



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

l.witkamp@KSYOS.org

www.KSYOS.org

KSYOS



KSYOS TeleMedical Centre

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

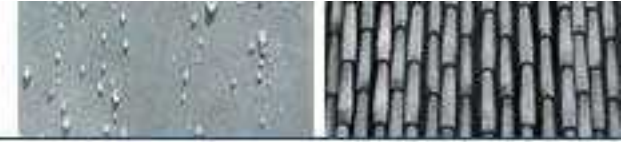
250.000 KSYOS TeleConsultations prevented

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

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TeleDermatology Consultation





Welcome

New Consultation

Open Consultation

Closed Consultation

Settings

Logout

Consult

Patient data

First name(s)

Surname *

Testperson

Gender *

Male Female

Address

Postcode/town

Date of birth *

01 - 01 - 1978

Email address

Telephone no.

NHS number *

1111111111

Permission for this TeleConsult * Patient has given consent

Medication

no.	Type	Dosage	Since
1			
2			
3			

Photos



Delete



Delete



Delete



Add

Referral letter

Referral reason: gambas. Not familiar with allergies. Locoidcreme didn't help. Exanthema and annular desquamation: DD: allergy or pityriasis versicolor?

Comments: NB: I did not make a test on funghi.

Institution * Test Hospital

Consultant Test Consultant,

Save

Save and Send



Welcome

New Consultation

Open Consultation

Closed Consultation

Settings

Logout

Consult

Patient data

1111111111

01-01-1978

Female

Testperson

Photos



Referral letter

Ref. reason Itchy torso and arms, after consumption of gambas. Not familiar with allergies. Locoidcreme didn't help. Exanthema and annular desquamation

Comments NB: I did not make a test on funghi.

Test Hospital - Test Consultant

Medication

no.	Type	Dosage	Since
1			
2			
3			

Consultant Dermatologist's report

Description of findings Erythematousquamous pityriasiform, partly ova macules and 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

Treatment recommendations

Heals spontaneously, eventually shortly betametason ointment 1dd for 1 week for itch, then tapering off. Bloodtest Lues

Do you need to see this patient urgently Yes No

GP's response

Answer/question Time relation: 8-12 hours after eating gamba's

Comments

Consultant Dermatologist's response

Treatment recommendations Allergic reaction no: probable

Comments

Close



Phase 2. Usability research

Phase 2A. Internal testing

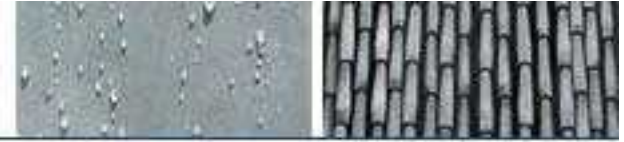
- CSF 14 Ensure that *your own* IT and eHealth infrastructures are in place
- CSF 15 Ensure that the technology is *safe and user friendly*



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.



Tele dermatology applied following patient selection by general practitioners in daily practice improves efficiency and quality of care at lower cost

J.P. van der Heijden, N.F. de Keizer,* J.D. Bos, P.I. Spuls and L. Witkamp†

Departments of Dermatology and *Medical Informatics, Academic Medical Centre, University of Amsterdam, PO Box 22700, 1100 DE Amsterdam, the Netherlands

†KSYOS TeleMedical Centre, Amstelveen, the Netherlands

Summary

Correspondence

J.P. van der Heijden

E-mail: j.p.vanderheijden@amc.uva.nl

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Conflicts of interest

J.P.v.d.H. is employed (part-time) by KSYOS TeleMedical Centre, and L.W. is the Director of KSYOS TeleMedical Centre. The remaining authors state no conflict of interest.

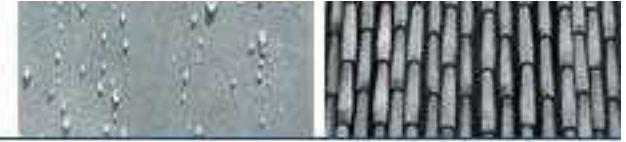
DOI: 10.1111/j.1365-2133.2011.10509.x

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

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

Methods Tele dermatology consultations between GP and regional dermatologist 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 tele consultations for second opinion, physical referrals resulting from these tele consultations, the response time of the dermatologists and educational effect experienced by the GP. Costs of conventional healthcare without tele dermatology were compared with costs with tele dermatology.

