Perioperative Software

Getz Clinical Connect





Elegant eHealth solutions for every hospital

'An effective tool for generating a clinically useful and very detailed patient medical history, and for identifying perioperative issues for both anaesthetists and surgeons.'

Cliff Grant, et al, Computer-assisted phone-based preoperative medical assessment by non-clinicians – a comparison with outpatient medical consultation, Department of Acute Care Medicine, University of Adelaide



GCC

GCC is a fully integrated suite of clinical software modules designed specifically for the acute care environment.

Individual modules automatically capture patient data in the preoperative, intraoperative and postoperative phases and include acute pain management recording.

Each patient's medical history is collated into a consolidated record that is accessible from any secure portal, ensuring that clinicians can access the right patient information at any time.

GCC modules are accessed via purpose-built Getz Touch medicalgrade hardware devices installed in induction bays, operating theatres and PACU/ recovery rooms, or via web-based portals suited for both personal computers and mobile devices.

Our enterprise-level subscription offering is scalable so it grows as your hospital or group of hospitals grows. The architecture of our modules complies with HL7 standards, ensuring seamless interfacing with hospital patient administration systems, theatre booking systems and all models of patient monitoring equipment.

	Preoperative	Intraoperative	Postoperative
Suite of modules	Individual modules		
Anaesthesia	PreOp	Induction	PACU
		IntraOp	Acute Pain
		Remote Assist	
Theatre		Bookings	
Surgical		Surgical	
Insights		Chronology	
		Analytics	
Administration		Admin	

Full perioperative solution

GCC is a comprehensive suite of surgical and anaesthesia software modules that supports and enhances the perioperative workflow from preoperative assessment through to post anaesthetic care unit. Clinical modules include *PreOp*, *Induction*, *IntraOp*, *PACU*, *Acute Pain*, *Remote Assist*, *Bookings* and *Surgical*.

These modules build legible and accessible anaesthesia and surgical reports provide clinicians and hospital administrators with the most relevant and up-to-date clinical information. The perioperative modules work in concert with all other GCC modules to provide greater benefits through consolidated patient data.

By deploying the GCC Chronology module enterprise-wide, individual clinical records can be accessed at any location through the use of industry standard messaging (HL7). GCC Analytics enables hospitals to create visually expressive reports instantly and use captured data for statistical reporting, clinical studies and hospital efficiency improvements. The GCC Admin module enables hospitals to configure GCC modules to meet their specific administrative and clinical needs.







GCC PreOp

'Remote computer-assisted assessment can produce quality patient health information and enable early patient work-up and triage with the potential to reduce costs through more efficient use of resources.'

C Grant, G L Ludbrook, E J O'Loughlin, T B Corcoran, An Analysis of Computer-Assisted Pre-screening Prior to Elective Surgery, *Anaesthesia and Intensive Care*, 2012, 40, 297–304.

The Getz Clinical *PreOp* module enables clinicians to manage preoperative assessments of patients through multidisciplinary and customisable questionnaires.

PreOp is a web-based module that can be accessed from any standard browser with an internet connection.

Patients can complete an online health assessment from their home or from a kiosk located in a preoperative or surgical clinic. Completed questionnaires are saved in the Getz Clinical *Chronology* module included with any installation at no cost.

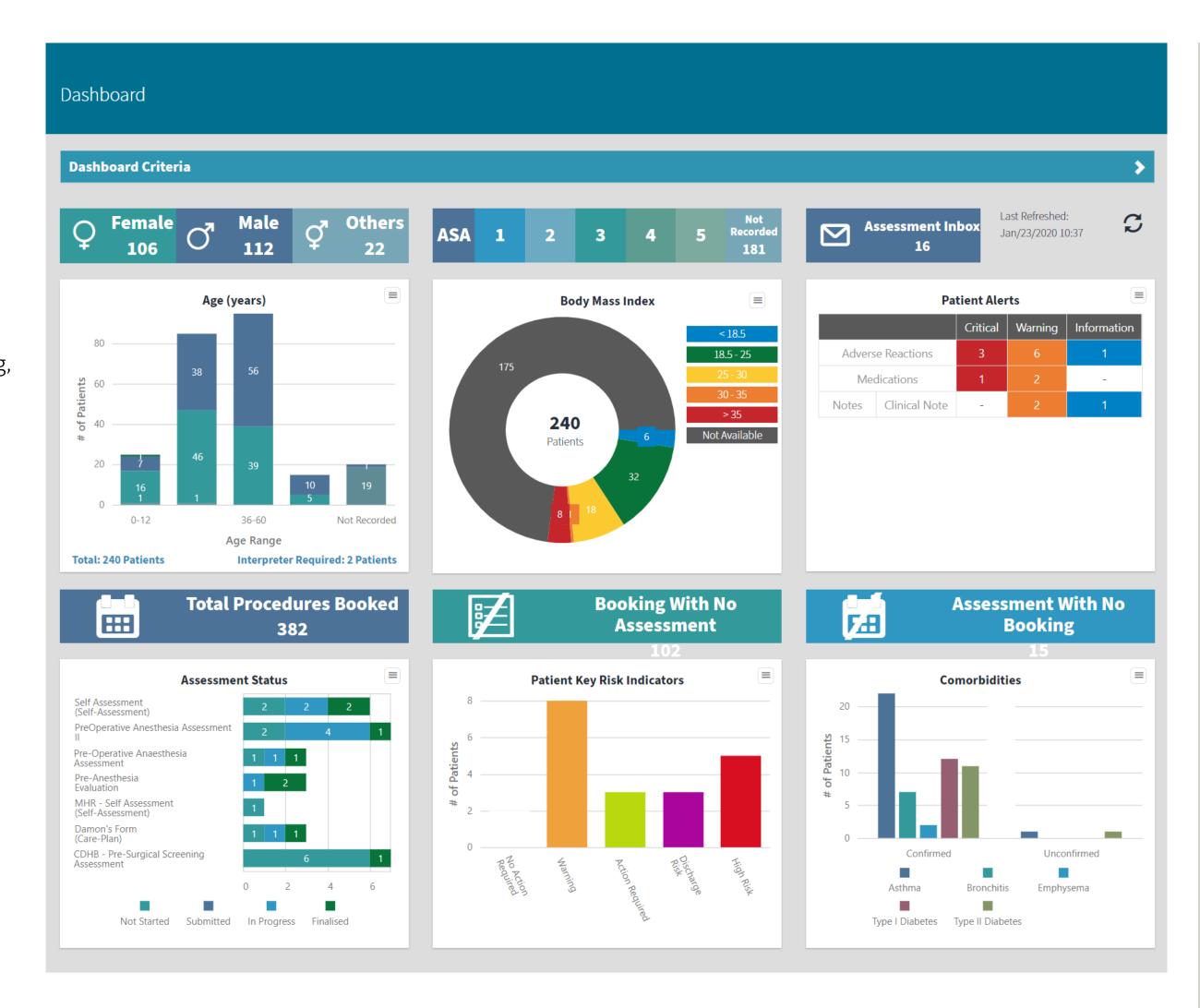
Clinicians can review patient selfassessments and document:

