THE COVENANT Chart

COVENANT HealthCare

COVENANT MEDICAL STAFF NEWSLETTER | JUNE 2017

Teaching the Next Generation

Dr. Michael Fiore
Covenant HealthCare Chief of Staff

July marks an exciting transition that is unique to medical care. Hospitals and universities experience an influx of new medical students, residents, fellows, and recently graduated medical staff, all of whom are seeking knowledge and guidance.

Covenant HealthCare has a long history of supporting and promoting excellence in medical education, and in teaching the next generation of physicians. This dedication has only intensified through our partnership with the Central Michigan University College of Medicine.

Reflect for a moment on your own career. How did you choose your path? Your specialty? At some point, we have all been influenced by our teachers and mentors. Someone took the time to show us how to obtain a history, examine a patient, and interpret data. A mentor walked us through our first procedures, or served as a role model when having difficult conversations with patients and families. The exponential growth of medical information is, in fact, a direct result of generation after generation of experienced physicians imparting their knowledge and values to students and colleagues. From Hippocrates to Galen, Osler, and Gupta, this rich tradition continues. We are all part of this intricate web of mentorship, contributing to the vast coalescence of medical knowledge.

A mentor's role extends beyond conveying explicit medical knowledge to help students master a curriculum. Perhaps more importantly is the "hidden curriculum" that we offer. This is the passive knowledge acquisition that occurs through the demonstration of professionalism, effective communication, teamwork, ethics, and respect. Brief interactions can create profound influences on the decisions of students. I often reflect upon the words my teachers have spoken to me – mentors who still silently stand by my side whenever I round.

Our partnership with the Central Michigan University College of Medicine provides a special opportunity to join the long history of mentorship. It is one of our professional honors to be allowed to pass along information and experience to future physicians. This has been recognized in *Our Covenant*, the compact between Covenant HealthCare and the Medical Staff that expresses a commitment to "Support medical student and resident training" and "Provide excellence in medical education."

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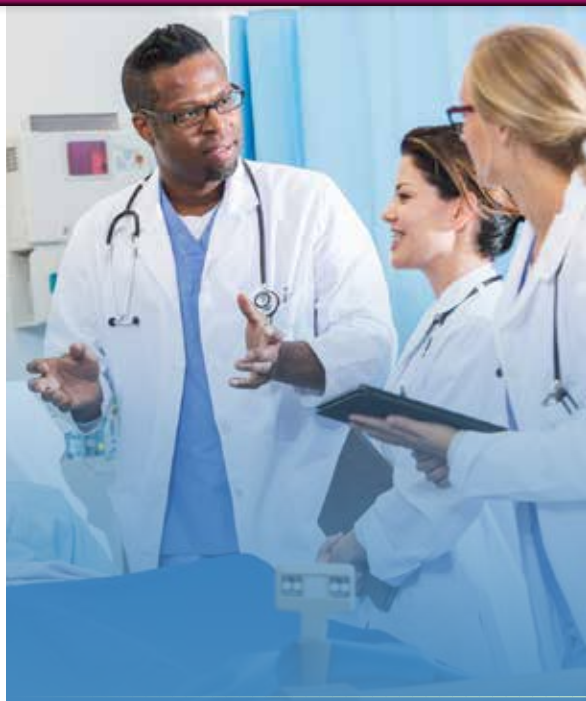

"A man who is not fond of students and who does not suffer their foibles gladly, misses the *greatest zest* in life."

– Sir William Osler

CONTENTS

Advanced Care Planning and Palliative Care: *What You Should Know*

GUEST AUTHORS
Dr. Melodie Knicely, Hospitalist and Physician Lead for Palliative Care (left), and Tracy Bargeron, RN, MSN, Advance Care Planning Specialist (right)

Advances in healthcare technology, combined with an aging population and the need to individualize patient care, is causing leading healthcare organizations across the United States to sharpen their focus on palliative care. Top priorities for palliative care include meeting patient-centered care needs, increasing quality of care and reducing unwanted costs for both patients and the healthcare system.

In general, palliative care offers two services:

- Symptom management for chronic and acute care patients
- Discussions about the patient's goals for care, which is part of advanced care planning (ACP)

This article provides ACP insights that can help you better meet long-term patient needs.

The Benefits of ACP

ACP is a process of communication centered on the patient's choices regarding future healthcare decisions and quality of life, and ensures those choices are shared appropriately when the time comes. Typically, the information is documented in an Advance Directive (AD). There are two forms of ADs: a Living Will and a Durable Power of Attorney for Health Care (DPOA-HC). However, in Michigan only the DPOA-HC is legally recognized.

With these discussions and legal documentation, medical decisions are aligned to the patient's wishes, reducing guesswork and the burden of others having to make painful decisions.

