Autism Spectrum Disorder (ASD) Part II: Practical Tips for Screening and Referral in Primary Care
By Glenn Tripp, MD, Medical Director, Developmental Behavioral Pediatrics and Brenda Geyer, RNC, MN, Coordinator, Neurodevelopmental Program
Mary Bridge Children’s Hospital & Health Center

This article is the second installment on ASD, continued from Kite Strings winter issue.

At Mary Bridge, we are working to support primary care physicians in making timely ASD diagnosis and early referral to appropriate therapeutic services. We have prepared some practical tips for screening and referral for ASD.

Autism spectrum disorders are relatively common, with prevalence estimates as high as 1 in 150 children (0.7%). Every primary care provider serving children will have several children with autism in his or her practice. Autism is also one of the most treatable developmental disabilities, with the expectation of significant improvement in most cases with early and intensive cognitive and behavioral intervention services. The key to success is early identification and referral.

The American Academy of Pediatrics (AAP) recently issued a two-part comprehensive guide to the diagnosis and management of autism in a primary care setting (Ref. 1). The AAP simultaneously developed a computer-based autism resources toolkit for use by primary care providers and families.

Autism Screening Guidelines & Resources

The following screening and referral guidelines are modified to reflect local resources.

a) Listen to parental concerns and ask questions about the child’s development at every clinic encounter.

b) Administer one of the standardized screening tests for general development at 6-12, 18, and 24-30 months.

c) Administer the Modified Checklist for Autism in Toddlers (M-CHAT) (Ref. 2) at 18 and 24 months.

d) Universal newborn hearing screening; repeat audiogram with any concerns regarding hearing impairment or delayed language skills. Contact Mary Bridge Audiology Service at 253-403-4437.

e) Refer to early intervention services for additional developmental assessment and intervention with any suspected developmental delays. Contact the Early Intervention Services: Single Point of Entry, Pierce County at 253-798-3790.

f) If autism is suspected, refer for a comprehensive evaluation.

- For children less than 3 years old, contact the Mary Bridge Neurodevelopmental Program at 253-403-1652 or fax your referral to 253-403-8674, Attn: NDP.
- For children over 3 years old, contact Mary Bridge Pediatric Psychology Service at 253-403-4437 or University of Washington Autism Program, Tacoma Campus at 253-692-4721.

2. www.firstsigns.org/downloads/m-chat.PDF
Pediatric Heart Program Update
Mary Bridge & Tacoma General Team Up to Screen for Heart Defects

Tacoma General Hospital, aided by the Mary Bridge Pediatric Heart Program, is the first hospital in the state to screen newborns for congenital heart defects (CHDs) prior to discharge.

A pulse oximetry screening study was launched on Congenital Heart Defect Awareness Day (Feb. 14), with Mary Bridge Cardiothoracic Surgeon Ronald Woods, MD, PhD, as the principal investigator. The study is supported in part by a grant from the Fraternal Order of the Eagles. The goal of this effort is to diagnose and treat children with heart defects early.

CHDs occur in approximately 8-10:1000 births and are the leading cause of newborn and infant deaths. Early detection and early treatment lead to better outcomes through surgery, interventional cardiology procedures, and medication. If a baby born at Tacoma General is diagnosed with a heart defect, the Mary Bridge Pediatric Heart Program team is available on-site for diagnosis and treatment.

“We are providing parents with an early warning system for their baby, since the signs and symptoms of congenital heart defects can be subtle,” said Dr. Woods. “In addition to their screening prior to discharge, the parents are given information and can watch for signs and symptoms as their child grows. If they know what to look for, they can also catch these problems early.”

For more information about this study, contact the Mary Bridge Pediatric Heart Program at 253-403-3527.

Heat Defect Signs & Symptoms
If a child has two or more of the following symptoms, parents should talk to their pediatrician about a referral to a Pediatric Cardiologist.

INFANTS (up to age 1)
Parents should be alert to the following symptoms in infancy:
♥ Tires easily during feeding (i.e., falls asleep before feeding finishes)
♥ Sweating around the head, especially during feeding
♥ Fast breathing when at rest or sleeping
♥ Pale or bluish skin color
♥ Poor weight gain
♥ Sleeps a lot -- not playful or curious for any length of time
♥ Puffy face, hands and/or feet
♥ Often irritable, difficult to console

CHILDREN (ages 1-17)
Some children with CHDs may not have any symptoms until later in childhood. Things to look for include:
♥ Gets out of breath during play
(e.g., crouches or squats to catch breath)
♥ Difficulty “keeping up” with playmates
♥ Tires easily/sleeps a lot
♥ Change in color during active play or sports (looks pale or has a bluish tint around mouth and nose)
♥ Frequent colds and respiratory illnesses
♥ Slow growth and weight gain/poor appetite
♥ Complains of chest pain and/or heart pounding

Source: The Congenital Heart Information Network www.tchin.org

Discoveries Offers Support Groups for Children

Discoveries is to provide educational and coping support for families living with serious illness.