Results One thousand, eight hundred and twenty GPs and 166 dermatologists performed tele dermatology, and 37 207 tele consultations performed from March 2007 to September 2010 were included. In the group of patients where the GP



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



Certificaatnr.126835

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





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

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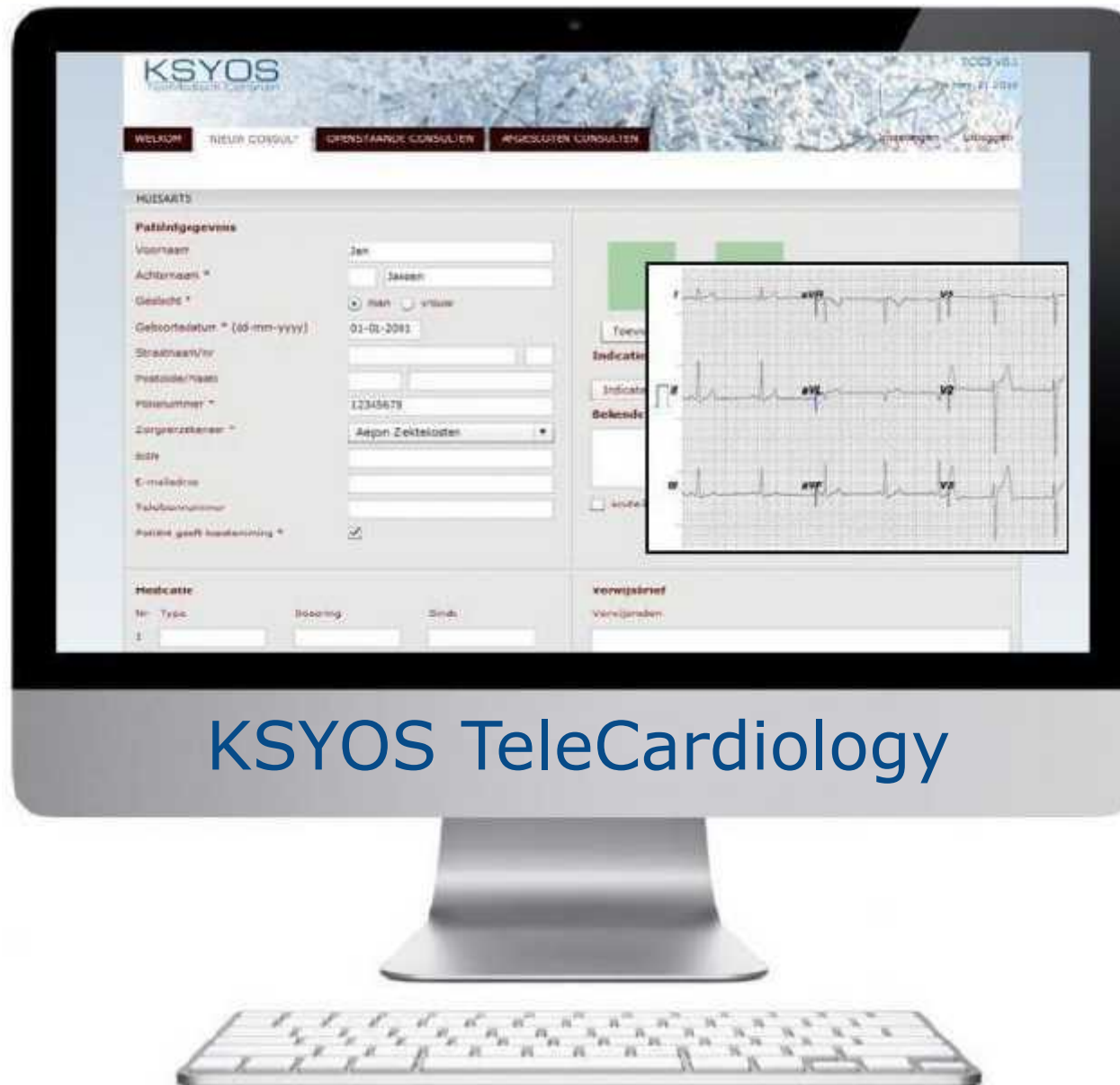
The computer monitor displays the KSYOS TDCS web application. The interface is in Dutch and includes a sidebar with navigation options: Welkom, Nieuw Consult, Opendeende Consulten, Afgelopen Consulten, Instellingen, and Mappen. The main content area is titled 'Consult' and 'Extra informatie NA'. It contains a patient information form with fields for: Patient gegevens (Name: Jan, Surname: Jansen, Gender: Man, Date of Birth: 01-05-2005, Telephone number, PIN, Polysnummer: 12345678, and Insurance status: Overig (niet bekend) - JIN), Foto's, and a table for prescriptions (Prescriptie) with columns for number, type, quantity, and date. A 'Zorginstelling' dropdown menu is also visible.