Key documented benefits of ACP include:

- Improved clarity and compliance with a patient's wishes.
- Less decisional conflict, anxiety and depression amongst survivors.
- Less moral distress among healthcare providers.
- Higher rates of AD completion across cultures.
- Fewer unwanted end-of-life (EOL) hospitalizations and readmissions.
- Less intensive and painful EOL treatments.
- Lower cost of EOL care without increasing mortality.
- Greater use of hospice services.
- Fewer deaths in the hospital and more at the patient's preferred location.
- Higher patient and family satisfaction .
- Improved population health.

CASE STUDY

Respecting Choices® is a leading ACP program developed by Gundersen Health System in LaCrosse, WI. Key elements include providing standardized materials to patients across all health settings, training of non-physician facilitators to guide patients and families, and implementing policies and practices for collecting, maintaining, retrieving and utilizing ACP documentation.

This program demonstrated success by achieving an advance care plan among 96% of all adult residents. In addition, data shows that for each dollar spent on ACP, the cost of healthcare was reduced by $2. This adds up to a return on investment of $1 for every dollar spent.

Acceptance and Timing

Once a taboo topic, EOL discussions are becoming more acceptable. People today are more empowered to participate in their own healthcare and often view these conversations as healthcare maintenance and prevention. In addition, large numbers of Baby Boomers are now facing difficult situations with their parents that they do not want to repeat with their own children.

Given this, it is generally easier today than even a decade ago to have ACP conversations with patients. These discussions should be initiated proactively when the patient is relatively healthy. Not only do accidents happen at all ages, but at-risk patients with difficult-to-predict diseases and genetic conditions should be encouraged to state their wishes sooner rather than later.

Conversations are ideally held in an outpatient "conference room" setting, then revisited periodically as the person advances through different stages of life. This way, when a hospital admission is made, decisions and treatment are faster and less stressful for patients, family and healthcare providers.

What Physicians Can Do

At the beginning of 2016, only 7% of adult patients admitted to Covenant HealthCare had a valid AD on file, revealing the need for more comprehensive ACP. Resources for ACP have been established under the Palliative Care umbrella, along with best practices and the following goals:

- Increase the number of ADs.
- Drive community-wide collaboration.
- Ensure a standardized ACP approach and support materials.
- Enhance inpatient and outpatient support for ACP conversations.
- Improve processes for storing and retrieval of ACP documents.

As Covenant implements its new ACP program, physicians are encouraged to:

- Become active participants with patients, their advocates and the ACP team.
- Access a variety of useful ACP resources shown below, including the new Covenant Advance Care Planning website.
- Call the ACP team directly to get support and share ideas, using the contact information shown below.

ACP programs are specifically designed to offer support to physicians, patients and families. Please take the time to learn more about this important part of Palliative Care.

For more information, contact Dr. Knicely at 989.258.1838 (mknicely@chs-mi.com) or Tracy Bargeron at 989.583.6292 (tbargeron@chs-mi.com).

Useful ACP Resources

Stay informed about ACP via the resources below, including a Michigan Advance Care Planning Conference, "Strengthening Best Practices & Community Engagement," is being held October 13-14 in Lansing, MI.

WHAT	LINK
Covenant Advance Care Planning Website	www.covenanthealthcare.com/main/advancecareplanning.aspx
UpToDate® Article	https://www.uptodate.com/contents/advance-care-planning-and-advance-directive
Michigan Advance Care Planning Conference, 2017	https://www.mipcc.org/mi-acp-conference
Michigan Physician Guide to End-of-Life Care: Chapter 2, Advance Care Planning	https://www.michigan.gov/documents/mdch/EOL_COMPLETE_317766_7.pdf
Respecting Choices® Website	http://www.gundersenhealth.org/respecting-choices/

New Standard of Care: *Stereotactic Body RadioTherapy*

GUEST AUTHOR
Dr. James Fugazzi, Medical Director – Covenant Radiation Center, Radiation Oncologist

Stereotactic Body RadioTherapy (SBRT), a nonsurgical radiation therapy for treating small tumors of the body and brain, is now considered a standard of care for treating early stage, inoperable tumors – particularly in the soft tissues of the lung, abdomen and brain. It is providing new options to patients, mimicking surgery with no incisions and minimal side effects.

SBRT Overview

Using 3D imaging, SBRT delivers very precise radiation therapy to a specific target in one to five treatment sessions, which are also called fractions. For treating brain lesions, the procedure is often referred to as Stereotactic RadioSurgery (SRS), requiring one fraction of treatment. Larger tumors may require three to five fractions.

With SBRT, much higher doses of radiation can be delivered per treatment with doses being highly conformal by targeting the abnormality versus the nearby healthy tissue, minimizing collateral damage. As with other radiation therapies, the treatment works by destroying the DNA of the abnormal cells, preventing cell growth and shrinking the tumor.

