

Authors

Clinical Champion: Dr. Bradley Gardiner,
Dr. Michael Lydeamore
Project Lead: Dan Lin

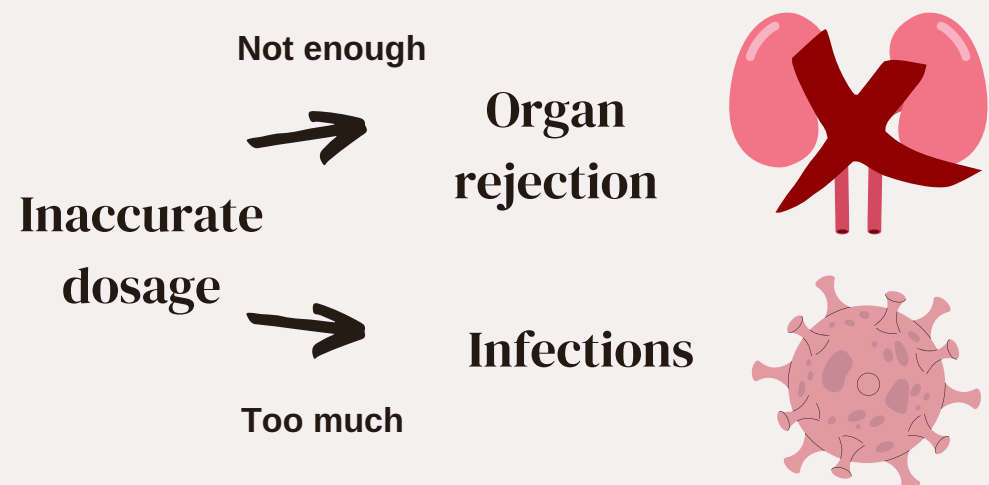
Project Impetus

Our mission is to develop a tool that determines a personalised
immunosuppressant dosage range for transplant recipients

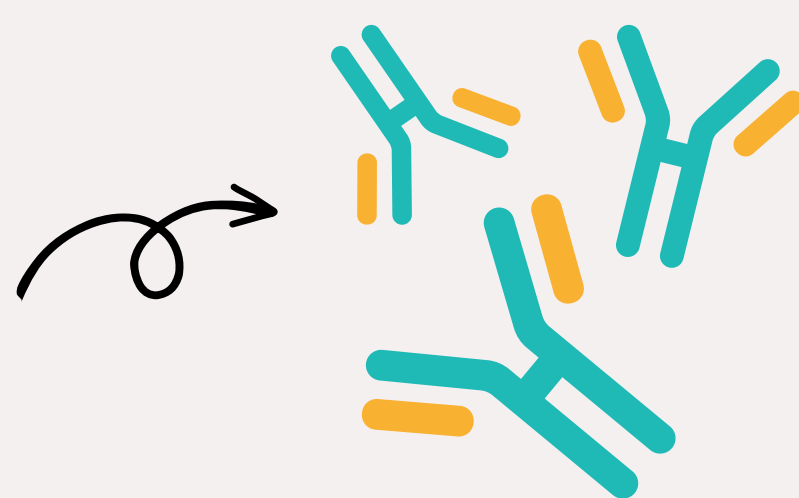
Affiliations

MYMI, MIME,
Monash Partners

Introduction



QFM



Immunosuppression levels



Inaccurate immunosuppression management in transplant patients leads to organ rejection (if under-immunosuppressed) or infections (if over-immunosuppressed)

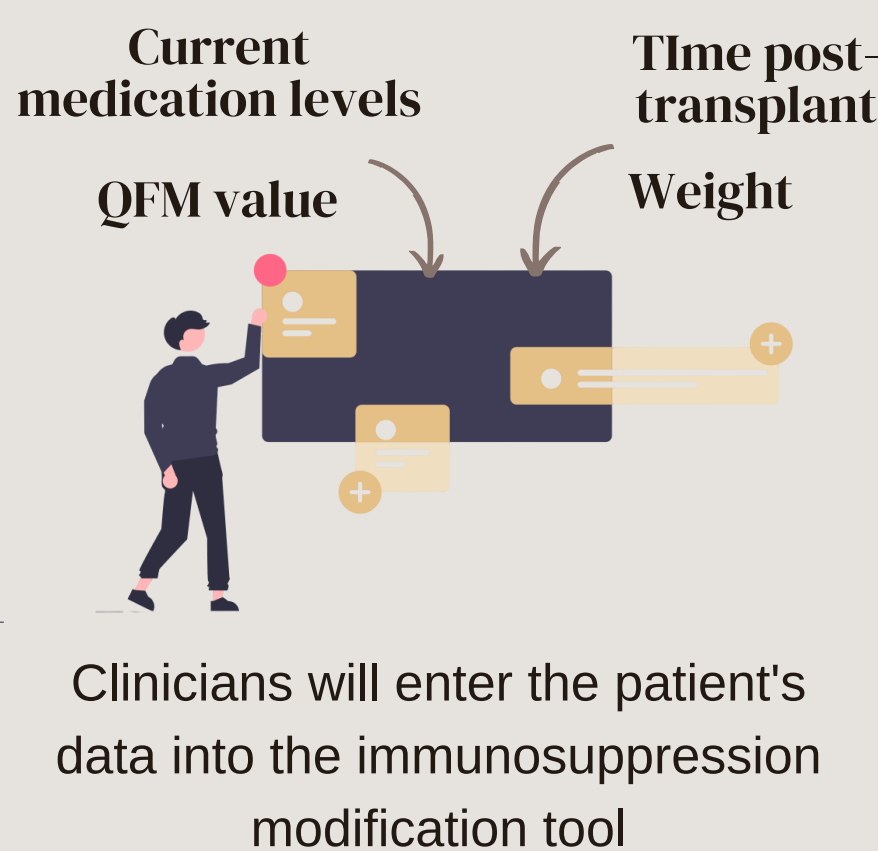
A new blood test - the Quantiferon®-Monitor (QFM) has been developed to measure immune function (through levels of IFN γ). Studies found that QFM levels correlate with the degree of immunosuppression, and patients with low QFM levels are more likely to develop infections

