

Canterbury DHB implements world- leading community medication management program

Orion Health Case Study:
Canterbury District
Health Board

Canterbury

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Customer Name

Canterbury District Health Board

Location

Canterbury, New Zealand

Organisation Type

District Health Board

Annual Budget

NZD \$1.5 billion

Products Implemented

Orion Health Medication Management

Key Benefits

- Timely, safe & effective review of medications in the community
- Inclusion of patients and their circle of care

The Customer

With close to 560,000 people living in the Canterbury region, Canterbury District Health Board is New Zealand's second largest DHB. Canterbury DHB is the main planner and funder of health services in Canterbury; a tertiary provider of hospital and specialist services for the Canterbury population, as well as some specialist services for people living elsewhere in New Zealand.

Canterbury DHB's vision is of an integrated health system that keeps people healthy and well in their own homes, providing the right care and support, to the right person, at the right time and in the right place.

The Challenge

Having patients actively engaged in their healthcare at home is becoming increasingly important due to the rise of chronic diseases and escalating demand for health services.

The least effective medication is the one the patient is prescribed, but not taking. Empowering patients to understand what medications they should be taking, what they

are for, and when and how to take them is a significant enabler for medication adherence and, consequently, patient wellness.

Canterbury DHB needed a solution that helped to provide the people most at risk of medicine-related harm with intensive pharmacist care to help them better understand and self-manage their medicines. The solution also needed to enable pharmacist and prescriber collaboration, in order to optimise the benefits to the patient of taking medicines.

Community pharmacists in Canterbury are funded to perform Medicines Use Reviews (MUR) and Medicines Therapy Assessments (MTA) to improve medication adherence & optimise the benefits from prescribed medications for patients in the region. They required the quick deployment of a solution that facilitated the enrolment and completion of a comprehensive medicines-focused review for patients. The solution needed to include an automated task generation that guided the user through a workflow to capture information, document recommendations and report back to the primary clinician.

The Solution

Within a very short timeframe, two solutions to support medicines workflow were created - Medicines Use Reviews (MUR) and Medicines Therapy Assessments (MTA), which allow for a patient to be enrolled in a pathway and have an accredited pharmacist assigned to review their medications. The solution works by creating a series of tasks for the pharmacist that can be viewed in a task list in the patient's electronic record. The pharmacist reviews the medications with the patient and assesses the patient's adherence to, knowledge of and effectiveness of the prescribed medications. Recommendations are communicated to the patient, their family, and carers to improve understanding of and adherence to the prescribed medications. Recommendations to optimise the prescribed medicines are communicated to the patient's General Practice Team for consideration.

As the pharmacist gathers information and enters it in the system, it populates a single master dataset. Data recorded in the Circle of Care, Medications List and Problem List all contribute to the solution and pre-populate documents throughout the process. If a user saves a form in draft and then later goes back to complete it, they will be notified of any changes to the Medications or Problem List since they last saved the form, and have the option to ignore or accept the updates.

The solution workflow guides the pharmacist through the documentation process, which includes:

- Capturing NZULM SNOMED-coded drug allergies and adverse reactions
- Capturing consent to view and import medications from the Community Pharmacy dispensing record
- Performing a medications review to curate the current medication list with NZULM SNOMED-coded drugs, and comparing and combining this with the patient's longitudinal medication record in the system
- Recording social and health information pertinent to the patient's medication understanding and behaviours
- Reporting back to the primary carer
- Making information available to support reimbursement to the pharmacist
- Assigning follow up appointments

The Results

- The project went live just five short months after initiation, with over 55 community pharmacies participating in the program within the first two months of implementation, quickly rising to 80 the following month.
- There has been an average of 100 reviews performed per month since initiation.
- In a 2017 user survey, the majority of respondents indicated that they felt the new system supports patient safety and that they are satisfied with the new system.
- The majority of respondents also indicated that the new system is time-efficient; the implementation reduced the median time to document consultations by 28%.



This was a very challenging project with tight timeframes. Integrating clinical workflow with IT functionality is always difficult. Orion Health worked with the team to understand the requirements and developed the solution in an efficient timely manner

Gavin Young,
Technology Lead,
Shared Care



The Orion Health solution for the Canterbury Medication Management Service is a significant improvement over the previous solutions and has streamlined the documentation process for pharmacists providing the service

Gareth Frew,
Clinical Leader,
Canterbury Community Pharmacy Group

Future Developments

The solution will continue to be refined and new functionality added over time. An updated version will be released in the coming months that will include:

- Fully relational NZULM SNOMED data to support:
 - Changing medications within a common medicinal product
 - Changing brands within a common generic drug
 - Displaying drug search results ordered by strength
- Having default administration routes (oral, subcutaneous, etc) defined per drug
- Duplicate therapy alerting, based on common SNOMED ingredients shared between different drugs
- Workflow changes to facilitate quicker medication reviews and capturing of medication notes and comments
- Report layout improvements to reduce footprint of medication list in the printed report to the GP

Future improvements will include:

- Customised sorting of medication lists
- Patient medication schedule printing solution (Patient Medication Card)
- Clinical decision support, including:
 - Allergy & ADR alerting, comparing SNOMED-coded adverse drug reactions with the current medication list
 - Drug-drug interaction alerting
 - Display of drug monographs
- An automated referral process from GPs

Orion Health

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Find out more at: orionhealth.com