Advances in linear accelerator technology, 3D imaging and patient positioning devices have enabled this extremely high level of targeting which is beneficial for early limited-stage diseases. SBRT/SRS is also sometimes used for benign conditions that benefit from treatment but without invasive surgery, such as meningioma, arterial venous malformation (AVM) and acoustic neuroma.

Covenant HealthCare utilizes sophisticated Elekta Versa HD™ technology for SBRT/SRS procedures.

Simulation and Planning

During a simulation appointment, the patient is immobilized in a device that does not allow for patient movement. CT scans are obtained and transferred to the treatment planning system. These scans are often fused with MRI and PET images to obtain the most precise location of the target. The treatment plan is then constructed with the dosimetrist, physicist and physician to obtain the best outcomes. The goal is to achieve high doses to the target using several precisely focused radiation beams, while sparing the surrounding normal tissues.

The plan and digital images are then transferred to the treatment machine and the electronic medical record. The physicist runs quality assurance tests prior to the patient arriving for treatment. When everything is verified and approved by the physician, the patient is cleared for treatment.

Treatment

The patient is placed on the treatment table in their immobilization devices. Their position is verified using CT imaging on the treatment machine. Those images are compared to the planning images and everything is again verified by the radiation team. Once position is verified, the machine is engaged for treatment.

New linear accelerators allow the team to treat the patient much faster, which is more comfortable for the patient. Also, because no incisions are required, the risks associated with open surgery and scarring are avoided.

More Progress Ahead

Covenant HealthCare is successfully treating small brain metastasis, lung tumors and some abdominal tumors using SBRT/SRS. It is also in the process of expanding the program by purchasing a cutting-edge planning system that will enable even more precise planning, positioning and imaging techniques. This will allow the medical team to reach more complex lesions and treat benign conditions.

SBRT/SRS treatment has a lower risk of side effects compared with traditional surgery and other forms of radiation therapy, providing new hope to patients diagnosed with hard-to-reach and hard-to-treat conditions.

For more information, contact Dr. Fugazzi at 989.583.5250 or james.fugazzi@chs-mi.com.

With SBRT,

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Update on Autism Spectrum Disorder

GUEST AUTHOR
Dr. Theresa Guinther, Pediatrician, Covenant HealthCare Center for Autism

As the number of autism spectrum disorder (ASD) cases increase nationwide, primary care physicians (PCPs) are being called upon to pay extra-special attention to a child's early development. Most autism diagnoses occur after age 4 but symptoms typically appear one to two years before that. It is well-documented that testing during routine checkups can make earlier diagnosis possible, improving long-term outcomes. Delays can only compound the problem for both the child and family.

Below are a few basic reminders for addressing ASD that can make a difficult job a little easier. Also see the sidebar, Key ASD Resources.

Be Vigilant for Early Warning Signs

For all children in your practice, it is essential to be on the alert for early warning signs of ASD. Be sure to take the following actions during examinations:

- **Listen to parental concerns.** Most parents will note concerns in behavior or development up to six months before speaking to their PCP.
- **Be aware of pathogenesis.** The cause of ASD is not entirely clear but is likely multifactorial, including genetic and environmental influences. There is a likely genetic etiology since there is an increased prevalence in relatives and siblings. There is still no evidence that vaccines are the root cause.
- **Ensure early screening and diagnosis.** Look for common indicators on the Centers for Disease Control and Prevention website, https://www.cdc.gov/ncbddd/autism/facts.html. Signs include deficits in communication and interaction, lack of socialization, and restrictive or repetitive patterns of behaviors and interests. Signs also include the regression of normal development.
- **Perform developmental surveillance at all well child checks.** Use a standardized developmental screening tool at 9, 18 and 24 to 30 months of age.
- **Perform an autism-specific screen at 18 and 24 months.** The Modified Checklist for Autism in Toddlers – Revised with Follow-up (M-CHAT-R/F) is recommended for screening. The revised format with follow-up questions has increased sensitivity and allows for diagnosis at a younger age. Physicians can download this free tool at https://www.m-chat.org/print.php.

Make Referrals for Intervention Services

Three key resources are available to help ASD patients in the State of Michigan: autism diagnostic centers, the Early On® program and the public school system.

Autism Diagnostic Centers

PCPs who suspect ASD based on early signs or elevated M-CHAT-R/F scores should refer the child immediately to an autism diagnostic center for professional evaluation and early intervention.

The Covenant HealthCare Center for Autism is one of five clinics in Michigan approved to offer these services utilizing a multidisciplinary approach. A diagnosis from an autism center is required for a child to obtain medical insurance coverage for services such as speech, occupational or physical therapy and applied behavior analysis (ABA) therapy, and for medical treatment of symptoms. Behavioral and education interventions are targeted for preschool and school-aged children for at least 25 hours per week for best results.

Patients with private insurance can be referred to these centers but families may need to check with their insurance provider about coverage. Patients with Medicaid should be referred to the local Community Mental Health organization for testing.

