

# Important information...

### Patient-provider relationship:

Project ECHO case consultations do not create or otherwise establish a provider-patient relationship between any VMAP clinician and any patient whose case is being presented in a Project ECHO setting.

### Video recording:

For educational and quality improvement purposes, we will be recording this session.

By participating in this clinic you are consenting to be recorded. We appreciate and value your participation.

# Important information...

### **Respect Private Health Information**

To protect patient privacy, please only display or say information that doesn't identify a patient or that cannot be linked to a patient.

- Names: Please do not refer to a patient's first/middle/last name or use any initials, etc.
- Locations: Please do not identify a patient's county, city or town.
- Dates: Please do not use any dates (dob) that are linked to a patient. Instead, please use the patient's age.
- Other common identifiers: Patient's family members, friends, coworkers, phone numbers, e-mails, occupation, place of employment

# Today's agenda

### Let us know you're here!

Please enter your name + any guests into the ZOOM "chat box" so we have a record of your attendance

## Agenda:

:00 - :05	weicome + introductions
:05 - :30	Didactic: Autism in Primary Care
:30 - :55	Case presentation, discussion + recommendations
:55 - :00	Wrap-up

Our next session is scheduled for: Thurs., Aug. 24 at 12:00 to 1:00 PM Feeding Challenges

> :00 -:05

# VMAP Early Childhood Line Now accepting calls!



## 1-888-371-VMAP (8627)

Consultations with early childhood specialists! Such as developmental/behavioral pediatricians and early childhood child psychiatrists

In the next year, VMAP plans to expand its early childhood program to increase coverage and types of early childhood specialists available to PCPs via the VMAP line. This will include early childhood care navigation to help PCPs, patients, and families navigate and find referrals for services.



Jenniffer Herrera, MD UVA Neurodevelopmental Behavioral Pediatrics

Vicki Holmes

Providence Forge



Morgan Honickel, LCSW Petersburg





Nadia Islam, PhD The Pediatric Center Glen Allen



Brittany Butler, PA-C Tri-Area Community Health

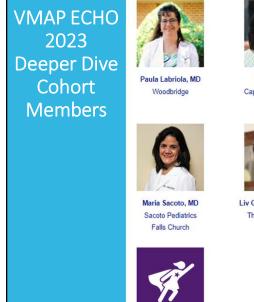


Jadig Garcia, PhD The Pediatric Center Richmond



Stephanie Konkus, MD Town Pediatrics Leesburg

slide 1 of 2



slide 2 of 2



Jackie Winkelvoss, RN Capital Area Pediatrics Oaktor



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Moderator



Polly Panitz, MD Developmental Pediatrics

Jacqueline Cotton, MD Pediatrics



Tammy Taylor-Musoke, LCSW LMHP



Mary Margaret Gleason, MD Child Psychiatry



Robin Cummings, MSHA Program Coordinator

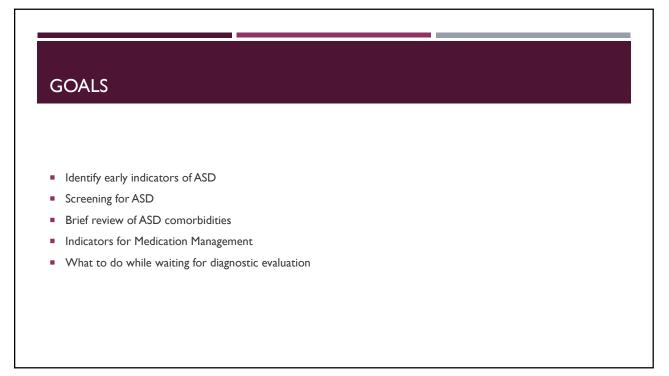


Michael Mintz, Psy.D

**Questions?** projectecho@vmap.org

Psychology





### DSM-V CRITERIA FOR AUTISM SPECTRUM DISORDER

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- A Persistent deficits in social interaction and communication ;as manifested by lifetime history of *all three* of the following:
- I Deficits in social-emotional reciprocity .
- Inability to initiate or respond to social interactions Inability to share affect, emotions, or interests - Difficulty in initiating or in sustaining a conversation
- II Deficits in nonverbal communicative behaviors used for social interaction
- Abnormal to total lack of understanding and use of eye contact, affect, body language, and gestures Poorly integrated verbal and nonverbal communication
- III Deficits in developing, maintaining, and understanding relationships
- Difficulty in adjusting behavior to social contexts Difficulty in making friends - Lack of interest in peers
- B Restricted, repetitive, and stereotyped patterns of behavior, interests, or activities as manifested by lifetime history of at least\_two\_of the following:
- I Stereotyped or repetitive speech, motor movements, or use of objects
- Motor stereotypies or mannerisms (lining up toys) stereotyped, or idiosyncratic speech . Echolalia.

