

Welcome to the first issue of "Hospital" Connectivity

Welcome to the first issue of 'Hospital Connectivity' - HealthLink's e-newsletter updating Australia's Hospitals on developments in e-health across the nation.

In this issue we introduce HealthLink and the range of services that HealthLink provides to hospitals and we discuss the challenges that we will need to work together on to put them into place.



HealthLink provides a number of Australian hospitals and health departments with a safe and secure mechanism for delivering pathology and radiology reports to GPs. Currently much of this is being done using the PIT (Pathology Information Transport) standard, however, we are trying to encourage everyone across the sector to move to the international Health Level Seven standard. Many hospital people will know about HL7 as it is widely used throughout Australia's hospitals. For those people who do not, HL7 delivers 'atomic data' that is data in a format that can be directly inserted into the recipients patient database. The major challenge is to ensure that the recipients' systems are capable of receiving HL7 information.

HealthLink has been working closely with Australia's major practice management systems vendors to get their systems ready for HL7 messaging. All are now able to receive HL7 pathology and radiology messages and the vast majority of them are now ready or nearly ready to send and receive electronic referral messages.

HealthLink abbreviates this form of electronic messaging to RSD (Referrals, Status Reports and Discharge Summaries). RSD messaging uses the Australian AS4700.6 HL7 message standard (also known as the HL7 REF standard) and is used by general practices, specialists and hospitals to send and receive electronic messages. Correctly used it is a highly efficient and useful form of electronic communication. See the article "RSD messaging in the New Zealand health sector".

Therefore the time is now ripe for hospitals to begin thinking about delivering electronic discharge summaries.

Lets talk about electronic discharge summaries

HealthLink is involved in four major electronic discharge summary projects, they include Peninsula Healthcare on the Mornington peninsula, Wangaratta Hospital and a very large project in Western Australia which includes Royal Perth Hospital, Geraldton, Esperance and Kalgoorlie hospitals. The fourth project is with Queensland Health where we are currently putting the first five major Queensland hospitals onto a secure messaging framework for delivery of discharge summaries to more than 2,000 medical practices that are connected to HealthLink.

The Wangaratta and Peninsula discharge summary projects were undertaken in the early days of Australian healthcare messaging, they are using a proprietary delivery format based upon use of PIT messages, we found this approach troublesome and time consuming to put in place and maintain, but due largely to good teamwork between HealthLink, Wangaratta and Peninsula, we have made them successful. HealthLink is currently working with Peninsula and Wangaratta on plans to convert these hospitals to use HL7.

The Royal Perth Hospital project is the one that has really helped to turn the corner for RSD messaging. It has used the HL7 Referral (Ref) standard, it has required countless hours of effort between HealthLink and WA Health, putting in place and testing messaging systems and working with Practice Management System vendors to ensure that their applications correctly process, receive and display messages

The following vendors are the ones that we have worked with to ensure that their systems are ready to receive HL7 Ref messages (discharge summaries and specialist reports.

ISSUE #1
March 2007

In This Issue...

Welcome to the first issue of "Hospital" Connectivity

Lets talk about electronic discharge summaries

Quality is the Key to everything

Why are Message Acknowledgements so important?

"RSD messaging in the New Zealand health sector"

Electronic Referrals

HealthLink Supports organisations that Promote Quality and use of Standards in Health IT

HealthLink is...

- ✓ Secure
- ✓ Efficient
- ✓ Integrated
- ✓ Safe
- ✓ Innovative
- ✓ Reliable

Download our brochures...

[Clinical Communications within the Australian Health Sector](#)

[HealthLink Company Profile](#)

[Is Paperless General Practice Becoming a Reality?](#)

[A Complete Guide to HealthLink Services](#)

Contact us...

[Tina Connell-Clark](#)
Queensland, South Australia, ACT, Tasmania, Victoria

[Geoff Sayer](#)
NSW, Western Australia

[Tom Bowden](#)
CEO

[Bhavesh Daya](#)



HealthLink Technical Partners

[Kyle Macdonald](#)
Support Manager

Fact file...