Early On®

Unfortunately, due to high volumes at autism diagnostic centers, there could be a waiting list of months to up to a year. Secondary to this delay, PCPs can refer the child to Early On®, the State of Michigan's early intervention program. Upon referral, an evaluation is performed by the local intermediate school district (ISD) usually within one to two months.

After evaluation, the child can be immediately scheduled for the recommended services. Early On® evaluations and services are free of charge but note that a medical diagnosis is still required.

Public School System

After learning about an ASD-diagnosed student, the local ISD will complete an evaluation and if needed, develop an individualized education program for that student.

The Role of the PCP

In addition to playing a pivotal role in ASD diagnosis, intervention and educating parents about the above resources, physicians should continue to:

- Monitor their patient for ASD-related nutritional deficiencies, GI problems, sleep issues and other mental health problems such as ADHD, anxiety, depression and emotional outbursts.
- Discuss with parents home safety precautions to avoid the risk of wandering, injuries and drowning.
- Monitor siblings for signs of ASD.

Goals and Prognosis

Treatment goals, of course, are to reinforce desirable behaviors, cognitive abilities and socialization skills in ASD children while reducing symptom severity and maladaptive behaviors. Also important are improving child-parent interaction and giving parents the training they need to continue therapies in the home.

Prognosis varies with the severity and symptoms of ASD. Early intervention can result in improved social functioning and cognitive abilities, and decreased symptom severity. As physicians, we must learn to recognize the symptoms and screen children early for autism spectrum disorder.

For more information, contact Dr. Guinther at 989.453.2141 or guinthert@scheurer.org.

KEY ASD RESOURCES

WHAT	LINK
Autism Speaks Organization	www.autismspeaks.org
Covenant HealthCare Center for Autism	http://www.covenanthealthcare.com/main/main-autismtreatmentcenter.aspx
Early On®, State of Michigan Program	www.1800earlyon.org
M-CHAT-R/F Screening Tool	https://www.m-chat.org/print.php
Signs and Symptoms, CDC	https://www.cdc.gov/ncbddd/autism/facts.html

Adjusting Your Expectations for Patient Care at Longer-Term Facilities

GUEST AUTHORS
Geri Turner, Director of Resident Care, Covenant Glen of Frankenmuth

According to the National Institute on Aging, the population of America's seniors (age 65 and older) is expected to double over the next 25 years. To provide these patients with the best possible care and guidance, we need to increase our understanding of:

- The senior care options that are available to them
- Different staffing models that will change how you communicate doctor's orders

Longer-Term Care Options

Seniors age 85 or older are the fastest growing segment of our population and the group most in need of longer-term care options. Fortunately, in today's world, they and their families can "dial in" the level of help they need (see Table 1).

Their choice usually depends on health and safety needs, affordability and availability. Each type of longer-term care facility has its own pros and cons, and not all facilities have licensed clinical staff.

TABLE 1: **TYPICAL SENIOR CARE OPTIONS AND STAFFING MODELS**

TYPE	DESCRIPTION	STAFFING & SERVICES	COMMENTS
In-Home Care Agencies	Provide in-home care for a specified number of hours each day. Ideal for seniors who don't need extensive help and can afford the hourly rate.	A wide range of services are available from qualified staff, including skilled nursing.	Seniors get to stay at home, but this can get expensive over time and deplete savings.
Senior Apartments	For seniors who can live independently but want amenities like emergency call systems, meal plans, socialization activities and hair salons.	No licensed clinical staff. No in-house healthcare services, but seniors can hire outside services.	Seniors maintain normal lifestyles.
Assisted Living Communities	For seniors who might not be able to live independently. While they do not require constant care, they need help with basic activities such as meals, toileting, bathing, dressing and managing medications.	Limited licensed clinical staff. Staff can provide activities of daily living (ADL) services, from meals, bathing and dressing to medication management. They can also outsource special care services, from skilled nursing and physical therapy to hospice.	Seniors maintain relatively normal lifestyles. Fastest growing longer-term care option.
Memory Care Facilities	For seniors who cannot live independently and are usually suffering from Alzheimer's disease, dementia or other cognitive issues. They need more than assisted living, including help with eating, medication administration, redirection and one-on-one activities.	Limited licensed clinical staff, but highly trained in memory care and with a higher staff-to-resident ratio than assisted living. Services include ADL plus specialized memory and exercise therapies, and coded access and egress.	Seniors experience a loss of independence. By age 85, one out of three seniors will have Alzheimer's or dementia.
Skilled Nursing Care Facilities	**Short-term skilled nursing** is for people requiring the daily attention of a nurse after a hospitalization, such as a hip surgery or a fall. It is focused on rehabilitation.	Specialized staff 24-7, including a larger proportion of licensed clinical staff than other senior care facilities.	Prepares patients receiving **short-term nursing care** for their return to home.
	A long-term skilled nursing home may be required if the patient is confined to bed, requires constant nursing care, and/or has a condition too complex to handle elsewhere.	Services include constant care, ADL and most therapies as needed.	Provides patients receiving **long-term nursing care** (usually at end-of-life) with the skilled care they need.