WHAT IS DISCOVERIES?
Discoveries is a support group for families with children between the ages of 4-18 who have had a family member diagnosed with a serious illness.

WHAT SERVICES ARE PROVIDED?
Age-appropriate breakout groups for children meet and discuss:
• understanding the illness
• learning to cope with their feelings, hopes and fears
• learning how to live with changes in their family caused by the illness

Support groups are also available for the adult caregivers and the adults who are ill.

For questions or a referral, call BRIDGES: A Center for Grieving Children at 253-272-8266.
Updates from Mary Bridge Emergency Department

New Asthma Care Quality Improvement Projects
By Thomas Hurt, MD – Mary Bridge Emergency Department

With asthma being one of the leading childhood medical conditions, the Mary Bridge Emergency physicians are excited to begin two quality improvement projects for asthma patients. The first, an “Asthma Action Plan” for wheezing patients over 3 years of age, is a brief educational handout prepared for patients and their families. It provides helpful information about causes of illness, common triggers, symptoms to watch for, and when to seek further medical attention.

The second project involves starting a low-dose inhaled corticosteroid controller medication in children who meet the criteria for “persistent asthma” as defined by the National Heart Lung and Blood Institute (NHLBI) guidelines. In the Mary Bridge Emergency Department, we recommend and prescribe fluticasone (Flovent) for patients who are most familiar with using a metered dose inhaler and budesonide (Pulmicort) for those who primarily use a nebulizer. We ask these patients to follow up with their primary care physician within two weeks of being seen at Mary Bridge. If your patient is started on a controller medication, they will be given a handout and will be asked to pass it on to you at their next visit.

Keeping you informed so you can best manage your patients’ long-term care is our goal. Primary care providers should receive a summary of their patient’s emergency department visit after being seen at Mary Bridge. We hope that by working with you we can help improve the care of the children in our community who have asthma.

For your reference, there is an excellent website on this subject at www.nhlbi.nih.gov/guidelines/asthma/asthgdln.pdf. If you have any questions, please call the Mary Bridge Emergency Department at 253-403-1418.

New PDA Protocol Reduces Surgeries in Premature Infants

MultiCare’s 2008 President’s Award for Excellence in Total Quality was presented to a team consisting of Tacoma General NICU, Pedatrix Medical Group of Washington and Mary Bridge Cardiothoracic Surgery for their work on reducing the need for thoracic surgery in premature infants.

The NICU team created treatment guidelines with a goal of improving the care of infants and determining if surgical intervention was necessary when dealing with Patent Ductus Arteriosus (PDA), a condition in which a major blood vessel in the fetus fails to close once a baby is born. Premature infants are especially vulnerable to this condition, as nature has not designed the vessel to close until the end of a normal pregnancy. Without nationally accepted approaches to help Tacoma General’s NICU, this group developed a set of treatment guidelines and worked with Pedatrix Medical Group and the Mary Bridge Cardiothoracic Surgery team to develop a new PDA protocol.

From June to November 2007, surgical ligations for PDAs were reduced 50 percent, despite an increase in the number of admitted patients during that time compared to the first five months of the year. This team believes the treatment strategies, locally developed, have contributed to a reduction in need for surgery without compromising the care of our patients.

This treatment strategy truly embodies “Total Quality.” Not only will it reduce treatment costs and improve clinical outcomes by reducing the potential for surgical and post-surgical complications, but imagine the relief these infants’ families must feel, knowing they will not have to put their child through major surgery on top of all the other challenges he or she is facing.

The Tacoma PDA Protocols were also selected for presentation at a national quality improvement conference held in Atlanta in October 2007, and data from the PDA project has been submitted for presentation to the Society of Pediatric Research during their national meetings this May.
School-based Booster Seat Program Teaches “Cool Rule”

Despite a newly expanded child restraint law requiring children to ride in a properly fitted car seat or booster seat until age 8 or 4’9” tall, a recent WSU study revealed an alarming trend: fewer and fewer Washington children are riding in appropriate child safety seats. In fact, the number of correctly restrained children has decreased every year since 2004. Observational studies were conducted across the state in 2007 and discovered the following:

- 51% of children under 40 lbs were observed riding in a car seat (compared to 77% in 2000)
- 17% of children between 40-80 lbs were in a booster seat (compared to 49% in 2004 / 22% in 2000)

Mary Bridge Center for Childhood Safety developed and implemented a school-based program to take aim at this very problem. “Go Where Your Booster Takes You” is a kid-friendly curriculum incorporating a variety of techniques to teach children how booster seats protect small bodies.

