Although estimates vary, prevalence rates for transient tics indicate occurrence in up to 20% of school-age children, making tics and tic disorders a common presentation in the primary care setting. Tourette's Syndrome (TS) is defined by the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) as multiple motor tics and at least 1 vocal tic, both present for at least 1 year, with onset before age 18 years. Other tic disorders according to the DSM-5 are persistent (chronic) motor or vocal tic disorder, in which exclusively motor or vocal tics are present for more than 1 year, and provisional tic disorder, in which motor and/or vocal tics have been present for less than 1 year.

A tic is defined as a sudden, rapid, involuntary, nonrhythmic movement or vocalization. Tics are classified as either simple or complex. They can often be preceded by a premonitory urge. Simple motor tics are the most common presentation of tic disorders, and include eye blinking, shoulder shrugging or head/neck/facial jerking. Complex motor tics are characterized by coordinated and more purposeful movements involving multiple muscle groups such as tapping, stepping in a certain pattern, and circling. Simple vocal tics include throat clearing, coughing, or sniffing while complex vocal tics involve the production of multiple sounds and include repetition of syllables, words, or phrases.

Lifetime rate estimates for TS and chronic tic disorders range from 0.1-3% of children in European and Asian populations. The most common international prevalence figure for TS is 1%. Estimates of all combined tics/tic disorders have reported prevalence figures ranging from 4% to 50% of school-age children. The onset of tics typically occurs between the ages of 4 and 6 years and, in most cases, reaches peak lifetime
severity between the ages of 10 and 12 years. Tics usually occur episodically, wax and wane in frequency and intensity and change in affected muscle groups and vocalizations over time. For most children with TS, tics begin to decline in adolescence and most experience marked improvement or complete remission of tics by adulthood.

Comorbidity with other psychiatric disorders in individuals with tic disorders is the rule rather than the exception, with attention deficit hyperactivity disorder (ADHD) and Obsessive Compulsive Disorder (OCD) the most common comorbid disorders. Separation anxiety disorder is also common in the prepubertal age group. Studies have shown 50 to 75% of patients with TS meet criteria for ADHD. In patients with TS 20-40% meet criteria for OCD and up to 90% may have subthreshold symptoms. ADHD often develops before, or at around the same time as, tics while OCD typically develops after the onset of tics.

When diagnosing a tic disorder it is important to obtain a detailed history on development and course of tics, realizing they may not be observable in the office setting, assess the severity of tics and the level of distress or impairment they cause. Many children with mild to moderate tics may experience minimal distress, or even not be aware of the tics, and it is common for comorbid disorders to cause more distress or impairment. Family history of tic and related disorders should be obtained and differential diagnoses considered. Differential includes myoclonus, dystonia, physical symptoms of allergies, cough variant asthma, stereotypic movement disorders and pediatric acute onset neuropsychiatric syndrome (PANS).

When considering treatment of tics the practitioner should consider the impairment caused by the tics, comorbid disorders, availability and appropriateness of non-pharmacologic treatment options, the risk vs benefit ratio of various pharmacologic options and his or her individual comfort with these medications. If there is no significant distress education alone may be the best option. Education that tics are involuntary and greatly out of the child’s control helps parents and teachers understand the diagnosis and can strengthen the child’s self-confidence and self-esteem. If tics cause social problems, such as isolation or bullying, emotional problems, functional impairment or subjective discomfort (pain or injury) nonpharmacologic and/or pharmacologic treatment options should be considered.

Most trials in treatment of tics have specifically studied Tourette’s Syndrome. First line therapies, supported by quantitative systematic review of randomized control trials (RCT’s) and risk vs benefit analysis, are cognitive-behavioral therapy, specifically habit reversal training (HRT)/ comprehensive behavioral intervention for tics (CBIT), risperidone, the alpha agonists clonidine and guanfacine and aripiprazole. There are HRT/CBIT therapists in our area and the TiPS care coordination team can help with referral to these providers. Once the decision is made to use pharmacotherapy, monotherapy should be initiated at the lowest possible dose with gradual titration.