More than 8,000 healthcare provider organisations across New Zealand and Australia use HealthLink

HealthLink systems are used to exchange more than 50 million items of clinical information annually

HealthLink is a world leader in the development of electronic referrals and discharge summary systems

HealthLink strictly enforces and supports use of health IT standards

HealthLink uses electronic signatures to correctly identify the senders or requesters of information

HealthLink's electronic communications service is used by medical practices in every State and Territory

More HealthLink...

If there is someone who you think would be interested in receiving Connectivity, please ask them to [contact us](#) or pass on their details.

Become A HealthLink Accredited Technician...

HealthLink offers a FREE program of accreditation to train and certify technicians. This is an opportunity for a technician or IT Contractor to become an accredited HealthLink Technical Partner through a program which includes practical training and the opportunity to have close involvement with the team at HealthLink.

We believe in training technicians to fully understand the details of our product including:

Installation

The Following table shows the state of readiness of system vendors to receive HL7 REF messages.

Product	Company	Send	Receive	Receive an ACK	Send an ACK
Genie	Genie	Yes	Yes	Yes	Yes
Incisive	Incisive	Yes	Yes	Yes	Yes
Medical Director 2 HCN		No	Yes	No	Yes
Medical Director 3 HCN		No	No*	No	No*
MedTech 32	Medtech	Yes	Yes	Yes	Yes
MedTech Mercury	Medtech	Yes	Yes	Yes	Yes
Practix	IBA	Yes	Yes	Yes	Yes
Profile	Intrahealth	Yes	Yes	Yes	Yes
VIP	Houston	Yes	Yes	Yes	Yes
Best Practice	Best Practice	Yes	Yes	Yes	Yes

NB Medical Director has confirmed that the ability to receive HL7 REF messages will be released in its August software release.

Quality is the Key to everything

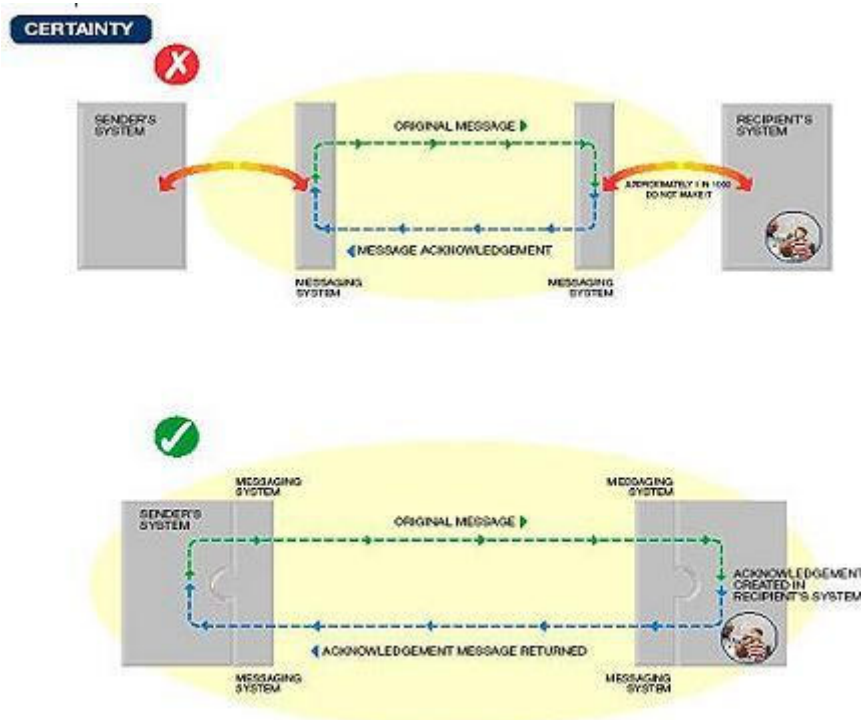
In electronic clinical messaging quality is of paramount concern. The average Australian general practice would, in a fully electronic environment, receive approximately 20,000 electronic messages annually. It is impossible to keep track of such a large amount of incoming data and check that any and every message has been received without absolutely robust mechanisms to do this. Key to ensuring that quality is maintained is the use of electronic acknowledgement messages.

Why are Message Acknowledgements so important?

