Bluebird Intelligent Medical Systems (Pty) Ltd



Intelligent Medical Systems (Pty) Ltd Company Profile

Intelligent Medical Systems (IMS) the company behind Bluebird has been serving the medical community since 1994.

Bluebird consists of a suite of clinical solutions for departments of health, acute care hospitals, nursing homes and independent doctors as well as a secure medical communication hub that integrates data from disparate siloed medical information systems (including all pathology labs in South Africa and multiple medical facilities) into a single, cloud-based, secure platform that gives decision-makers a global view of their data.

Because the Bluebird Platform is cloud-based, no software installation or ongoing management is required.

The Bluebird COVID-19 Solutions supplied to the South African National Department of Health in 2020 were based upon the proven and field-tested secure medical information systems successfully used by more than 70 South African hospitals and more than 200 ICUs (including the largest in the Southern hemisphere) as well as more than 4000 doctors. The core of the Bluebird Electronic Health Record is an intuitive interface on which patient information is hung. Available modules include ER, Admission, OR, Surgical, MAR, TAR, Obstetric, New Born, Case Management, Intensive Care, Infection Control and Antimicrobial Stewardship and Discharge.

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Background

Company History

Intelligent Medical Systems (IMS) started life in South Africa in 1999 as a Datatec subsidiary called Korbimed (Pty) Ltd.

Korbimed was a joint venture between the team behind Internet Africa, the largest ISP in Africa in the nineties, and Dr. Darryl Vine's EHR company, GAEA Medical Software (which had been designing and selling EHRs since 1994). This Datatec pedigree gave IMS the industrial capability to run large medical datacenters, which today, translates into the Bluebird Private and Public Clouds.

Korbimed was founded to solve the problem of patient confidentiality when moving laboratory results over the Internet and protection of personal information remains a dominant focus of IMS to this day. Please see http://intelms.com.au/principles.html

Dr. Darryl G Vine was the founding CEO of Korbimed and, from inception, his team has ensured that IMS products are fundamentally designed to augment clinical workflows and improve patient safety and clinician efficiency.

In 2000, after a management buyout, the company name was changed to IntelMS (for Intelligent Medical Systems) Pty Ltd, which, after a protracted legal challenge from Intel Corporation, was renamed Intelligent Medical Systems (Pty) Ltd.

What we do

Intelligent Medical Systems (Pty) Ltd is a specialist provider of healthcare technology services to acute and long term healthcare organizations, government and public health and more than 4000 medical doctors.

The company's main focus is on the Bluebird Hospital EHR which is designed to replace clinical paper and importantly to **manage risk** and **improve patient safety**.

Strategy & Vision

Vision statement

Improve patient safety by:

- Reducing preventable adverse events (PAEs) in hospitals and nursing homes
- Providing clinical decision support for clinicians
- Improving clinical documentation
- Improving clinical efficiency
- Case management and optimizing billing

Mission Statement

No patient should have to worry about preventable adverse events or acquiring an infection in a Bluebird enabled hospital.

Values

MAD: Meticulous Attention to Detail

Business Goals & Objectives

• Dominate the African EHR market.

• Enable all South African citizens to have and maintain a single digital patient record and thereby ensure safe continuity of care.

Growth Strategy

Besides organic growth in Africa, IMS has a wholly owned subsidiary in the United States and employs two representatives in Canada. Our marketing in North America has the aim of contracting with a US hospital or long term care group prepared to partner with a South African company. Once we secure a North American contract we will expand our US resources to ensure we adequately service that region. Over the past 48 months IMS representatives have met with multiple hospital and long term care groups as well as the Public Health Agency of Canada and the CDC in Atlanta.



Products & Services

The Bluebird Health Platform is designed to optimize patient safety while improving clinician efficiency. The Bluebird integration engine (which is a cloud service) underpins the products below.

The Bluebird Hospital EHR

The Bluebird Hospital EHR brings together disparate data from a hospital's legacy systems, replaces paper documentation, alerts clinicians to potential risks, and empowers them with knowledge to improve clinical outcomes, lower costs, and strengthen regulatory compliance. Bluebird enables hospitals to position themselves to demonstrate improvements in clinical outcomes while improving the bottom line.

Clinicians (including nurses at handover) are quickly orientated by Bluebird's intuitive User Interface. Perhaps most importantly, Doctor's orders are converted into nursing work lists (WL) and the timely completion of each WL item by the nurse responsible is monitored and managed to conclusion. Where useful, embedded checklists (guardrails) help ensure that the baseline of clinical care is consistently raised. This is particularly important if the nurse has less experience on a specific unit.