- anaesthetic, surgical and medication history
- allergies and alerts
- examination data (Mallampati, vitals and dentition details)

- risk assessment criteria (smoking, alcohol, recreational drug use, and heart and respiratory issues that can affect patient safety in surgery)
- post-procedure care
- radiology, pathology and investigative orders and results

Alerts can be added to warn clinicians of adverse reactions patients may have to various substances, current medications and disabilities. These alerts trigger notifications when hospital protocols may need to be followed in relation to specific issues.

Inbuilt security protocols ensure clinicians only access patient data relevant to their role-based authorisation profile, as set by the hospital or hospital enterprise.



- The intuitive screen design enables clinicians to capture patient data quickly and accurately, increasing the efficiency with which preoperative consultations are conducted.
- Clinicians can target specific issues that may be a risk to surgery as early in the process as possible.
- Health-related information is gathered and collated with a patient's electronic medical record (EMR) throughout their perioperative experience.
- Accurate records of health assessments and examinations are produced.
- The running costs of preadmission clinics are reduced by up to 60%.
- A greater number of patients can be assessed without increasing clinic resources.
- Potential delays in theatre can be decreased by ensuring patients do not need to attend multiple interviews.
- Operating theatre use improves due to fewer surgical cancellations.



GCC Induction & IntraOp

'Improving accuracy of data capture, more time with patients, enhanced legal positions and improved communications with other clinicians in the operating theatre and PACU environment, we have demonstrated evidence of real time savings as a measured benefit of the introduction of the [Getz Clinical] system.'

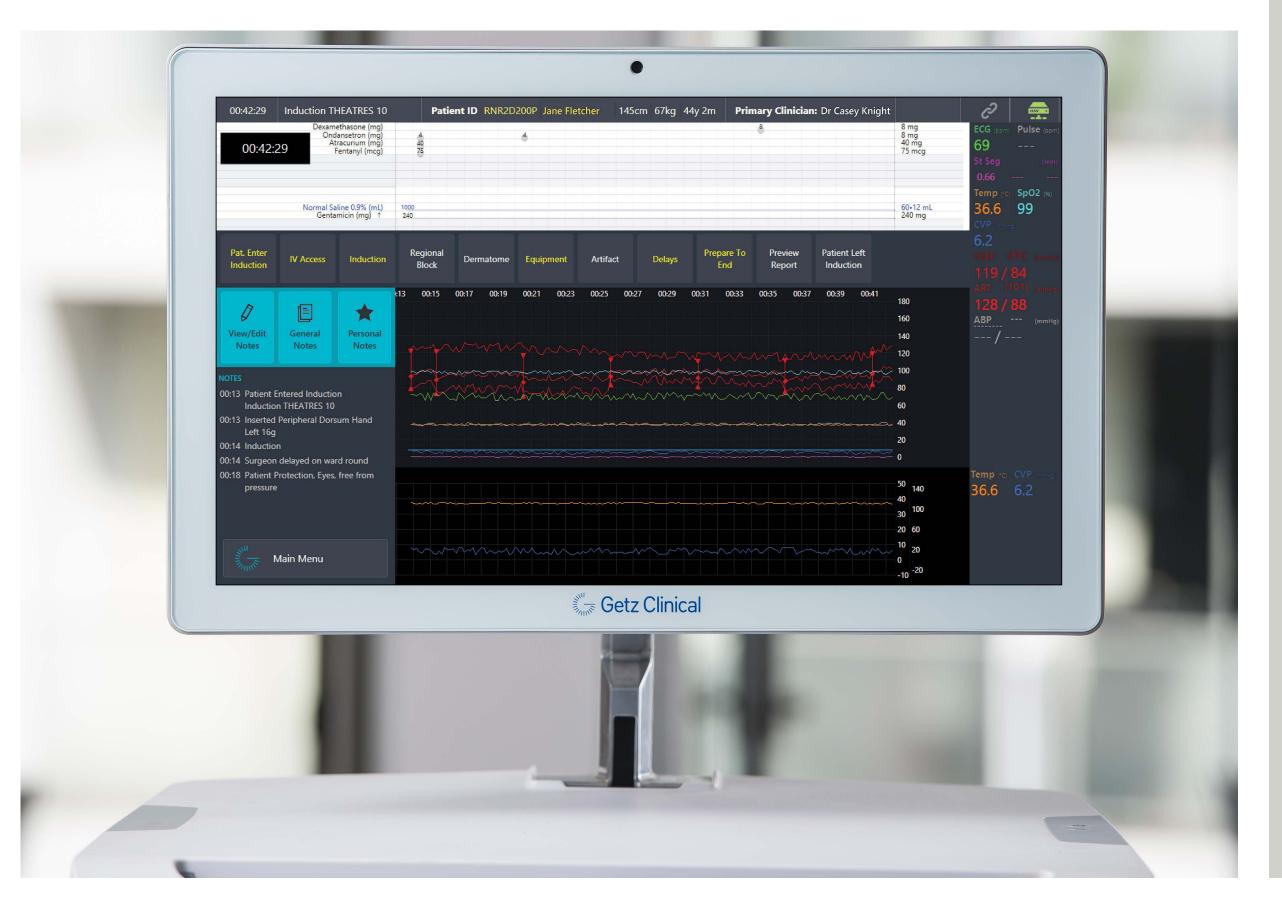
Sue McLellan, Dr Mary Galvin and David McMaugh, 'Benefits Measurement from the Use of an Automated Anaesthetic Record Keeping System (AARK)', Electronic Journal of Health Informatics, 2011, Volume 6(1), e6

The Getz Clinical *Induction* and *IntraOp* modules enable anaesthetists to streamline the process of recording and annotating data derived from patient monitors and imported from hospital information systems.

