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From Barriers to Behavior Change: Delivering Tailored Adherence Support

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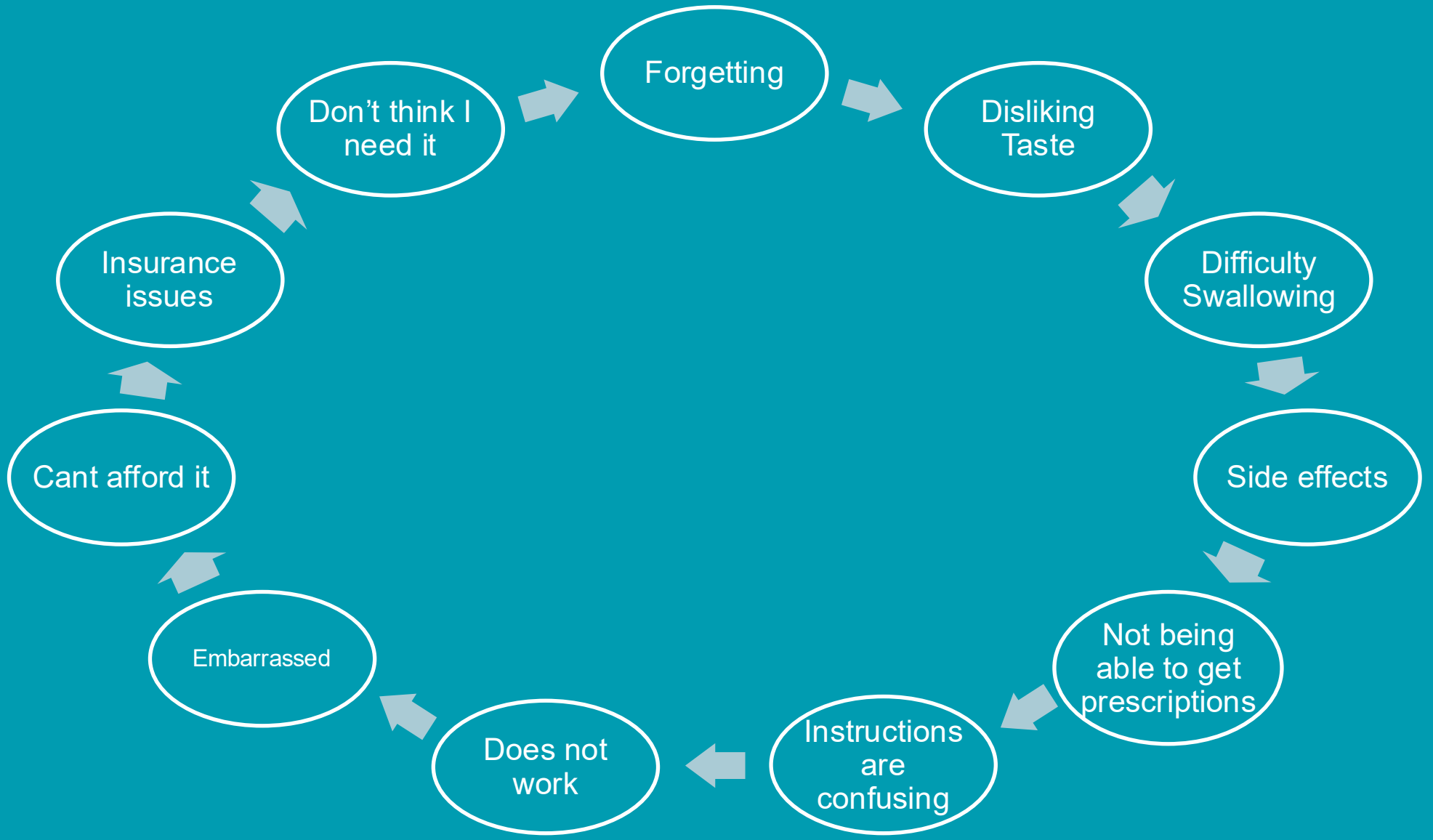
Objectives

- Adherence barriers refresher
- Effectiveness of adherence interventions
- Strategies for translating research into practice
- Case example

