

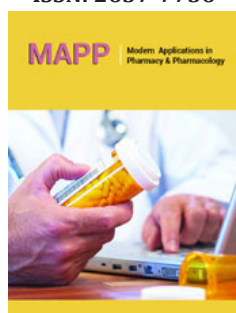
Opinion: Mini-Tablets are the Future of Pediatric Oral Formulations

Robert G Strickley^{1*} and Fahmi Al Aqrabi²

¹Independent Pharmaceutical Consultant, USA

²Associate Director, Drug Product Development & CMC, USA

ISSN: 2637-7756



*Corresponding author: Robert G Strickley, Independent Pharmaceutical Consultant, USA

Submission: 📅 March 7, 2022

Published: 📅 March 15, 2022

Volume 2 - Issue 5

How to cite this article: Robert G Strickley, Fahmi Al Aqrabi. Opinion: Mini-Tablets are the Future of Pediatric Oral Formulations. Mod Appl Pharm Pharmacol. 2(5). MAPP.000547.2022. DOI: [10.31031/MAPP.2022.02.000547](https://doi.org/10.31031/MAPP.2022.02.000547)

Copyright© Robert G Strickley, This article is distributed under the terms of the Creative Commons Attribution 4.0 International License, which permits unrestricted use and redistribution provided that the original author and source are credited.

Introduction

Young children and their caregiver(s) deserve better oral formulations that are compatible with the child's/infant's small physiology and easier to handle and accurately count by their caregiver(s). Minitablets are a convenient oral formulation for both the child/infant to consume and for the caregiver to administer.

Mini-tablets are a downsized version of conventional round tablets. Mini-tablets are as small 2-4mm in diameter and a height of 2mm (Figure 1) with a mass as low as approximately 5mg and are manufactured with multi-tip tooling (Figure 2) with up to 20 tablets per compression in a tablet presses. As of this writing, "mini-tablets are not administered individually but are packaged and administered with 20 mini-tablets in sachet" [1] or in capsules.

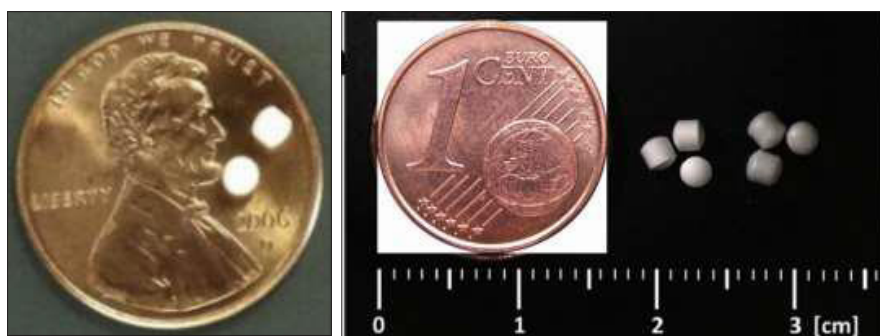


Figure 1: Mini-tablets of 2mm diameter on:(a) United States 1 cent penny, (b) Euro 1 cent [1,2].



Figure 2: Multi-tip 2mm diameter tooling for manufacture of mini-tablets [1].

Opinions of the authors that mini-tablets are the future of pediatric oral formulations: It is the opinion of the authors that:

- a) The present trend will continue, and that increasingly “mini-tablets will be the future of pediatric oral formulations” [1].
- b) The technology of accurate counting of mini-tablets at the time of administration will continue to increase with either or both manual and/or electronic devices of counting of mini-tablets.
- c) The quality control of the manufacture of mini-tablets will increase such that the mass of each mini-tablet will be able to be monitored in real time.
- d) The durability of multi-tip tooling may increase with the fabrication and manufacture of more reliable multi-tip tooling for high-speed tablet presses.
- e) Rapidly dissolving mini-tablets will be increasingly developed with either amorphous spray-dried formulations or formulations with high amounts of a disintegrant(s).

- f) A continuation of the trend that “strong encouragement for preservative-free pediatric formulations has resulted in fewer multiuse solutions or suspensions in favor of single-use solid oral dosage forms” [2].
- g) As few as only one mini-tablet will be administered instead of the current approximately 20-200 mini-tablets and “The use of mini-tablets will likely increase and may include moving toward uncoated 2mm mini-tablets administered individually to children as young as 2 days of age” [1].

References

1. Strickley RG (2019) Pediatric oral formulations: An updated review of commercially available pediatric oral formulations since 2007. *J Pharm Sci* 108(4): 1335-1365.
2. Klingmann V, Linderskamp H, Meissner T, Ertan M, Andreas M, et al. (2018) Acceptability of multiple uncoated mini-tablets in infants and toddlers: A randomized controlled trial. *J Pediatr* 201: 202-207.

For possible submissions Click below:

[Submit Article](#)