Used in induction bays (*Induction*) and operating theatres (*IntraOp*), these compatible modules enable hospitals to generate accurate anaesthetic records. Data entry is via a touch screen interface on the Getz Touch GT-30-19 multimedia widescreen medical-grade computer.

Patient vitals can be annotated and every aspect of a case can be fully documented including induction, regional blocks, medications and fluids, critical events and postoperative orders. Referrals to the acute pain service team can be made within the modules.

Staff in attendance and staff changes can be recorded easily. Inbuilt validation ensures that the patient workflow is completed correctly and that reports are previewed before patients move to the next step of their perioperative experience. Anaesthesia reports are automatically generated and saved in the *Chronology* module.



- Data recording is up to 93% faster than with traditional paper-based reporting methods.
- Physiological data from patient monitoring equipment is automatically captured and stored.
- Data entry by clinicians is expedited by prepopulated, comprehensive and configurable picklists, an intuitive touch screen interface, and large tabs and buttons. Recorded data can be audited.
- Incidents of iatrogenic harm are significantly reduced.
- Comprehensive, full-colour reports are generated automatically.
- Clinicians are able to spend more time with patients.
- Default preferences can be set for multiple anaesthetic scenarios, including regional blocks.
- Access to the preoperative and anaesthetic history of patients is at the touch of a button.



GCC PACU

'[The Getz Clinical modules] gives me the ability to clearly interpret the patient's anaesthetic journey. It allows me to easily and concisely record my nursing cares in the post anaesthetic unit, giving a smooth transition for the patient and a greater overall picture of the patient's surgical journey. I couldn't go back to scrawled paper notes.'

Bobbi van Dinther, Registered Nurse, Forté Health

The Getz Clinical *PACU* module is for use in post anaesthetic care units and continues the process of automated charting begun in the Getz Clinical *Induction* and *IntraOp* modules. Data entry is via a touch screen interface on the Getz Touch GT-30-19 multimedia wide-screen medical-grade computer.

Vital signs downloaded directly from patient monitors can be annotated. Observations and other details can be recorded manually, including:

- medications and fluids
- pain, nausea and sedation scores
- wound and pain management
- neurovascular assessments and Bromage scores

- level of consciousness, airway management and patient disposition
- arterial blood gas (ABG) and pathology results
- discharge protocol and ward instructions
- ward equipment (for tracking and inventory)
- arrest and critical events

Staff in attendance and staff changes can be recorded easily.

A recovery report is automatically generated and saved in the *Chronology* module.



- Clinicians have immediate access to data and reports generated in Getz Clinical's PreOp, Induction and IntraOp modules via Getz Clinical's Chronology module.
- Nurses can communicate with anaesthetists, consultants and colleagues using web-based remote communication tools.
- Staff in attendance can be recorded and updated at handover.
- Physiological data from all patient monitors is automatically captured.
- Clinicians can annotate patient data quickly and easily through pre-populated and comprehensive picklists.
- Data entry is up to 93% faster than with traditional paper-based reporting methods.



GCC Acute Pain

'Computer-assisted decision support tools are already a proven part of preoperative anaesthetic assessment.'

New dimensions in preoperative assessment, Guy Ludbrook, Professor of Anaesthesia, University of Adelaide, Australia

The Getz Clinical Acute Pain module offers a mobile, point-of-care solution for documenting acute pain service (APS) information.

Observations and other details that can be documented include:

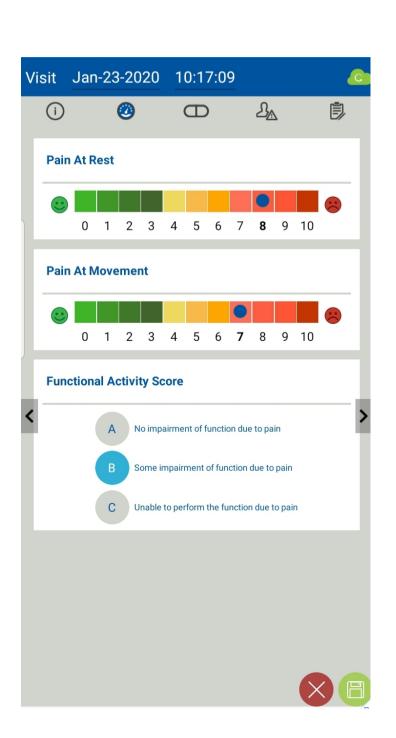
- pain and nausea scores
- modalities of pain relief
- medications
- side effects
- motor and sensitivity responses
- functional activity scores
- block levels and Bromage scores

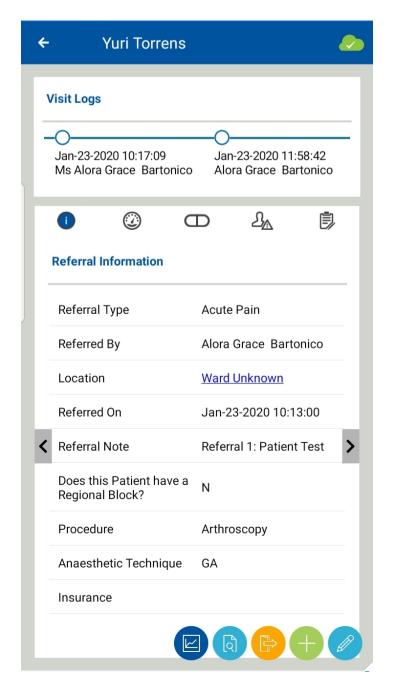
Patients may be referred to the acute pain service team via the *Induction*, *IntraOp* or *PACU* modules while new patient records can be created directly in the Acute Pain module.

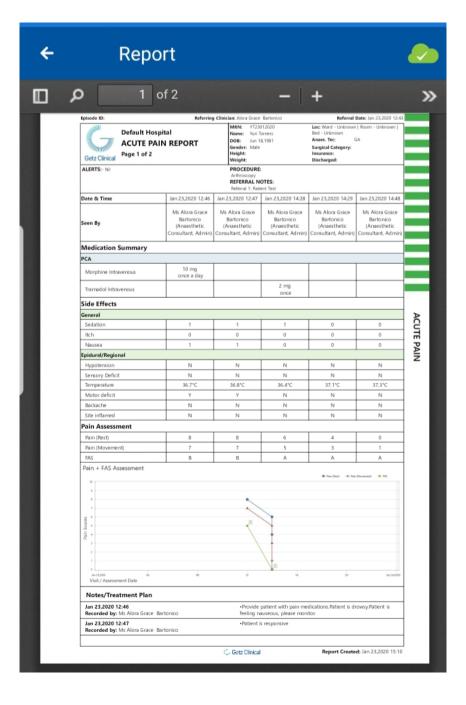
The module is intuitive and easy to use, and interviews are less arduous for patients because their case notes are easily accessible to the clinicians treating them. Clinicians can schedule patients to be revisited by the acute pain service team, discharge patients from pain rounds and reinstate discharged patients.

