

Background

- Masking the taste of bitter medication can be useful in helping children inject their medication to ensure they get the recommended dose.¹
- Pictograms can be used to help patients understanding the conveyed health information.²

Objective

- Evaluate and validate a set of pictograms describing how to make medications taste better for children.

Method

- Participants: Children aged 9 -17 and parents or guardians at the Children’s Hospital of Eastern Ontario.
- One-one-one structured interviews to test “guessability” where participants were asked to explain the meaning of pictograms
- Answers were recorded verbatim and scored as being correct, partially correct, incorrect, critical confusion, or no answer by three independent observers.
- To evaluate short-term recall, participants were asked to guess the meaning of each pictogram set after being distracted.
- Pictograms were validated according to the American National Standards Institute (ANSI) with at least 85% comprehension.

Results

- 11 out of 12 pictogram sets reached 85% comprehension at the initial guessability test.
- At recall, all 12 pictograms sets reached the American National Standards Institute (ANSI) standard and were validated and included in the *CHEO Making Medications Taste Better* pamphlet.

Table 1: Number of short-term recall correct and partially correct responses after being distracted (N=51).

Pictogram Set	Intended Meaning	% Correct and Partially Correct	Pictogram Set	Intended Meaning	% Correct and Partially Correct
	Pour the medication into a glass and mix with orange juice or apple juice	100		Cut the tablet in half with a knife	82.4
	Take the medication then eat something with a strong flavour like cheese or jam	100		Using a syringe, inject the medication into the side of the cheek	94.1
	Eat something like chocolate or peanut butter to coat the tongue then take the medication	96.1		Eat something cold like ice cream or a popsicle to free the tongue then take the medication	100
	Take the pill with a glass of water	100		Open the capsule and sprinkle the contents into a glass of water or juice	90.2
	Chew the tablet	96.1		Crush the tablets into small pieces and sprinkle them onto food	100
	Pour the medication into a glass and drink it using a straw	98		Open the capsule and sprinkle contents onto food	96.1

Conclusion

- Validated pictograms can be used to instruct parents on how to make their children’s medication taste better.

GENERAL:

- Try FATTY FOODS like peanut butter or chocolate to COAT YOUR TASTEBUDS!
- Try COLD TREATS like ice-cream or popsicles to FREEZE YOUR TASTEBUDS!
- Try STRONG FLAVOURS like cheese or raspberry jam after medication!

FOR PARENTS:

ASK YOUR PHARMACIST:

- Are there certain foods or drinks that should be avoided?
- Should the medication be stored in the fridge?
- Can the medication be crushed or chewed?
- Can the medication be mixed with food or drinks?
- Can natural health products and non-prescription drugs be taken with the medication?

LOCK UP: As a parent, you should keep medication out of the reach of children.

WARNING: Avoid mixing medication with essential foods or drinks like breastmilk, as this may create an aversion in young children.

CHEO

CHEO's MAKING MEDICATION TASTE BETTER

TABLET:

- Try CUTTING the tablet in halves before SWALLOWING it!
- Try CHEWING the tablet!
- Try CRUSHING the tablet and SPRINKLING it in foods like cereal or pudding!

CAPSULE:

- Try SWALLOWING the capsule whole with a glass of water!
- Try OPENING the capsule and SPRINKLING it in foods like cereal or pudding!
- Try OPENING the capsule and SPRINKLING it in drinks like water or juice!

LIQUID:

- Try pouring the medication in a cup and drinking it with a STRAW!
- Try mixing the medication into a small amount of FRUIT JUICE before drinking!
- Try using an ORAL SYRINGE to drink medication with the SIDE of your mouth!

Contact Information

Corresponding author:
 Régis Vaillancourt, PharmD, FCSHP, FFIP
 Director of Pharmacy, Pharmacy Department
 Children’s Hospital of Eastern Ontario
 Email: rvaillancourt@cheo.on.ca

¹ Menella, J. A., & Beauchamp, G. K. (2008). Optimizing oral medications for children. *Clinical Therapeutics*, 30(11), 2012-2132. doi: 10.1016/j.clintherap.2008.11.018

² Katz, M.G., Kripalani, S., & Weiss, B.D. (2006). Use of pictorial aids in medication instructions: a review of the literature. *American Journal of Health System Pharmacy*, 63(23), 2391-2397.