While the size of effect on tic reduction is likely to be clinically meaningful in all groups with TS, use of the alpha agonists may be especially effective for tics in patients with comorbid ADHD and benefit both symptoms of ADHD and the tic disorder. Side effects include dose-dependent sedation, bradycardia and hypotension, and some studies have shown increased sedation with clonidine. The provider should also consider that ADHD symptoms can often be more impairing than tics. Studies have shown that it is safe and effective to use stimulants in the treatment of ADHD in patients with tics. They should be started at the lowest possible dose and gradually titrated to effect. The consensus of studies has shown only transient increase in tics, if any. If tic exacerbation occurs and continues, the stimulant dose may be adjusted, the patient switched to another agent or synergistic use of stimulant with an alpha agonist can be trialed. Though evidence is not robust at this point, atomoxetine may reduce tics in patients with ADHD as well. In trials with patients with OCD and tics no studies have shown a
reduction in tics with use of SSRI for OCD, but there is RCT evidence that fluoxetine does not worsen tics. The atypical antipsychotics risperidone and aripiprazole also show a favorable risk vs benefit ratio for treatment of TS with or without comorbidity. Adverse effects for atypical antipsychotic medications including weight gain, metabolic and cardiac conduction disturbances and (EPS) but the pattern of adverse effects differs between agents. If these medications are being considered, metabolic labs and electrocardiogram for QTc and BMI should be assessed prior to initiation and blood pressure, BMI, heart rate, metabolic labs and exam for EPS, utilizing structured measures, such as the Abnormal Involuntary Movement Scale (AIMS), should be followed at regular intervals during treatment. Blood pressure, lipids and blood glucose or HbA1c should be measured at least at initiation, 12 weeks and then annually. Given comfort with these medications and requirements for monitoring primary care physicians may wish to refer to a child psychiatrist for consultation or management if these agents are being considered.

Other antipsychotic medications including haloperidol and pimozide, the only medications FDA approved for TS, and olanzapine, quetiapine and ziprasidone have been shown to be effective for treatment of TS but have a less favorable risk to benefit ratio. Topiramate, pergolide, metoclopramide and desipramine are other agents with RCT evidence that suggests they may be effective in reducing tics. However, the known adverse effect profiles of these drugs, balanced against relatively weak evidence of benefits, means that these agents are unlikely to be considered clinically useful for the treatment of tics in children and should be reserved for use by a subspecialty provider if at all.

Psychiatry (cont.)

Care Coordination: Resources

By: Meghan Donahoe LSW

Having a tic disorder can sometimes be embarrassing, anxiety provoking and frustrating for children, teens and their families. It is important for not only the child, but also parents, families, and teachers to have support and information to help educate themselves about tic disorders. While both pediatric and behavioral health providers can offer the most targeted treatment, it is helpful for parents and children to have their own resources to rely on outside of the office. Resources for children, parents, families and educators include:

Websites:

- Tourette Association of America
  www.tourette.org
  (this site offers educational and support resources, referral information, inspirational stories, tools for educators and more)


- www.parenttoparent.org/peer-supporters/

- www.worrywisekids.org/node/119

Resources at Children’s Hospital of Pittsburgh

- www.chp.edu/our-services/brain/neurology/movement-disorders
Save the Date:
TiPS Conference
Friday, March 22, 2019
Location: Hilton Garden Inn at Southpointe

For Enrolled Practices
We will be reaching out to the following practices to set up a yearly practice visit:
• UPMC St. Margaret Family Health Center
• Caring Hands
• CCP Allegheny/Natrona

Welcome
Children's TiPS would like to give a warm welcome to:
New Team members:
• Care Coordinator, Corie McGill
• Intern, Kaleigh Gallagher
• Psychiatrists, Dr. Becky Miller and Dr. Anderson Still
Newly Enrolled Practices:
• CCP Altoona
• CCP Bower Hill
• CCP Grove City
• CCP Shenango
• CCP Slippery Rock

Therapy: Comprehensive Behavioral Intervention for Tics (CBIT)

By: Courtney Hopkins LPC
One evidenced-based behavioral intervention for individuals diagnosed with a Tic or Tourette’s disorder is Comprehensive Behavioral Intervention for Tics or CBIT. Studies show that this behavioral intervention is highly effective and shows a quick response rate. CBIT’s primary component is habit reversal. Habit reversal includes the following skills:
• psychoeducation
• awareness training
• social support in the home/community
• competing responses (this is where a behavior is given to the client that is incompatible with the tic. Ex. Leg movements- place feet flat on the floor and push downwards. If standing, lock knees.)
• functional based interventions (environmental events; antecedents and consequences associated with the tic; Ex. Antecedent= classroom and consequence: teacher tells the child to stop tics.)
• relaxation skills
• management and inconvenience reviews (Inconvenience reviews are when the therapist and child identify the tic that cause them the most distress and how it influences them negatively from day-to-day)
• relapse prevention (motivational/reward system)

Sessions typically are 60-90 minutes in length, take place over a 10-week period & include weekly homework assignments. Booster session are also available as needed. Parent participation in sessions is important and helps ensure generalization of skills in the child’s home and community settings.