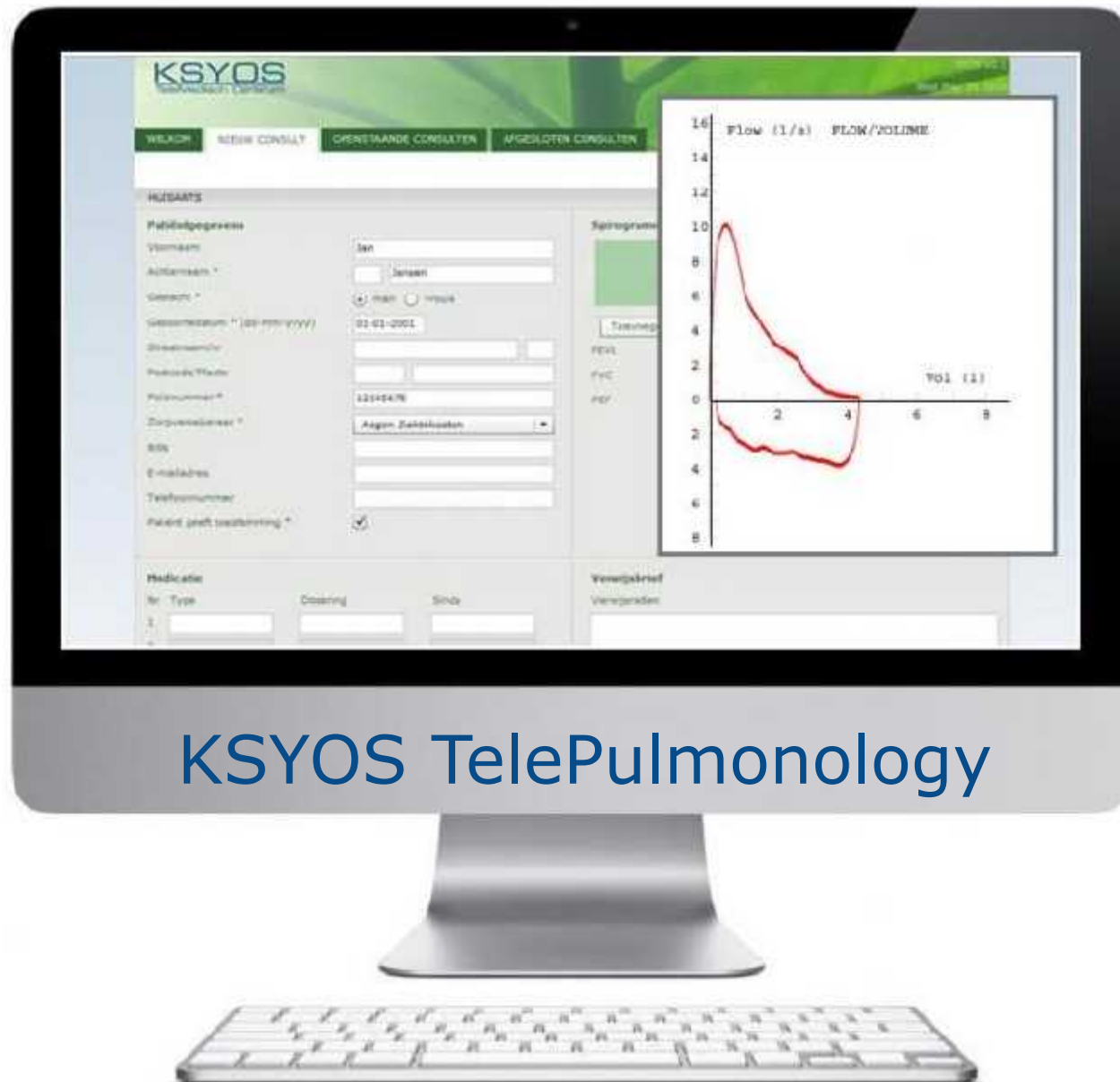
KSYOS TeleDermatology





KSYOS TeleOphthalmology





KSYOS TelePulmonology



KSYOS TeleMedical Centre

eHealth is regular care with the use of IT

TeleMedicine = Medicine

Goal: eHealth is a temporary phenomenon



Cooperation?

Leonard Witkamp

l.witkamp@ksyos.org

+31-206000060

+31650650196 (mobile)