



Virtual Hospital: A new organizational model for personalized Telemedicine

Presenter

Gennaro Martucci, MD, PhD

Spoke8 – WP4, WP9

SAMOTHRACE 2nd Year:

Experimental Prototypes Demo Showcase

SAMOTHRACE PROJECT ECS00000022

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The Problem to be solved:

The increase in the average lifespan of the European population and, the exponential increase in the prevalence of debilitating chronic diseases doesn't match with the:

Current models of health care: typically predicated on intermittent follow-up of patients at pre-scheduled time intervals, are poorly suited to the identification and prompt treatment.

The new Needs are: Early diagnosis of the imminent worsening of the patient's clinical conditions, so as to implement timely strategies that prevent hospitalization and/or worsening further clinical conditions.

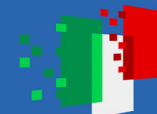
Target: Liver and Lung Patients. **FRAGMENTED TO CONTINUOUS CARE**



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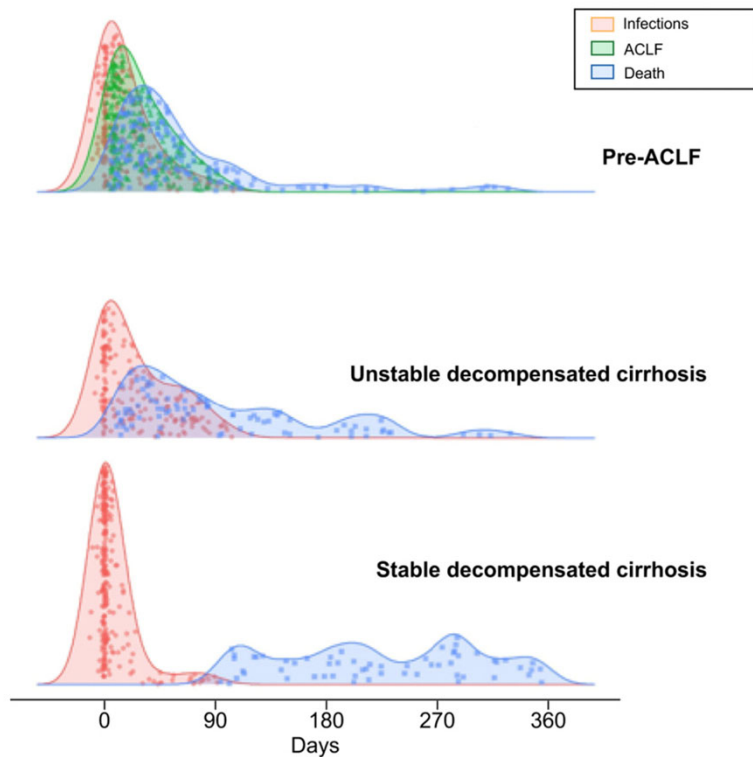
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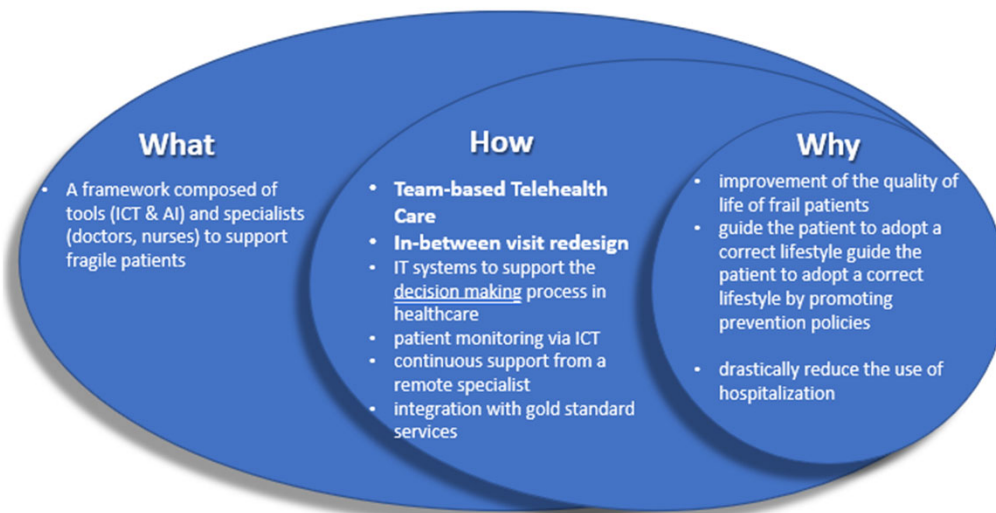
Clinical courses of Acutely decompensated cirrhosis :The new digital era in decompensated cirrhosis

