

# Increasing the Reach of Nursing Care: Applying Digital Health to Pre-Admission Pathways

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## 1. Introduction

The importance of nursing care in managing pre-admission pathways is well established. Ensuring that patients are well informed and ready for their procedure is critical to avoiding unnecessary complications or sub-optimal outcomes. Early visibility of patients' health history is vital to the effective management of their clinical risks.

With increased demands on nursing staff to deliver health services that meet the rising expectations of healthcare consumers – digital health solutions can support the delivery of pre-admission pathways to increase the reach of clinical nursing care.

## 2. Approach

As part of its ongoing commitment to providing exceptional care that makes a difference, Mercy Hospital Dunedin in New Zealand sought to deliver an 'Enhanced Pre-admission' pathway for its patients.

A digital health solution was needed to reduce the manual effort involved in collecting patient health histories and ensuring patients had timely access to information about the preparation for their procedure. The solution could not impose additional workload on hospital staff, change their workflows, nor require specialised computer skills. Control of the pre-admission pathways also needed to remain with the hospital staff. Furthermore, it was vital that the solution achieved a high-patient response rate to assist in the early detection of clinical risks.

The Personify Care mobile patient platform was selected to deliver the Enhanced Pre-admission pathway. Once registered on the Personify Care platform, patients are automatically assigned to the pathway that's relevant to their procedure or hospital and are digitally sent forms, information and education, prior to their admission and/or once they've been discharged.

A three-month trial of the Personify Care platform was implemented at Mercy Hospital and within the first three weeks, patients from three of their specialist suites

adopted the software. Feedback from patients was collected during the trial period and then used to evaluate its effectiveness.

### **3. Body**

Since June 2019, the Enhanced Pre-admission pathway has been delivered to patients having elective orthopedic procedures at Mercy Hospital. Staff were trained and existing hospital best practices were used to configure digital pathways within Personify Care in approximately 7 weeks. These pathways included:

- Screening patient demographics and health histories
- Personalised patient information by procedure type
- Monitoring real-time patient experience measures and feedback

Patients are now invited onto their pathway via SMS or email as they are booked in for their procedure. They then receive notifications, in accordance with their pathway, with a secure checklist of things they need to do, assessments and forms they need to complete and tailored information they need to be aware of.

Meanwhile, hospital staff are able to track the progress of their patients against their pre-admission pathway and automatically screen them for clinical risks that require further follow up.

This patient-centred approach also keeps patients connected to the hospital, even when they're not physically there and provides valuable and timely information, improving the patient experience.

As of November 2019, over 90% of patients had elected to interact with their nursing team and provide their health history digitally. In that time, the Personify Care platform was used to deliver 9,207 patient interactions. The average patient response rate achieved through the platform (i.e. educational information and assessments completed) was over 90%.

For nursing staff, this approach has eliminated the workload of manually collecting and reviewing patient information, enabling them to focus their time on high-value patient care. The use of digital pathways has also improved the timeliness of receiving pre-admission information. Using traditional approaches, 1 in 4 patients did not provide pre-admission information 5 days before surgery. Under the digital model all pre-admission information has been collected on time. To date, the platform has been used to automatically screen some 2,028 clinical risks and resulted in the early detection and management of some 242 clinical risks.

This approach has also been well supported by healthcare consumers, with 95% of patients indicating that "Personify Care was convenient to use on [their] mobile phone, tablet or computer."

### **4. Conclusions**

Traditional tools for delivering pre-admission pathways (i.e. paper forms and phone calls) can be a barrier to implementing clinical best practices. The cost of personalising patient pathways is often a barrier to delivering consumer-centred care. Intelligent technology solutions can simultaneously achieve a personalised patient experience and

increase the capacity of nursing staff to deliver high-value care to the patients most in need.

Delivering timely information to patients tailored to their procedure or risk profile, not only improves their experience of care but reduces the load on nursing staff answering routine questions by phone. Meanwhile, using smart technology to collect and screen information from patients about their pre-admission preparation can provide early visibility to clinical risks and reduce sub-optimal patient outcomes.

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