Managing Common Medical Co-Morbidities in Autism: Sleep, Feeding, and Behavior

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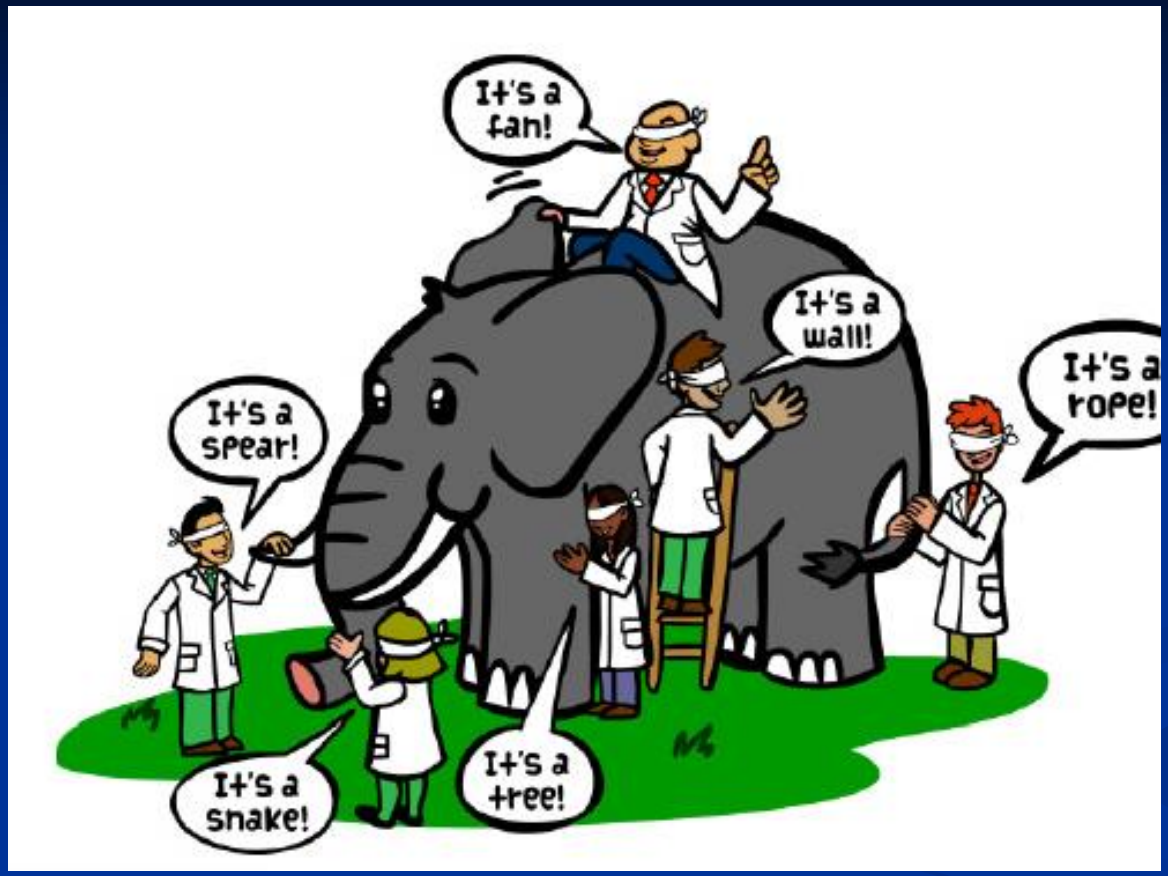


Autism is bigger than any of us

The Primary Care Doctor's Role in Autism

- Identification/Basic Management/Referral of Common Medical Co-Morbidies
  - Sleep
  - Feeding
  - GI issues
- Behavior
  - Meltdowns
  - Surviving the doctor's office

