Oral syringe dosing clip

Country of origin | United States of America

Health problem addressed
Studies show that 40-60% of parents make errors when giving children liquid medication. Misdosing medication can have serious consequences. For example, with liquid Anti-Retroviral Medications (ARVs) for HIV-positive infants and children, inaccurate doses can lead to drug resistance, which can be fatal.

Product description
The oral syringe dosing clip is a small, plastic clip that fits into the barrel of an oral syringe and acts as a stopping mechanism for the plunger, ensuring that the correct dose of medication is drawn into the syringe. The clips are color-coded by dose and can be pre-set by a physician, do not come into contact with the medication and can be reused.

Product functionality
The oral syringe dosing clip enables caregivers and patients to deliver accurate doses of liquid medication when using an oral syringe.

Developer's claims of product benefits
It was found in laboratory and community settings that inserting the clip into the syringe enables a greater proportion of users to deliver an accurate dosage of liquid medication when compared to a syringe without a clip and a teaspoon. The clips are inexpensive and can be used by caregivers to improve dosing of liquid medication, regardless of literacy and numeracy skills, manual dexterity, and visual acuity. The clip may therefore be particularly beneficial in low-resource settings.

Operating steps
Pull back plunger. Insert clip into syringe barrel. Push plunger into barrel. Twist and lock clip into place. Draw liquid medication into the syringe until the clip stops the plunger, preventing further intake of liquid. Dispense dose of medication with syringe as normal.

Development stage
The dosing clips are being used by the Swaziland Ministry of Health in its national Prevention of Mother to Child Transmission of HIV/AIDS (PMTCT) program. More than 213,000 clips have been distributed to mothers participating in the program to ensure that infants receive the proper dose of liquid anti-retroviral medication.

Future work and challenges
The clip has been licensed and is available globally for purchase. A preferred pricing structure for Global Alliance for Vaccines and Immunisation (GAVI) countries has been established. Challenges ahead include identifying new non-governmental, governmental, and corporate partners to scale up dissemination of the clip.

User and environment
User: Self-use/patient, family member
Training: Healthcare provider can demonstrate clips and syringe to user in less than 2 minutes.
Maintenance: None

Environment of use
Settings: Rural, urban, ambulatory, at home
Requirements: None

Product specifications
Dimensions (mm): 53 x 14 x 3
Weight (kg): 0.001
Consumables: None
Life time: 1 year
Shelf life: 2 years
Retail Price (USD): 0.10-0.25
List price (USD): 0.10-0.25
Other features: Portable and reusable
Year of commercialization: 2011
Currently sold in: Swaziland
Disclaimer

Eligibility for inclusion in the compendium has been evaluated by EuroScan member agencies, WHO Collaborating Centres, and WHO. However, the evaluation by EuroScan member agencies, WHO Collaborating Centres, and WHO has been solely based on a limited assessment of data and information submitted in the developers’ applications and, where available, of additional sources of evidence, such as literature search results or other publicly available information. There has been no rigorous review for safety, efficacy, quality, applicability, nor cost acceptability of any of the technologies. Therefore, inclusion in the compendium does not constitute a warranty of the fitness of any technology for a particular purpose. Besides, the responsibility for the quality, safety and efficacy of each technology remains with the developer and/or manufacturer. The decision to include a particular technology in the compendium is subject to change on the basis of new information that may subsequently become available to WHO.

WHO will not be held to endorse nor to recommend any technology included in the compendium. Inclusion in the compendium solely aims at drawing stakeholders’ attention to innovative health technologies, either existing or under development, with a view to fostering the development and availability of, and/or access to, new and emerging technologies which are likely to be accessible, appropriate and affordable for use in low- and middle-income countries.

WHO does not furthermore warrant or represent that:

1. the list of innovative health technologies is exhaustive or error free; and/or that
2. the technologies which are included in the compendium will be embodied in future editions of the compendium; and/or that
3. the use of the technologies listed is, or will be, in accordance with the national laws and regulations of any country, including but not limited to patent laws; and/or that
4. any product that may be developed from the listed technologies will be successfully commercialized in target countries or that WHO will finance or otherwise support the development or commercialization of any such product.

WHO disclaims any and all liability and responsibility whatsoever for any injury, death, loss, damage, use of personal data, or other prejudice of any kind whatsoever that may arise as a result of, or in connection with, the procurement, distribution and/or use of any technology embodied in the compendium, or of any resulting product and any future development thereof.

Developers whose technology has been included in the compendium shall not, in any statement of an advertising, commercial and/or promotional nature, refer to their participation and/or inclusion in the compendium. In no case shall the latter use the WHO name and/or the emblem, or any abbreviation thereof, in relation to their business or otherwise.