



About ADHB

The Auckland City Hospital is the largest in New Zealand, servicing the central Auckland area of over half a million people. It employs over 11,000 health and medical staff and is responsible for a health budget of over \$2 billion.

The Hospital's Testing Laboratory handles over 4 million test requests each year, across two labs. The majority of tests come from inside Auckland hospital, with test requests also coming from hospitals and clinics around the country.

“Arkturus quickly produced an interactive model of our Lab testing processes that identified opportunities to save in excess of \$1M per year by minimising unnecessary repeat tests. Cost savings like this are crucial in hospitals where savings can be reinvested in resources and development opportunities.”

Dan Hunt,
GM Pathology and
Laboratory Medicine

The Problem

With population and patient numbers on the rise, ADHB was facing increasing costs and the prospect of delays in delivering laboratory testing. It recognised the need to future-proof its process efficiency while optimising a scarce health budget and providing a platform for the best patient outcomes. A project was formed with hospital staff and Arkturus consultants to analyse the Lab's processes to identify opportunities to streamline the delivery of test results.



The Solution

Using existing financial, operational and test-results data from multiple systems, Arkturus' process mining tool was able to create a highly accurate digital twin of how the Test Laboratory operates. The resulting process visualisation dashboards showed the journey from originating a test request through each of the process stages, to reporting the results. Arkturus highlighted issues with test duplication and billing, based on a factual representation of actual events – with no guesswork involved.



The Outcome

Arkturus' process improvement analysis clearly identified instances of unnecessary duplicate tests - a common problem in hospitals around the world. The combined project team was able to use Arkturus to refine the process and identified a potential annual cost savings of \$1m through eliminating unnecessary repeat tests. Arkturus also highlighted a high incidence of tests being performed but not actually billed for - representing additional potential revenue recovery. The project is ongoing as Arkturus continues to provide invaluable end-to-end visibility of the lab test process and continuous improvement opportunities.

Key outcomes:

- Created accurate digital twin of how the lab operates
- Identified issues in test duplication and billing
- Recovered millions in revenue per annum
- Elimination of inefficiencies, exceptions and variations
- Mitigation of cost increases as testing volumes rise
- Process for continuous improvement established

Introducing Arkturus Business Research

Headquartered in Auckland, New Zealand, Arkturus works with enterprises across a broad spectrum of industries who are serious about improving the way they work. Arkturus' process mining tools apply the very latest in AI and machine learning to drill down into your existing business data. It creates dashboards and graphic reporting with insights and intelligence for process improvement, business compliance and new ways to delight your customers. Arkturus is industry leading as it works towards creating a complete digital twin of your business; a new era for business process intelligence.



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