a minimum receives a flexible sigmoidoscopy in the office setting,” she said.

Some patients say they prefer a virtual colonoscopy. Although the technique has an advantage of being considered noninvasive, it still requires a vigorous oral cathartic laxative similar to preparation for a regular colonoscopy. “A traditional colonoscopy is the gold standard,” Dr. Kim said, but “any screening is preferable to none at all.”

### Possible Prevention of Polyps

There is some evidence that low-dose aspirin decreases the incidence and mortality of some colorectal cancers. Likewise, a person with a history of adenomatous polyps who takes NSAIDs may have less recurrence. However, the medications’ side effects indicate not to use them for routine prevention of colorectal cancers. Screening remains the best option.

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**ERECTILE DYSFUNCTION**

The trial works, the patient may continue under the care of his PCP. If it does not work, this is valuable information for evaluation if he chooses to see a urologist.

**Other Options**

If oral medications do not work or are contraindicated, the urologist may explore other non-surgical options with the patient, such as intra-urethral suppositories, penile injections, or a vacuum pump device. The patient learns how to use the preferred method in the doctor’s office.

Surgery, in the form of a penile prosthesis, has been a “major game-changer for some men,” Dr. Bernstein said. In this outpatient procedure, small inflatable cylinders are implanted within the erection bodies of the penis; the man inflates them via a pump placed in the scrotum and deflates them after intercourse. The prosthesis can be replaced if needed (it has a life of 15–20 years), but will be needed for an erection going forward.

**A Word about Prostate Cancer**

Many men are concerned about ED after prostate cancer surgery. Dr. Bernstein recommends oral medications, but may suggest moving on to other options more rapidly if the orals are unsuccessful. Some erectile function can return 1–2 years after prostate cancer surgery, so penile prosthesis is generally not offered until at least 12 months out.

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**Testosterone and ED**

Low testosterone may lead to ED, but that is not the only reason to measure levels. Recognition is growing about the role of testosterone in overall health. Dr. Bernstein noted many men request their level be tested, and many physicians now include the test in a full health evaluation.
This Issue’s Specialists

**GREGORY BERNSTEIN, MD, FACS.** is a member of Washington Urology. He attended Boston University School of Medicine and completed his internship and residency at Walter Reed Army Medical Center. He was Chief, Urology, at Dewitt Army Hospital at Fort Belvoir. Board-certified in urology, he is Assistant Professor of Surgery at the Uniformed Services University of the Health Sciences in Bethesda. Dr. Bernstein has expertise in male health, erectile dysfunction, low testosterone, and infertility.

CONTACT: gmb3096@virginiahospitalcenter.com, 703.506.8590

**HATEM EL HALABI, MD, FACS.** is the Director of Surgical Oncology at Virginia Hospital Center. He received his medical education from the American University of Beirut and completed his internship and residency at the Medical College of Virginia. He had fellowships at Mercy Health Services in Baltimore and the Medical Informatics and Telemedicine Applications Consortium in Richmond. He is board-certified and active in many professional societies as a presenter and author.

CONTACT: hhalabi@virginiahospitalcenter.com, 703.717.4250

**REBEKAH KIM, MD.** is a member of Washington Colorectal Surgery. She received her medical degree at Dartmouth Medical School and undertook her residency in general surgery at St. Luke’s-Roosevelt Hospital Center, University Hospital of Columbia University. She completed a fellowship in minimally invasive laparoscopic surgery and colorectal surgery at Orlando Regional Medical Center. She performs laparoscopic colon and rectal surgery and screening colonoscopies.

CONTACT: rsk3357@virginiahospitalcenter.com, 703.717.4180

**MOLLY SEBASTIAN, MD, FACS.** is a dedicated breast surgeon and a founding physician of the Reinsch Pierce Family Center for Breast Health. She is a graduate of the University of Virginia School of Medicine, where she received an NSF research grant. She completed her surgical residency at the Medical College of Virginia and received a prestigious NIH Research Fellowship. Board-certified, she completed a fellowship in minimally invasive surgical techniques at Johns Hopkins Hospital.

CONTACT: mls2663@virginiahospitalcenter.com, 703.717.4217

### Thyroid Nodules

**Surgery**

The endocrinologist may refer the patient for a thyroidectomy after the initial evaluation. The surgeon could recommend a thyroid lobectomy or total thyroidectomy, depending on such factors as the clinical suspicion for malignancy, size of the nodule, and patient’s acceptance of the risk and benefit for either option.

Removing the thyroid carries the normal risks of surgery, a small chance of damaging the vocal cords and permanent hypocalcemia, and a lifetime of medication. New diagnostics mean more knowledge, so surgery is only performed when necessary.

### Risk Factors

According to Dr. El Halabi, these risk factors merit scrutinizing a thyroid nodule to rule out malignancy: (1) younger age, (2) male, (3) family history of thyroid cancer, (4) history of radiation exposure, (5) rapid growth or hoarseness, (6) thyroid cancer syndrome, like Cowden syndrome, multiple endocrine neoplasia, or familial polyposis.