TABLE 2: **PRIMER FOR ORDERING PROTOCOLS**

What	CNAs	LPNs	RNs	House Physicians
Type of Physician Order				
Verbal Phone Order	No, cannot accept.	Typically no.	Yes	--
Written Order from Physician	Yes, can fax your order to desired pharmacy or other location.	Yes	Yes	--
Typical Staffing				
Assisted Living	Yes	Yes	No	No, patient sees primary care physician, or house physician if available.
Memory Care	Yes	Yes	Depends on facility.	Visiting physicians.
Skilled Nursing	Yes	Yes	Yes, usually all shifts.	Yes, medical director rounding.
What Staff Can Do				
	Fax written scripts to pharmacy, pass medication, take vitals and handle insulin pen, creams and wound changes (after training).	Everything that a CNA can do, plus stats, TB tests, care and service plans, patient injections and assessments; can also outsource skilled care needs.	All typical registered nurse privileges, including catheters, IVs, oxygen and injections.	All typical physician privileges.

If you have a patient that has been discharged from a hospital to a longer-term care facility, be aware that the protocol for giving medical orders will be different than what you are accustomed to in the acute care hospital setting. This is because certain facilities have limited licensed staff which can impact how orders are given, received and implemented.

For example, if your patient enters an assisted living facility, did you know that the staff is not qualified to perform services like inserting or removing a catheter, inserting an IV, managing feeding tubes, or supplying and monitoring oxygen? Nor do they keep supplies on hand for changing IV lines or wound dressings, and they can only dress wounds after a visiting RN trains them. Assisted living facilities are simply not qualified to carry out these and other complex medical treatments.

It is therefore important to understand what the staff is licensed to do at different facilities, and to adjust your orders accordingly (see Table 2 above for a primer). This will help avoid delays that can leave a patient uncomfortable – or untreated – until the orders can be properly fulfilled.

Continued on page 10.

Adjusting Your Expectations for Patient Care at Longer-Term Facilities, continued from page 9

Licensing and Paperwork – Why You Could Be Called

The State of Michigan has two types of licenses for assisted living and memory care facilities:

- Adult foster care (AFC) – a two-year license.
- Home for the aged – a strict one-year license (most assisted living and memory care facilities).

These licenses require the following paperwork from physicians before a patient can be admitted to an assisted living, memory care or skilled nursing facility:

- For every resident, a chest x-ray that is less than 90 days old prior to the date of their admission.
- Annual TB tests for all physicians who visit patients in house, and for residents and employees.
- A completed Physician's Statement form and Resident Medication form at minimum.
- Written scripts for ALL patient medications – hard copies required.

Physicians are also asked to review and reconcile any "new" hospital discharge scripts with existing medications. Occasionally these do not align, so reconciliation is important to patient safety.

Your compliance is all part of ensuring that your patients get the quality of care they deserve.

Key Physician Actions

As much as we try to stop it, growing older is part of the cycle of life. Helping your patients prepare for and enjoy their senior years is an important part of patient-centered care.

Please take the time to learn about senior care options so that you can guide patients and families in the right direction, should the need arise. Also stay up-to-date on medical orders and paperwork for long-term patients. Respecting those needs, and collaborating as a team with the facility's staff, can improve the care experience for everyone involved.

To learn more about assisted living, memory care services and staff capabilities, visit covenantglen.com or contact Geri Turner at 989.262.8340 or gturner@covenantglen.com.

The Rise of Assisted Living

A Center for Disease Control survey found that over half of assisted living residents are over age 85 and in decent health. They had moved to assisted living primarily because they wanted a safer setting and opportunities to socialize. A growing number of facilities are providing assisted living and other levels of care under the same roof to ease a patient's transition to the next level of care should it be needed.

One example in the Great Lakes Bay Region is Covenant Glen of Frankenmuth, which is a partnership with Covenant HealthCare. This 35,000-square-foot, all-inclusive assisted living community provides assisted living and memory care under one roof in a comfortable, home-like setting. It has 45 rooms, 15 of which are dedicated to memory care and 30 to assisted living.

Highly trained staff are available around the clock with activities, meals and programs tailored to the level of care. Because the demand for longer-term care is increasing, Covenant Glen is adding 12 additional assisted living units, a movie theater, café and sunroom, which should be completed by June 2017.

Ownership partners for Covenant Glen include Covenant HealthCare, Wirt-Rivette Group and KEVA Investments.

Covenant Glen of Frankenmuth is a longer-term care facility that provides assisted living and memory care under one roof.

THE CHART

SPOTLIGHTS

Congratulations Physicians of the Month!