II Excessive adherence to sameness, routines, or ritualized patterns of verbal or nonverbal behavior 

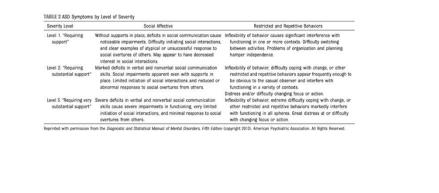
- Transitional difficulties Greeting rituals
   Rigid patterns of thinking
- III Highly restricted, fixated interests that are abnormal in intensity or focus
- Preoccupation with excessively circumscribed or perseverative interests
- IV Hyper- or hypo-reactivity to sensory input or unusual interest in sensory aspects of environment .
  - Sensory integration issues Apparent indifference to pain/temperature Excessive smelling, touching, or visual fascination with lights or movements

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### **DSM-V CRITERIA FOR ASD**

- <u>C Symptoms must be present in the early developmental period</u>
- Symptoms may not fully manifest until social demands exceed limited capacities, or may be masked by learned strategies in later life.
- D Symptoms cause clinically significant impairment in functioning
- E \*\*These disturbances are not better explained by intellectual disability \*\*
- To make comorbid diagnoses of ASD & ID, social communication should be below that expected for general . developmental level.
- Specify if: With or without accompanying intellectual impairment With or without accompanying language impairment Associated with a known medical or genetic condition or environmental factor Associated with another neurodevelopmental, mental, or behavioral disorder With catatonia

### DSM-V SEVERITY RATING



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### CORE FEATURE IS LACK OF JOINT ATTENTION

- Ability to share attention with another human
- Sharing of intent and affect
- Necessary for cognitive and social learning
- Foundation for teaching
- Begins in the end of the first year of life
- Correlated with language acquisition and the ability to understand that others have intentions
- Ability to follow, join and initiate attention



### STAGES OF JOINT ATTENTION

- Sharing of eye contact and back and forth games
- Infant follows the adult's gaze when object is within sight and later when it is NOT in sight
- Infant initiates directing the attention of others through gaze shifting (look at the object, look back to the parent)
- Infant learns to coordinate first the use of gesture, later the use of words to direct and share
- First the infant uses JA to make requests and later just to share and get the feedback from the adult



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### EARLY PRESENTATION OF ASD

- Doesn't respond to name
- No response to verbal commands
- No pointing or gesture use
- No sharing of things or interests
- Not using vocal sounds to request
- Obsessive or atypical interests
- Echolalia
- No imitation
- Atypical sensory responses

- Stereotypical movements
- Lack of interest in others
- Lack of play themes
- Restricted babbling/jargoning
- No shared smile
- Low core tone; head lag
- Poor coordination
- https://www.youtube.com/watch?v=YtvP5A5OHpU

## OLDER PRESCHOOL WITH UNDIAGNOSED ASD

- Difficulty with transitions
- Aggression
- Screaming fits
- Difficulty sharing
- Trouble engaging peers
- Poor play skills
- Trouble staying seated
- Not engaging in activities
- Eloping

- Not asking for help or making requests
- Not meeting developmental milestones
- Disruptive behavior
- Oppositional behavior

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### WHAT TYPICAL FEATURES MIGHT YOU SEE IN THE OFFICE?

- Using eye contact to show anxiety or interest
- Using gesture and/or words to share interest/wants
- Making social connection using gesture, eye contact or words
- Sharing/turn taking through play
- Imitating an action or vocalization

### TAKE THE TIME TO OBSERVE

### How does the child? :

- React to your presence
- Communicate
- Respond to verbal commands
- Share interests
- Play
- Take turns
- Make eye contact
- Use the parent for comfort

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### WHAT CAN YOU DO TO ELICIT CONCERNS? WATCH IN SILENCE.

