

Mater Health Services



- *Small footprint*
- *Real-time processing of massive amounts of data*
- *Open interfaces using secure Web Services*

Queensland's Mater Health Services Implements Single Electronic Patient Record Using InterSystems Ensemble

More than a network of seven hospitals, Mater Health Services and its 7500 staff and volunteers provide exceptional care to some 500,000 people in Brisbane, Australia each

year. Since the first hospital opened in 1906, the Sisters of Mercy and Mater staff have upheld the philosophy and Mission of offering compassionate care to the sick and needy according to the values of mercy, dignity, care, commitment and quality.

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– Andy Richards, Integration Specialist, Mater Health Services

To execute its vision for a single Electronic Patient Record, Mater Health Services implemented the InterSystems Ensemble® rapid integration and development platform to link over 95 clinical systems. The Electronic Patient Record (EPR) is benefiting the Mater group of hospitals by providing clinicians with an integrated view of clinical information,

creating operating efficiencies which save time and money, and reducing information technology costs.

Cost savings will ultimately result from a reduction in the time staff spend transporting information charts around hospitals. Other efficiency gains have resulted from combining information from different applications. Cross-referencing appointments against pathology, for example, avoids clinicians wasting time searching for test results.

"That alone saves 15 minutes during every appointment," said Andy Richards, Integration Specialist for Mater Health Services, adding that clinicians have responded positively to the EPR. "The clinicians love what we have been able to do with it. The more information we can provide clinicians in a usable way, the more effectively they can care for patients."

Vision for Extending Best-of-Breed Clinical Applications Strategy

In embracing an EPR, the Mater had a clear vision for how it could extend the best-of-breed clinical applications strategy which has earned it a reputation as an IT pace-setter. "The EPR gives clinicians a single point of access to all the Mater's clinical systems," said Richards.

In implementing its vision, the Mater harnessed a range of services provided by Ensemble, including HL7 message translation and storage, application integration and database management. The Mater interfaced each system using Ensemble's support for the HL7 clinical information sharing standard where possible and via Ensemble's built-in adaptors where it was not.

While the Mater previously used HL7 interfacing solutions, they did not work with all of its clinical applications. For legacy applications that do not support HL7 messaging or SQL database access, for example, the Mater used Ensemble to extract information into a clinical data repository based on the InterSystems CACHE® database. In addition, the Mater implemented Ensemble to capture all HL7 messages generated by its clinical applications, storing them permanently in CACHE.

"Now, not only do we have resilience with HL7 messages – we can store, forward and replay messages, for example – we only have to worry about interfacing to one system at a time," said Richards. "A single system can be added or removed, and only one interface needs to be configured. Perhaps the best part of this integration strategy is that we're vendor independent, scalable and flexible."

Minimises Disruption and Resistance From Clinicians

By maintaining its best-of-breed clinical applications strategy, the Mater leverages previous application investments and retains freedom of choice for future purchases. It avoids an expensive and risky "rip and replace" approach to achieving an EPR by standardising on a single healthcare

applications vendor. This also minimises disruption and resistance from clinicians with a strong preference for existing applications.

Having a single interface for each clinical application is helping reduce the Mater's IT implementation costs.

"Using Ensemble as a central integration platform avoids the need to develop multiple, costly, point-to-point interfaces between systems," said Mal Thatcher, Mater's Chief Information Officer. "Not only does our use of Ensemble help reduce vendor costs in the development of these interfaces, but this hub and spoke approach is much more efficient and timely to implement."

With a single EPR of 1.4 million patients, 10 million pathology results and 12.5 million events, including detailed demographic information, the Mater is also taking a close look at the InterSystems DeepSee™ real-time business intelligence solution for medical research. "Our researchers are falling over themselves to get access to that amount of quality information," said Richards.

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