MARCH

Dr. Dawn Johnson

PATIENT COMMENTS:

"Dr. Johnson is the best doctor that I have ever seen."

"Dr. Johnson took more time than any other doctor that I've ever seen."
"Dr. Johnson seems truly concerned about her patients."

APRIL

Dr. Pauline Watson

PATIENT COMMENTS:

"I feel very confident under Dr. Watson's care."

"We thought Dr. Watson knew what she was talking about; very trustworthy."
"I really like Dr. Watson; she is very kind and concerned about me."

MAY

Dr. Martin Blank

PEER COMMENT:

"Dr. Blank has a dedication and commitment

to maintaining a high standard of patient care. He always makes himself available in a crisis. Dr. Blank's expertise and willingness to assist provides safe patient outcomes for Covenant HealthCare."

The Value of a VCUG in Children: *AAP Guidelines Raise Concerns*

GUEST AUTHOR
Dr. Kirstan Meldrum, Pediatric Urologist

Urinary tract infections (UTIs) are relatively common in children. Yet when they are associated with fever or occur in the presence of vesicoureteral reflux (VUR) – an inherited condition in which there is retrograde flow of urine into the upper urinary tract – the risk of a child developing renal scarring is significantly increased.

Prompt diagnosis and treatment of a UTI is imperative to minimize the risks of renal scarring. Traditional recommendations have been to evaluate any child with a febrile UTI with a voiding cystourethrogram (VCUG) to determine if the child has reflux, and with a renal ultrasound (US).

However, the American Academy of Pediatrics (AAP) revised their practice guidelines in 2011 to recommend that a VCUG not be routinely performed after an initial febrile UTI, creating confusion about when it is appropriate to order a VCUG in pediatric patients. Important clarifications are provided below to help you ensure the best practice for your pediatric patients.

Background

There is a high incidence of VUR among children who develop a febrile UTI (30%), and an increased risk of renal scarring in children who develop a febrile UTI in the presence of reflux, particularly dilating reflux. Renal scarring is associated with the development of hypertension and end-stage renal disease in children. Additionally, it has been well documented that the risk of renal scarring is increased with the number of febrile UTIs, the grade of reflux, and in the presence of bowel and bladder dysfunction.

Historically, all children with reflux were managed with continuous antibiotic prophylaxis (CAP) until their reflux either resolved spontaneously or was corrected surgically to minimize the risks of renal scarring.

The revised AAP guidelines represented a paradigm shift in the management of children with febrile UTIs and was based on a number of studies in the literature that did not demonstrate a benefit to CAP in the prevention of febrile UTIs among children with VUR.

However, these studies had a number of flaws that limited their interpretation, and the revised practice guidelines ignored previous studies in the literature demonstrating that both anti-reflux surgery and CAP significantly reduce the incidence of recurrent febrile UTIs among children with reflux. Consequently, the revised practice guidelines were strongly opposed by the members of the section of urology in a 2012 statement.

When urinary tract infections are

associated with fever

or occur in the presence of vesicoureteral reflux,

the risk of a child developing renal scarring

is significantly increased.

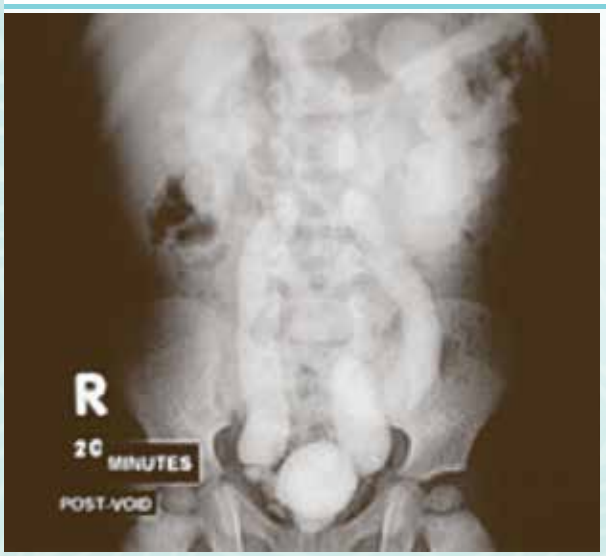


Image of a child with bilateral grade V vesicoureteral reflux.

CAP reduced the risk

of UTI recurrence in children with VUR

by 50%

and was particularly effective

in children with a febrile index infection,

and those with bowel and

bladder dysfunction.

Findings

The results of the Randomized Intervention for Children with Vesicoureteral Reflux (RIVUR) study were published in 2014, representing the largest prospective randomized controlled trial for children with reflux comparing CAP to placebo. The results demonstrated that:

- CAP reduced the risk of UTI recurrence in children with VUR **by 50%** and was particularly effective in children with a febrile index infection, and those with bowel and bladder dysfunction.
- 90% of children with VUR showed no abnormality on renal US. This reaffirmed the results of multiple other studies in the literature demonstrating the poor performance of ultrasonography in the detection of VUR.