- Have some common toys to elicit interaction: bubbles, car, crayon, blocks, ball
- Activate bubbles, then close bottle and watch child's response: does he make a specific request using gesture, language or eye contact?
- Attempt to play back and forth with a ball
- Ask child to imitate using a few blocks
- Watch how a child explores an interesting toy
- Present something that interests the child and then pause/freeze and see if the child initiates

### ASD SCREENERS

- Developmental testing as per AAP; does NOT pick up ASD, will see lag beginning after 12 months
- M-CHAT R/F\* at 16-30 months: <u>www.mchatscreen.com</u>
- Communications and Symbolic Behavior Scale\*: DP https://firstwords.fsu.edu/pdf/checklist.pdf; 6-24 months or up to 72 months if delayed
- The STAT: Standardized Test of Autism in Toddlers; 20 minutes interactive tool for 14-36 months <u>https://stat.vueinnovations.com</u>
- ASRS:Autism Spectrum Rating Scale (parent and teacher questionnaires; 2-18 yr) https://www.pearsonassessments.com/store/usassessments/en/Store/Professional-Assessments/Behavior/Autism-Spectrum-Rating-Scales/p/100000354.html
- The CAST\* (Childhood Autism Spectrum Test) SRS: Social Responsiveness Scale (parent and teacher questionnaires; 4-16 yr) <a href="http://psychology-tools.com/cast">http://psychology-tools.com/cast</a>
- DSM-V ASD\* checklist: https://www.massgeneral.org/assets/MGH/pdf/psychiatry/asd-dsm5-diagnostic-symptom-checklist.pdf or https://triad.vkclearning.org/en-us/My-Courses/LrnrTab1597/myplan/LrnrCtrl1597/myplan/LrnrKC1597/true/FID1597/499d7689-d608-4cabadf4-1db012268a9f

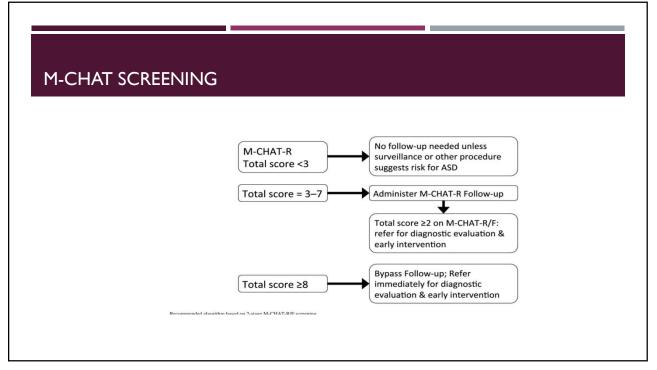
\* free non-proprietary

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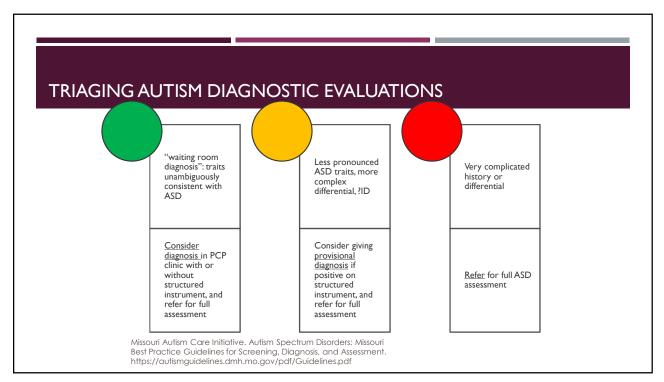


- Score greater than or equal to 8 should be referred immediately
- Scores of 3-7 should have follow-up interview to review
- Have parent watch KKI video prior to completiong
  - https://www.kennedykrieger.org/patient-care/centers-and-programs/center-for-autism-and-related-disorders/outreach-and-training/early-signs-of-autism-video-tutorial
- Persistent abnormal score at 95% risk of DD and 47% risk for ASD
- <u>REFER FOR EARLY INTERVENTION!!! DO NOT WAIT FOR A DIAGNOSIS</u>