If an electronic message is to replace one sent on paper, there must be absolute certainty that the information has been received by the intended recipient. For this reason, the message acknowledgement mandated for use under the HL7 standard is of paramount importance. To conform with HL7, a message delivered must be responded to by a **positive acknowledgement** message sent by the computer system operated by the intended recipient, this message can only be sent once the message has been processed and stored on the intended recipient's database. If the message is not able to be processed and stored, a negative acknowledgement should be sent to the sender. An electronic acknowledgement system is used to provide **certainty**. Every electronic message sent must be positively acknowledged by the intended recipient's patient management system. This is a requirement of the HL7 standards which have been adopted for use in Australia for a decade. Today, electronic messaging systems are receiving and acknowledging messages independently of the patient management system. This is a deliberate misuse of the HL7 standard.

The diagram below shows both the correct and incorrect ways of handling message acknowledgements. The incorrect method (top) shows the messaging system sending an

acknowledgement back to the sending system independently of the process of passing the message to the recipient's PMS. The correct method (bottom) involves the recipient system; (usually a GP Patient management System (PMS) such as 'Medical Director'), receiving the message from the messaging system and then creating a message acknowledgement in accordance with the HL7 standard and sending it back to the sender's system so that a complete delivery loop can be confirmed.



Approximately one message in every thousand is estimated to be lost via the incorrect use of the message acknowledgement process. While this seems a small percentage (0.1%) in the context of 100's of millions of messages being sent across the Australian healthcare system, in reality it constitutes a big problem. If an average general practice receives approximately 20,000 electronic messages annually and is using an unsafe system, this means that they will lose approximately 20 messages per year. These messages will have been incorrectly positively acknowledged to the sender). Described in the box below is an actual case study that has arisen because of this problem.

The clinical risk issues arising from unsafe use of electronic messaging are very real.

The following statement received from an Australian medical centre in February 2007 highlights the impact of finding that an important electronic pathology test never arrived. The test result was sent using a system that does not apply the correct message acknowledgement.

" XYZ Medical Centre has a serious issue in that a CIN-3 pap test has gone missing (electronically) and been rediscovered as "missing" 3 months later. It has been rediscovered by a final fall back process whereby the pathology lab issues a letter if an abnormal pap has not been addressed by GP or specialist after a certain period of time.

Our doctor has acted correctly and we have an internal policy to ask all patients to phone for their results 1 week after the test - the patient did not do this ...

CIN-3 means you have a cancer and if not treated and checked very promptly it may become malignant and result in hysterectomy or even death

There will hopefully be some fur and feathers flying over this issue. We have obvious professional concerns over patient safety !"

"RSD messaging in the New Zealand health sector"

There are few things more annoying to the average Australian than someone from New Zealand claiming superiority, whether it is in rugby, cricket, line dancing or lawn bowls and so be prepared to be downright annoyed over what you will read in the following article.

New Zealand, along with Denmark and Holland (two other relatively small countries) is a world-leader in health sector automation. Nearly all General Practices (>95%) are electronic and use of electronic communications is prevalent across the sector. HealthLink which operates across Australia and New Zealand has been closely involved in this process.

Use of electronic hospital discharge summaries has increased dramatically with month on month growth over a number of years. Today, more than 70% of New Zealand's

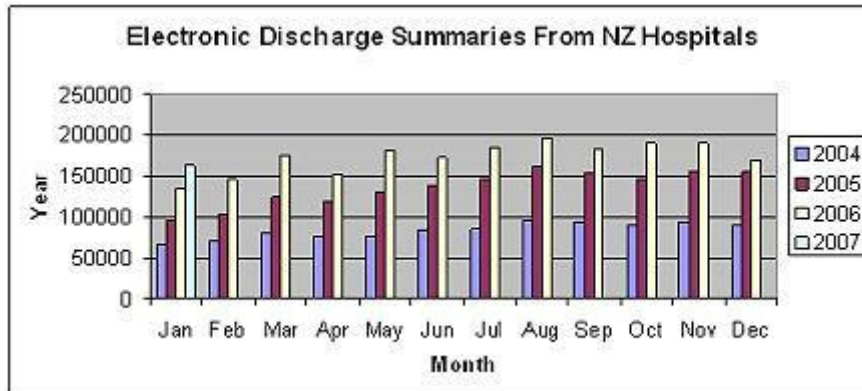
Support
Practice Management
Software

To find out more
please contact
Bhavesh Daya,
HealthLink
Implementation
Coordinator on 1800
125 036 extn 3782 or
contact Bhavesh by
email
wired@healthlink.net.



hospitals deliver most, if not all, discharge summaries electronically and the rest will be doing so in the near future.