Starting Point

Some Tricks of the Trade

Visual Supports in Autism

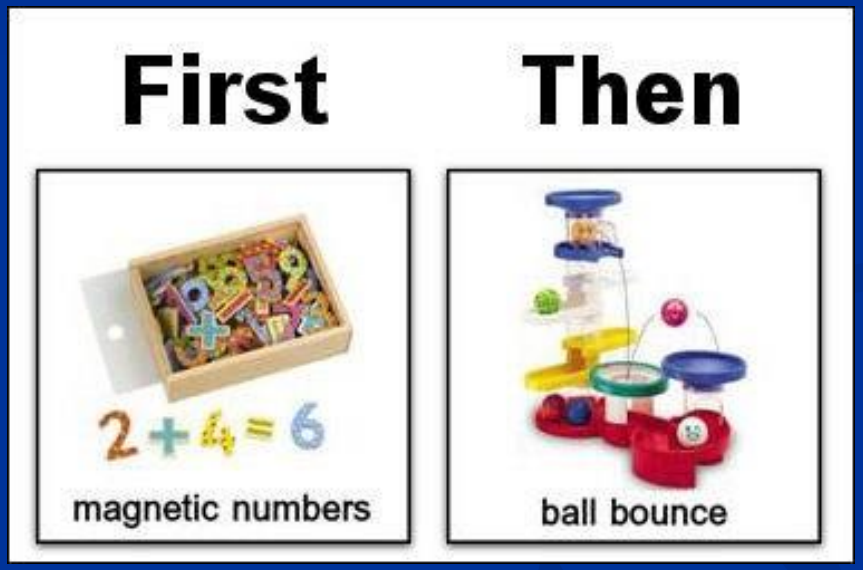
- Can be very helpful for children who have trouble communicating or using language
- Can be used to:
  - Help parents and children communicate– which can decrease frustration and lead to improved behavior
  - Help with learning new tasks or handling changes in routine
- Nice handout: Autism Speaks parent toolkit
  - https://www.autismspeaks.org/family-services/tool-kit

Picture Communication

PECS System

First/Then Boards

- Helps child to follow directions and learn new skills
- Two pictures: the desired activity, followed by the motivator
- Try first with an "easy" request, then attend to harder ones



