MOMENTUM CONSORTIUM MEETING

Critical Success Factors
KSYOS Telemedical Center
The Netherlands, UK, France, Spain, Norway

Athens, May 15th, 2014
Leonard Witkamp

Former dermatologist

Director KSYOS TeleMedical Centre

Professor in TeleMedicine
University of Amsterdam
by appointment of the
Royal Dutch Medical Association

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www.KSYOS.org
KSYOS TeleMedical Centre

Delivers healthcare service only with the means of IT (eHealth)

250,000 KSYOS TeleConsultations prevented
180,000 physical referrals since 2005
KSYOS TeleMedical Centre

- KSYOS Health Management Research founded in 2000
- KSYOS TeleMedical Centre founded in 2005
- TeleConsultation since June 2005
- May 2014: over 3,500 GP’s and 2,500 Medical Specialists/Paramedics
- May 2014: over 250,000 TeleConsultations, 100,000 in 2013
- Contracts for TeleDiagnosis, TeleConsultation and TeleMonitoring
Health Management Practice model

- Phase 1: Service Development
- Phase 2: Usability research
- Phase 3: Efficiency research
- Phase 4: Scale up

- Critical Success Factors (CSF) as per Phase

- Entrepreneurial view: public – private cooperation
Phase 1. Development

Phase 1A Concept development

- CSF 2 Ensure leadership, starting with *yourself* (champion=*you*)
- CSF 7 Translate *vision and mission* into your business plan
  - CSF 1 (readiness), CSF 3/5 (need), CSF 9 (*user* at the centre)
  - CSF 10/11 (legal, advice), CSF 18 (scale up)
- CSF Translate your *creative* idea into a *practical* concept
- CSF Identify your client and influencers
- CSF 4 Put together the resources needed for deployment
  (“there is little I don’t do to get money”)
- CSF Take risks, be intuitive and be entrepreneurial
Phase 1. Development

Phase 1B Service development

- CSF Ensure your service to be the *best in the market*
  - medical content
  - organisation
  - ICT

Beware of “false” arguments and of perfectionism
TeleDermatology Consultation
Consultant Dermatologist’s report

Description of findings: Erythematous quamous pityriasisiform, partly ove micules end plaques on trunk and arms, partly excoriated.

Diagnosis: Pityriasis rosea (working diagnosis).
DD: Pityriasis lichenoides acuta/chronica

Additional questions: How was the time relation to the consumption of gambas? (gambas usually give a type IV allergic reaction with urticaria and swelling of.)

Heals spontaneously, eventually shortly betametasone ointment 10d for 1 week for itch, then tapering off. Bloodtest: Lues

GP’s response
Answer/question: Time reaction: 8-12 hours after eating gambas

Comments

Consultant Dermatologist’s response

Treatment recommendations: Allergic reaction no; probable

Comments

Test Hospital - Test Consultant

Medication

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Referral letter

Comments: N5: I did not make a test on fungi.

Close
Phase 2. Usability research

Phase 2A. Internal testing

- CSF 14 Ensure that your own IT and eHealth infrastructures are in place
- CSF 15 Ensure that the technology is safe and user friendly
Phase 2. Usability research

Phase 2B. External testing

- CSF 6  Involve health care professionals and decision-makers
  Public – private cooperation
- CSF 15 Ensure that the technology is safe and user friendly
Phase 3. Efficiency research

- **CSF**  Proof of concept
  - Quicker care
  - Better care
  - Close to the patient
  - At lower costs
Results TeleConsultation

- 74% of all live referrals are prevented after selection by GP
- Average response time 4.6 hours (median < 2 hours!).
- 20 - 40% cost reduction in short term (long term >>).
- Quality improvement and learning effect.
Teledermatology applied following patient selection by general practitioners in daily practice improves efficiency and quality of care at lower cost

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Summary

Background Teledermatology, the application of teledermatology in the field of dermatology, has similar accuracy and reliability as physical dermatology. Teledermatology has been widely used in daily practice in the Netherlands since 2005 and is fully reimbursed.

Objective This study prospectively investigated the effect of teledermatology on efficiency, quality and costs of care when integrated in daily practice and applied following patient selection by the general practitioner (GP).

Methods Teledermatology consultations between GP and regional dermatologists were performed in daily GP practice in the Netherlands. Efficiency of care was measured by the decrease in the number of physical referrals to the dermatologist. Quality of care was measured by the percentage of teleconsultations for second opinion, physical referrals resulting from these teleconsultations, the response time of the dermatologists and educational effort experienced by the GP. Costs of conventional healthcare without teledermatology were compared with costs with teledermatology.

Results One thousand, eight hundred and twenty GPs and 166 dermatologists performed teledermatology, and 37 287 teleconsultations performed from March 2007 to September 2010 were included. In the group of patients where the GP

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Conflicts of Interest
J.P. van der Heijden is employed (part-time) by KSYOS Teledermatology Centre, and L. Witkamp is the Director of KSYOS Teledermatology Centre. The remaining authors have no conflicts of interest.

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Phase 4. Scale up

- **CSF** *Focus your service* to your target audience
  - Old-fashioned marketing and *communication*
- **CSF 8** Implement a change management plan
- **CSF 16** Actively monitor the service
- **CFS** *Contract* health workers and health payers
  - **CSF 17** Maintain good practices in vendor relations
  - **CSF 12** Apply relevant legal and security guidelines
    - Medical liability/relation with the patient
  - **CSF 13** Ensure that telemedicine doers and users have privacy awareness (informed consent)
- **CFS 2** Ensure leadership in the field
- **CSF 14** Ensure that IT and eHealth infrastructures are in place
- **CFS 18** Scale up: expansion models and service adaptation
KSYOS Telemedisch Centrum

is erkend voor de volgende dienstverlening:

het als zorginstelling leveren van TeleEerstelijnsDiagnostiek, TeleConsultatie en TeleMonitoring met bij haar aangesloten huisartsen, medisch specialisten en paramedici ten behoeve van haar patiënten.

De certificatieperiode loopt van 6 november 2012 tot 6 november 2013
De eerstvolgende toetsing moet plaatsvinden vóór 6 augustus 2013

Namens de Stichting Quality Assurance E-health,
6 november 2012

Voorzitter,

Ernst W. Roscam Abbing

De erkenningsregeling QA EHealth is gebaseerd op de NEN 8028 (Medische informatica – Kwaliteitseisen telemedicijn)
KSYOS TeleMedical Centre

- Health institution
- Service definition: medical, stakeholders, organization
- KSYOS HER
- Digital camera’s, ECG, OCT and others
- Education, onsite training, helpdesk, monitoring
- Contracts, informed consent, liability insurance
- Administration and finance
- Reporting quality indicators
- R&D
- Marketing
KSYOS TeleDermatology
**KSYOS TeleCardiology**

![TeleCardiology Image]

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KSYOS TeleMedical Centre

eHealth is regular care with the use of IT

TeleMedicine = Medicine

Goal: eHealth is a temporary phenomenon
Cooperation?

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