Guardian Medical Solutions Ltd

Introduction to the VIGO technology

- The directors have identified new business opportunities in the medical technology field through the VIGO Technology.
- VIGO utilises technological advances and latest scientific knowledge to provide healthcare professionals with better tools to improve patient outcomes.
- It creates an online platform that synergises cloud technology, medical-grade artificial intelligence and internationally approved biosensors to provide support tools to healthcare professionals.
- The platform enables real-time connectivity and continuous vital monitoring which allows for early warning alerts and actionable insights, so that the right action can be taken at the right time.
- Every solution is designed to be a reliable clinical decision support tool with ever-increasing accuracy. These solutions create benefits across the value chain from patients and providers to healthcare institutions and shareholders.

The Products

- VIGO SmartHeart (cardiac monitoring)
- VIGO multi-vital monitoring (coming soon)
  - In-hospital monitoring
  - Remote monitoring
- VIGO pregnancy monitoring (in development)

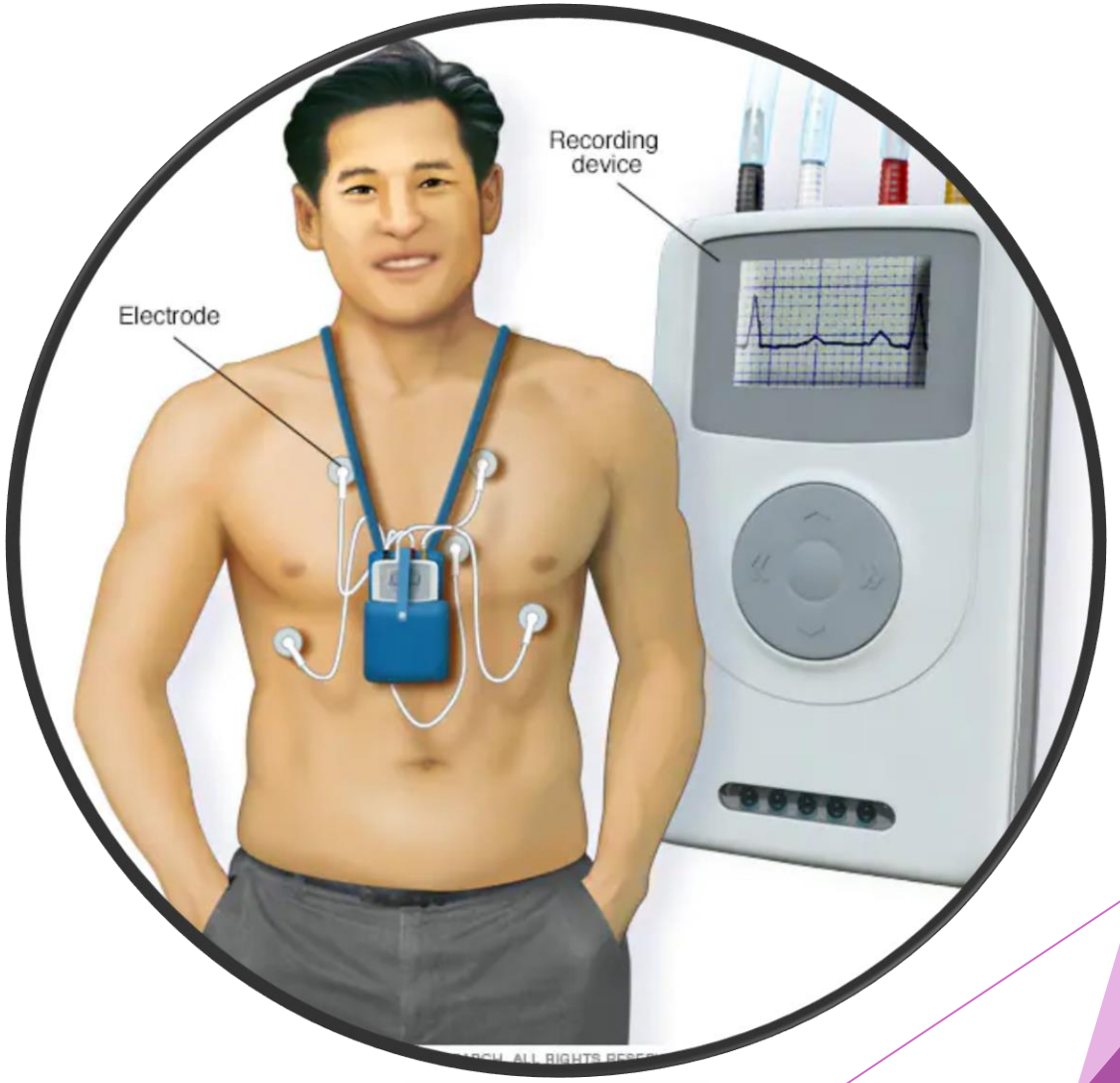
Cardiac Monitoring

- Patients with suspected irregular heart rhythm (arrythmia) or unexplained fainting require further investigation.
- A standard electrocardiogram (ECG) doesn't always detect changes in heart rhythm because it only provides a snapshot (monitors the heart for only a few minutes).
- A doctor may wish to assess the heart rhythm for a period of 24 hours or more. Current standard of care for this is the Holter monitor.

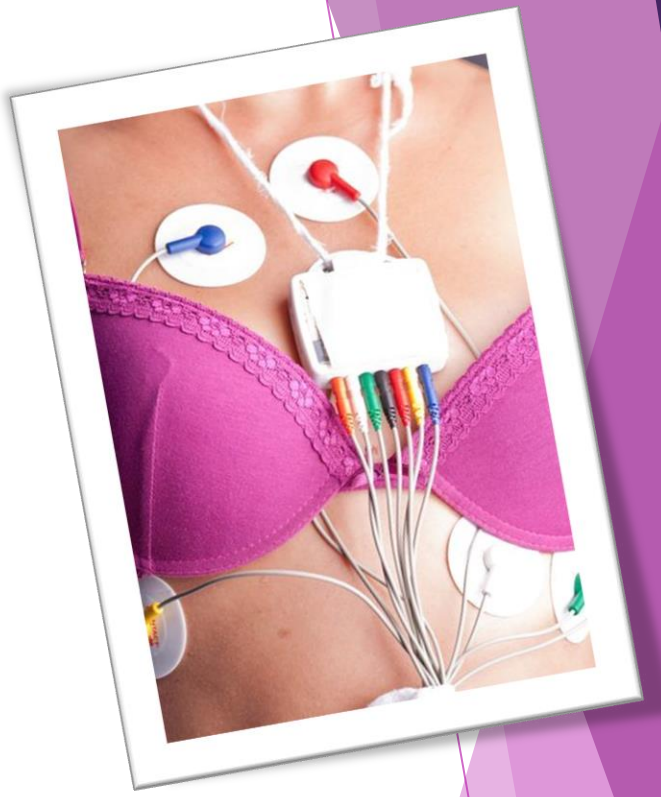
Source: www.mayoclinic.org

Holter Monitor

The Holter monitor is a small device that is connected via cables to electrodes stuck on your chest to enable monitoring of the heart's electric activity (ECG)



Limitations of Holter Monitors - 1



- The device can be cumbersome for patients
  - impairs activities that may precipitate symptoms
  - affect their sleep
- Device has to be removed while showering or bathing.
- Considerable variability in patient documentation and recollection of activated events
- Patients may not experience symptoms or cardiac arrhythmias during the recording period (<5% in studies).
- The overall diagnostic yield of Holter monitoring is 19%.

