



An Incremental Clinical Transformation

Improving collaboration, efficiency
and medication safety within hospitals

Client name: Cabrini Health

Location: Australia

Industry: Healthcare

Challenge

- Make it easier and faster to access administration and clinical information
- Improve medication management for safer, more efficient patient care.

Solution

- An incremental clinical transformation
- Introduction of a virtual EMR and electronic medication management system – accessible through mobile devices.

Results

- Streamlined access to real-time clinical information enabling medical staff to monitor and care for patients from any location
- Better collaboration and communication among doctors, nurses and pharmacists at the hospital and beyond.

Cabrini Health is a leading comprehensive private health service operating 832 beds across five facilities in Melbourne, Australia. The not-for-profit group cares for 86,000 inpatients annually and provides emergency care and a variety of community outreach services including Hospital in the Home.

Streamlined access to clinical information

In 2008 Cabrini implemented DXC’s webPAS patient administration system (PAS) as a single, integrated information backbone. Clinical care however remained a paper driven process.

Not yet ready for a full electronic medical record (EMR) system, Cabrini asked DXC for a way to make it easier for doctors to access and use clinical patient information.

We started by connecting the various sources of clinical information to the webPAS patient administration system. We then created an intuitive mobile interface to present the information, which gave staff real-time mobile access to patient lists, pathology and imaging results, bed-side monitoring data and patient demographics. This virtual EMR went live in 2011 on a voluntary bring-your own device (BYOD) basis. Nine months later 320 doctors were using the system and reporting time and efficiency gains. Today the solution also offers review of observations and test ordering. As of 2015 a total of 618 consultants use the solution, as does Cabrini’s Hospital in the Home nursing staff.

“My ward rounds would take quite a long time,” says Amanuel Tesfai, a visiting medical officer (VMO) who previously struggled to gather lab test results, radiology images and other necessary records when working at Cabrini.

“I LOVE THE FACT THAT I CAN REVIEW AND PRESCRIBE FROM HOME!”

Physician, Cabrini Health Rehabilitation Service – Elsternwick

“I HAVE TO SAY THAT THE CLINICAL VIEWER (DXC MOBILITY SUITE), IS QUITE SIMPLY THE BEST IT DEVELOPMENT THAT I HAVE EVER SEEN ANYWHERE IN HEALTHCARE.”

Cabrini Anaesthetist



Challenge

- Improve medication safety – a known cause of inpatient harm
- Improve care efficiency.

Solution

- Introduction of an electronic medication chart supported by customisable protocols and quick-lists to guide best practice care
- Subsequent introduction of mobile medication management.

Results

- Doctors able to prescribe at the bedside or remotely as required
- Better collaboration and faster communication between pharmacists and medical staff
- Quick lists and protocols to support best practice care
- Elimination of illegibility errors on medication orders and charts
- Improved medication safety – proven error reduction
- More efficient drug administration rounds.

“MEDCHART IS SO INTUITIVE, MUCH EASIER THAN OTHER PRESCRIBING SYSTEMS I’VE USED.”

Physician, Cabrini Health Rehabilitation Service – Elsternwick

“QUICK LISTS AND PROTOCOLS MAKE LIFE SO MUCH EASIER.”

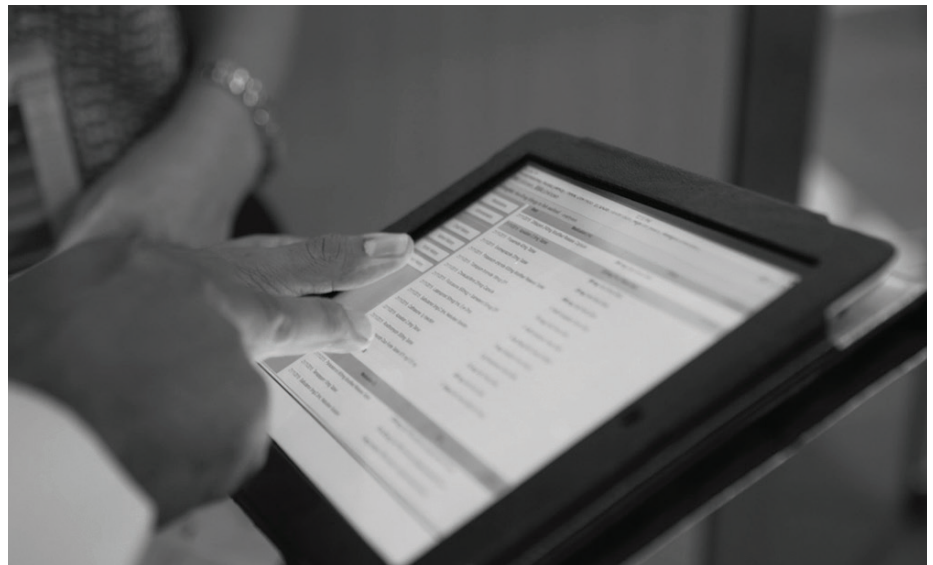
Anaesthetist, Cabrini Brighton Hospital

Safer Medication Management

Better medication safety

The next step in Cabrini’s clinical transformation was to introduce electronic medication management. Medication error is a significant cause of avoidable harm. DXC’s MedChart solution for medication management has been shown to reduce prescribing error by 57.6%¹ and the rate of potential adverse drug events by 71%.² Researchers from the Australian Institute of Health Innovation estimated savings of \$100,000 resulting from use of MedChart in a public hospital cardiology ward.²

The first Cabrini facility to implement MedChart, in September 2013, was the 74 bed specialist inpatient and outpatient Cabrini Health Rehabilitation Service – Elsternwick. In early 2015 Cabrini’s Brighton Hospital, a 141 bed acute care facility made the switch from paper to electronic medication charts. Later that year a mobile version of the solution was introduced.