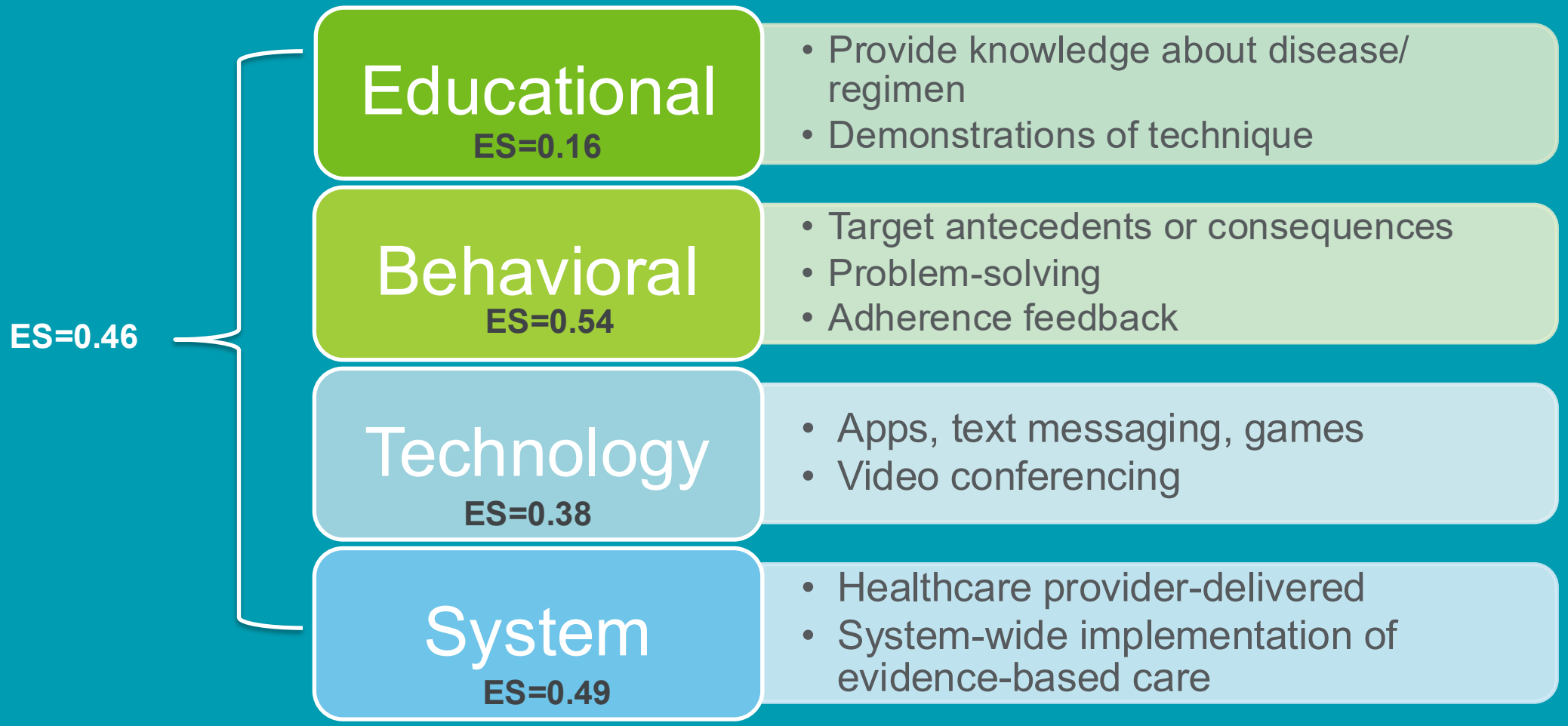
What is an adherence barrier?



Why do we care about adherence barriers?

- Adherence barriers:
  - Predict adherence behaviors
  - Are stable without intervention (Ramsey et al., 2018)
  - Can be addressed via evidence-based interventions

Adherence interventions: Meta-Analyses



Pai & McGrady, 2014; Rapoff, 2010; Wu & Pai, 2014; McGrady et al, 2024

Intervention

- Focus on modifiable
- Not “one size fits all”
- May need to target multiple (levels of) barriers
- Stepwise fashion
- May need to be ongoing
- Does not always need a psychologist

Educational strategies

- Verbal, written, or video-based information
  - Disease/illness
  - Purpose of the treatment & importance of adherence
  - Instructions related to the regimen
  - Possible side effects
- Knowledge is necessary, but not sufficient

