
CareNow - Streamlining Clinical Workflows

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Summary

In addressing the challenge of streamlining clinical workflows to save clinicians' time, Gold Coast Health (GCH) has embarked on a digital transformative journey, embracing digital innovation to transform patient care. Our focus on future-focused, virtual, data-driven, and technologically advanced improvements has led to the successful development and implementation of our CareNow

digitising workflows initiative. The CareNow workflow platform included the rollout of the Clinical Photography application (app) and the Junior Doctor Patient List, each designed to enhance clinical efficiency and patient care. The Clinical Photography app was designed to address the inefficiencies of traditional clinical documentation and upload processes. Recognising the critical role of visual information in patient assessments and the cumbersome nature of manual photography and documentation workflows, we sought a solution that directly addresses the need for rapid, accurate patient assessments while maintaining patient privacy. The mobile app has transformed the way clinicians capture, store, and share patient images. This tool enables clinicians to use their smartphones in a secure manner to capture high-quality patient images, and upload them to patients' electronic medical record within minutes. This improves clinical collaboration through immediate access to critical visual information, facilitating timely, multidisciplinary care, and reduces administrative burden. By significantly cutting down manual documentation, printing, and storage, we free clinicians to devote more time to direct patient care, thus improving healthcare outcomes and fostering better communication across clinical teams. The second CareNow workflow is the Junior Doctor Patient Lists. This workflow automatically generates ward round patient lists, pulling data from various sources to provide a comprehensive digital snapshot of where the patient is in their inpatient journey. Doctors are also able to add patients to the list such as consults or follow up patients. Traditionally, the construction of patient lists has been a cumbersome, manual process, often undertaken by junior doctors outside of paid hours. This workflow removes the need for junior doctors to find what patients have come in overnight, where patients have moved to and creates a desktop and mobile space to add key results and planning activities to manage patient care. Together, these initiatives exemplify GCH's dedication to leveraging technology to streamline clinical workflows, making healthcare more accessible, efficient, and effective. By saving clinicians time, we're not just improving workflows; we're ensuring that every minute saved is redirected towards what matters most – patient care.

Key dates

Sep 2023

Mar 2024

Implementation sites

Gold Coast University Hospital

Partnerships

Gold Coast Health Digital Experience Team

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Aim

Gold Coast Health (GCH) aims to transform the traditional clinical workflows through the lens of future focused, virtual, data-driven, and technologically advanced improvements. This submission, 'Streamlining clinical workflows to save clinicians time through CareNow,' showcases how we aim to tackle the inefficiencies and time-consuming processes that burden clinicians. These inefficiencies not only detract from the direct patient care time, but also pose significant barriers to the swift and effective delivery of healthcare services. By implementing solutions such as the Clinical Photography application, and automated Patient Lists, we sought to address the critical challenge of manual, disjointed workflows that hinder the timely and accurate sharing of patient information. Our aim was to harness digital technology to create a seamless, integrated clinical workflow that not only optimises clinicians' time, but also enhances the quality of patient care. These initiatives are focused on solving the challenge of how to allocate clinician time more towards direct patient care and less towards administrative tasks. Through these future-focused improvements, we aim to ensure our services are more accessible, efficient, and responsive to the needs of the communities we serve, thereby solving the problem of maximising the efficiency of clinician time through technological innovation

Benefits

Clinical Photography application By uploading high-quality images of patient conditions on smartphones, and then directly into the patient's ieMR, ensure rapid and accurate assessments for crucial for immediate care decisions. This initiative has resulted in several benefits:

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- **Enhancing clinical efficiency:** By eliminating the need for manual documentation, printing, and storage, the application significantly reduces the administrative burden on clinicians, allowing them to allocate more time to direct patient care.
 - **Improving patient care:** Immediate access to visual information facilitates quicker, more accurate assessments, enabling a swift multidisciplinary response crucial for effective patient management.
 - **Ensuring data security:** Photos taken with the app are directly uploaded to the patient's ieMR and are never stored on the clinician's device, adhering to patient confidentiality and privacy. This approach was adopted after a thorough evaluation of existing clinical workflows, identifying key areas where digital solutions could introduce efficiency and improve care delivery. The app's development was guided by clinician feedback and a detailed analysis of patient care processes, ensuring that the solution was both practical and beneficial to the end users. **Patient Lists**

Building on the success of the Clinical Photography application, GCH has created the next CareNow workflow, Patient Lists, which pilots in the Neurology department in mid-March 2024. This digital tool can streamline how doctors manage their inpatient lists by automating the aggregation of patient data from various source systems, providing a comprehensive clinical snapshot of each inpatient.