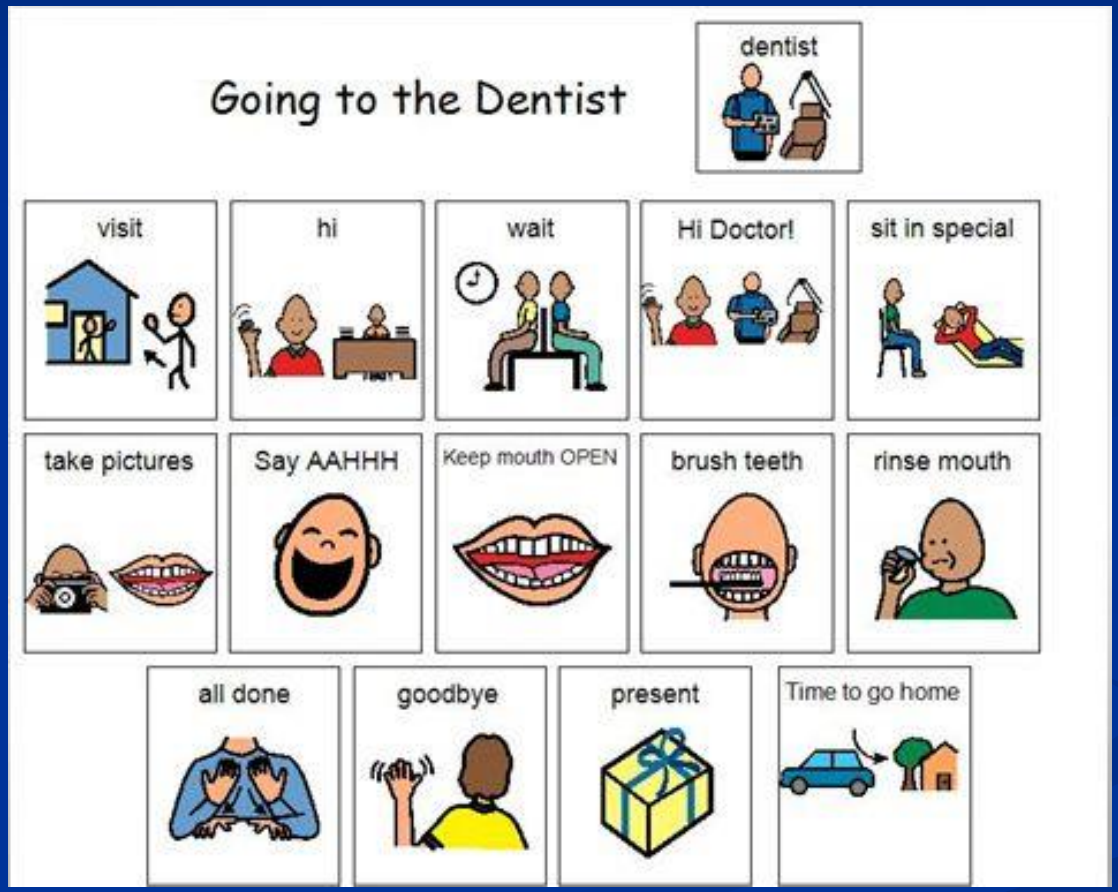
Visual Timers

Useful for teaching children to wait before a preferred activity
Widely available

Visual Schedules

- After child understands concept of sequencing through First-Then Board, can develop more complex schedule
- Can be done for the whole day..

Visual Schedules.. For a particular task



Social Stories

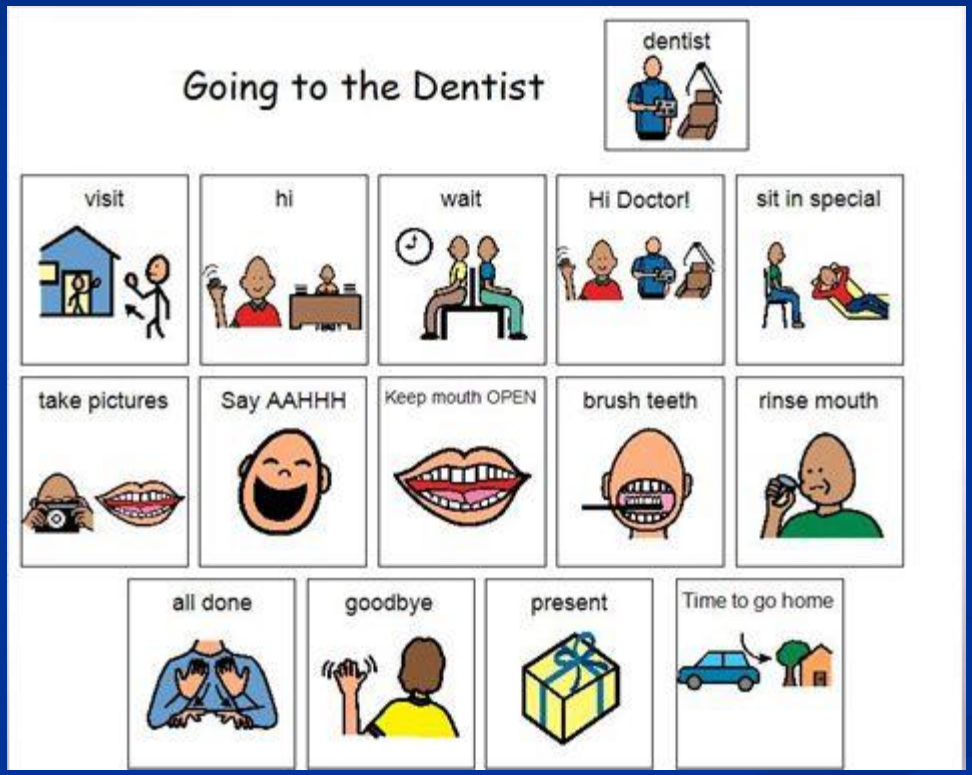
Simple stories created to teach children who can understand narrative, how to negotiate unfamiliar or new social situations; see www.carolgreysocialstories.com