A copy of the acute pain report and discharge plan is stored in the patient's file and is uploaded to the Getz Clinical *Chronology* module.









- Clinicians can manage and document pain rounds electronically and efficiently.
- Patient histories, including anaesthesia and recovery reports, are available at the touch of a button for clinicians with access.
- Clinicians can compare modalities, pain scores and other data.



GCC Remote Assist

'With a cloud solution, authorised clinicians can access patient records anywhere in our hospitals and even from remote locations. The availability of clinical information greatly enhances communication and decision-making.'

Dr Patrick Musto, Consultant Anaesthetist, Leicester General Hospital

The Getz Clinical Remote Assist module enables clinicians to remotely view and monitor the status of Getz Touch devices running:

- the Getz Clinical *Induction* module in induction rooms
- the Getz Clinical *IntraOp* module in operating rooms
- the Getz Clinical PACU module in PACU/recovery rooms

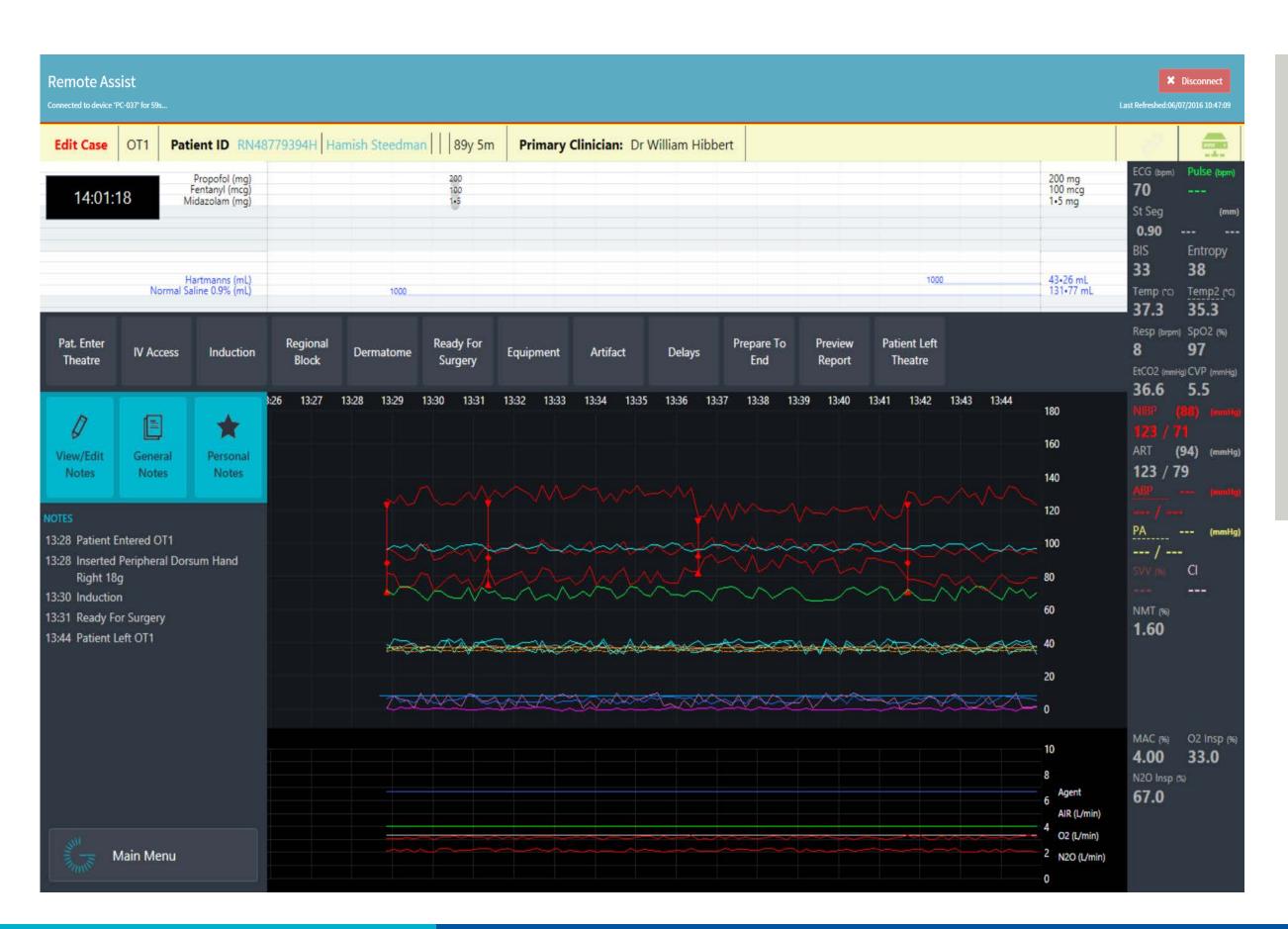
Senior clinicians can monitor a case in an operating theatre or recovery bay where a less

experienced clinician is working, or an anaesthetist in a remote location can be consulted during a difficult procedure – they can see everything on the Getz Touch screen and give advice.

Remote connections can be Initiated from the web-based Remote Assist module or a module running on a Getz Touch device.

Security is assured as no third party applications are required to perform a remote view. Remote access is audited.





- Clinicians can remotely view cases running in the Induction, IntraOp and PACU modules.
- Eliminates the need for clinicians to be physically present to access information on a remote Getz Touch device.
- Improves training and consultation.
- Full auditing of all remote connections and acceptances and regulations.



GCC Bookings

'Getz Clinical has developed a tool for anaesthetists that is world class. IntraOp is a very simple tool to learn and use. I was up and running in 5 minutes.'

Dr Tiffany Glass, FANZCA Specialist Anaesthetist, South Australia

Getz Clinical *Bookings* is a webbased module that enables hospital administrators to view and manage bookings for the Getz Clinical modules that run in induction bays, operating theatres and recovery bays.

