

Wireless Based Remote Monitoring And Diagnostics

Increasingly healthcare providers are pushing key elements of the care process out to the edge of their healthcare networks. In the future patients will be cared for in their own homes or a GP's surgery rather than in expensively equipped hospital. Healthcare has followed other sectors, such as financial service and retailing, in the separation of key customer facing operations from bricks and mortar infrastructure. The logic driving this transformation is that patients consume more resources the closer to the centre of the healthcare providers network they receive treatment or care. As wireless technology increases flexibility at the edge of networks it has a key role in this new healthcare delivery model and could support a number of disruptive processes within the healthcare sector.

There are a range of issues to take into consideration when implementing the remote healthcare model. Most important is that, currently, the patient is being pushed away from healthcare providers bricks and mortar rather than intercepted on their journey into the centre of the care network. This is due to the limitations of the current ehealth model, which is focussed on remote care rather than remote diagnostics. The model itself is a reflection of what is possible given the current state of healthcare IT and the market for ehealth services.

The current ehealth model supports the collection of a limited range of vital signs data. There is some analysis on this data and the model does provide a degree of remote support for the patient. However, the analysis of vital signs data is carried out by medical personal and the support is provided via a call centre. This means that the model will not scale to deal with large numbers of patients. Missing, is the intelligence that would enable the ehealth service to automatically provide care and spot short and long term trends that indicate a person, who is not yet a patient experiencing, or is likely to experience, problems.

A new ehealth model is emerging based on a wider range of devices, automated analysis of vital signs data and feedback to the patient or their carer. A number of vendors – in particular IBM and Oracle – are developing technology that will add intelligence and diagnostic functionality to the ehealth model. At the same time manufacturers are attempting to push wireless medical devices into the consumer electronics market. The resulting model will be one that scales easily and can intercept a person at risk before they enter the healthcare system.

This report examines the impact an ehealth model based on automated remote diagnosis will have on the healthcare, IT and communications market. This report also describes what is needed in respect to both technology and marketing to turn the current ehealth model into a service that works as a truly disruptive tool within the healthcare sector.

At A Glance

Healthcare providers are pushing key elements of the care process out to the edge of their healthcare networks.

As wireless technology increases flexibility at the edge of networks it has a key role in any new, disruptive, healthcare delivery model based on remote diagnosis.

The current ehealth model lacks the intelligence that would enable it to identify trends that indicate a person is at risk of becoming ill.

Automated remote diagnosis requires specialised electronic patient record systems, communications infrastructure and advanced software.

New ways of bringing advanced ehealth services to the market are required if remote diagnostics are to be delivered to people currently not served by incumbent healthcare providers.

Remote diagnostics have applications in the detection and monitoring of epidemics and other threats to public health.

In this report Card Guard, Vitaphone, IBM, Toumaz Boots Healthcare, Oracle, Broomwell Healthwatch, Qualcomm and CardioNet.

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Overview

1 Introduction – An Ideal eHealth Model

2 Barriers To Adoption

3 The Current eHealth Model

- 3.1 Limitations Of The Current Model
 - 3.1.1 Devices
 - 3.1.2 Data Pipes
 - 3.1.3 Automated Response And Diagnostics
 - 3.1.4 Marketability

4 A Typical eHealth Service

- 4.1 Working Within Limits
 - 4.1.1 Limit The Range Of Diagnostic Tests
 - 4.1.2 Employ Simple Communications Platforms
 - 4.1.3 Build Own Patient Record Systems
 - 4.1.4 Adopt Call Centre Based Model
 - 4.1.5 Partner With Health Insurers
- 4.2 The Absence Of Disruption
 - 4.2.1 Working In A Heavily Regulated Market
 - 4.2.2 Limitation Of Call Centre Based Models

5 eHealth As A Disruptive Process

6 Boots eHealth - A Missed Opportunity?

7 A New Model And New Challenges

- 7.1 Taming The Device Market
- 7.2 Improving Data Transport
- 7.3 Deploying Electronic Patient Records
- 7.4 Moving Beyond The Call Centre
- 7.5 Bringing Remote Diagnosis To The Market

8 Epidemic Monitoring And Control

9 Conclusions

10 Vendor Profiles

- Qualcomm
 - Card Guard
 - Vitaphone
 - Broomwell Healthwatch
 - Oracle
 - IBM
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