


Mater 

Exceptional People. Exceptional Care.

Connected Healthcare

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Mater Health Services

- Not for profit owned by the Sisters of Mercy
- 7 Acute public & private hospital facilities - CY 2008
 - Adult, Children's, Women's
 - Discharges = 86,999
 - Bed Days = 275,589
 - Total Beds = 972
- Outpatients attendances = 28,1807
- Emergency attendances = 90,738
- Births = 9,010
- Theatre Patients = 35,230
- South Brisbane & Redland sites
- www.mater.org.au



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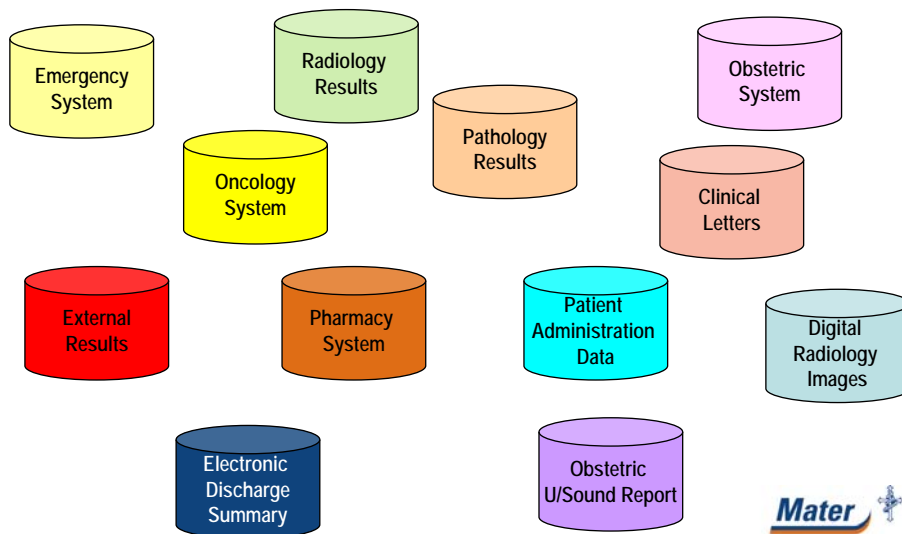
Background

Historically “Best of Breed” for Clinical Information Systems / absence of enterprise approach

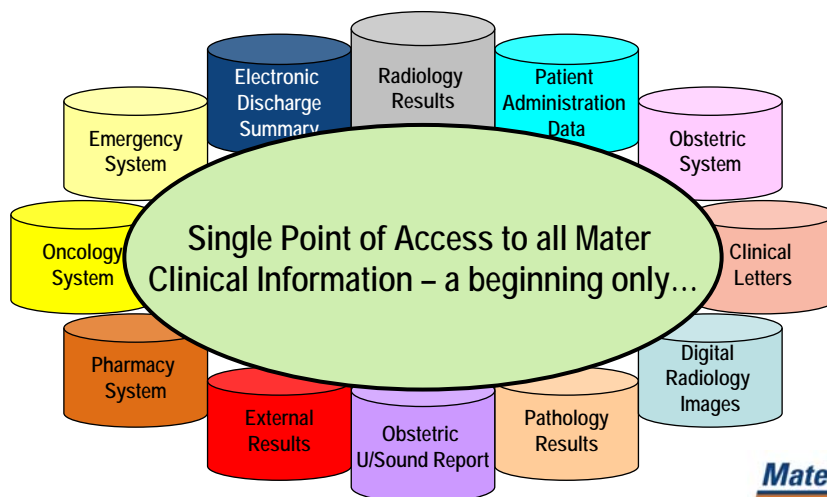
Clinical Systems

- iPM
 - Theatre (MPH)
 - ED (MPH)
- Kestral PLS
- Kestral RMS
- CareStream
- PowerScribe
- Kestral CIS
- Charm
- PICIS
- Face-Up
- Respiratory Lab
- Paediatric Neurology
- MERLIN
- Scribes
- Verdi
- ViewPoint
- ORMIS
- EDIS
- TrendCare
- Matrix
- SurgiDat
- ProSolv
- Epiphany
- eICAT
- Metabolic Lab
- K2/Guardian
- Tahdis
- Discharge Summary
- GE Cathlab systems
- PCP
- Practix
- CDN
- HealthTrack
- Siemens Cathlab systems

Many Disparate Systems...



Clinical Portal – the solution?



Electronic Health record

From a report published the March 25 2009 online edition of the New England Journal of Medicine

President Obama, members of Congress and other policymakers have been pushing the notion that we need to have electronic records in hospitals and doctor's offices to make our health-care system work better," said lead researcher Dr. Ashish K. Jha, an associate professor at the Harvard School of Public Health.

The federal government can also base payments on improved quality of care rather than quantity of care, Jha said. Contrary to common belief, electronic health care record systems may not save money. "The jury is still out on that -- it might. There is very convincing evidence that this technology is going to make care safer, it's going to make care better," he said.

Money is only one issue slowing down the adoption of these electronic systems. Physician resistance and the lack of universal standards are also reasons cited by hospitals for not instituting these systems, Jha said.

<http://content.nejm.org/cgi/content/full/360/16/1628>
<http://www.businessweek.com/lifestyle/content/healthday/625431.html>



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Scope

- Over 200 Corporate software systems
- Over 95 Clinical Systems
- ≈1.4 Million Patients
- ≈12.5 Million Transactions from main 5 clinical systems



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Hooking them all Together

InterSystems – Ensemble 2009

- **HL7 2.X** - inbound, transform, outbound and harvest
- **Web Services**
- **SQL Gateways** - MS SQL, Sybase, Access, Oracle, Gupta, Omnis, Caché, RealityX, UniData
- **Custom Queries** - combined records set from different sources
- **Zen, CSP, .NET Web Pages**
- **Cache Data repository** - populated as part of integration engine
- **.NET Native Provider**



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Standards

"The great thing about standards is that there are so many to choose from."

- attributed to Esther Dyson

It's the usual story with standards: if one standard is good, then many standards must be very good



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Integration Strategy

- Each System only needs to know how to connect to and from Ensemble
- Add or remove a single system and only one interface needs to be configured.
- Vendor independence.

Biggest Issues

- Unique identifiers, Identity management
- Duplicate data between systems
- Identify “*source of truth*”
- Moving Targets
- Synchronizing systems
- Data quality
- Different code tables and terminology
- Totally different schemas
- Legacy and Proprietary systems
- Monitoring

Ensemble Key Benefits

- Ease of access to information. (We have never killed a patient by knowing too much.)
- Vendor independence.
- Cost saving.
- Rapid development.
- Make bad software look good – good software look great.

Ensemble Key Benefits

- Message Persistence
- Integrated Cache Database (MCDR)
- SQL Gateway / Custom Queries
- HL7 Transformations and Value Add
- Identity management technology (IMT)
- DeepSee real-time business intelligence
- Resource Friendly