Recognising the need for improvement, the adoption of this digital Patient List seeks to:

- **Reduce manual tasks:** The current manual process of compiling patient lists is cumbersome and error-prone, often requiring unpaid time from junior doctors. By automating the creation of a digital patient list, we alleviate this manual burden on junior doctors, freeing up their time for more valuable clinical tasks and reducing the risk of errors inherent in manual data entry.
- **Provide an accurate clinical snapshot:** The digital patient list provides an up-to-date, accurate clinical snapshot of each patient, enhancing the quality of care by ensuring all relevant patient information is easily accessible.
- **Enhance workflow visibility:** With this tool, the progress of patients through their inpatient journey can be tracked more efficiently, increasing the visibility of doctor workflows and improving the coordination of care.
- **Facilitate collaboration and parallel tasking:** By enabling multiple clinicians to access and update Patient Lists simultaneously, the application facilitates real-time collaboration, ensuring all team members are informed of the latest patient statuses and care plans. This parallel tasking capability not only streamlines workflows but also enhances the efficiency and effectiveness of patient rounds, allowing for a more coordinated and dynamic approach to patient management.
- **The Patient Lists tool will leverage existing data within CareNow, reducing redundant data entry and ensuring that admission information is current and accurate.** It's also designed to evolve over time, progressively enriching its database with clinical data to ensure it becomes an increasingly valuable and comprehensive resource for patient care. By May 2024, GCH plans to have rolled this out beyond its pilot phase.

Why these solutions?

Our adoption of these digital solutions was driven by a clear recognition of the need to advance our healthcare delivery to meet the evolving requirements of our community. The Clinical Photography app and Patient Lists represent key steps in our journey towards a more integrated, efficient, and patient-centred health service. By prioritising the adoption of these digital tools, we not only streamline clinical workflows but also ensure our healthcare services are accessible, responsive, and secure.

Background

Gold Coast Health (GCH) is at the forefront of transforming clinical workflows through innovative digital solutions. As workforce shortages rise, it is critical to enable our staff with streamlined and accessible workflows to meet increasing demand for services.

Solutions Implemented

The CareNow platforms at GCH – Clinical photography application and Patient Lists tool – exemplify our commitment to streamlining clinical workflows to save clinicians' time; foundations for enhancing patient care and operational efficiency. The Clinical Photography app has transformed how clinical information is captured and shared, directly contributing to increased direct patient care time. By greatly reducing administrative task time, clinicians have been able to reallocate their efforts to more meaningful patient interactions, thereby improving care outcomes. The application has also enabled improved multidisciplinary collaboration, most notably for our Hospital in the Home (HITH) service, with near instant access to high-quality clinical images facilitating more effective communication among clinical teams. This has led to more integrated and coordinated care, ultimately benefiting the patient journey through the healthcare system. Another notable advancement has been in our wound clinic, increasing the number of patients seen since the app's implementation. This improvement means more patients receive timely care and reduces the need for referrals back to GPs for wound care, demonstrating a substantial enhancement in patient experience. Finally, by ensuring the secure handling of patient images, the app has upheld patient data protection and privacy, enhancing patient safety. The Patient Lists tool is designed to build on our CareNow digital success by automating the creation and updating of patient lists. This tool is expected to significantly streamline daily clinical workflows. By reducing the administrative burden on junior doctors, this tool not only liberates them to dedicate more time to patient care, but also minimises their involvement in manual, paper-based processes that are susceptible to becoming outdated and error-prone. Moreover, it's designed to improve patient care coordination by ensuring that accurate and real-time information on each patient's status is readily available to the entire care team. This will facilitate better-coordinated and more timely care, addressing the need for efficiency and accuracy in patient management.

Evaluation and Results

We have aimed to capture both quantitative and qualitative data that reflect the effectiveness, efficiency, and user satisfaction of these initiatives. **Clinical Photography app evaluation**

- Efficiency and time savings: We measured the reduction in time required for clinicians to document, upload and access patient images. This involved comparing the time taken for images to become available within the patient's ieMR before and after the application's

implementation.

- Usage statistics: There has been a significant increase in users of the tool from an initial five per week to on average 55-60 per week. There has also been an average 10-fold increase in number of images uploaded to the patients' ieMRs.
- Enhanced clinical care: The reduction in administrative tasks has enabled clinicians to significantly increase direct patient care. **Planned evaluation for the Patient Lists tool**
- Time reduction: Analyse the time saved in generating and updating patient lists by comparing the time taken to prepare patient lists pre and post implementation, aiming to reduce the average handling time (AHT) for patient management.
- Accuracy and reliability: Assess differences in different locations

Lessons Learnt

Regarding lessons learned from the Clinical Photography app deployment, a notable insight emerged regarding the balance between application timeout settings and authentication requirements. Clinicians preferred longer timeout periods to enhance usability during their busy workflows, allowing them more flexibility without the frequent need to re-authenticate. Conversely, our cybersecurity team advocated for shorter timeout durations as a security measure, and to protect sensitive patient data. To address these dual requirements, we introduced a secure PIN feature. This approach satisfied clinical needs for efficient access while adhering to cybersecurity measures, maintaining a balance between operational efficiency and data security.

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