Making Your Office Autism Friendly

Start by talking to the parents

- Have they tried to do anything to prepare their child?
  - Social story, acting out the visit
- Do they have any advice on how to make the visit successful? Are there strategies they use to handle challenging situations at home?
  - Effective rewards
  - First/then boards and visual schedules
  - Any rituals to follow

Visual schedule for the visit



What you can do

- Have some tools ready, such as visual schedules, first/then boards, and better rewards than stickers. State autism society may help
- Try what parent suggests
  - First/then board for blood pressure or vaccines
  - Visual schedule for exam
- Praise and reward if visit is successful
- For future visits: talk about preparation– practice, social story, bringing rewards or distracting toys

Problems

My Child Won't Fall Asleep

Why kids with autism have sleep problems

- There do seem to be biological differences in homeostatic sleep drive
- Going to sleep marks a major transition--- and transitions are hard for these kids
- Many kids have trouble with self calming– and need particular attention to sensory processing

Addressing sleep problems: Bedtime

- Set up a calming sleep environment
  - Bedroom should be dark, quiet, cool
  - Many children like a night light
  - White noise may be helpful
- Have a regular bedtime routine with several steps– a picture schedule is often helpful
  - Initially start this within an hour of the child's "actual" bedtime- and then move earlier

Visual Bedtime Schedules

Melatonin

- Can be effective for sleep-onset disturbances (not later awakening); supported by RCTs
- Side effects: overall benign; ?lower seizure threshold
- Initially give 1-3 mg 30 minutes before bedtime
- Can titrated by 1-3 mg every 1-2 weeks to max of 6 mg

Iron

- Iron is required as co-factor for dopamine-opiate system, which helps regular sleep-wake cycle
  - Many ASD kids at risk for iron deficiency
- Supported by 8-week open label study of 30 patients using 6 mg/kg/day
- Side effects: palatability, constipation

Clonidine

- Effective for both sleep-onset and later sleep disturbances
- FDA approved age 6+; Supported by open-label pilot studies in children age 4-16 years
- Side effects: hypotension (overdose can be dangerous!); rebound hypertension if discontinued abruptly

Clonidine: Dosing

- Available as 0.1 mg, 0.2 mg tablets and compounded solution (0.1 mg/ml)
- Children over 6: Start with .05 mg, raised by 0.05 mg every 1-2 weeks to max of 0.2 mg if under 40 kg, 0.3 mg if more than 40 kg
- Children 4-6 years: 2-3 mcg/kg/dose for younger children; titrate by 5-10 mcg/kg/day to max of 5-10 mcg/kg/dose

Late Night Awakening

- Often requires addressing behavioral reinforcers: parent co-sleeping, turning on TV
- Medications to consider:
  - Clonidine
  - Some neurologists use neurontin

My Kid Eats Eats Five Foods

Why do kids with autism get so picky?

- Sensory aversions
  - (ask about food textures, how child responds to face being wiped, hair combed, etc)
- "Insistence on sameness": want to do the SAME foods over and over
- Emotions: Anxiety, Disgust
- Unrecognized GI Sx (constipation, reflux)

Autism Restricted Feeding: Prevention

- Even before picky feeding becomes significant– warn parent of the danger of being drawn into a downward spiral of ever more restricted eating
- Having regular mealtime routines at the table is even more important than in other young children
  - Offer 3 foods per meal, one can be a "favorite"
  - Avoid grazing
  - Try not to prepare solid foods the same way (ie, cut up chicken nuggets differently)

Introducing New Foods in the Extremely Restricted Feeder

- Choose new foods by matching color, texture
- Set up a time to expose and habituate child to new foods APART from mealtime and the table
  - Can be while food is being prepared
  - Encourage child to touch, handle, lick, and bite foods
  - Reward with praise or stimulation (ie, bubbles)
- Once child seems close to accepting a new foods, place on small plate near child's own plate

What else can we do?