Despite these findings, as well as other studies demonstrating CAP is superior to surveillance in preventing UTIs and renal scarring in children with dilating reflux (e.g., The Swedish Reflux Trial), the AAP recently reaffirmed their recommendation (2016) that a VCUG not be routinely performed in children after an initial febrile UTI.

The Value of VCUG

While most practitioners are focused on the detection of reflux when ordering a VCUG, the procedure can also provide valuable functional and anatomic information regarding other contributory factors to the development of recurrent UTIs and urinary incontinence in children. This includes the detection of voiding dysfunction, bladder diverticulum, incomplete bladder emptying, vaginal voiding, an inadequate or an overly large bladder capacity, bladder trabeculation, neuropathic changes to the bladder, urethral strictures and/or diverticulum, and the presence of constipation.

Although a VCUG requires catheterization and exposes a child to a minimal amount of ionizing radiation, it is now routinely performed with sedation. It is a safe and invaluable tool in the evaluation of any child with recurrent and/or febrile UTIs, and in some children with urinary incontinence.

Summary

It is well established in the literature that the incidence of renal scarring increases in the presence of reflux – particularly dilating reflux, and with the number of febrile UTIs. It is also well established that high-grade reflux can be present in a child with normal renal US findings, and that a renal US cannot be used to diagnose reflux and is not an appropriate surrogate for a VCUG.

The practice pattern advocated by the AAP may lead to a delay in bladder imaging, a delay in the diagnosis of reflux and a delay in appropriate intervention for these children. Furthermore, this practice pattern may unnecessarily expose children with reflux to the morbidity of recurrent infections and renal scarring.

Physicians should consider all the data when evaluating their patients with UTIs and should not be deterred by the AAP guidelines. A VCUG should always be considered in the evaluation of any child with a febrile UTI, recurrent UTIs (even if non-febrile) and in some children with refractory urinary incontinence.

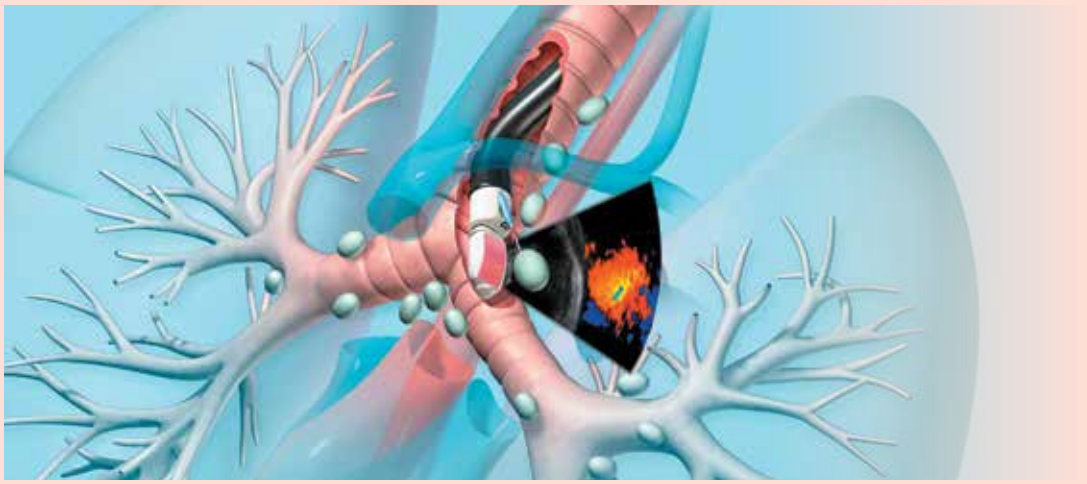
For more information, contact Dr. Kirstan Meldrum at 989.792.2235 or kirstan.meldrum@chs-mi.com.

Scoping Out a New Tool for Lung Cancer

GUEST AUTHOR
Dr. Victor Gordon, Pulmonologist

A new procedure has become the "first choice" for early diagnosis and staging of lung cancer: Endobronchial Ultrasound Guided Transbronchial Needle Aspiration (EBUS TBNA). As a highly accurate outpatient technique with a short recovery time and high safety profile, EBUS TBNA is used to sample mediastinal structures such as lymphadenopathy or a suspicious mass.

These benefits have made EBUS TBNA the preferred, patient-centered approach for early staging and diagnosis over conventional invasive mediastinoscopy.



Olympus EBUS endoscope in the lung.

Procedure and Benefits

Correct diagnosis and staging of potential cancers are essential to determining the best therapy; the earlier this can be done, the better.

EBUS TBNA offers a sensitivity of 95.2%, a specificity of 100%, a positive predictive value of 100%, a negative predictive value of 90%, and overall accuracy of 96.8%.

