



Digital Hospital

The Future of Care



Better Exploit our Current Investment

Use the opportunity to better exploit or Current investment in Information Systems

- Centralised control in New Hospital Control Centre
- Patient Flow Management to see at a glance key information on all patients
- Access to information on mobile devices
- Improved system deployment and exploitation will increase patient facing time
- Opportunities to build on a centralised control room

**INVESTMENT IN TECHNICAL
INFRASTRUCTURE
NOT JUST A NEW BUILDING**



Your **future** | Our **hospital**

Princess Alexandra Hospital Brisbane has deployed digital infrastructure:

- 14% fewer drug administration and monitoring errors
- 33% fewer drug dispensing and supply incidents,
- 17% fewer emergency readmissions within 28 days of discharge,
- Drug costs per weighted activity unit came down by 14%,
- 56% fewer stage 3 & 4 hospital-acquired pressure ulcers
- Healthcare associated infections down 37%.
- Early identification of deteriorating patients went up by 59%



Build on Our Investment Digitally Enabled Care

- Use the Control room to build continuous digital monitoring of patients
- Monitor for emergencies
- Reduce workload on wards
- Wearables and microfluidic sensors – monitor patients at and away from beds
- Big Data drives predictive analytics
- Inter-operability – Instant sharing of information with other health agencies (GPs, Community Health teams)



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Clinical command center in action¹

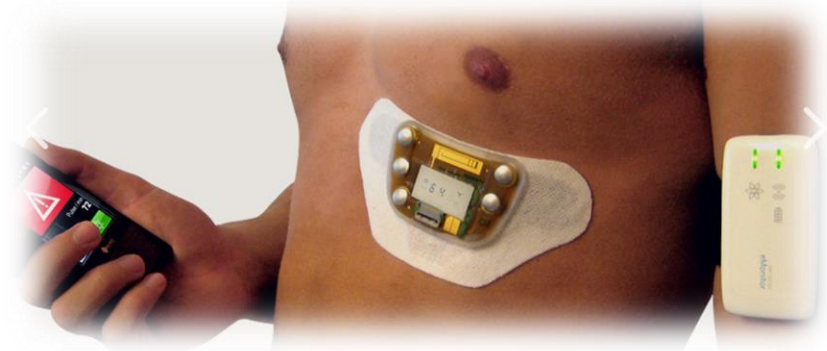
In 2014, Cleveland Clinic launched a clinical command center named Bunker on the hospital's main campus under its eHospital program. At the bunker, a team of physicians, critical-care nurses, and technical staff monitors data on a digital wall—an image of a patient's vital signs—in real time at the intensive care units (ICUs) of the main campus and community hospitals.

Each patient has a tile on the wall that provides their name, age, hospital location, and vital signs trend line. The risk status is a simple dot—green for low risk and red for high risk—that beeps intermittently. The team monitors red dots closely and alerts the unit staff about possible interventions.

The team uses analytical algorithms and multidimensional data to stratify patients based on risk and demographic profiles. The team also uses data from electronic health records (EHRs) to provide advanced alerts for patients that display higher risk levels. In the first half of 2015 alone, the bunker team reviewed data on more than 37,800 ICU patients.

Connected Healthcare

- Extend Hospital into the Community
- Wearable Devices monitored by Hospital Control Room
- Treat Patients in the Community or discharge earlier
- Instant phone and video access between patient and Hospital
- Telehealth to connect patients with Hospital



A digital Infrastructure will
Enable more effective
Healthcare for an
expanding and aging
population

Banner Health reduces hospital admissions by nearly 50 percent managing high-cost patients by leveraging Philips telehealth program

- Reduce overall costs of care by 34.5 percent.
- Reduce hospitalizations by 49.5 percent.
- Reduce the number of days in hospital by 50 percent.
- Reduce the 30-day readmission rate by 75 percent.

Banner are one of the US largest not-for-profit healthcare providers

Source - Philips



Enable the Future

Building Digital Capability into the fabric of the hospital will enable the introduction of new technologies including ones not yet envisaged.

- Portable devices take treatment to the bed or into the community – not the patient to the specialist area.
- 3D printing of medical devices
- Automation, AI and robots to deliver care and carryout ancillary duties.
- RFID to track patient, staff and equipment
- Big Data Analytics to predict healthcare issues

The new hospital will be designed to serve the current community and the new Market Town and Villages.

Digital Enablement will provide efficiencies across health provision and enable greater productivity and new ways of working.

Serve the Community in the community avoiding admissions to hospital and shorten the stay when patients are admitted



Putting it Together

Where its been done - Sunshine Coast University Hospital

- Completed in 2017
- Has knitted together technologies to help operations, clinicians, nurses and all other professions
- Patient use digital kiosks to check-in and for wayfinding.
- Motion detectors and touchpads on beds alert staff if there are issues.
- All notes are made using digital dictation – reducing administration
- Robots assist with logistics moving everything from linen to medical supplies
- Centralised control room to monitor patients and hospital workflows
- RFID to track patients, staff and equipment

Design in the best practice from around the world to provide a world class service to Harlow and the Garden Town and Villages.

Use technology to treat in the hospital and in the community.

Improve efficiency, convenience to patients and clinical outcomes