### EARLY DIAGNOSIS OF ASD: MUST CONTINUE TO MONITOR

- Stability of diagnosis: 93% diagnosed at 24 months
- Low sensitivity prior to 36 months
- 63% later diagnosed will be missed at 18 months
- 41% later diagnosed will be missed at 24 months
- Most of those missed will have other developmental challenges



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### COMORBIDITIES: 70% AT LEAST ONE

- Gastrointestinal
- Diet/nutrition/allergies
- Seizures
- Sleep
- ADHD
- tic disorders
- Anxiety/depression
- Emotional dysregulation
- Aggression/SIB

- Genetic abnormalities
- Dental issues
- Language disorder/ Learning Disability
- Intellectual disability
- Motor impairments
- Rigid/repetitive behaviors

### GI DISORDERS AND ASD

- Gi disorder co-occurs with sleep disorder, food intolerance, and irritability (Horvath 2002, Ming 2014)
- Behavioral changes indicative: tics, throat clearing, whining, crying, echoing statements about stomach, agitation, increase in repetitive behaviors, aggression, SIB, noncompliance
- Prevalence of GI symptoms highly variable based on methodology
- From 9% to 70% of those with ASD have GI complaints
- No GI disease that is specific to ASD has been discovered
- T Buie Pediatrics 2010

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# NUTRITIONAL DIFFERENCES Increased prevalence of overweight and obesity (35.7% and 19.0% respectively) In the 12 year range marked increased rate (80% and 50% respectively)Curtin 2005 Reports of decreased protein intake Reports of low dietary calcium and vitamin D intake

### TAKE AWAY LESSON

- Any child with symptoms warrants an evaluation
- Any GI disease can occur in ASD
- May present in unusual manner
- May present as sleep interruption or behavioral difficulties
- The data are inconclusive about the presence of GI disease, immunologic or food allergies in Autism
- There may be a subgroup of children with ASDs that will benefit from specialized diets
- All children should eat wholesome and varied diets

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### SEIZURES AND AUTISM

- Children with ASDs at increased risk both for abnormal EEGs and clinical seizure activity (as high as 45%)
- Most (67%) occur after age 12 years
- All types of seizures may occur
- May reflect an underlying neurobiology or comorbid state
- Seizure presentation might look like Autism symptoms (staring, eye deviation, flapping, sleep abnormalities)
- EEGs abnormal in as many as 60% (Spence 2009)
- Only treat clinical episodes NOT the EEG

### INSOMNIA

- Very common: up to 86% of children w ASDs
- Inadequate sleep associated with inattention, memory, behavioral problems, and stress
- Can exacerbate core features of Autism
- Difficulties with sensory processing, self calming, stress, communication, feeding issues, etc.
- In ASDs equal amounts of trouble falling asleep, waking and staying awake, waking too early
- Look for medical condition (asthma, GERD, seizures, medication side effect, dental pain, constipation, etc)

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### MELATONIN

- Effective, safe and well tolerated
- Not standardized, so stick with one brand
- Give 1/2 hour to I hour prior to bedtime onetime only
- Use for sleep latency only, does not help with wakenings
- 7/24 respond to 1 mg, 14/24 to 3 mg and 3/24 to 6 mg
- Well tolerated and works quickly in 14 week study (Malow 2011)

### ADHD

- Now with new DSM-V can diagnose comorbid ADHD
- Many children with ASDs present with inattention and distractibility, probably about 50%
- Distinguish between lack of attention to non-preferred versus distractibility
- Need feedback from other observers to assess degree of impairment
- As children improve, especially those with higher levels of functioning, they have fewer restrictions in the classroom, may be barrier to progress
- Observe the child; be certain issues are pervasive
- Assess adequacy of educational and behavioral intervention first!!