- Nutritional assessment (including hgb, ferritin, Vit D) and Vitamins, supplements if needed
- Treat associated constipation
- Periactin 0.1 mg/dose bid; give 2 weeks on and 2 weeks off

Feeding Therapy

- Feeding therapists include both speech and occupational therapists
- Speech therapists
  - Tend to have stronger behavioral emphasis in therapy
  - Strong background in oral/motor disorders (issues with chewing, swallowing, holding food in mouth)
- Occupational therapists
  - More emphasis on sensory processing (may be preferred by Medicaid for this reason)
- High functioning and older children: Consider psychologist, Eating Disorders Program

When is GI evaluation indicated?

- Keep eosinophilic esophagitis in the back of your mind
  - Signs of esophagitis
  - Failure to improve with 3-6 months feeding therapy
  - Severe feeding aversions (ie, not taking any solids)
- And refer if there are signs pointing to other GI pathologies (blood in stool, chronic diarrhea, etc)

Meltdowns and Problem Behaviors

Example

- 6 year old boy with minimally verbal autism
- Attends EC class in public school
- For past two months has had escalation in "tantrums": 2-3 times a day will seemingly lose control, scream, hit or scratch others
- These take place at home and at school
- What would you like to know?

What caused the escalation?

- Socio-environmental causes
  - Changes in school, including teacher turnover
  - Stress or challenges at home
- Medical causes or co-morbidities
  - Anything causing pain: look for signs suggesting constipation, reflux, dental pain, etc
  - Poor sleep
  - Other medications that might cause irritability– especially stimulants, SSRIs

Analyze the behavior

- Remember that disruptive behaviors, even if they seem random, always serve a purpose
- Take a brief "ABC" behavioral history
  - Antecedents: What precedes the behavior?
  - Behavior: What happens? How severe, long?
  - Consequences: What follows the behavior? How do caretakers respond?
- You might get some real insights; if not, refer to a behavioral specialist (who will likely have parents complete an ABC log)

Some General Points

- Try to distract if warning signs are appearing
- Ignore negative behavior if minor
- Try if at all possible not to reward the behavior
- If behavior escalates into full tantrum, use time out as a "cool down." Place child in safe area. Don't escalate, use loud voice.
- If behavior is creating safety concerns, consider emergency intervention options

Medication Options

- Risperidone and aripiprazole have strongest evidence support for improving irritability and problem behaviors– but significant side effects
  - Sedation, constipation
  - Weight gain, insulin resistance, dyslipidemia, hyperproactinemia (?most with risperidone)
  - Extrapyramidal symptoms– tremor, dyskinesia, akathisia, rigidity

Other Medication Options for Irritability
(Not FDA approved; Over 6 years old)

- Alpha-adrenergic agonists:
  - Guanfacine Clonidine: more sedating but may be more effective
- Amantadine often used by psychiatrists
  - 50 mg bid for one week, then 100 mg bid in children over six
- Treat other psych co-morbidities if present

Autism and ADHD

- Significant overlap with ASD– may be associated with bigger behavior issues, later Dx of ASD
- Stimulants more likely to be poorly tolerated– yet can be quickly assessed.
  - Start with low dose, short acting!
- Sometimes Sx seem better described as poor attention regulation and reactivity– which may be better treated with guanfacine

Autism and Anxiety/OC

- Again, there is significant overlap
- SSRIs can sometimes significantly relieve severe fears or obsessive worries
- But side effects more common
  - "Activation" symptoms: irritability, poor sleep, hyperkinesia
  - Try CBT and counseling for higher functioning kids
  - With meds: Start with low doses and increment slowly

Resources for Problem Behavior

- Kelly McGuire et al, "Irritability and Problem Behavior in Autism Spectrum Disorder: A Practice Pathway for Pediatric Primary Care," *Pediatrics* 2016; 137: S136-148 (part of special supplement)

Keep the Big Perspective