The Bluebird Hospital EHR comprises of multiple modules all based on an intuitive core interface including:

- Integration engine
- Clinical Pre-admission
- Remote physician access (to their specific patients)
- Bed management including admission and discharge and room cleaning
- Progress notes by role (physician, nurse, physiotherapist ...), diagnosis (with ICD10 and CPT wizards), treatment plan, dietary plan, allergies, adverse event monitoring
- Consultations by role
- ePrescribing and eLab Ordering
- General ward
- eICU including NICU
- ER including triage and admission to hospital or discharge home
- OR
- Infection control
- Antimicrobial stewardship
- Fall prevention
- Pressure Sore Prevention
- Early Warning System
- Discharge Summary



Doctors Proactively tools

Bluebird offers tools to help Doctors be more efficient. These tools are: Integrated eLab Results, Window to the Ward, EHR and Bluebird Mobile. While the Bluebird Doctor EHR is at it's most powerful as an integrated platform, modules may be acquired individually starting with those that are available at no charge.

Integrated Lab Results

Bluebird is the only service that connects to all labs in South Africa. This is very helpful because it means that all your patients' results are available in one place. Furthermore Bluebird provides powerful tools to immediately communicate those results to patients and to set follow up at a specific date. Cumulative results are available in both tables and graphs.

Window to the Ward

Remotely review your inpatients in Bluebird enabled hospitals in real-time. This service is available to all doctors that have subscribed to Bluebird.

EHR

The Bluebird electronic medical record for doctors was first released in 1994 and has built a loyal following. Unlike many other EMRs Bluebird was designed by doctors for doctors with the primary aim of making clinicians more efficient. The latest version is a cloud based EMR with an API that allows all practice management systems to update patient demographics.

Besides quickly creating detailed clinical notes, this Bluebird EHR also facilitates hospital pre-admission and consultation requests.

Bluebird Mobile

Mobile access to the Bluebird Health Platform for doctors (labs, hospital inpatients. and hospital dictation of hospital progress notes, OR notes and Discharge summaries) and nurses (eMAR, eTAR, device management...)

Radiology Information System and PACS

see radiology.co.za



Services

- Onboarding. The Bluebird team has developed deep expertise over the last decade while onboarding more than 70 South African hospitals.
- Training.
- User Support. Over almost three decades this professional team has earned kudos from the full range of clinicians. KPIs (including client feedback) are closely monitored and managed as required.
- System Support 24/7 management of this SAAS by our Operation team using our proprietary monitoring solutions that have stood the test of time..

Bluebird clinical modules include **real-time** decision support that helps to improve the **quality**, **safety**, and **efficiency** of patient care in healthcare organizations, all the while strengthening compliance and reducing costs.

Bluebird's Competitive Advantage

Bluebird is a new generation EHR with enhanced patient outcome management and reporting capabilities that have clearly been shown to positively impact patient outcomes.

Bluebird is a secure, reliable, professionally managed enterprise information system trusted by large healthcare organizations. The experienced Bluebird team is your partner, 24/7. We are integration experts and actively manage the data feeds to and from labs, pharmacies and hospital systems. The whole process is monitored and actively managed 24/7. Here is a screenshot of some of Bluebird's many monitoring systems.



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DB backups	GIT backups	Query Time	AIDE	chkrootkit	
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Firewall	SSH	BBW Errors	Lab Errors	HL7 Errors	
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20%					
10%					
0% 13:30	13:40	13:50 14	4:00 14:10	14:20	

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Cloud Based

Bluebird is cloud based and accessed via any modern bowser. We do all the heavy lifting, which means:

- Rapid deployment, easy set up
- No ongoing maintenance
- Minimal utilization of your hospital's IT resources
- Hospital IT personnel are not required for custom development
- No hardware purchase (no servers, no specific End User hardware)

The Art of Managing Complexity!

Battle Tested: a System you can Trust

The Bluebird team has more than 29 years experience designing and integrating medical systems. They also have vast experience at running medical data centres. The Bluebird Hospital System has benefitted from input from more than 2000 Users in more than 70 large, complex, acute healthcare organizations, all continually contributing to system improvement over many years. The result is a battle tested, highly resilient system.

Designed for Multiple Facilities

Bluebird was optimized for Healthcare systems with multiple facilities. Bluebird includes powerful supervisory tools to remotely monitor and manage individual hospitals and ICUs. It also means that policies, procedures and workflow can be **standardized across the organization**.