The Bookings module can be used as a standalone bookings system to create manual bookings. For hospitals that can generate theatre bookings via their patient administration system, these bookings can be imported into GCC and viewed (but not edited) in the Bookings module.

In the *Bookings* module clinicans and theatre administrators can:

- view bookings by patient or by booking details (such as location or surgeon)
- add and edit bookings
- add and edit patient information
- export bookings lists to a PDF file





- Drives efficiencies in theatre utilisation
- Automatically acquires data
- Creates operating lists and instant bookings



GCC Surgical

'We are able to use the consistent and comprehensive records to identify areas to improve outcomes and enhance patient safety.'

Associate Professor Ong Biauw Chi, Director of Patient Safety and Clinical Governance and Senior Consultant, Singapore General Hospital

Getz Clinical *Surgical* is a web-based module that enables surgeons to document surgical procedures, annotate data derived from imaging devices and generate surgical reports.

Surgeons can pre-configure templates for various surgical procedures and set up favorites for commonly used procedures.

Surgical reports are created using pre-configured, hospital-defined or individual templates and can include items such as procedure details, standing orders and equipment used.

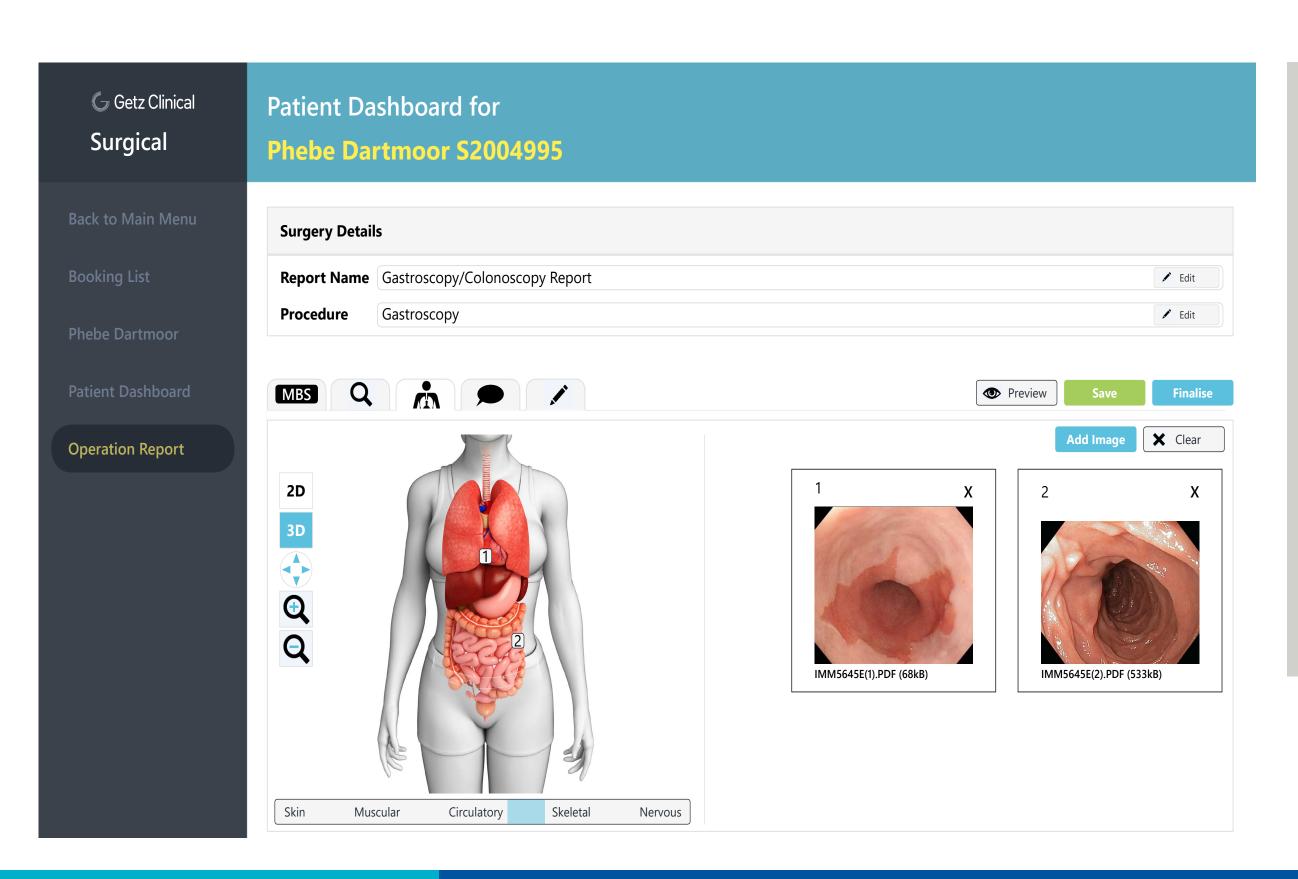
A fully manipulable 2D or 3D anatomical model can be positioned to best reflect the operation site and annotated for inclusion on the surgical report.

Digital photography or video images can be imported and recorded in the surgical report.

Free text fields enable surgeons to record findings, comments, postoperative orders and Medicare Benefit Schedule (MBS), ICD-10 or other code sets for classifying the procedure.

A copy of the surgical report and postoperative orders is stored in the patient'smedical history and is uploaded to the Getz Clinical *Chronology* module.





- Expedites data entry for surgeons through pre-populated, comprehensive picklists, procedure templates and imported patient data.
- Produces a legible surgical report that is immediately available in a hospital's patient administration system via integration
- Produces legible postoperative orders that are immediately available to clinicians in recovery
- Records procedure classifications for reporting and billing purposes.



GCC Chronology

'The single most comprehensive source of information about a patient's past perioperative experience, instantly available anywhere within the state's computer network and allowing a myriad of uses of the accumulated data.'

Associate Professor John Archdeacon, Director of Anaesthesia, Intensive Care and Perioperative Medicine, Cairns Hospital, *ANZCA Bulletin*, September 2011

The Getz Clinical *Chronology* module collates the histories of individual patients – reports, alerts, test results and images – and displays these items on a timeline. Items can be sorted chronologically or by item type. A patient's clinical record may span many years and document items from multiple episodes of care, creating a comprehensive, graphical record of the patient's medical history.