The ultimate goal of this project is to explore how QFM tests can manage immunosuppression levels in transplant recipients and determine if it can identify patients at higher risk of serious infections

Solution



After patients undergo a transplant procedure...



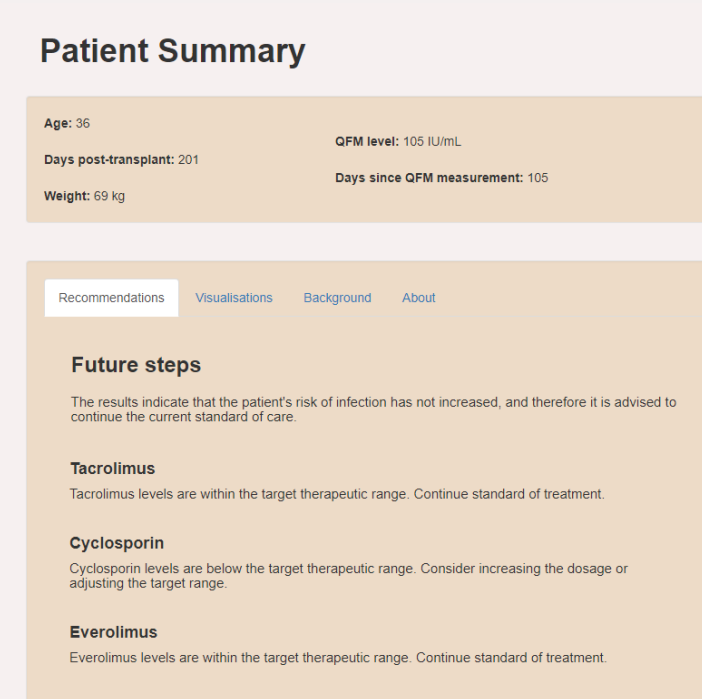
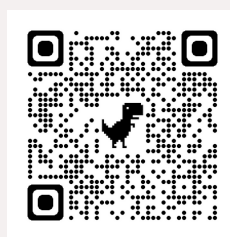
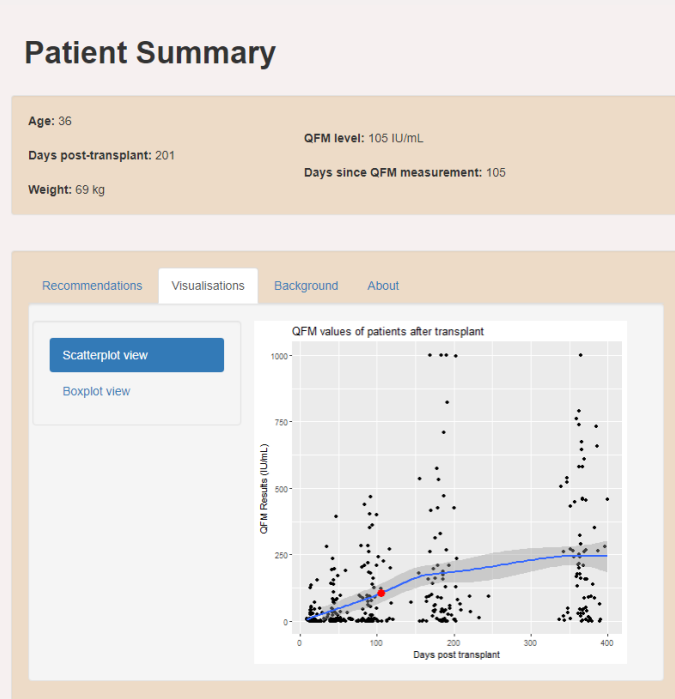
This allows clinicians to identify patients at high risk for serious infections and recommend pre-emptive dose reduction

Impact of solution

- ✓ More accurate measurements of patients' immunosuppression state
- ✓ Lower rates of transplant organ rejection
- ✓ Lower rates of opportunistic infection

Current progress

<https://daniellin991.shinyapps.io/Prototype>



Timeline

