

# Pill swallowing Protocol

**Authors:** Stephen Head

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In many developed countries, children and adolescents living with HIV are on treatment. Antiretroviral therapy usually means taking a large amount of liquids or a considerable number of tablets that can impair adherence to treatment. Palatability, size, amount of antiretroviral drugs and time management are also few of important factors that contribute to poor adherence to treatment in children and adolescents living with HIV [1].

Increasing stress level and conflict with the child around medication can have a negative impact on family dynamics and relationships when dealing with a chronic illness [1].

Teaching children to swallow tablets can positively affect the way families manage their medicines. A small study by Garvie and co-workers, including 23 children (4-21 years) who were taught pill swallowing technique, demonstrated improvement in adherence to treatment and improved outcomes 6 months after training [2].

This protocol has been adapted from Dr Mark Kline and colleagues (BIPAI).

## **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 (> 4 y.o)
- previous experience of pill swallowing
- Child abilities to swallow (speech, poor swallowing reflex with water, ...)
- Child 's general behaviour (e.g. cooperation, temper, increased anxiety, disobedience towards authority, motivation to learn new skills, ...)
- Child's behaviour towards food, medicines
- Child's abilities at school (children with learning difficulties might find pill swallowing technique more difficult)
- Any allergies, lactose intolerance (placebos contain lactose)

Any issues related to the list above should encourage you to refer the child to behaviourally orientated psychologist (when possible) for individually designed training.

When possible, the person carrying out the technique should be emotionally neutral to the child. An individual seen as an authority figure could create increase anxiety to the child and therefore making the technique more difficult.

### **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 allow the child to practice at home.
- Training sessions should not last more than 30 min
- Advise the legal guardian to bring the child slightly thirsty (as will swallow water during the course of the session)
- The legal guardian should remain outside the room for the duration of the session
- Encourage the child to use the bathroom 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
- Avoid exciting activities immediately following the session that the child might anticipate

### **The process**

- Sit across the child 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 are always welcome (e.g. "can't wait to see you swallowing tablets")
- Use short command and repeat as many times as necessary
- Present the pill to the child one at a time. you could also present 2 pills (same size) and let the child choose which pill he/she wants to swallow

Before the first attempt, encourage the child to swallow a mouthful of water. This will help identify any problems the child experiences with swallowing. Demonstrate the steps to pill swallowing as follow

- 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 (starts 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, sweets ...).

### **And finally**

At the end of the session, bring the parents into the room so that the child can 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.

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 for a week (until the next appointment).

The parents should be supplied with written instructions so that they can practice with the child. Parents are advised to stop practising 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 – Pill swallowing and improved adherence**

- Consistency is key
- Make pill taking part of daily routine (e.g. brushing teeth, washing face...)
- Try to administer pill 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
- Do not bargain or bribe the child
- Avoid power battles, punishment, threat
- 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.

- If refusal, the world should stop until they agree to take the medicine (e.g. no other activities, no diversions...)
- Encourage parents to consult the medical team if non adherence to 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 children confidence in swallowing pills and enabling them to become more in control of their treatment could help improve adherence to antiretroviral combined therapy.

### **References**

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