The Chronology module is integrated with all GCC modules. As a patient progresses though the continuum of care, alerts entered in each module and reports generated by each module are automatically uploaded to the patient's electronic medical record. The reports include:

- preoperative assessments from the *PreOp* module
- induction reports from the *Induction* module

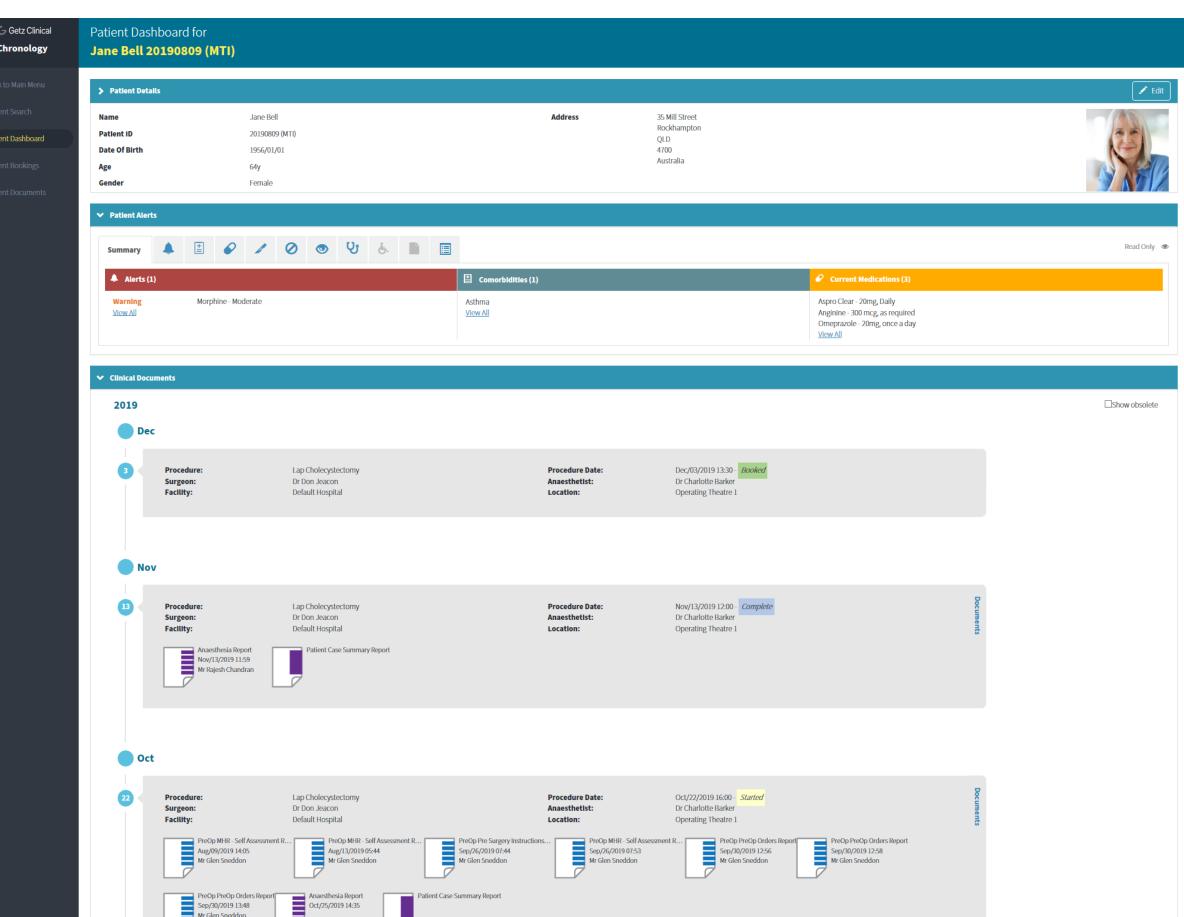
- anaesthesia and vitals snapshot reports from the *IntraOp* module
- recovery reports from the PACU module
- acute pain services reports from the Acute Pain module

Clinicians and hospital staff can manually upload additional items such as notes, referral letters, consent forms, pathology reports and scanned images. Any item in a patient's electronic medical record can be viewed by clicking on it.

User accounts and password access maintain the security of the data.
User access to patient records creates an audit trail which can be viewed by system administrators.

Chronology is included with all installations of the GCC at no additional cost.





- Clinicians have immediate access to the medical history of each patient, which increases the efficiency of attending anaesthetists and surgeons and significantly reduces incidents of iatrogenic harm.
- Chronology builds a comprehensive, graphical record of each patient's medical history that may span many years.

GCC Analytics

'This state-of-the-art record has advanced the quality and credibility of records as well as being a useful teaching and audit tool. It is the anaesthetic equivalent of an aeroplane's "black box" flight recorder.'

Princess Alexandra Hospital, Year in Review 2009-2010

The Getz Clinical Analytics module automatically procures patient data from other Getz Clinical modules to compile logically grouped datasets such as meds/fluids, equipment utilisation, location utilisation and staff utilisation for an enterprise or hospital facility.

Each dataset includes a range of filters and selection options to enable hospitals to instantly create visually expressive reports. Hospitals can tailor reports to their requirements, produce standard reports and conduct benchmarking.

