In most cases, children and adolescents living with HIV require medications daily. Antiretroviral therapy usually involves taking a large volume of liquids or a significant number of tablets. Prolonged treatment can eventually impair adherence. Palatability, size, amount of antiretroviral drugs and time management are also important risk factors contributing to poor adherence to treatment. This may lead to increasing stress and conflict with the child around medication and can further have a negative impact on family dynamics and relationships in the setting of a chronic illness.

Teaching children to swallow tablets can positively affect the way families manage their medicines. A small study by Garvie and co-workers, involving 23 children (4-21 years) demonstrated improved adherence to antiretroviral treatment after being taught pill-swallowing technique.

Initial assessment

Prior to meeting with the child, a thorough discussion with the person administering the medicine to the child is paramount. This should include:

- Age of the child (> 5-6 yrs)
- Previous experience of pill swallowing
- Child’s ability to swallow (speech, poor swallowing reflex with water)
- Child’s general behaviour (e.g. cooperation, temper, increased anxiety, attitude towards authority, motivation to learn new skills)
- Child’s behaviour towards food and medicines
- Any neuro-cognitive difficulties affecting swallowing
- Any allergies, lactose intolerance (placebos may contain lactose)
- Placebos should be obtained from hospital pharmacy.
Any issues related to the list above should encourage you to refer the child to behaviourally orientated psychologist (where available) for individually designed training.

Where possible, the person carrying out the technique should be emotionally neutral to the child; an individual seen as an authority figure could create an anxiety-producing situation for the child. Some children might feel less anxious and reassured with the presence of a parent in the room (e.g. individual, cultural preferences). A flexible approach and professional judgement is recommended.

**Setting the scene**

- The child should not feel under pressure to succeed. It is better practice to learn when there are no immediate medical needs and to allow the child to practice at home
- Training sessions should not last more than 30 min
- Assess parent’s anxiety, expectations, and feelings with regards to failure
- Discuss with child and/or parent or carer whether or not parent would be in the room during exercise
- Encourage the child to use the toilet before the session commences
- The room should be free from distractions (e.g. TV, toys, books)
- A sign on the door will help prevent interruptions.

**The process**

- Sit on a chair, with the child sat across from you at a small table
- Talk enthusiastically and explain that the child will learn how to swallow pills
- Remind the child about learning new skills (dressing, eating)
- Do not mention any future treatment and avoid any discussion irrelevant to the session
- Positive feedback is always welcome (e.g. “can’t wait to see you swallowing tablets”)

• Use short commands and repeat as many times as necessary
• Present the pills to the child one at a time; one could also present 2 pills (same size) and let the child choose which pill he/she wants to swallow
• Placebo containers should be kept out of sight. A child may be disappointed if he/she failed to swallow capsules from each container.

Before the first attempt, encourage the child to swallow some water. This will help identify any problems the child experiences with swallowing.

Demonstrate the steps to pill swallowing as follows:
• sit or stand up straight
• take a deep breath
• breathe out with pursed lips, making an “s” sound or repeat letter “t” with teeth behind upper teeth (position to activate the swallowing reflex)
• put the pill in the middle of the tongue (start with smaller size and increase size as appropriate)
• drink water keeping head straight.

If the child succeeds, move quickly to “the next pill” (not “bigger pill”), praising the child each time.
Do not reassure or give multiple commands to the child if he/she does not manage to swallow the pill (regardless of the size).
Keep calm and allow the child to swallow the water (“that’s OK, keep drinking!”).
Ignore the child while swallowing the pill but pay attention and praise when they have completed the task.
After several unsuccessful attempts, allow the child to decide whether he/she wants to persist in trying to swallow the pill.
Encourage the child to repeat the session another time and provide positive feedback about the session.
It is important to end the session with success on either a smaller pill or even water and praise the child for their effort. A sticker as a reward (when appropriate) is always appreciated (not toys or sweets).

And finally
At the end of the session, allow the child to show off their new skill (with largest pill).
Instruct the parents to sit to one side quietly, withholding comments or praise until the child swallows successfully.
Some parents may also be on treatment and could be identified as a role model to the child with shared responsibility.
If the parents are supportive and keen to be involved, send them home with enough pills (placebos) of the largest size the child is able to swallow so that they can practice once a day during a short period of time.
The parents should be supplied with written instructions so that they can practice with the child. Parents are advised to stop practicing if the child experiences any problems with pill swallowing (placebos) at home so that negative experiences are kept to a minimum. Contact details should also be given to the parents in case they experience any problems or have any questions.

Hot tips to share with parents – Pill swallowing and improved adherence
• It really helps your child for you to show them how pleased you are that they have taken their medicines
• It is important to be firm and consistent but avoid power battles, punishments and threats
• Make pill taking part of the normal daily routine (e.g. brushing teeth, washing face)
• Try to administer pills at same time and in same place (when possible)
• Give more control to the child (e.g. which tablet they want to swallow first)
• Use stories (such as waterfall that washes pebble away)
• Make the process a fun experience
• Try not to bargain, or bribe the child
• Avoid tricking the child with food (e.g. hiding the tablet)
• Use food to reduce taste or help with swallowing (e.g. jelly, milk, cold drink, ice cream, peanut butter)
• Avoid thick liquid that could slow down swallowing process.

Occasionally children may refuse to take their medicines, which could have a huge impact on the effectiveness of treatment.

• Have a matter-of-fact attitude. You expect your child to take the medicine just as you expect him/her to put on a coat before going out in cold weather. Never ask your child if s/he wants to take their medicine. This is not optional; be firm in telling your child it is time for medicine (e.g. no other activities, no diversions)
• If your child refuses to take the medicines, stay in the room with the child, alone and remain calm. Your child will be allowed to leave the room and go back to play only after taking the medicine
• Encourage parents to consult the medical team if the child does not adhere to the treatment.

Pill swallowing technique will only be effective if healthcare professionals are able to work with families towards finding strategies related to the administration of medicines to their child.

Increasing a child’s confidence in swallowing pills and enabling them to become more in control of their treatment could help improve adherence to antiretroviral combined therapy.

Healthcare workers undertaking this technique for the first time should contact someone with experience in order to anticipate any issues related to pill swallowing. Refer to CHIVA Networks www.chiva.org.uk/networks
References