Children are taught to find their “strong bones” (hips and shoulders) to learn where a seat belt should fit on the body. They are taught “twinkie physics” – which uses a Twinkie in the body cavity of a Halloween skeleton to show what happens when a seat belt goes over their “soft parts” (abdomen) instead of those “strong bones.” Key concepts are reinforced by our award-winning video – kids sing along to, “Keep it safe, keep it cool, keep in mind the booster rule. If you’re under 4-foot-nine a booster seat will fit you fine!”

The 45 minute program ends with each child weighed and measured, so a custom seat recommendation can be sent home – along with a framed photo of their child in a booster seat and a packet of educational materials. The program is offered in Pierce, Kitsap and South King counties. Since 2006, it’s been presented to over 100 preschool through first grade classrooms – reaching more than 2,000 children and their families.

For more information about safety programs, call the Center for Childhood Safety at 253-403-1234.

**GEARING UP FOR SAFETY**

Mary Bridge Center for Childhood Safety offers safety programs for children and adults.

Services and hours vary by location. Call or visit www.marybridge.org/childhoodsafety for more details.

- **Helmet Fittings & Sales**
  - Bike S 7 Multi-sport $10
  - Ski/Snowboard (Nov-Feb) $15
  - *prices subject to change
  - Wearer must be present

- **Free Child Safety Seat Inspections**
  - A Certified Car Seat Technician will check for:
    - appropriate seat for child
    - recalls
    - proper installation
  - Free car seat help line: 800-552-1419 ext.1417

- **Life Jacket Loans & Sales**
  - Free loans, up to one week
  - Custom fit sales $14 (May-Sept)
  - *prices subject to change
  - Wearer must be present

- **TACOMA – 253-403-1234**
  - 1112 S. 5th Street
  - Thursdays, 2 – 5pm
  - Thursdays, 2 – 5pm
  - Tuesdays, 9 – 10:30am

- **COVINGTON – 253-372-7160**
  - 17700 SE 272nd Street
  - Healthy Reflections Boutique
  - Monday – Friday, 9am – 5pm

- **KENT – 253-372-7729**
  - 222 State Avenue N.
  - Thursdays, 3 – 5pm

- **OLYMPIA – 360-923-4712**
  - 200 Lilly Road NE, Building C-1
  - First Wed. of each month, 3 – 5pm

- **SILVERDALE – 360-662-1198**
  - 1780 NW Myhre Rd., Suite G-220
  - First Wed. of each month, 10am – 2pm
Children in the Peninsula area can now receive specialty care even closer to home. In addition to Tacoma, Olympia, Silverdale and Puyallup, Mary Bridge Pediatric Neurology Clinic is now offered at the MultiCare Gig Harbor Medical Park, located at 4545 Pt. Fosdick Dr. NW.

Mary Bridge pediatric neurologist, Vera Korol, MD, will routinely visit the Gig Harbor clinic, delivering the same high quality care families and physicians have come to trust.

With a team of five pediatric neurologists, Mary Bridge offers the largest, experienced and trusted Neurology Clinic team in the region.

Access to neurological care has greatly improved with increased availability and appointment times among our five clinic locations.

Mary Bridge provides complete pediatric consultation, evaluation and treatment for children and adolescents with neurological disorders including:

- Epilepsy and seizure
- Headache and migraine
- Developmental disability
- Genetic disorders affecting CNS
- Autism spectrum
- Tourette’s Syndrome
- Sleep Disorders
- Neuromuscular diseases

For more information or to make a referral, contact the Mary Bridge Neurology Clinic at 253-403-3131 or toll-free at 800-552-1419 ext. 3131. We look forward to partnering with you in caring for your pediatric patients.

Announcement

Mary Bridge welcomes pediatric nephrologist Joseph Flynn, MD, to our combined Pediatric Nephrology Program with Children’s Hospital & Regional Medical Center in Seattle (CHRMC). Dr. Flynn is Professor of Pediatrics at the University of Washington, Medical Director of Dialysis, and Director of Outpatient Nephrology at CHRMC. He was previously at Albert Einstein College of Medicine. Dr. Flynn will cover Nephrology weekend call at Mary Bridge as needed.

