Virtual Patient Clinic

Research, Development and Produktion - Made in Germany by IOM
Virtual
Congestive Heart Failure (CHF) Clinic
and
Virtual Hypertension Clinic
A part of ‘e-health service’
Contents

• Congestive Heart Failure (CHF)
• Concept of Virtual CHF Clinic
• Overview
• Examples
• Experience
What is Congestive Heart Failure

• Insufficient circulation function of the heart
• Haemodynamic imbalance: body retains more fluid (e.g. in the lungs): breathlessness, oedema
• Decompensation: hospital admission
• High cost
• Emotional stress
• Monitoring vital signs is key
Virtual CHF Clinic

• Virtual CHF Opportunity
  – 30% cost reduction
  – 54% mortality reduction

• Success factors:
  – Easy use for patient
  – Intelligent management of vital signs
  – Attention to compliance and adjustment
Course of the program Coronary Heart Failure and persons concerned

- Increase of Compliance due to constant self control with Feedback
- Reduction of the „stay in hospital“ and increase of the Therapy efficiency
Measurement devices
Virtual CHF Clinic

• Daily measurement of weight and bloodpressure under normal conditions
• Automatic transfer of data to mobile phone
• Mobile phone automatically sends anonymised SMS to ROS
• Transfer of anonymous data to central server by http/s link
Virtual CHF Clinic

• Patient and MD can view measurement data on www
• Presentation in tables and graphical plots
• MD can set automatic alerts
  – Min/max values
  – Frequency values
  – Alerting by fax, email or SMS
...because we care

ROS

e-health platform

Alerting

e.mail

FAX

SMS

Measurement values

www.ehealth.apc.nl

Patient data

Alert – setting

Alerts

Bluetooth

SMS

SERVER

www.ehealth.apc.nl

Schematic overview
Example: reviewing patient data
Example: alerting report

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Name: Kees Hoetemans
Patient ID: 12311
Timespan: 05/03/15 - 05/09/15
Measurements: 20
Average: sys 126mmHg, dia 82mmHg
Date: 05/09/15

For the above given patient, an alert has been generated because of the following conditions:

- NIBP values have reached alarm criteria.

More information can be found at [http://www.enhealth-lim.de](http://www.enhealth-lim.de)

Profile for last month:

- Sincerely,
  - Your I.E.M. Service Team
Experiences

• Easy use for patient and MD
• Perceived safety of being connected
• Active self management improves therapy compliance
• Less hospital admission leads to cost reduction (35%) and less emotional stress for patients
• Early awareness of hemodynamic imbalance improves patients chances
Any Questions?