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### PHARMACOLOGIC INTERVENTION

- Children with ASDs have less dynamic response to medication and increased likelihood of adverse responses or activation
- Rule out undiagnosed medical problems: constipation, pain, sleep issues, anxiety, etc
- Start low and increase slowly
- Refer to practice algorithms in Pediatrics 2012 supplement Mahajan, et al
- Begin with a stimulant: methylphenidate or amphetamine (most respond to 1/8-1/4 the dose of NTs (0.25 mg/kg/day methylphenidates)

### PHARMACOLOGIC INTERVENTION

- Best study RUPP (Posey 2005) efficacy of 49% compared to 69% in neurotypical children
- 18% could not tolerate a forced dosing trial up to 0.5 mg/kg
- Therefore \*use small doses and carefully titrate up
- Non-stimulants: Alpha2-agonists can be helpful: Guanfacine and clonidine as single agents or adjunctive
- Can be helpful when stimulants produce intolerable tics, insomnia, appetite suppression, irritability

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### SSRIS TO TREAT ANXIETY AND ASD

- No documented efficacy in reducing repetitive behaviors or stereotypies
- Anxiety very common; 39.6% have some type of anxiety (Vasa Pediatrics 2016)
- Some efficacy in transition induced anxiety/agitation, aggression, SIB
- At risk for "activation" or hypomania
- Use very low doses and titrate slowly with instructions
- Fluoxetine 5-10 mg initial treatment dose with slow titration as needed(use 20 mg/5 cc)
- Sertraline 10-25 mg

### DEPRESSION

### I5-20%

- Suicidal ideation and acts more common than appreciated
- Adult sample of Asperger's patients found 35% reported suicidal plans or attempts

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### AGGRESSION/SIB

- Two medications FDA approved for this indication: Risperidone and Aripiprazole
- Better results when coupled with parent training and behavioral interventions
- More efficacy in children over age 5 years
- Adverse effects increased appetite, weight gain, fatigue, somnolence, dizziness, hypersalivation, rhinitis.
- 2-4 fold increase in prolactin levels that diminishes over time, not clinically significant
- Mean weight gain 8.2 kg in children 8.4 kg in adolescents w Risperdone
- Mean dose 1.17-1.8 mg/d Risperidone or 5-10 mg Abilify

### LEARN TO UNDERSTAND THE BEHAVIORS

- Children with ASDs have difficulties processing sensory information, delays in communication and can find the world overwhelming.
- May struggle with more emotional outbursts/self regulation
- Likely to have repetitive or obsessive behaviors that allow them to self soothe
- Sudden unanticipated changes can be difficult and will benefit from being prepared
- Have marked delays In functional communication: can they ask for help or a break?
- Assess the treatment plan for school and privately: what needs to be targeted
- SEEK TO UNDERSTAND THE FUNCTION OF THE BEHAVIOR!!! DON'T JUST TREAT THE BEHAVIOR
- Has child had a functional behavioral assessment? Is there a plan to target the underlying weak skillset?
- Does child have a communication plan? Need a Speech Generating Device(SGD) or Augmentative and Alternative communication (AAC) evaluation?

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### BEHAVIORS MAY INDICATE UNDERLYING PHYSIOLOGIC DISTRESS

- Sleep
- Gastrointestinal discomfort
- Dental issues
- Feeding/Nutritional concerns
- Genetic disorders
- Seizures

### PART III: INDICATIONS FOR PHARMACOLOGIC INTERVENTION

ADHD	Anxiety/depression
Stimulants	SSRIs
Nonstimulants	At risk for activation
Start low and go slow	Titrate up very slowly using a liquid
Less robust than in NTs	May respond to low dose

### Irritability/SIB/Aggression

SGA: Aripiprazole, Risperadone

Most effective with behavioral therapies

Side effect profile high: weight gain, metabolic effect

### **Repetitive behaviors**

Little efficacy

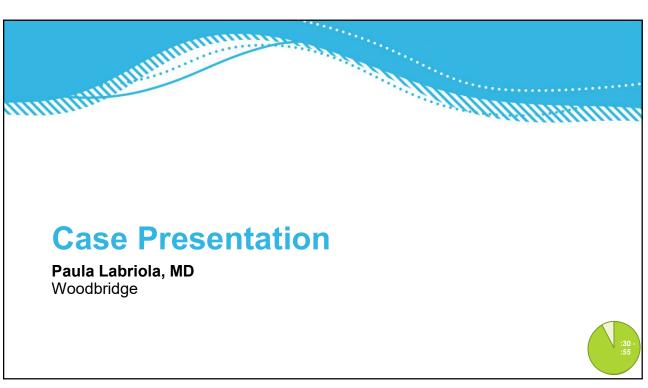
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### BARRY PRIZANT: UNIQUELY HUMAN

"There is no such thing as autistic behavior. These are all *human* responses based on a person's experience."