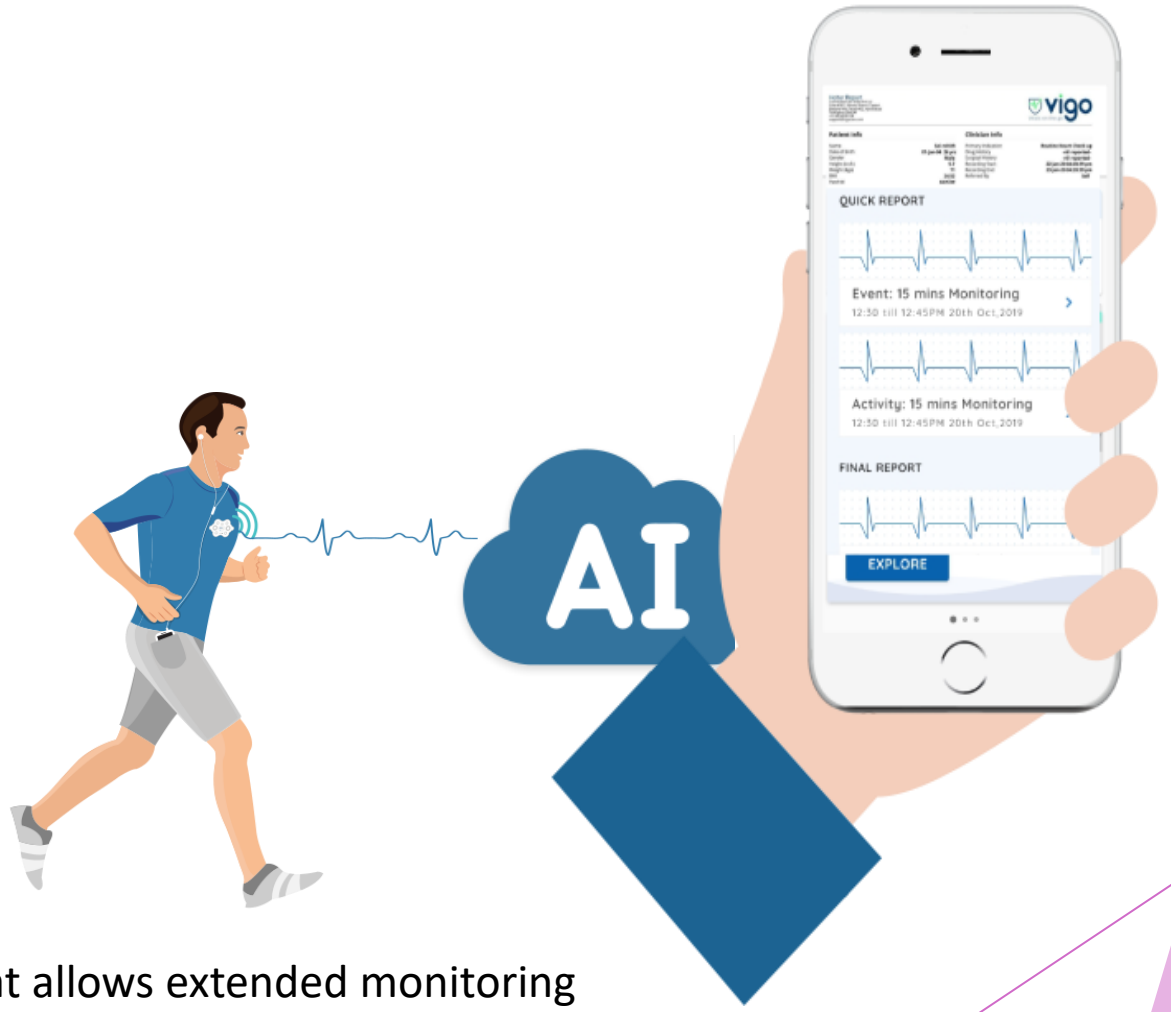
Source: Subbiah R, Gula LJ, Klein GJ, Skanes AC, Yee R, Krahn AD. Syncope: review of monitoring modalities. Curr Cardiol Rev. 2008;4(1):41-48.

Limitations of Holter Monitors - 2

- Technical problems may affect the performance of the Holter
  - loss of battery power
  - disconnection of electrodes
  - electrostatic interference
- Logistic challenges
  - The patient must book the Holter monitor, which is subject to availability at the service provider
  - The monitor must be physically collected and returned to the facility
- Old technology
  - The technician must upload the data for their analysis
  - Analogue signals and paper-based reports are still used by some providers
  - No opportunity for real-time monitoring & intervention