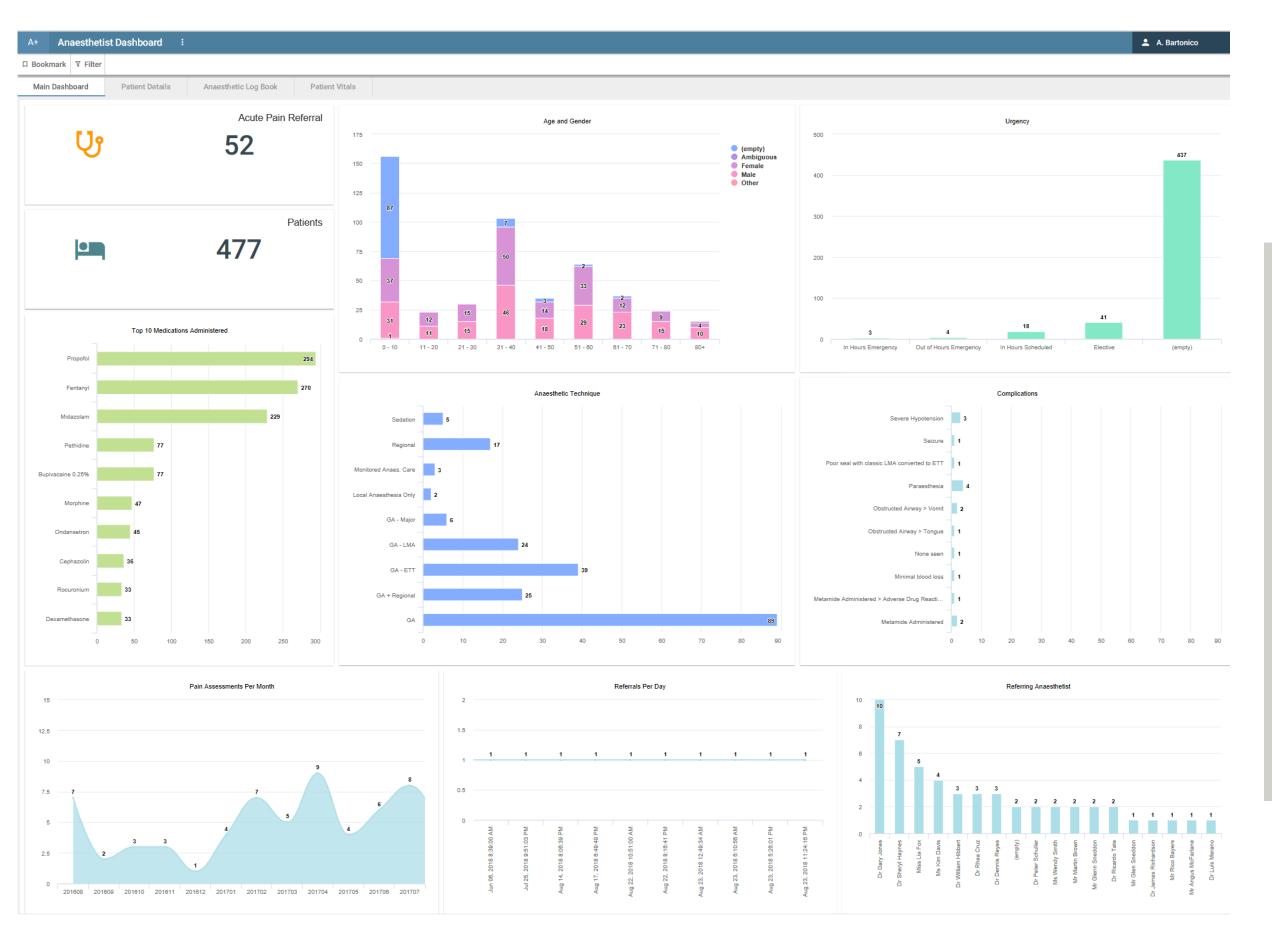
Data collected can be used for a variety of purposes including:

- case discussions and clinical reviews
- education
- governance
- auditing
- risk management
- hospital management

Analytics is included with all installations of the GCC at no additional cost.

An additional feature in *Analytics* is Anaesthetic Logbook which enables hospitals to examine the actions of individual clinicians in sessions run on the *IntraOp*, *Induction* and *PACU* modules. This can help hospitals examine use trends and identify issues for individual clinicians. It can also be used to support reaccreditation and registration for clinicians.





Benefits

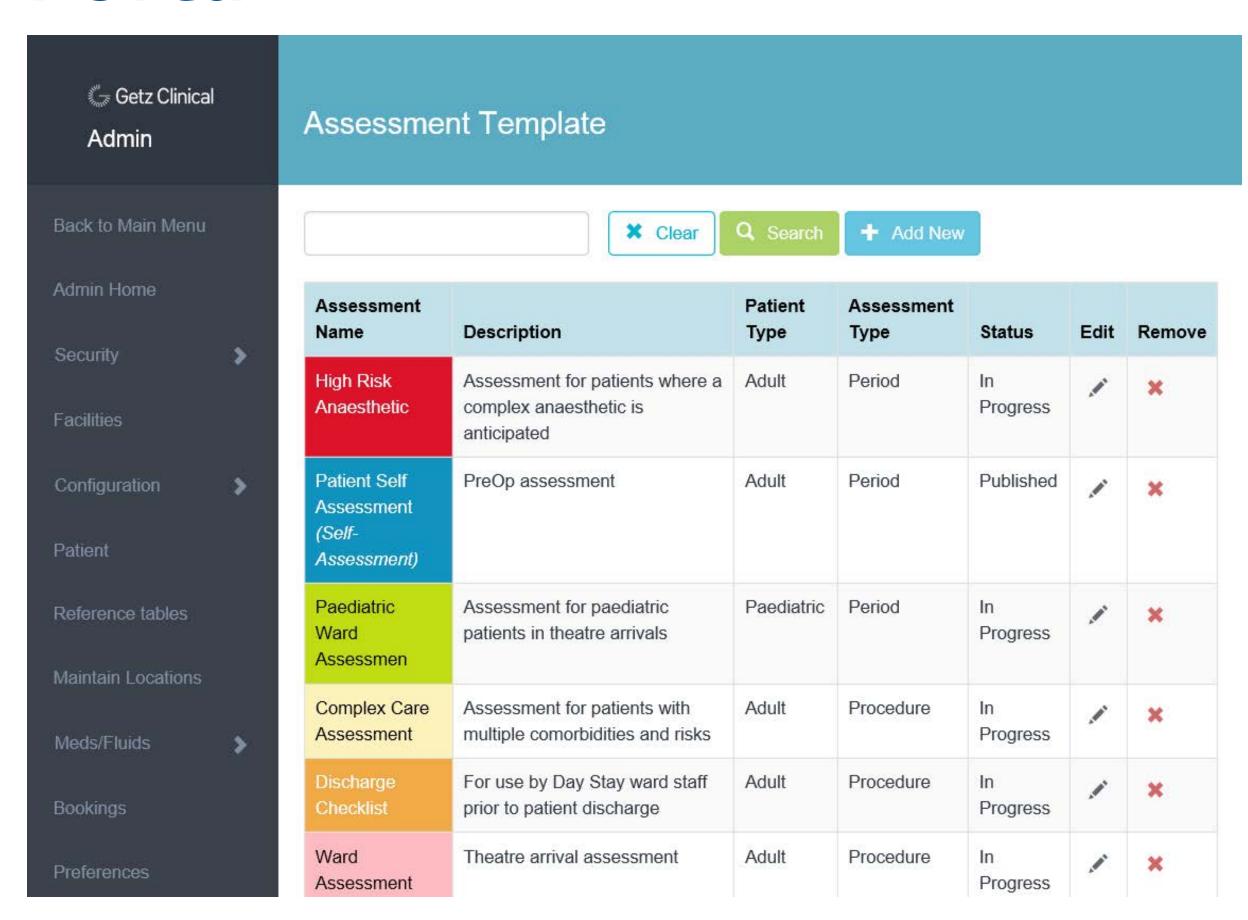
The *Analytics* module:

