CARE4VALUE

A CLINICAL INSTRUMENT DATA COLLECTION PLATFORM FOR LONG-TERM CARE UNITS

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AGENDA

• Introduction
• Care4value – Specific and Technical Goals
• THE CARE4VALUE ECOSYSTEM
  • Mobile Application
  • Dashboard
• Conclusions and Future Work
INTRODUCTION

• Costs in Healthcare are a major concern – tend to rise!
• Healthcare Units need to monitor and visualize costs and gains
• Daily usage of clinical instruments’ data (scales)
• Assess the clinical condition of a patient

CARE4VALUE GOALS

• Predictive measurement of costs based on the clinical condition of a patient
• Data collection >> Mobile Application + Clinical Support System
## CLINICAL CONDITION – Clinical Instruments / Scales

<table>
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<tr>
<th>Physical</th>
<th>Spirituality</th>
<th>Social</th>
<th>Mental</th>
</tr>
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</table>
| • Barthel Index  
• Braden  
• MUST / MNA  
• Skin Integrity Screening Question / Pressure Ulcers  
• Charlson Comorbidity Index  
• Pain (Numeric Rating Scale) | • “Escala de Avaliação da Espiritualidade” (Spirituality Scale) | • Gijón  
• Family Relationship Scale | • Depression Screening Question  
• Mini-Mental State Examination |

* EQ-5D e Zarit Burden Interview
CARE4VALUE – Specific Goals

- Enhance value creation in Long-Term Care (LTC) providers
- Pilot project = intervention to be carried out in a specific LTC unit
- Categorization of patients within different levels of clinical condition
- Predict the direct impact (cost) of the patient’s care
- Support decision making by top level management and practitioners
CARE4VALUE – Technical Goals

• Centralized data model

• Data collection through:
  • a tailored **mobile app**;
  • and manual import of existing data in the available clinical systems.

• Analysis and reporting through a **dashboard**, revealing the relationship between costs and health outcomes
THE CARE4VALUE ECOSYSTEM
THE CARE4VALUE ECOSYSTEM – Mobile Application

- List of clinical instruments (scales) that health professional needs daily
- Collects patient data and submits it directly to a centralized location
THE CARE4VALUE ECOSYSTEM – Dashboard

- Data visualization (export to known formats)
- Profiling of patients based on their clinical condition*
- Management of users and clinical instruments

* Patient’s cost estimation (at the end of the project)
CONCLUSIONS AND FUTURE WORK

• Ongoing project! But the platform is deployed and in use!

• The pilot-study phase is already helping to improve the developed ecosystem based on the obtained feedback

• The need to exchange data with other systems (interoperability) is one of the major security concerns in this project

• Valuable insights on the clinical monitoring of patients and their caregivers

• Add value to the visualization of the information

• Future: new features for the dashboard and other LTC locations
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