#### ASPREX Fact Sheet

# Pill organizer

Device to dispense the correct dosage of a medicine. These products store an individual's prescribed medications and enable monitoring of whether the individual took the medication. They may also notify the individual when the prescribed medications are due to be taken. Pill organizers comprise a storage system, which can be opened by the user. The size of the pill organizers vary and are usually lightweight and portable, with sufficient space for the user's daily doses of medication. Product variations include grid-shaped square box or fan-shaped round box. Usually made of transparent plastic for easy identification of drugs, with marks (colors, printing, raised marks, braille marks) used to distinguish time (hour/time period/day/month). Different capacities include one dose (single compartment), daily dosage (3-4 compartments including mealtimes or time of day), or a rack of seven days. Products are made from durable food grade plastic.

# • Product Classification

- o APL (WHO Assistive Product Priority List): 28 (Pill organizers)
- o ISO 9999:2022: 041904 (Assistive products for administering non-liquid medicines)

## Possible configuration variants

- o Timed reminder functions.
- o Time-controller access of medications storage cells.

## Possible accessories or optional components

- o Time prompts or alarms.
- Lock function.
- o Automated timed pill reminders (auditory, visual or vibration alarm).
- Reminder software (to relay messages through the users' mobile phone, or connection to remote monitoring service with data logging and sharing capabilities, to share medication management information with the treating medical team).

#### Product goals

Activities or functions the product is mainly intended to support, according to WHO ICF Classification:

- o Looking after your own health [d570].
- o Memory functions [b144].

# Indicated impairments

Difficulties the product is mainly intended to address, according to the WHO ICF Classification:

- o Attention functions [b140].
- o Memory functions [b144].
- o Hand and arm use [d445].

#### Contraindicated impairments

Difficulties for which the product may be inappropriate: None specified.

#### Indicated environments

Specific environments in which the product should be used: None specified.

## Contraindicated environments

Environments in which the product may be inappropriate:

O Direct sunlight or situations of extreme heat (guidance from manufacturers should be followed on environmental situations of non-safe use).

#### Other indicated factors

Other factors or situations the product is intended to address:

- Concerns regarding the safe storage and taking medications in the correct dosages at the correct time and to prevent adverse drug events (e.g. missed doses, overdoses).
- Need to be prompted or reminded about medication compliance. Only if used with variants: Timed reminder functions
- Need for cognitive support to control dosage. Only if used with variants: Timed reminder functions, Timecontroller access of medications storage cells

#### Other contraindicated factors

Other factors or situations in which the product may be inappropriate: None specified.

#### Points to be considered in product selection

 Selection of the product model can be guided by usage factors such as portability within and outside the home and duration (how many doses contained within).

# Points to be considered in product fitting

- o If the product comes with an alarm this should be set with the user and caregiver input.
- Labeling style (color or print mark used to distinguish the time to take medication in each compartment) must be visible and comprehensible to user.
- o Information on how to assemble and adapt the pill organizer should be provided.

# Points to be considered in product use

• The user or carer removes pills from the pill organiser by opening the compartment (flip lid, move slider, rotate lid), tipping out the contents (into palm or onto a surface) and then ingests the medication.

### Points to be considered in product maintenance / follow-up

- o Ensure it is easy to open, but it does not open automatically due to carrying and vibration.
- Check the lid can be tightly closed to prevent moisture and ensure the health and safety of the medicine.
- o Instructions on how to maintain, service, repair, refurbish and clean the pill organizer should be provided: occasional washing in warm soapy water to remove any pill dust; wipe external surface periodically.
- o Check the printed markings or raised markings are not worn.

### Examples of products available on the market

Live product search in the EASTIN website <a href="https://www.eastin.eu/en/searches/products/list?iso=041904">https://www.eastin.eu/en/searches/products/list?iso=041904</a>

#### Source

This Fact Sheet was compiled in 2021 by an international team of experts, to provide the initial knowledge base for a project ("An online system to assist the selection of assistive product") supported by the World Health Organization in 2020-2021 within the GATE Initiative (Global collaboration on Assistive Product). Fact Sheets were compiled for each of the 50 types of products included in the WHO APL (Assistive Product Priority List).

The team was composed of Renzo Andrich (Italy, group leader), Natasha Layton (Australia), Stefan von Prondzinski (Italy), Jerry Weisman (USA), Silvana Contepomi (Argentina) and Hasan Minto (Pakistan).

The project led to a prototype online tool called ASPREX (ASSistive PRoduct EXplorer). At the end of the project, it was transferred to a WHO collaborating center (the Global Disability Hub in the UK), in view of possible future developments.