- reduces inefficiencies and associated costs by identifying the performance statistics of each theatre or recovery unit
- provides support for regulatory compliance, clinical governance and work practice reforms
- provides accurate data on the use of resources
- enables hospitals to analyse data for medical research and support evidence-based protocols





Enterprise Portal



Web-based Enterprise Portal is the secure login-site for hospital staff to access the GCC *Online User*Assistance and all

web-based modules: *PreOp, Acute Pain, Chronology, Analytics* and *Admin*.

Online User Assistance

Training is supported is our *Online User Assistance*. This web-based application, accessed through our web-based Enterprise Portal used to access GCC modules, provides customers with a comprehensive set of support tools.

Resources include comprehensive, browser-readable user guides on

each Getz Clinical product, PDF training manuals and handouts, MP4 video demonstrations and eLearning courses, workbooks and release notes.

The Online User Assistance site provides scenario workbooks that training attendees can work through during the implementation phase

to ensure that the training attendee understands the content of the lesson.

Comprehensive Online User
Assistance Help files enables users to access detailed information about the GCC modules and conduct self-paced and self-directed learning.





Getz Clinical

Getz Clinical is a world leader in perioperative information management systems.

Our solutions, implemented through our GCC suite of software modules, have been deployed in over 50 hospitals and medical centres across Asia, Europe, Africa, Australia and the Pacific.

Major customers include Singapore General Hospital, the University Hospitals of Leicester Trust in the United Kingdom and the Chris Hani Baragwanath Hospital in South Africa. In Australia our solutions are used by Lyell McEwin Hospital and Queensland Health.

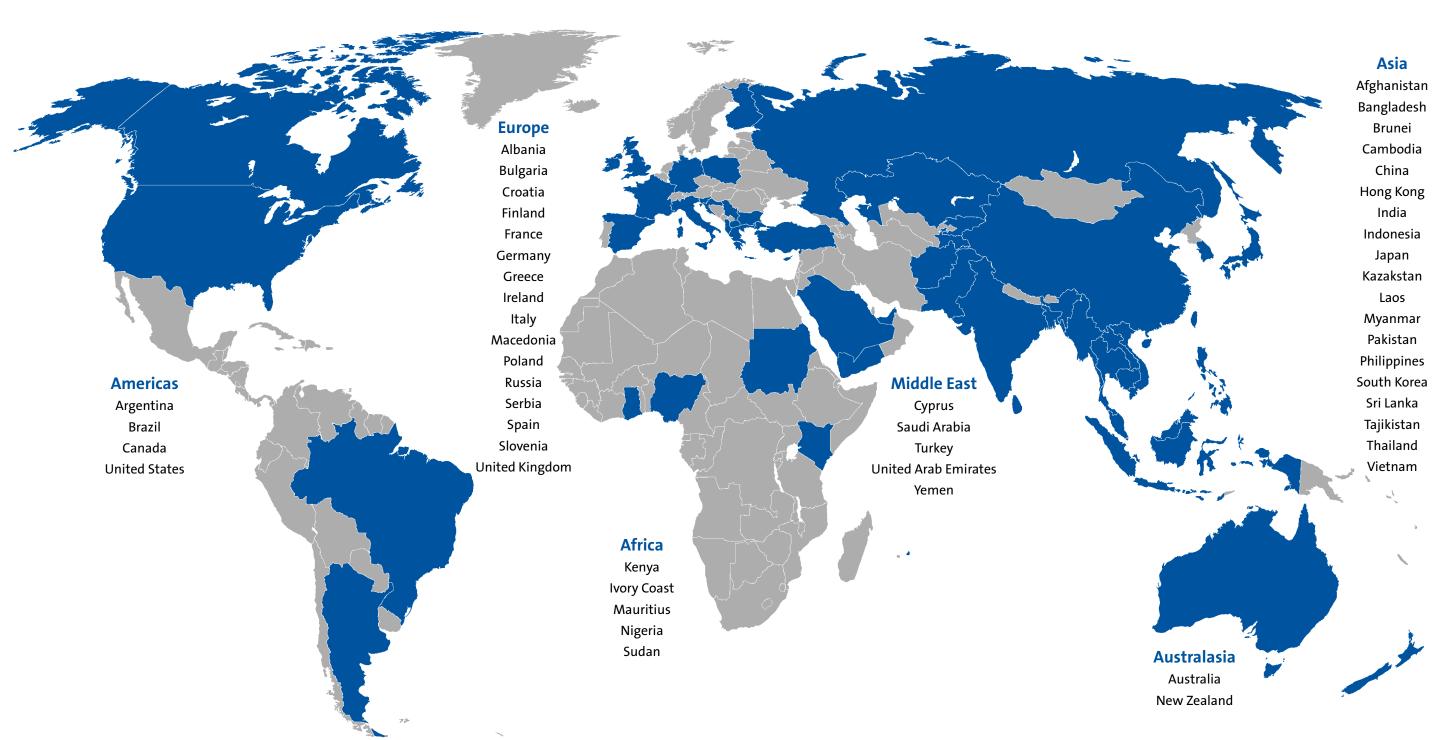
The Queensland Health project, covering 44 hospitals, remains the largest hospital network of its kind in the world.

Getz Clinical has sales and support teams operating out of seven offices in Australia, Singapore, the United Kingdom and the Philippines.

Our team of highly skilled personnel with extensive experience in providing eHealth solutions includes developers, integration specialists, project managers, clinical experts, business analysts, service delivery managers, sales managers and account managers.

Our head office is in Singapore and our development centre is located in Adelaide in South Australia.

Getz Clinical is a subsidiary of the Getz Group of companies. The Getz Group, founded in 1852, is a strategic investment business. Our products and services are delivered by 12,000 employees in 50 countries, with an annual turnover exceeding US\$1.27 billion.





A member of the Getz Group

The Getz Group is a diversified business focusing on healthcare, chemicals, distribution, retailing and hotels.

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