The first few sessions of CBIT focus on psychoeducation of tics and the rationale for CBIT. The therapist will spend time with the child and family developing a tic hierarchy to work on in sessions. In addition, the team will create an inconvenience review and a behavioral reward program that is motivating to the child. A tic hierarchy will list tics that are most troubling to the child using a Likert scale and ones that the child would like to work on first. An inconvenience review includes the child documenting the hassles and problems the tics have caused them. This will be reviewed weekly in sessions to determine if tics are decreasing. The therapist will introduce the concept of functional-based interventions that will be utilized throughout CBIT as well as assigning homework. A social support person is important to identify in the beginning of the sessions. This is a person who will help motivate the child and implement CBIT skills in the home and community settings. Consistency and positivity are important when identifying this person.

Following the first few sessions the therapist will implement functional-based interventions, awareness training and HRT (habit reversal training). The child and their family will identify one tic that causes the most hassle/distress on their hierarchy list. There are three rules when choosing an appropriate competing response, which include a behavior that is incompatible with the tic, is less socially noticeable/interfering than the tic, and the child can do the competing response for one minute or until the urge is gone. Once the first tic is reduced and the child
can use competing responses and replacement behaviors for that initial tic, the next tic on the hierarchy will be addressed. The family will continue to implement the behavior reward system to provide ongoing motivation outside of sessions. The therapist will begin to implement relaxation techniques to help reduce relapse as sessions progress.

At the end of the 10 weeks the child should be able to use competing responses across several settings by utilizing skills taught to them throughout CBIT. The therapist will review skills and relapse prevention strategies. Booster sessions are offered 4 weeks after the initial 10 weeks. This will continue for three consecutive months, scheduling one appointment a month to discuss material taught initially. No new material will be introduced during the booster sessions. These are used for maintenance and check in sessions.

For therapists who are interested in CBIT certification, the Tourette’s Association of America offers two-day trainings with three mandatory follow-up consultation phone calls. Registration information for upcoming CBIT trainings can be found on the Tourette’s Association of America website. Once training is completed the therapist will receive certification and their name will be listed on the Tourette’s Association of America website as a CBIT provider in their area of practice.

Meet the TiPS Team—Staff Highlight

Abby Schlesinger, MD

Your Job Title/Location:
- Medical Director of Children’s TiPS
- Medical Director of Ambulatory Integrated Behavioral Health for Western Psychiatric Institute and Clinic
- Division Chief, Behavioral Science, Children’s Hospital of Pittsburgh of UPMC
- Associate Professor of Psychiatry at the University of Pittsburgh School of Medicine.

Education:
- Medical Doctorate—University of Pittsburgh School of Medicine
- General Psychiatry Residency—University of Michigan School of Medicine
- Child and Adolescent Psychiatry Program—Western Psychiatric Institute and Clinic

Certifications:
American Board of Psychiatry and Neurology, General Psychiatry, Child and Adolescent Psychiatry

About You:
During the 2003 Pitt basketball season I drove back to Pittsburgh from Ann Arbor Michigan to see every game that Larry Fitzgerald played in.

Your Favorite Food: Pizza

About Your Job:
My job is fun. I get to work with a variety of professionals who are committed to improving behavioral healthcare for kids. On any given day you might find me in Wexford, Children’s Hospital, Oakland, or Armstrong County.

What do you like to do in your free time:
Spend time with my family and read

Contact Us
Phone: 1-844-972-8477
Email: wpatips@chp.edu
Website: www.chp.edu/tips
Our provider-to-provider service gives primary care clinicians (PCCs) access to on-call psychiatrists, Monday through Friday, 9 a.m. to 5 p.m. When a PCC calls, the Children’s TiPS team will connect him or her with a child and adolescent psychiatrist within the same day, often within thirty minutes. Our TiPS psychiatrists can answer questions about medications, diagnoses, screening tools, resources, and other topics. TiPS psychiatrists can also refer patients to our care coordinators or licensed therapists if needed.