Behavioral strategies

- Techniques to increase adherence behaviors
- Reminders (Medisafe, Medcoach:Medication Tracker, MyMedSchedule)
- Incentives/reinforcement
- Problem-solving
- Self-monitoring and behavioral feedback
- Motivational interviewing and change talk
- Skills teaching
- Anxiety intervention

Health care system strategies

- Targeting health care delivery
- Increasing accessibility to health care
- Encourage communication about adherence at the point of care
- Reduce complexity of the regimen
- Adjust medications to address intolerable side effects

Health Care Provider-Delivered Adherence Promotion Interventions: A Meta-Analysis

- A total of 35 randomized-controlled studies including 4,616 children were included
- Greater improvements in adherence were observed immediately after health care provider-delivered interventions (*d* = 0.49; 95% CI, 0.32 to 0.66) than at longer-term follow-up (*d* = 0.32; 95% CI, 0.10 to 0.54)

Wu & Pai, 2014

The good news: Evidence-based interventions exist to address adherence barriers

The bad news: Few places implement these interventions in clinical practice

So….it’s up to you to bridge that 17-year gap

How do you integrate barriers assessment and tools into clinical practice?

- Standardized assessment of adherence and barriers (e.g., forgetting, side effects, lack of knowledge) during routine clinic visits
- Open dialogue between health care providers and patients regarding adherence barriers to facilitate adherence
  - Normalize non-adherence
  - Ensure patients understand their treatment regimen
  - Shared decision-making tools
- Referrals for more serious non-adherence concerns to mental health specialists

What Adolescents Valued in Their Pediatric Providers

- Being interested in them as opposed to their condition
- Being more focused on their behaviors as opposed to their parents
- Honesty, trust, and respect
- Knowledge and expertise

What Parents Value in Their Child's Providers

- Listening to them and their children
- Validating their perspectives and expertise
- Providing comfort in response to their fears and concerns
- Communicate directly with their children

Britto et al., 2004; Beresford & Sloper, 2004

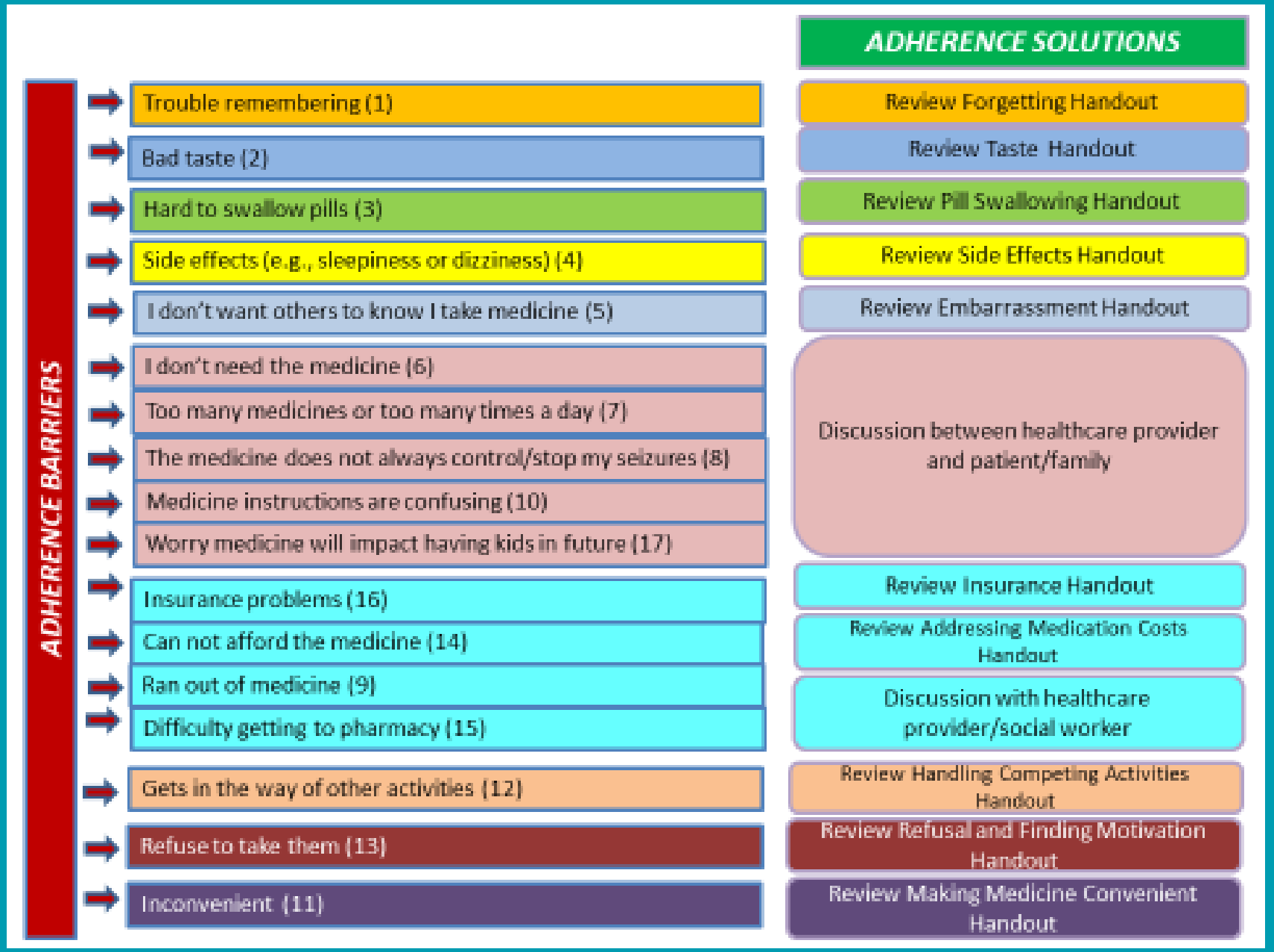
How do we talk about adherence with our patients?

