

# Implementing the Paediatric Yorkhill Malnutrition Score (PYMS): An analysis of the impact on malnutrition in Swiss Children's Hospitals

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## Description of the initiative

The prevalence of malnutrition in hospitalized children is between 3-20% [1,2]. Several studies reported a correlation between malnutrition and longer hospital stay, higher risk of mortality, higher rate of infections and lower quality of life in hospitalized children [3,4,5]. Screening for malnutrition in children is therefore of importance. There are different screening tools to identify the risk of malnutrition, such as the Paediatric Yorkhill Malnutrition Score (PYMS) [2], but standardized screening of in-patients is not widely implemented. This project aims to implement the PYMS in three Swiss University Children's Hospitals and to assess the corresponding impact. Consistent implementation of the screening tool is expected to improve the detection and treatment of malnutrition in hospitalized children.

## Planned activities & deliverables

- Pre-post observational study in three Children's Hospitals to investigate the impact of introducing PYMS.
- Mixed-Methods-Approach a) evaluation of clinical data and b) survey / interviews among clinical staff.
- Project duration: 15 months. Implementation of the PYMS and data collection will be completed after 12 months. At the end of the project the data is evaluated, the results are synthesized and ready to publish.

## The project consists of four parts:

1. Implementation of the PYMS in the Children's Hospitals in Bern, Basel, Zurich
2. Impact analysis through comparing clinical documentation of 1 year before the introduction (pre) and 1 year after the introduction (post). Parameters include: number of screenings performed, achieved scores and initiation of nutritional interventions after the screening has been completed.
3. Survey among nurses and physicians of the hospitals to capture their knowledge, experience, opinions on malnutrition screening and possible barriers and promoters to implementation of PYMS.
4. Interviews with dietitians of the hospitals to assess the impact of consistent implementation of malnutrition risk screening on daily work.

## Resources & enablers

The project is an interprofessional collaboration involving dietitians, nurses and physicians at three University hospitals as well as researchers at the University of Applied Sciences Bern (Nutrition and Dietetics). The grant is intended to cover salary cost of research staff for developing the online survey, collecting, compiling and analyzing data. The joint effort of three Children's Hospitals highlights the clinical relevance of the project and accounts for its success in introducing routine malnutrition screening for hospitalized children.

## Results/outcomes & expected impact

The assessment for malnutrition risk at hospital admission should be an integral part of patient's standard care. The project improves clinical quality by screening all hospitalized children using a standardized tool. Thus, it contributes to improving the nutritional state of child in-patients. The information gathered from involved health professionals will provide relevant insights regarding the implementation. Together with analysis of the clinical data, the impact of implementing PYMS (e.g. with respect to children enrolled in nutrition counseling or nutrition therapy) can be evaluated. In addition, data on the prevalence and risk of malnutrition in child patients will be collected. The results of the project will be made available to other hospitals and thus encourage and foster further implementation of nutritional screening in children.

## References

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