EBUS TBNA is a combined ultrasound-endoscopy tool designed to obtain images and biopsies of diseased tissue, lymph nodes and suspicious lesions in hard-to-reach areas around the trachea and hilar structures of the lungs to diagnose lung cancer, infections and other diseases. A needle is inserted through a bronchoscope channel using real-time visualization via advanced curvilinear imaging modality. This allows for greater accuracy and performance over previous modalities when sampling the mediastinum.

The key benefits of EBUS TBNA versus conventional surgery include:

- Can be performed in an outpatient setting, avoiding hospitalization costs.
- Minimally invasive, significantly lowering the risk of infection.
- Proven to be very safe and highly effective.
- Access to more target areas of medical concern.
- Faster recovery time in the comfort of home, with less time off work.
- Does not require PET CT before consideration but is often helpful.
- Coverage by all major insurance companies.

EBUS TBNA is able to get 19-gauge core biopsy specimens to provide material for molecular markers and next-generation sequencing. The importance of this cannot be overstated. In today's field of monoclonal antibody therapy for cancers, these molecular markers and associated treatments allow for targeted therapy and longer progression-free survival (PFS). This means that patients can live with the disease for a longer period without getting worse.

Endobronchial Ultrasound Guided

Transbronchial Needle Aspiration

is now the procedure of

first choice

in sampling mediastinal structures.

Ordering

The indication for ordering EBUS TBNA is generally a decision made between the primary care physician (PCP) pulmonary medicine and the patient. Frequently the PCP is first to encounter an abnormal CT or respiratory symptoms that may require referral for EBUS TBNA to a pulmonary medicine specialist. Therefore, the PCP should be aware of this less invasive and preferred diagnostic sampling method. The most common reason for undergoing this procedure would be to diagnose a lung nodule with mediastinal adenopathy or a chronic lymphadenopathy affecting the mediastinum.

EBUS TBNA is also experiencing a growing indication for diagnosis and work-up of other inflammatory conditions and pulmonary diseases, such as sarcoid, infectious diseases and lymphoma. With the Great Lakes Bay Region having a high incidence of sarcoidosis, this can be a great option for patients showing suspicious stage I or II sarcoidosis on chest roentgenogram.

Physician Action

EBUS TBNA sampling has been available at Covenant HealthCare since late 2016, allowing the pulmonology medicine team to provide earlier detection, diagnosis and staging of the mediastinum in lung cancer patients.

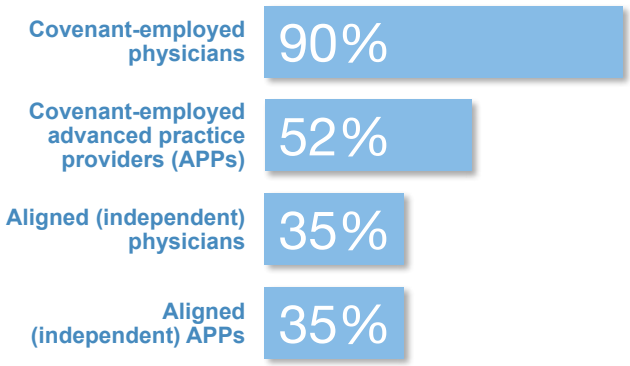
EBUS TBNA sampling has gained wide acceptance and is seeing increased usage among pulmonologists everywhere due to the benefits described above. Physicians should consider this procedure for subacute and chronic lymphadenopathy – and for other inflammatory conditions – to enhance diagnosis and allow for a more patient-centered care plan.

For more information, contact Dr. Gordon at 989.583.7380 or victor.gordon@chs-mi.com.

Provider Engagement Survey Update

Thanks to everyone who participated in the 2017 Covenant HealthCare Provider Engagement Survey. We had a total response rate of 52.8%, down slightly from 2015 but still considered strong.

SURVEY PARTICIPATION BREAK-OUT



Results are being analyzed and will be shared in various venues when compiled. A few highlights include:

- Covenant HealthCare continues to outperform the Advisory Board Company national benchmarks for both engagement and alignment, with engagement scoring in the 90th percentile nationally and alignment in the 98th percentile.
- Physician and APP scores are mostly positive.

These percentiles are based on Engagement Index Mean scores and Alignment Index Mean scores. Please look for a more detailed report of results and actions in the September issue of *The Covenant Chart* or via email.

COVENANT HealthCare

Extraordinary care for every generation.

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Teaching the Next Generation, continued from page 1

In July, when a new student arrives for rounds or a resident calls for advice, teach them and help them grow. Consider the impact of your words and actions. What you say and do will be shaping the careers of future physicians along with their approach to healthcare. It is in all of our best interests – theirs, ours and our patients – to help this next generation grow and succeed.

Sincerely,

Dr. Michael Fiore
Chief of Staff