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Health*Connect* NT Point to Point Electronic Messaging and Electronic Transfer of Prescriptions Service

Leonie Katekar[a], Stephen Moo[b]

[a] *Top End Division of General Practice, Chief Executive Officer and Project Director, HealthConnectNT Point to Point Service, Australia*
[b] *Chief Information Officer Northern Territory Department of Health & Community Services and Director HealthConnect Northern Territory, Australia*

Abstract

The Point to Point Service provides enhanced clinical communication through standardised electronic clinical messaging between all health providers in the Northern Territory, including the public and private sectors and including specialist and general medical practitioners, allied health professionals, pharmacists, pathology and diagnostic imaging companies. The service supports integrated models of care supported through comprehensive referral management, diagnostic imaging results reporting, electronic transfer of prescriptions and transmission to the HealthConnectNT Shared Electronic Health Record.

The Point to Point Service is part of a national change management strategy to improve safety and quality in health care by establishing and maintaining a range of standardised electronic health information products and services for health care providers and consumers. Many IT projects fail in their implementation particularly in health, and the point to point service demonstrates some practical techniques which have ensured its success with clinicians.

Keywords:

Health*Connect;* E-Health; electronic mail; automatic data processing

Introduction

The Top End Division of General Practice (TEDGP) commenced the development of software to enable secure electronic messaging between health providers approximately eight years ago. The original innovative idea of the software, called Argus, was to fully integrate with the clinical desktop software packages to ensure maximization of business continuity in the clinical care environment and enhancement of clinical communication.

TEDGP commenced installing ArgusConnect software into the providers in the Top End region of the Northern Territory in September 2005 and currently there are over 115 health providers engaged in the messaging service in the private sector including the pathology providers as well as the public hospitals in the Northern Territory. The Point to Point service also links with the Northern Territory's Shared Electronic Health Record[1]

In addition, the Point to Point Service is undertaking the first electronic transfer of prescriptions trail in Australia which further enhances the comprehensiveness of the electronic messaging service. The implementation strategy has been developed in conjunction with the pharmacy, general practice and community sectors to ensure a smooth transition of the technology into the clinical environment as well as consumer acceptability.

Methods

The model chosen by the Northern Territory government was to entirely contract out the implementation of the Point to Point and Electronic Transfer of Prescriptions Service to the Top End Division of General Practice with an implementation pathway driven by the primary health care sector needs. Divisions of General Practice in Australia are uniquely placed in the primary health care sector as by the nature of their work, they have developed long standing working relationships with the multiple parties and providers across both the private and public sectors as well as engaging with the acute care hospital sector.

This choice of eHealth implementation provider is consistent with the findings outlined by Sittig[2] and findings of the Connecting For Health in the United Kingdom[3] which emphasizes the importance of clinician involvement and support by senior organizational management in e-health implementation to ensure that the e-health is driven by clinicians and not by technology.

Results

Over fifty health care sites have been connected by the point to point service with over 115 providers receiving electronic communications. General Practices are receiving and sending over 500 messages per week. The implementation of the Point to Point Service in the Northern Territory is achieving the following major outcomes:

- *Enhanced clinical Communication through standardized clinical messages*- single, comprehensive e-

messaging service with standardized templates for referral management and receipt of electronic communications;

- *Integrated model of care supported through referral management services, diagnostic results reporting and electronic transfer of prescriptions* – improved quality and safety in clinical practice with improved business performance, reductions in duplication and transcription errors and reduction of medication errors and misadventure.
- *Passing the Patient Safely Back to their Community* – the generation of electronic discharge summaries for inpatient and Emergency Department attendances.
- *Breaking Down the Distance Barriers by Improving the Co-ordination and Delivery of Health Services to Indigenous Populations* – engagement and maximisation of health providers participating in the point to point service, targeting remote indigenous communities, Aboriginal Medical Services operating in remote and major urban centres and small regional centres and towns across the Territory;
- *Establishment of the first electronic transfer of prescriptions in the aged care sector enabling streamlined prescribing, dispensing and administration of medications between a pharmacist, GP and aged care facility* - Prescriptions and aged care facility medication charts are both sent electronically and digitally signed.

Discussion

TEDGP was established in 1994 and thus has over 10 years experience building relationships with general practitioners and the broader primary health care providers. This enabled the implementation pathway of e-messaging to be driven through primary health care sector needs where the majority of e-messaging between independent clinicians and health organizations occurs on a daily basis

Critical success factors for implementation have been:

1. TEDGP implemented the point to point service under a capacity building model which developed Information Management (IM) Culture and Infrastructure within a general practices. Principles included assumption of little IM integration into general practices; Support of clinical leaders to assist other clinicians; Drawing together all IT/IM initiatives in the primary health care sector; and Linking IT/IM with patient care outcomes especially in chronic disease management.
2. Clinician participation in the development of innovative software that is functional within the complex health care environment and is acceptable to busy clinicians in both urban and rural settings;
3. Ensuring that the Point to Point Service was comprehensive and captured all e-messaging needs of the clinicians. Early work was needed to obtain agreement between the multiplicity of health care providers to proceed with implementing P2P within their environment;
4. Working closely with the Australian government on changes to the legislative and regulatory frameworks that govern health to permit electronic communication as a legally acceptable documentation pathway.

Conclusion

The Health*Connect*NT Point to Point and ETP Service implementations will continue to build on the successful development and implementation of its e-messaging service. The Northern Territory's HCNT Point to Point and Electronic Transfer of Prescriptions Service implementations are the most advanced Health*Connect*NT service implementations of their kind in Australia in terms of range of services, service coverage, provider and consumer participation. There is clear evidence that providers have embraced the concept of e-clinical messaging with sites receiving increasing number of messages and continuing requests from providers to be connected to the point to point service. There is also clear evidence of potential benefits in community medication management in reducing medication errors and misadventures for consumers and streamlining work processes and improving workplace productivity for GPs, pharmacists, other health providers such as those working in indigenous health organizations and aged care facilities. There is realization of benefits for a highly mobile Indigenous population through improved co-ordination and quality of health service delivery spanning vast distances, in some of the remotest areas in Australia. In conclusion, the Health*Connect*NT Point to Point and Electronic Transfer of Prescription Service is now demonstrating the impacts and benefits that may be realized in clinical practice across the primary health sector through innovative e-health reforms

References

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