In 2007, more than 2.5 million electronic discharge summaries and patient status reports will be sent from New Zealand hospitals to medical practices.



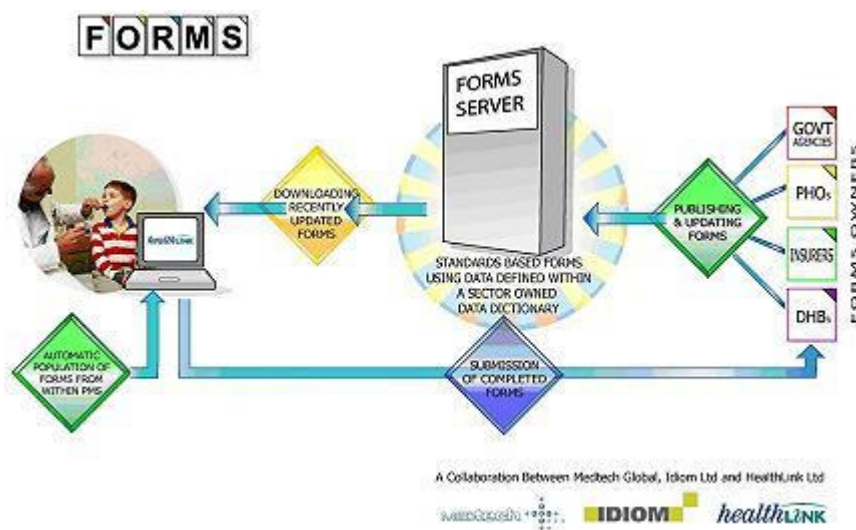
This clearly demonstrates that with a "Quality Approach" to electronic messaging, it can be used to replace paper based communications.

Electronic Referrals

One of the most ambitious new technology projects in the New Zealand health sector has without doubt been the Hutt Valley e-Referrals project which has now gone live.

HealthForms allows organisations that communicate with primary care to develop and implement electronic forms, updating them as and when necessary.

The HealthForms concept has been successfully piloted in 2006 and we are pleased to announce that the functionality is available to be deployed across the New Zealand and Australian health sectors.



Case Study: Hutt Valley DHB Electronic Referral Forms

"A paper-based system to refer patients from primary care to a hospital is inefficient, time consuming and sometimes unreliable. Routinely either too much or too little information is sent. Often the information sent is of very poor quality.

The Hutt Valley District Health Board is solving this problem using HealthForms. Medical specialists, general practitioners and IT staff have worked together to design web-based referral forms that are specific to their departments. Using this framework, referrers are using HealthForms to provide the HVDHB specialist with the clinical and demographic information relevant to the patient's referral.

Using HealthForms the referrer downloads up-to-date referral forms and then pre-populates the referral form, from using information held within the referrer's computer system saving a considerable amount of highly valuable time.

Completed HealthForms are sent to the hospital as structured HL7 2.4 messages. Once an incoming referral has been registered by outpatient staff, the medical specialist receives the referral form containing all the relevant information, and is able to assess the patient quickly and accurately. The referrer, typically a community GP receives electronic updates about the status of the referral as it moves through the process of

registration, prioritization, and acceptance or decline. The referral form and the status messages are stored in the patient's electronic medical record in the GP's practice management system (PMS).

We are working closely with the HealthLink to roll an electronic referrals system out to all of the GPs in our area".

Tony Cooke, CIO Hutt Valley DHB

HealthLink Supports organisations that Promote Quality and use of Standards in Health IT



HealthLink is a key supporter of the Australian Healthcare Messaging Laboratory (AHML). Based in Ballarat, AHML is the independent body that certifies electronic systems to ensure compliance with standards.

If you would like to unsubscribe from this mailing list please [click here](#).

HealthLink Ltd.

Better Practice ~ Better Care

1800 125 036 | <http://www.healthlink.net/>