Dr. Flynn earned his medical degree from State University of New York, Upstate Medical University, Syracuse. He completed his internship and residency in pediatrics as well as his fellowship in pediatric nephrology at St. Christopher’s Hospital for Children in Philadelphia. Dr. Flynn is board certified in Pediatrics and Pediatric Nephrology.

Neurology Clinic, EEGs Now Offered in Gig Harbor

Mary Bridge’s Hospital & Health Center is pleased to welcome the following provider to our medical staff:

Timothy Spence, MD
Inpatient Pediatric Services
Medical School: Baylor College of Medicine
Internship & Residency: University of Alabama, Birmingham – Pediatric Residency
Board Certification: Pediatrics

EEGs

We are also pleased to announce that EEGs (Electroencephalography) are now offered for children at the MultiCare Gig Harbor Medical Park.

EEGs are often ordered in cases of seizure activity or symptoms suspected of being seizures in the form of staring episodes or abnormal behaviors or movements. Having this testing available to patients in the Gig Harbor area is a significant convenience and benefit.

Children seen at Mary Bridge also have access to standard EEG, Video EEG and ambulatory EEGs, evoked potential studies, sleep studies: NPSG and MSLTs, as well as actigraphy, EMG and nerve conduction studies.

For EEG appointments, please call 253-403-EEGS (403-3347).
Cystic Fibrosis Clinic is National Leader in Care

Today, nearly 1,000 new cases of cystic fibrosis (CF) are diagnosed each year with more than 70 percent of patients diagnosed by age two. Although CF remains a life-shortening disease, dramatic advances in care and treatments have resulted in a steadily increasing lifespan. People living with cystic fibrosis must follow a regular treatment routine to stay healthy and maintain optimal lung function.

Children living with CF in our region have the advantage of leading expert resources at the Mary Bridge Cystic Fibrosis Clinic, accredited by the Cystic Fibrosis Foundation. Mary Bridge has provided CF care to children from birth to age 18 in our community since 1980. Treatment results at Mary Bridge are higher than the national median in all measures of clinical care, lung function values, and nutrition scores.

The Mary Bridge multidisciplinary team includes pediatric pulmonologists, Lawrence Larson, DO, and David Ricker, MD, pediatric gastroenterologist, Bisher Abdullah, MD, a respiratory therapist, pediatric psychologist, pediatric endocrinology physician and nurses, pediatric nutritionists, a social worker, a CF case manager, phone nurses, and a child life specialist.

AT MARY BRIDGE, OUR GOALS ARE TO:
• Optimize outcomes for children with CF
• Assist patients and families to learn CF care and skills for coping with chronic illness
• Monitor and preserve lung function
• Improve nutritional status
• Coordinate care with schools and between the hospital and home
• Collaborate with primary care providers
• Develop individual treatment plans
• On-going quality improvement projects

AT MARY BRIDGE, WE ARE AVAILABLE TO:
• Assist with interpreting newborn screening results
• Evaluate and treat patients for cystic fibrosis
• Assist with scheduling sweat tests at our Tacoma and Olympia clinics

For more information or to make a referral, call the Mary Bridge Cystic Fibrosis Clinic at 253-403-3131 or 800-552-1419 ext. 3131.

Reasons to Consider Testing for Cystic Fibrosis:

• Nasal Polyps
• “Pansinusitis” on X-rays
• Recurrent or severe bronchiolitis or pneumonia
• Severe or non-typical asthma
• Frequent, productive cough
• Persistent cough, especially with hard coughing spells
• Hemoptyis
• Throat or sputum cultures positive for Pseudomonas organisms
• Meconium ileus or meconium plug
• Frequent bulky, loose, oily foul-smelling stools
• Failure to gain weight even with a big appetite
• Rectal prolapse
• Pancreatitis
• Clubbing
• Family history: Test every sibling. Test first cousins if there are any symptoms or concerns about CF
CT Scans and Radiation Risk in Children – FAQs

These FAQs are a continuation to the “Pediatric Computed Tomography (CT): Considering Radiation Exposure” article in Kite Strings, winter issue.

Ordering imaging studies for children is often necessary to help diagnose, and effectively and efficiently treat an illness or injury. Today, physicians are faced with more questions and concerns from parents regarding radiation exposure to their child. To help you answer some of these questions, we have provided answers to frequently asked questions using the recent guidelines published by the Society of Pediatric Radiology.