TECHNIQUE	SAMPLE QUESTIONS
Do not criticize	“Most of us miss doses at times. What has been your experience?”
Be specific	“Can you tell me what the purpose of the medication is and when you last took it?”
Ask about the medications’ effect on QOL	“How do you feel about taking these pills?”
Ask about side effects	“Have you experienced any side effects?”
Identify the problem	“What makes it difficult to take the medications?”

How do we talk about adherence with our patients?

- Let the family know that you want to **partner** with them to find solutions and that you are going to be checking in regularly
- Encourage the family to develop their **own solutions** to overcoming barriers
- Offer praise to the patient and family when you notice improvements

Strategies to improve adherence should be tailored to individual patients and their relevant risk factors.



https://www.epilepsy.com/tools-resources/forms-resources/medication-tools

Toolkits and strategies

https://centerlink.cchmc.org/echirp/patient-family-ed/knowing-notes/adherence

Remembering to Take Medication

Having a child who needs medication every day can be a challenge. Many families *intend* to give their child's medication as prescribed, but sometimes simply forget. Your child may need to take medication several times a day and it is hard to remember if you gave each dose. Here are some tips that may help you.

Use signs or symbols

- Post notes in places you see often, like the refrigerator, bathroom mirror or front door. Change the location of the notes every once in a while.
- Wear a bracelet or some other object that reminds you to give the medication.
- Make yourself a calendar or schedule that you can put on the refrigerator or someplace else that you will see.

Keep the medication where you can see it

You want to keep the medication where children cannot reach but where you can see them.

- Use a pillbox and place it at the back of the kitchen counter.
- Keep it in a place that you walk by every day.

Link giving the medication with a routine

- At mealtime
- When your child brushes their teeth
- At the same time each day, like at 8 am and 8 pm
- Give your child their medication at the same time you take your medication
- Come up with a time that has meaning for your family

Use technology as a reminder

- Set an alarm—on your cell phone, stove, TV, activity tracker or other electronic device.
- If your child is taking medication at school, send them a text message as a reminder.
- Put a free smartphone app on your phone—ask us for more information about this!

General tips for parents

Plan ahead if you are going on vacation or changing your routine in some way.

- Try to get extra medication from the pharmacy if you are leaving the area.
- Print out a medication schedule that you can take with you.
- Keep extra doses of medication in your purse, backpack or sleepover bag in case you forget to bring their medication with you.