Source: Personal communication North Sydney Cardiology

VIGO Cardiac Monitoring

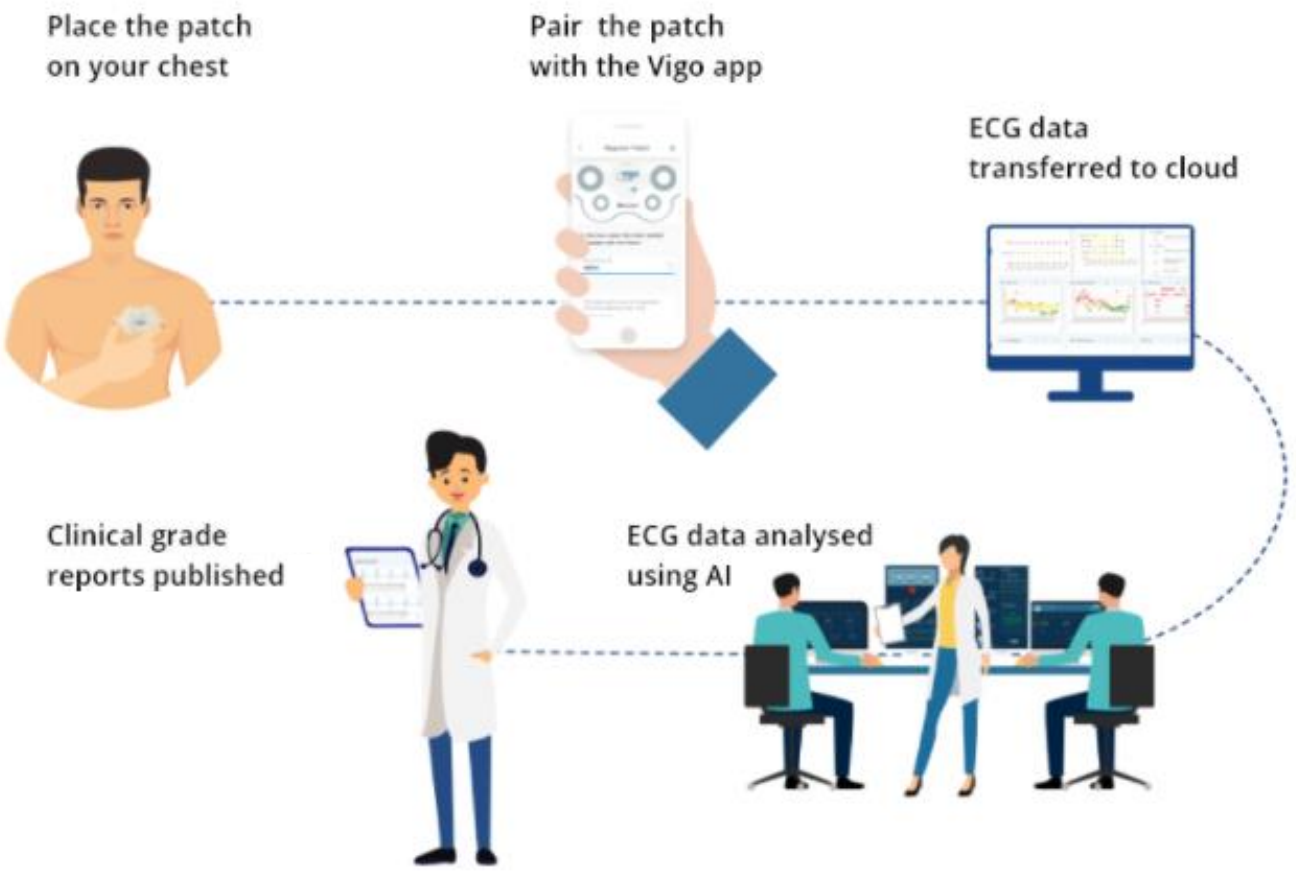


Modern, comprehensive solution that allows extended monitoring of a patient's daily ECG (heart) rhythms.

VIGO SmartHeart Cardiac Monitoring

- **FDA and TGA -approved** biosensor patch is applied to the body providing 99.3% analysable data
- Heart monitoring happens through a **user-friendly app** installed on your mobile phone
- ECG data is recorded & processed through cloud-based **Artificial Intelligence**
- Analysis covers **>20 heart arrhythmias** facilitating proactive & early interventions
- Reports are over-read by inhouse **certified ECG technicians** before publishing
- Results are available via email **within 2 hrs** from completion of monitoring
- Enhanced readability with **customised summary** make it attractive for the Dr to review
- **Proprietary technology** combined with 24/7 customer support ensures seamless connectivity

VIGO Cardiac Monitoring



In-hospital Monitoring

Monitoring of clinical vital signs through independent biosensors will bring ICU-grade attention to every ward and reduce instances of human error and nurse fatigue.

- Monitoring via centralized Nursing Station
- Timely interventions with early warning alerts
- Clinical decision support tools
- Dedicated doctor portal
- Video consultation feature

Remote Monitoring

Multi-vital monitoring “Anytime Anywhere”

Multi-vital monitoring solution can be easily adapted for Remote Monitoring that provides hospital-like healthcare at home.

- This will enable every patient to have reliable, efficient, accessible care from the comfort of their home with uninterrupted multi-vital monitoring.
- Comprehensive trending graphs of vital signs such as temperature, blood pressure, oxygenation levels, heart rate and rhythm can be monitored by off-site professionals.

The Opportunity

- There are approximately 364 000 Holter tests done annually in Australia. This represents a market size of ~$55-75m annually.
- Current service providers are predominantly large pathology groups and cardiology practises for whom this is mainly a value-added service to their core business.
- Pipeline products such as multi-vital and pregnancy monitoring, will greatly increase the scope and size of the potential market.
- The COVID pandemic has accelerated the need and demand for remote monitoring capability

Thank you