NutriGuard
Integrated Application for Malnutrition Risk Assessment and Nutritional Intervention

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Description of the initiative

- **Background/Context:** According to a recent large-scale survey conducted in Slovak hospitals (8 hospitals, 752 patients), 64% of hospitalized patients were either malnourished or at risk of malnutrition. These alarming figures place Slovakia below the EU average. Slovak hospitals lack dedicated clinical dietitians and a structured methodology for nutritional care in most hospitals.
- **Rationale for the initiative:** SSPEV formulated recommendations for nutritional management and presented them to the Ministry of Health (MoH). The MoH has expressed its support and developed a project to legally establish the role of clinical dietitians. User-friendly online application could significantly accelerate implementation of proper nutritional care in hospitals and after discharge.
- **Objectives and scope**: To develop an online application for hospital healthcare professionals that will enable malnutrition screening, nutritional needs assessment and recommend nutrition intervention.

Planned activities & deliverables

1. Establish a working group (WG) to discuss all functions of the app: project team members, physicians specializing in nutrition, clinical dietitians, nurses, legal expert, representative of health insurance fund.
2. Select the right provider, program the app and run the pilot testing in target hospitals.
3. Promote the app through scientific societies, MoH, and social media.
4. Collect user data, evaluate the app's performance, publish findings and key outcomes.
5. Implement the app nationwide with MoH endorsement as a component of hospital systems.

- **Achievements in 12-24 months:**

Y1: Completion of Steps 1–2, **Y2**: Completion of Steps 3–4,
Y3 (beyond grant): Step 5 - Nationwide implementation as an integral part of hospital systems.

Resources & enablers

- **Personnel:** The project will be led by the project team. WG will include up to five additional members from other hospitals and will convene for 1 full working day. Compensation for travel expenses and loss of income will be required. Given the project's handling of sensitive personal data, the involvement of a competent legal advisor is essential. Participants in pilot testing to receive compensation for extra time.
- **How the grant will be spent:** A total funding request of €40,000 is proposed, allocated as follows: €4,500 – organization of WG and legal counseling, €30,000 – The app development, €4,000 – Pilot testing, €1,500 – Data processing for publication. No additional monetary support is planned.
- **Success factors:** 1.Selection of a high-quality IT solution provider, 2. Successful pilot testing phase, 3. Endorsement and implementation support from the MoH.

Results/outcomes & expected impact

- **Implementation:** The app will be offered to all hospital-based healthcare professionals. Promotion would be driven via scientific medical societies, hospital managements and MoH.
- **Contribution to optimal nutritional care:**

1. Early identification of malnourished patients, followed by adequate and timely nutrition intervention.
2. Step-by-step instructions, helping healthcare professionals to tailor appropriate nutrition therapy.
3. Generating necessary documentation for post-discharge nutrition support.
4. Standardization and efficiency - streamline nutritional assessments accross hospital.
5. Nationwide policy change, to establish nutritional screening as a part of routine hospital care.
6. Contribution to better patient recovery, reduced complications, mortality and improved quality of life.
7. Saving costs, proper nutritional management can reduce hospitalization time, percentage of complications, and patient mortality (ESPEN guidelines, 2021).

- **Innovation:** 1. **Digitalization** and automation of nutritional care. 2. **Continuity of care** enabling coordination between hospital and home care. 3. **Objective data** to improve nutritional strategies.
- **Influence on national nutrition policy**: The app to become a fully functional tool in clinical practice and should be integrated with existing hospital information systems.
- **Transferability**: It is possible. The database of clinical nutrition products would need to be customized based on local availability. Additionally, the discharge protocol should be adapted to align with local healthcare policies and reimbursement rules.

X **Please tick to confirm the PEN letter of endorsement is attached. Incomplete submissions will not be considered.**