**IS THERE AN INCREASED RISK OF CANCER FROM MEDICAL RADIATION, ESPECIALLY CT SCANS?**
While no one can point to a single individual and say that their cancer was caused by medical radiation, it has been suggested in some studies that exposure to radiation levels that occur during diagnostic CT scans may slightly increase the risk of future cancer. The evidence for this is still controversial, and needs to be interpreted against the risk of developing cancer over one’s lifetime. For every 1,000 children, 200 to 400 will eventually develop cancer during their lifetime, regardless of exposure to medical radiation (risk of 20% to 40%). The theoretical increased risk of cancer over one’s lifetime from a single CT scan is a small fraction of this baseline risk. Unnecessary radiation should be avoided, but for any child the risk/benefit ratio of each CT scan must be considered with regard to the child’s specific clinical condition and concerns.

**IF MY DOCTOR REQUESTS A CT SCAN, SHOULD I LET MY CHILD HAVE IT?**
Like any medical test, the beneficial information gained from having the test should outweigh the risk of having the test performed. CT is a very powerful and valuable imaging technique that can provide important and even life-saving information. Sometimes, alternative imaging tests like ultrasound and magnetic resonance imaging (MRI) can provide similar information. However, there are many clinical situations where CT scans are the best test. You can discuss with your doctor if this is the case for your child. If your doctor has any question as to which is the best test for your child, Mary Bridge pediatric radiologists are available for consultation.

**WHAT STEPS DO YOU TAKE TO REDUCE RADIATION TO MY CHILD?**
Mary Bridge Children’s Hospital specializes in caring for children. All CT protocols are designed specifically for the needs and protection of children. Mary Bridge pediatric CT protocols use reduced radiation doses determined by the age and size of the child, and are limited to the area of specific medical concern. All of our CT scans are performed by certified CT technologists with experience in pediatric CT and are overseen and interpreted by board-certified radiologists.

**WITH WHOM SHOULD I DISCUSS MY CONCERNS?**
Any discussion should start with your child’s physician. The physician has determined that a CT is needed to better evaluate your child’s condition. If your referring doctor has a question regarding the suitability of a different study, Mary Bridge pediatric radiologists are available to answer any questions. If you still have questions or concerns, please ask to speak with a MultiCare CT technologists or radiologists.

Questions regarding the most appropriate imaging approaches for any given clinical problem can be directed to a MultiCare radiologist by calling 253-403-1066 or 403-2318.

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Send Us Your Feedback

If you have comments about what you’ve read, ideas for topics you’d like to see covered, or would prefer to receive Kite Strings via email, rather than the printed version, please send a message to marybridge.news@multicare.org.
CONTINUING MEDICAL EDUCATION

Pediatric Grand Rounds are held the first Tuesday of the month in Jackson Hall Auditorium, 314 Martin Luther King, Jr. Way, Tacoma, 98405.

2nd Thursday Each Month
Pediatric Medicine Committee
7:00 - 8:00am
Mary Bridge Children’s Health Center
A/V Conference Room, Basement - West Wing
311 South L Street, Tacoma

2nd Thursday Each Month
Pediatric Epilepsy Program
Case Presentations
4:00-5:00pm
Mary Bridge Children’s Health Center
A/V Conference Room, Basement - West Wing
311 South L Street, Tacoma

June 3
Pediatric Grand Rounds
7:30 – 8:30am
Dimitri Christakis, MD, MPH
Mediatrics: What pediatricians should know about the effects of early media on infants’ language development and attention spans

July – Sept
Pediatric Grand Rounds
Hiatus

June 5 & 6
Pediatric Advanced Life Support (PALS)
8:00am – 5:00pm
Jackson Hall Auditorium
Re-certification (June 5 is renewal only) $150
Initial course (full day) $200
To sign up, contact (253) 403-1280.

August 7 & 8
Pediatric Advanced Life Support (PALS)
8:00am – 5:00pm
Jackson Hall Auditorium
Re-certification (Aug.7 is renewal only) $150
Initial course (full day) $200
To sign up, contact (253) 403-1280.

September 20
34th Annual Day of Pediatrics
Hotel Murano, Tacoma
8:00am - 4:30pm
Registration required.
Call 253-403-1221.

Visit www.multicare.org for a comprehensive listing of adult related topics. For more information, contact MultiCare Health System Department of Continuing Medical Education at 253-403-1221.

SAVE THE DATE

Courage Classic Bicycle Tour
August 2-4

Join the courageous for Washington State’s best weekend ride over Snoqualmie, Blewett and Stevens Passes to help stop the cycle of abuse in our community.

For details, call (800) 39 CYCLE or visit www.courageclassic.org.

Proceeds benefit Child Abuse Intervention Programs through Mary Bridge Children's Hospital and the Children’s Trust Foundation.