The multitude of dressings and limited evidence on their effectiveness makes dressing selection a challenging task for most clinicians. As a result, expensive products with unknown effectiveness are often purchased, other products are stockpiled and expire, resulting in waste and financial loss.

Implementation of dressing formularies reinforces use of clinically appropriate and cost-effective products. Despite its importance, many clinics postpone their decision to create or update their formularies as the process is frequently regarded as time-consuming. This study aimed to develop and implement a point-of-care digital solution to streamline creation and maintenance of wound care product formularies, and thus promote cost-effective wound management.

Using the design thinking methodology, this point-of-care digital solution, the Formulary Module (FM), was created within a clinical and reimbursement decision support web application for wound care and hyperbaric clinicians as follows:

1. Clinician needs/desired features were identified through interviews.

2. The module was developed with robust programming language, library, framework, and APIs.

3. Module was implemented at a hospital-based outpatient wound clinic as follows:
   - Products used by the clinic were selected among ~1000 product profiles stored in the module (Figure 1). Selected products were automatically categorized and listed in groups (e.g. alginates, foam) (Figure 2).
   - Guided by the web-application’s evidence-based content, interactive feature matrices and virtual advisory panel, clinicians chose products with best fit, eliminating redundancy within each product group (Figure 3).
   - Clinic added custom instructions/educational notes to each product on the digital formulary, to serve as staff quick-reference manual.
   - Clinic shared link to formulary with partnering institutions (e.g. home-health agencies).

Implementation of the FM in a U.S. hospital-based wound clinic resulted in:
- Decrease in product number by 36% (67 to 43 across 22 types)
- Estimated decrease in the monthly average dollar amount to be spent on chargeable products in the 6 months after formulary implementation of ~7%. Actual decrease was of 36.95%
- Increased staff efficiency as a result of the FM’s ability to automatically categorize products, provide immediate access to critical decision-making information, and allow creation of product-specific customized notes.

The module streamlined development of local wound care formulary through:
- Automatic product categorization
- Immediate access to critical formulary decision-making information
- Product-specific customized notes, and
- Real-time interdepartmental collaboration (Figure 5)

A solution to streamline creation of local wound care formularies was developed. Implementation resulted in inventory cost savings and increased staff efficiency. Its ease-of-use may significantly increase adoption of cost-effective formularies and maximize health outcomes.

REFERENCES