TELECOACHING FOR CARDIOVASCULAR RISK FACTOR CONTROL IN THE ELDERLY

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DIGITAL HEALTH ERA

Definitions:

- **Telemonitoring** - transfer of physiological data through transmission technologies
- **Telecoaching** - provision of advice at distance
- **Social interaction**
- **E-learning** provision of medical educational information
DIGITAL HEALTH ERA

Telecoaching services provision

SMS
Email
Telephone support
Website
mHealth app

Manually
Medical personnel

Semi-autonomous
Rule based

Machine learning/AI system
ROLE OF AI IN CVD

CENTRAL ILLUSTRATION: Role of Artificial Intelligence in Cardiovascular Medicine

Research and Development
- Novel Therapeutic Agent Discovery
- Precision Disease Stratification

Clinical Practice
- AI-aided Diagnosis
- Therapy Selection

Population Health
- Optimized Resource Allocation
- Continuous Remote Monitoring and Diagnostics
- Integration of Multi-omic Data
- Extension of Physician Efficiency and Efficacy

Artificial Intelligence

There are wide disparities across Europe in the number of cardiologists per million people. Greece and Georgia have the highest number, respectively, at 277 and 266 cardiologists per million people.
Virtual Coaching Activities for Rehabilitation in Elderly
Started 1 September 2017
Length 48 months

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OBJECTIVES
## SPECIFIC VC FUNCTIONS

<table>
<thead>
<tr>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>CARDIOVASCULAR FITNESS IMPROVEMENT</td>
</tr>
<tr>
<td>MEDICATION ADHERENCE</td>
</tr>
<tr>
<td>WEIGHT CONTROL</td>
</tr>
<tr>
<td>SMOKING CESSATION</td>
</tr>
<tr>
<td>ALCCHOOL CONSUMPTION CONTROL</td>
</tr>
<tr>
<td>ANXIETY AND DEPRESSION</td>
</tr>
<tr>
<td>PATIENT HEALTH EDUCATION</td>
</tr>
</tbody>
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HOW WILL WE DO IT?

Feedback & Serious games

Virtual coach, machine learning and knowledge integration

Unambiguous location & fall detection

Activity and Health Monitoring

Contextualisation
ROLES

Medical team
• Participates at the configuration of the initial patient’s profile
• Is notified in case of abnormal prolonged evolution or emergencies
• can update the patient profile, if changes are needed

Virtual Coach:
• reminds the patient daily to follow his rehabilitation plan –with dynamic adaptation depending on patients adherence
• monitors patient’s activity by controlling risks (monitor hazards), detecting change in emotional state and in motor activities trends
• it collects information through verbal interactions, gives feedback to the patient on his/her performance and adapt some treatments automatically

Family members
are notified by the VC in case of lack of medication adherence, recurrent bad mood, not respecting the rehabilitation plan.
NEXT STEPS...
Thank you

www.vcare-project.eu