Change and Adoption

DXC played a key role in training staff and fostering the adoption of the system.

“From the beginning, there was a lot of interaction with DXC,” says Sue Hewat, Cabrini Brighton’s general manager and director of nursing, adding that DXC conducted focus groups with doctors, nurses and pharmacists to better understand the product’s usage and adoption.

This involvement was “critical to the success” of staff, which faced a steep learning curve. “The change to an electronic platform in the clinical setting was a massive leap,” Hewat says.

Training included online learning modules that could be accessed on-demand, as well as the training of “super users” among different staff groups to assist peers and act as champions for the EMR.

A “MedChart Drop-in Centre” proved both popular and effective. The centre was open for the first two weeks after go-live. Without any prior arrangement, staff could turn up at the centre to get help and advice on how to use the system or how to set it up on their mobile devices.

Challenge

- Streamline access to clinical information for faster and better decision making
- Enhance the patient experience with better communication at the bedside.

Solution

- Consolidate administrative and clinical patient information through a single, mobile interface to create a virtual EMR – accessible anytime and anywhere.

Results

- Streamlined access to real-time clinical information enabling medical staff to monitor and care for patients from any location at anytime
- Enthusiastic, voluntary uptake by medical staff
- Estimated 40 percent reduction in time needed to complete ward rounds
- Reduced distractions from doctors calling the ward to check on results
- Faster decision making leading to reduced bed days for patients.

References

1. Westbrook JL, Reckmann M, Li L, Runciman WB, Burke R, et al. (2012) Effects of Two Commercial Electronic Prescribing Systems on Prescribing Error Rates in Hospital In-Patients: A Before and After Study. *PLoS Med* 9(1): e1001164. doi:10.1371/journal.pmed.1001164.
2. Westbrook JL, Gospodarevskaya E, Li L, Richardson KL, Roffe D, Heywood M, Day RO, Graves N. (2015) Cost-effectiveness analysis of a hospital electronic medication management system. *J Am Med Inform Assoc*. 2015 Jul;22(4):784-93. doi: 10.1093/jamia/ocu014. Epub 2015 Feb 10.

Australia

26 Talavera Road
Macquarie Park, NSW 2113
T +61.(02)9034.3000
www.dxc.technology

Access to Clinical Information

Benefits beyond hospital walls

The benefits for doctors, nurses, pharmacists and patients have been widespread.

Because he can now pull up patient information on his mobile device anytime, anywhere, Dr. Tesfai now does his ward rounds in about 40 percent less time.

“It makes my work go a lot quicker, going through results and checking on their medications, which I can do even before I see the patients,” he says.

His interactions with patients have become more productive. He can use his iPad now to show patients scans and other relevant clinical information, better explaining the plan of care. “They accept your treatment better,” he says.

The system also lets Dr. Tesfai communicate efficiently with nurses and respond more quickly in emergency situations.

Pharmacists have valued the improvements as well. They can more easily understand doctors’ prescriptions and notes, and they have better access to patients’ data.

“You don’t have to roam around the hospital looking for medication charts,” says Quyen Hoang, a pharmacist at Cabrini Brighton, who can’t imagine ever going back to the old way. “This is so much easier for everyone and so much more efficient.”

Hoang also finds it easier to communicate with doctors and nurses. Now when she finds a problem with a drug order she can alert medical staff through the electronic system.

Cabrini’s virtual EMR system has also had a positive impact on patient care outside hospital walls.

The home care program, in which hospital staff go to patients’ homes, has benefited greatly. These roaming doctors and nurses can now see test results in real time and act accordingly during the patient visit, Hewat says. They’re also able to load notes into the system, where they can be reviewed by colleagues in the hospital and elsewhere, leading to better collaboration.

Ultimately, Cabrini’s clinical transformation has helped the health service to achieve the most important goal: “We have been able to improve the satisfaction and the care of our patients and their families,” says Dr. Tesfai.

Learn more about eMM, view client success stories and read relevant articles at www.dxc.technology/emm/medchart.

About DXC

DXC Technology (NYSE: DXC) is the world’s leading independent, end-to-end IT services company, helping clients harness the power of innovation to thrive on change. Created by the merger of CSC and the Enterprise Services business of Hewlett Packard Enterprise, DXC Technology serves nearly 6,000 private and public sector clients across 70 countries. The company’s technology independence, global talent and extensive partner alliance combine to deliver powerful next-generation IT services and solutions. DXC Technology is recognized among the best corporate citizens globally. For more information, visit www.dxc.technology.