



DELIVERING HIGH VALUE HEALTHCARE IN CONCUSSION SERVICES WITH PATIENT-REPORTED MEASURES - A DIGITALLY-ENABLED PATHWAY

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how patient-reported measures support quality and cost-effective concussion care

Around 35,000 children and adults have a mild traumatic brain injury, including concussion, in New Zealand every year. Patients currently receive treatment and care through Concussion Services providers, funded by the Accident Compensation Corporation (ACC). The impact of concussion on patients varies and so it is critical to evaluate and tailor Concussion Services based on patients' assessment of improvement and satisfaction. Concurrently, key business objectives for this service include quality, cost-effectiveness and timeliness of care.

A major challenge to achieving high value health care in Concussion Services is that patient reported outcome measures (PROMs) and experience measures (PREMs) required to understand the patient perspective are not being captured and analysed. We hypothesised that, utilising a collaborative approach, this information could be captured and analysed to meet the needs of patients, clinicians and funders.

This project will plan and implement the collection PROMs and PREMs from patients at a leading rehabilitation services provider. We aim to report a 360° view of the concussion pathway, to inform the development of an evidence-based,

data-led, consensus-driven and scalable digital concussion patient pathway.

ZEDOC by The Clinician, a digital platform for managing patient-reported data and digitising care pathways, will provide the solution to implement and deliver this project. ZEDOC will be used to capture and analyse the data, providing clinical insights to inform the best-practice management of concussion rehabilitation services in New Zealand.

building a complete digital patient-reported pathway

This project is a collaboration between ACC, a brain injury rehabilitation service provider (ABI Rehabilitation NZ) and their patients, university academics, and The Clinician.

As a software-as-a-service platform purpose built for the end-to-end management of patient-generated health data, ZEDOC will capture the results of PROMs and PREMs, analyse the data, and present the results in real-time via the ZEDOC Provider Portal. The current patient journey for concussion rehabilitation has been defined, and milestones identified for when, where and which PROMs and PREMs data will generate the richest insights into how patients perceive their care quality and health outcomes.

ZEDOC's suite of tools will be employed for this project:

- Project Wizard will be used to design the milestones and PROM instruments.
- The instruments used include the EQ-5D-5L, the Brain Injury Screening Tool (BIST) and a concussion-adapted Global Perceived Rating of Change Scale.
- Patient Portal will ensure that patients can view their own data and results.
- Tracks will be used to provide specific patients with depression and anxiety assessment tools (PHQ-9 and GAD-7).
- Form Builder will digitise the service provider's existing PREM to enable the collection of patient experience and satisfaction information.

enhancing concussion care delivery

Capturing and measuring what matters most to patients is key to improving patient care. Going forward, this project pilot will be launched into a real-world setting. Datasets from the pilot will be shaped, linked and analysed to generate preliminary insights into the current state of concussion care. Iterative improvements to the pilot will be implemented based on these insights, ultimately improving the management of concussion care in New Zealand.