Good eHealth project.

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A presentation by
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Good eHealth project.
Thrombosis Digital Logbook – The Netherlands
“How can you support self management, increase patient compliance and make evidence based treatments accessible for everyone in need for it?”
Thrombosis Digital Logbook: background

• Self management of diseases
• Patient involvement supports patient compliance
  – Good organisation of anti-coagulant care (accessibility – safe)
  – Make evidence based treatments accessible for all patients in need for it
  – Increase quality of care
• Care organisation in chains:
  Information exchange between health care professionals
  – Need for multi user electronic patient files
  – Supported by a web based application (patient participation)
  – High flexibility – low cost
Thrombosis Digital Logbook: what is it about?

• Traditional way of treating
  – Blood tests & analysis in a laboratory (average 18 / year) – medication based on this tests

• New way of treating
  – Patients perform blood analysis at home
  – Thrombosis services still bear medical responsibility
  – Reimbursement of the use of home monitor equipment by health insurance companies since 2002
  – Need for a new communication structure with the patients: creation of a web medical record for self-monitoring patients: thrombosis digital logbook
    ▪ Up to date medical patient record
    ▪ Functions to perform the medical supervision (entering new blood values – calculation under protocol of a new dosing scheme)
    ▪ Communication tool
      ➢ Patients have direct access to a secure part of their own medical record through the Internet
      ➢ Exchange of free text messages, becoming part of the medical patient record
Thrombosis Digital Logbook: funding & standards

• Funding
  – Start up: partly funded by one health insurance company
  – Now funded by regular health insurance schemes

• Standards
  – Digital Logbook: HL 7 standards
  – Link with laboratory and hospital information systems
Milestones

• Start of planning: 2002
• 1st milestone
  – 2002: Selling the application to Thrombosis Centres
• 2nd milestone
  – Market share of 40 % in the anticoagulation market in the Netherlands
• 3th milestone
  – Exporting the Digital Logbook for Anticoagulation to the German market
Results: outcomes & wider impact

• High patient satisfaction
  – Self monitoring makes the patients feel less patient-like
  – Patients experience more freedom
  – Patient empowerment through self management

• High care provider satisfaction (staff of the Thrombosis centres)
  – Self monitoring enriched the contacts with patients
    ▪ Personal contact during training days
    ▪ Quarterly check up
  – Number of patients nurses are able to treat, increased by 100%.

• More than 5,000 patients use the Digital Logbook

• Acceptance of the ASP web based model in the health market

• Treatment
  – Coaching of patients in a high quality and cost effective way
  – Coaching a self monitoring patient using the Digital Logbook (5 hours / year) versus supervision using traditional infrastructure (10 hours / year)
  – Accessibility for patients
  – Patient compliance
Success & failure factors

• **Success factors**
  – Cost effectiveness
    ▪ Less administrative work
    ▪ Effective communication (anywhere, anyplace, anytime)
  – Independence and freedom of the patient
  – Standardization by use of the HL7 standards

• **Failure factors**
  – Limited training capacity
More information needed?

• Visit the eHealth website at http://www.good-ehealth.org

• Visit the Portavita website at http://www.portavita.nl/bedrijf/antistolling.html
Good eHealth project.

Telecardiology in Italy: benefits from a telemedicine network connecting chronic patients, general practitioners and health provider organisations.
“How can you convert evidence from clinical trials & research into practice?”
Telecardiology in Italy: background

• **Up to 1998**
  – Patient with signs and symptoms of a heart problem or known CVD relied on conventional health services from GP’s and hospitals
  – Problems identified
    ▪ Access to cardiology services
    ▪ High number of inappropriate hospital or emergency department admissions

• **Boario Home care project, Lombardy, 1998 (applying new models of disease management and technology)**
  – Realisation of a telematic network for the GP’s in a mountain region in Lombardy
  – Monitoring services 24 h / day, using mobile electrocardiographer
  – Expansion of the project thanks to successful results (reduced hospital readmission and improved quality of life)
Telecardiology in Italy: benefits from a telemedicine network connecting chronic patients, GP’s and Health Provider organisations

Appropriate access to healthcare based on needs
Telecardiology in Italy: what is it about?
Three types of telecardiology services

• Teleconsulting: rapid second opinion for GP’s
  – Telecardiology provides electrocardiogram information earlier compared to conventional appointments
  – The service links GP’s to cardiologists to provide access to specialist advice, as needed
    ➔ Faster and more appropriate access to treatment and therapy when needed

• Home telenursing for chronic patients
  – Telecardiology is used by patients in their home to collect data about the performance of the heart.
    ➔ Data transmission to medical and nursing staff for review and response

• Call centre service for hospitals
  – Terminals in university and public hospitals linked with service centre
  – Service centre provides technological and organisational support, 24h/ day.
  – Healthcare activity is managed by the hospital’s cardiologists and nurses, and by HTN.
Milestones

• Start of planning: 1997
• 1st milestone: 1998
  – Health Technology Network (HTN) and the Fondazione Salvatore Maugeri set up service in 1998
  – Boario Home care Project: telecardiology network for GP’s in a mountain region in Lombardy.
• 2nd milestone: 2005
  – Extention of the service to patients and hospitals across the Lombardy region.
• 3rd milestone: 2006
  – Roll out to providers and patients of the entire Lombardy region (new broadband technologies, web services and an innovative teleworking model)
Results: outcomes & wider impact

• Benefits in access to Health Care
  – Faster and more appropriate access to health care for citizens who are unaware of their emerging chronic heart disease

• Benefits in quality of Health Care
  – Fewer unnecessary hospital visits for those citizens who don’t need hospital visits
  – Enables GP’s to respond more rapidly to changes to therapies that are needed by their patients
  – The links to hospitals enable cardiac second opinions and electrocardiogram data to be collected as close to patients’ homes as possible

• Economic benefits
  – Period 1998 – 2012: increasing and sustainable net benefit to patients, GP’s and hospitals
  – Economic return (net benefits to cost ratio) over 15 years of 230 %
  – Estimated annual cost benefit ratio 3,3 : 1 by 2012
  – According to eHealth impact evaluation: 31 % of direct benefits are for citizens versus 69 % for healthcare provider organisations.
Success & failure factors

• Success factors
  – Design of the telecardiology services follows the needs of physicians and patients
  – 1998-2004: telecardiology service supported extensively by research activities

• Failure factors
  – 2004: research programmes involving GP’s stopped
    ▪ Voluntary participation: decrease in the number of GP’s using telecardiology by about 55 %, from 842 to about 374, in 2005
    ▪ Number of hospitals using telecardiology increased from 11 to 15
  – Authorities decision in 2005 to reimburse the service across the region: numbers began increasing again.
More information needed?

• Visit the eHealth website at http://www.good-ehealth.org

• Visit the http://www.e-htn.it/home.htm website
Your contribution!

Report your eHealth achievements by visiting the project website at www.good-ehealth.org
If you have further question on the study, please do not hesitate

- to visit the project web site at [www.good-ehealth.org](http://www.good-ehealth.org)
- or pick up our project brochure
- or contact the project team at [info@good-ehealth.org](mailto:info@good-ehealth.org)
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