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https://centerlink.cchmc.org/echirp/patient-family-ed/knowing-notes/adherence

Learning to Swallow Pills

Learning to swallow pills is hard for many people. In fact, studies show that **26%** of children have a hard time swallowing pills. Taking pills instead of liquid medication has its benefits: they are easier to carry with you and leave little or no medication taste in your mouth.

These tips can help in teaching your child how to swallow pills. **Please check in with your pharmacist to make sure these can work for your child's medication.**

Tips for making pill swallowing easier

- Put the pill in a spoonful of Jello or pudding, which will help it slide down your child's throat. Have your child practice swallowing a spoonful of the food without the medication first. Do not hide the pill in the food as this can break trust between you and your child.
- Coat the pill with Magic Shell—there are many flavors available.
- Place crushed pills in cherry (or other flavored) syrup or gel caps. Check with your pharmacist to see if the pill can be crushed.
- Give your child choices when possible: "Would you like to stand or sit?," "What would you like it mixed with?"
- Have your child keep their tongue flat when taking the pill.
- Dip the gel cap in ice water before swallowing to make it very slippery or use Pill Glide Swallowing Spray.
- Use a special pill swallowing cup (Oralflo; www.oralflo.com).

Head positions to make swallowing easier

- Try different head positions.
- Turning to the side relaxes the throat, which can make it easier for pills to slide down.

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Making Medication Taste Better

Some medications (liquid, pill) may have an unpleasant taste, which makes children and teenagers less likely to want to take the medication. Children are especially sensitive to bitterness. Here are some tricks and tips to help your child with bad medication taste. **Please check in with your child's pharmacist to make sure these can work for his/her specific medication.**

Basic tips for both liquid medications and pills

- Have your child hold his/her nose.
- Give your child something to drink right after the medication is taken. Let your child choose the beverage (no grapefruit juice) before giving the medication. White grape juice works well for masking bitter taste.
- Give something cold beforehand to numb taste buds (popsicle, ice cube).
- Choose a complementary flavor. If medication tastes salty, choose something salty to accompany it (tomato juice, broth). If medication tastes sweet, choose something sweet (applesauce).

Specific tips for liquid medications

- Use a syringe to give the medication, squirt it in the back or side of the mouth to avoid the tongue.
- Add flavor additives, such as FlavoRx® (available at most pharmacies), to liquid medications. Let your child pick their own flavor (bubble gum, banana, etc).
- Mix the medication with a strong flavor (Kool-Aid® powder, chocolate or strawberry sauce). Please remember that if medication is mixed with food or a flavoring agent, you need to give it right away so that the medication still works properly.
- Give a spoonful of peanut butter or maple syrup to coat the tongue before giving the medication.

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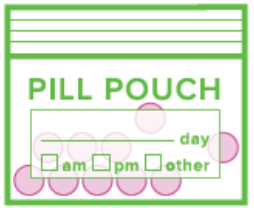
Sometimes teenagers do not want other people to know that they take medication. Other teens might not know how to talk to their friends and teachers about having a medical condition. Some teens find that it helps to tell their friends why they take medication so that rumors are not spread!

Ways to take medication without others knowing

For doses "on-the-go":

- Use a pill container that attaches to your key chain
- Use a small plastic pill pouch and carry it in your wallet/purse
- Use a decorative pill container



Taking medication:

- If in public/friend's house, go to the bathroom
- If at school, ask to take medication in the nurse's or main office
- Put stickers or decorations on medication bottles or inhalers

Case Example

- Alex is a 14 year old female who you started on fluoxetine for depression. She is here for a one month check in. She and mom report that her symptoms have not improved and maybe are slightly worse.

What should you do first?

Case Example cont'd

- You discover that Alex has missed ~50% of doses over the last 4 weeks.
  - Thank her for letting you know about the missed doses
  - Assess barriers
- She tells you that she forgets and just does not feel like taking it some nights.
  - Ask her which barrier she would like to address today
- She picks the barrier of forgetting.
  - Normalize this is common for a lot of teens and that having depression can make adherence harder
  - Use motivational interviewing strategies (e.g., active listening, reflection) to discuss intervention options

Case Example cont'd

- Alex says she usually has her phone with her and her grandmother is home every evening.
  - Use this information to suggest potential interventions
- Help Alex and her mom plan out next steps for implementing the intervention at home
- Plan for a staff member to check in 1-2 weeks later

Questions?