## WHAT TO DO WHILE WAITING FOR A DIAGNOSIS

- Explain your specific concerns and the importance of early and evidence based intervention (https://www.autismspeaks.org and https://www.cdc.gov/ncbddd/autism/families.html)
- Identify some problematic areas that can be addressed (sleep, eating, behavior, sensory, school placement, etc)
- Refer for early intervention and a diagnostic evaluation
- Assign a nurse in your practice to follow up and support family in this process: collate lists of resources
- Refer for private therapies (speech, OT, behavioral therapy if Medicaid)
- Guide parents how to work with their child to focus on joint attention: (refer to hanen.org or helpisinyourhands.org or babynavigator.com)
- Guide parents to AVOID rote teaching of academic skills and encourage on the floor, face to face back and forth play loaded with affect and engagement
- Remove electronic toys and interact, take turns, follow the child's lead
- Several ABA centers are now performing diagnostics: (Behavioral Framework, Ally Behavioral, Verbal Beginnings and As You are)
- Provide predictable routines and structure, use visual aids, distract and redirect for problem behavior, proactive planning (cdc.gov/parents/essentials/videos/index.html)



Currently !	5y,11m female with Autism and hyperkinetic behavior
Prior medical, MH dx	<ul> <li>Infancy: SGA, 37 week, slow weight gain. GERD, feeding issues, mild laryngomalacia and tracheomalacia.</li> <li>18m: well visit- normal. 6-8 words including names of family. MCHAT=0</li> </ul>
Symptoms	<ul> <li>24m: MCHAT - parent answered yes to all questions; upon discussion with provider, several changed to no.</li> <li>30m: started private preschool and not doing well (hitting, climbing, running, stopped talking). Not eating-weight loss. Has strands of pubic hair. Referred to Child Find, endocrine, dev peds, SLP, ABA.</li> <li>36m: asked to leave preschool. Virtual visit with dev peds - dx Autism and speech delay. Endocrine -monitor. ABA pending. SLP sporadic.</li> <li>48m: enrolled in SPED class for Autism; has ABA, SLP. Can communicate with 10 signs, eating better.</li> </ul>
	<ul> <li>4 1/2y: pt develops aggressive behavior towards siblings (twins, sister, mom pregnant with #5)</li> <li>Almost 5 years: 15 hrs ABA plus OT weekly. Speech limited to a few single words; aggressive behaviors have continued. Child is extremely hyperkinetic making NO eye contact, constantly humming, making unintelligible vocalizations, trying to leave the room. Referred to dev peds, psychiatry. NICQH forms given. VMAP contacted. Starts Methylphenidate liquid – reduces hyperkinetic behaviors but pt isn't eating, sleeping, and periods of good behavior only lasts for 4 hours after a dose.</li> <li>10 ml Methylphenidate in the morning after breakfast and again at 3-4 pm. Quillichew-denied.</li> <li>6 months into therapy: talking in short phrases but still not eating. Started on Pediasure.</li> <li>5 9/12 : no psychiatry or dev ped appts scheduled. Pediasure has helped with weight but meds wearing off faster. Dosage increased to 15ml twice daily.</li> </ul>
Social hx	Black; family originally from Ghana. Parents married; oldest of 5 children.
behavio	JESTION: a longer acting product in these very young children that works as well so that they get better coverage for their ors for the whole day? what is available in the community for Medicaid specifically to provide better care for these very young children

with multiple mental health issues? (Autism, ADHD, oppositional or aggressive behaviors and developmental delays)



# Wrap-up

Our next session			
Our next session			
Topic:	Feeding Challenges		
Date:	Thursday, August 24 @ 12:00 to 1:00 PM		
Case presenter:	Nithiyakalyani Panneerchelvam, MD		
Didactic presenter:	Beth Ellen Davis, MD		
	Today's session recording will be posted cohort webpage @	to the	
	http://www.virginiapediatrics.org/vmap	/echo/	
	VMAP ECHO 23 Deeper Dive $\rightarrow$ Password = 2019	VMAP	