Remote Supervisory Module

Multi-facility by design

Deep Domain Knowledge

Clinical experts with deep, domain knowledge, were involved in every step of Bluebird's design and testing. Importantly, because this is an evolving field, we keep clinical experts permanently on staff. We do not sell software; we provide a professionally supported service and hope to become a trusted partner that facilitates your organization being able to offer best possible care to your patients.

Our team has been recognized for their global thought leadership.



HIS | LABS | Pharmacy | OR | EMR | Devices



BLUEBIRD ACTIVE MANAGEMENT OF DATA PIPES



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Intuitive

Great care was taken to design a system that would be easy for clinicians to use.

Bluebird virtualizes your hospital and creates electronic versions of the already familiar ward white boards, both of which flatten the learning curve.

Enhanced Clinical Workflow

At heart, Bluebird is an efficiency tool that automates and improves clinical workflow.

In contrast, many competing EHRs are IT designed, and optimized for billing rather that clinical efficiency and safety.

Telemedicine

Smaller hospitals might not have ready access to Intensivists, IDPhysicians or IDPharms. ICU nursing skills are sometimes in short supply. Bluebird's telemedicine modules help solve these problems.

Clinical Business Intelligence

Bluebird enables organizations to leverage disparate information in existing IT systems in order to assist front line nurses, doctors, IDPhysicians and pharmacists improve patient care. Bluebird's clinical decision support is particularly evident in breaking the chain of infection and driving the appropriate prescribing of antibiotics.

Actionable information also provides the tool to build a culture of continuous improvement. For example, intelligent intervention reporting can be used to justify interventions and the need for more employees or funding.

Hospital managers have real-time awareness of clinical problems and operational workloads.

Reporting

Reporting is another area where Bluebird excels with over 150 standard reports. These reports were initially based on an in depth review of requirements in 5 different countries (US, Canada, U.K, Australia and South Africa) and then fine tuned with feedback from 2000 clinicians and 70 hospital managers over many years. Bluebird's business intelligence unit is continually on the lookout for additional reports that will benefit our clients.



Bluebird is	Better, Because:	
Cloud Based	Quick deployment, minimal IT resources required	
Enterprise Information System	Industrial Security, Multi-facility by design	
Superior Integration Engine	Active Management eliminates Data Infidelity Real time data	
Deep Domain Knowledge		
Enhanced Clinical Workflow	Improved clinical efficiency, reduced workload. Clinical guidelines, Systematic approach. Drives positive clinical outcomes	
Intuitive	Virtual Hospital, Electronic Ward Whiteboard	
Tried and Trusted	72 Hosptals , >2 000 Users, Constructive feedback from >300 Users, Corporate Governance Audit	
Optimized Compliance	NHSN, CMS core measures	
Clinical Bl	Drives sustained, continuous improvement Demonstrable improvements in clinical outcomes, improved compliance with outcome measures (linked to value-based purchasing)	
Head Office Module	Multi-facility by design. Telemedicine.	

Ownership, Management & Operating Structure

Ownership

Intelligent Medical Systems (Pty) Ltd is privately owned.

Managers

Darryl G Vine:	CMO and GM
Lindsay Rees:	CFO
Michael Wood:	СТО
Rolf H Oeldorf:	In-House Counsel
Jacques Kotze:	Hospital Success Manager
Nicola Kelly:	Nurse Success Manager

Operating Structure

Head office is in Cape Town.

Divisions:

- Management
- Technical Operations (SAAS)
- User Support



- Onboarding and Training
- Software Development
 - Planning (Clinical input and IT)
 - Software engineering

Annual Turnover Spent on R&D

Typically 30% although this went up to 50% in 2020 during our National Department of Health Contract.

Clients

Bluebird has partnered with over 70 leading hospitals to help drive innovation and ensure #SafeHospitals.

In Southern Africa these hospitals included the flagship Nelson Mandela Children's Hospital, Christiaan Barnard Hospital, Ethekwini Hospital and Heart Centre and the Netcare group which is the largest group of hospitals in South Africa and until recently owned the largest group of private hospitals in the UK.

More than 4 000 South African doctors in private practice use Bluebird to organize their laboratory results and a significant portion of these also use Bluebird's EMR and Practice Management solutions.

Bluebird's "Window to the Ward" enables all doctors registered with the Health Professions Council of South Africa to remotely view their patients in any Bluebird enabled hospital.

During the 2020 COVID-19 Pandemic, Bluebird provided emergency support to the South African National Department of Health allowing government a window in which they could improve their COVID-19 monitoring systems.

Thank you for taking the time to read our company profile.

If you have any questions or comments, please feel free to contact us at <u>sales@intelms.com</u>