Different clinical courses of acutely decompensated cirrhosis



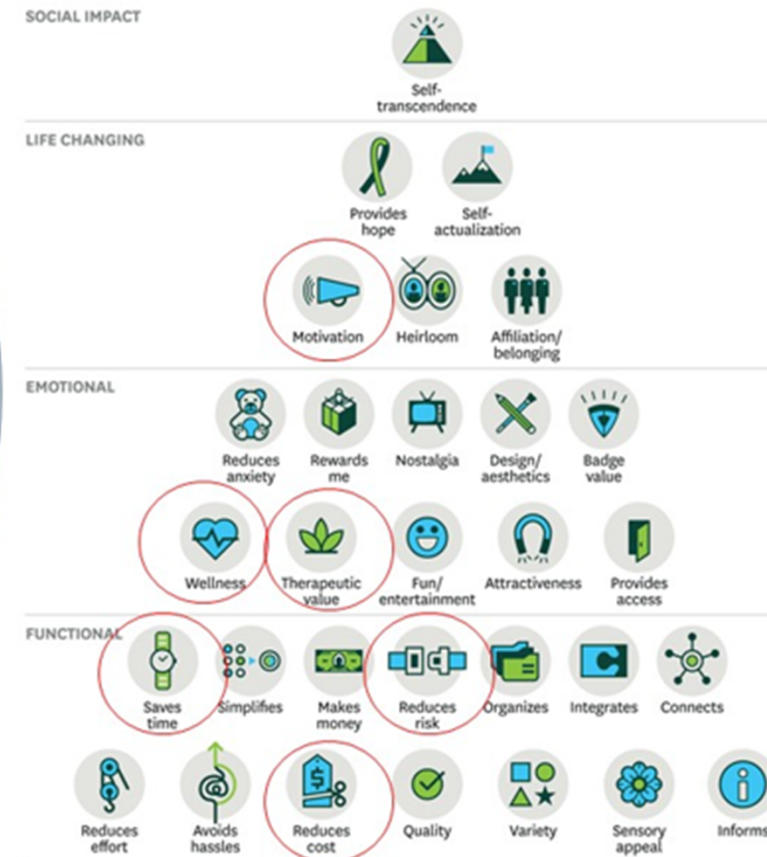
- Patients with severe chronic liver disease (CLD) are at risk of recurrent complications, such as hepatic encephalopathy, ascites, bleeding from esophageal varices, and hepatocellular carcinoma. These complications frequently occur during the transition from compensated to decompensated cirrhosis
- Given the substantial number of CLD-affected patients and the proliferation of causative factors, there is an imperative need to formulate strategies to optimize the follow-up of these patients, in order to reduce the risk of hospitalization in case of decompensation and to ensure the appropriate timing for liver transplantation

Our Solution: In-between Visit Redesign and new support for the clinical evaluation



The Elements of Value Pyramid

Products and services deliver fundamental elements of value that address four kinds of needs: functional, emotional, life changing, and social impact. In general, the more elements provided, the greater customers' loyalty and the higher the company's sustained revenue growth.



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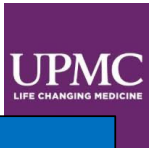


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Sicilian Micro and Nano Techn Research and In

Framework4frailty People – Liver&Lung



Team-Based Telehealth Care Structure

Medical Subject-Matter Expert (Cardiologist, Hepatologist, Pneumologist,...)

Telemedicine Expert (who develop the workflows for the in-between redesigned visit)

Patient Coordinator ("navigator" for the patients and for the medical staff)

Product Owner ("translate" clinical/medical needs into ICT requirements)

ICT Team for Technology Platform

External: Develop&Manage the ICT&AI Platform

Internal: Manage, prepare and preserve the Data (R&D, long term archive, data presentation,...) with data tool



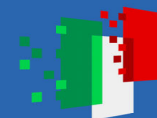
(*) Ecg, Balance (BMI,...), SpO2, Eeg, Feno, Spirometer, StroopTest, Handgrip



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Next Steps:

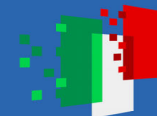
- Complete the first phase of Data Collection (end of April'25);
- Analyze the data to identify patterns, correlations, and insights, using visualizations and summary statistics to understand underlying trend(end of May'25);
- Choose and test an appropriate machine learning algorithm, split the data into training and testing sets, and train the model on the training data to learn the underlying patterns (end of June'25);
- Testing the solution and tuning.



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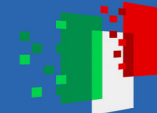
VISIT OUR DEMO BOX N. 39



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