HANDLING END-OF-LIFE MEDICATIONS

01.101 Technologies for Sustainable Global Health

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NEED FINDING & SELECTION



Poor luggage portability up stairs

Luggage is not alterable, trolleys are too bulky



Label redesign is

straightforward and

adoptable

Unclear labels



Time-consuming workflow for doctors and junior nurses

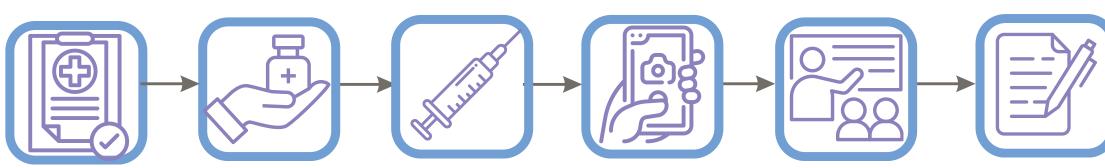
Lack of testing Many opportunities opportunities for workflow organization

FEASIBILITY & MARKET SIZING

Feasibility: Team possesses sufficient technical expertise to solve the problem Stakeholders: Hospice Clinicians, Patients

Market Size: Home palliative care capacity in Singapore to rise 50% by end 2025

Current Workflow:



Diagnosis

Medication preparation

Labeling

Photo Training Verification caregivers

Logging medication

NEED STATEMENT

1) A way to develop an organization tool to help train junior nurses doctors in preparation of EOL medications, improving efficiency and enabling more patient visits per day

2) A way to increase distinctiveness and visibility of individual medication labels to minimize errors in medication prep

CONCEPT GENERATION

THE PROBLEM

Lack of experience in medication and equipment organization

> **Delays in medication prep** and photo verification

THE PROBLEM

Syringe labels have limited readibility due to folds

Ziploc labels don't have evident markers to distinguish meds

Higher probability of error when labelling medication

SOLUTION CONCEPT GENERATION

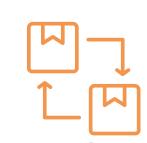
CONCEPT SELECTION CRITERIA



Low-cost

Light & sleek





Reproducable



Adaptable



Disinfectable

SOLUTION CONCEPT GENERATION



Deskmat organizer



Foldable organizer





stickers





Sticker printer for Colored label rapid prototyping borders



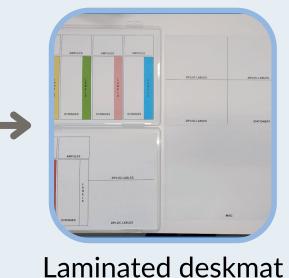
NOVELTY

PRODUCT EVOLUTION

DESKMAT ORGANIZER



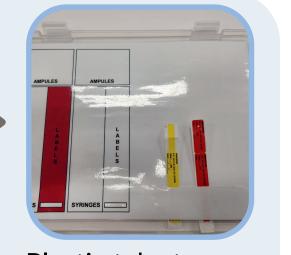
Unorganized workspace



organizer for easy cleaning and customization



Magnet attachments to prevent labels from moving



Plastic tabs to ease label removal

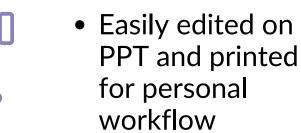
ZIPLOC LABELS

STICKER PRINTING



Sticker printer for easy rapidprototyping of sticker designs







• Sticker design replicable by current supplier

Easily replicable by Assisi Hospice

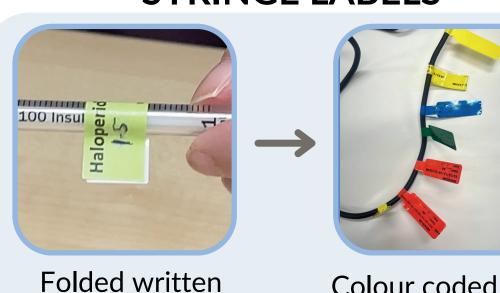
Cost-effective



• \$15 / patient

• 20x cheaper

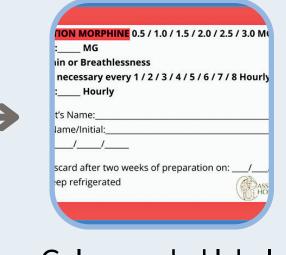
SYRINGE LABELS



Colour coded with info clearly seen



Small coloured bars on labels



Colour coded label borders



& removal of doses

USER FEEDBACK

area



- Label designs are clearer and easier to put on syringes
- Contrasting background helps with cross-checking
- Overall positive reception while considering use in staff training
- A very adaptable solution can change based on nurse's needs

USER TESTING



- **Identical timing** to their current workflow despite lack of familiarity
- **Useful** in training of new medical staff
- Low implementation costs (frugal innovation)

WHAT'S NEXT?

Well received by the hospice. Labels will be adopted to current operation procedures. Deskmat organizer will be adopted for training junior nurses and doctors

