**A step forward in the fight against malnutrition**

**Improving home nutritional therapy in Switzerland**

**Prof. Dr. med. Peter E. Ballmer - President of the Society for Clinical Nutrition Switzerland (SSCN/GESKES)**

**Head of Department of Medicine, Kantonsspital Winterthur (peter.ballmer@ksw.ch)**

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**THE INITIATIVE:**

The Swiss Society for Clinical Nutrition (SSCN/GESKES) requested the reimbursement of medically indicated oral nutritional supplements at home – with success.

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**Rationale for the initiative:**

There is scientifically sound evidence that oral nutritional supplements (ONS) / sip feeding is an effective mean to combat malnutrition: It is cost-effective, causes few complications, improves the quality of life and, most importantly, allows an early treatment of malnutrition. A complete overview of the evidence base was given by the MNI-Dossier: ‘Tackling Malnutrition. Oral nutritional supplements’ in the year 2010. Despite these convincing arguments and the significant health and economic consequences of malnutrition, sip feeding at home was not covered by the compulsory health insurance in Switzerland, even if the patient was malnourished and had a medical indication, e.g. an underlying severe disease. In contrast the costs of enteral and parenteral tube feeding were fully reimbursed by the health insurers.

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**Process to obtain reimbursement:** Reimbursement key activities

- **Develop evidence base**
  - Nationwide evidence studies evaluated the effect of nutrition and home nutritional therapy in Switzerland

- **Multidisciplinary project meeting**
  - With representatives of industry, home care service, health insurances and health system

- **Health economics analysis**
  - With scientific experts on the effectiveness, appropriateness and cost-effectiveness of ONS were summarized

- **Literature review**
  - Scientific evidence on the effectiveness, appropriateness and cost-effectiveness of ONS were summarized

- **Request of regulatory change**
  - Prove that reimbursement of ONS at home in Switzerland are effective, appropriate and cost-effectiveness

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**Develop evidence base**

- In a large cohort of 32337 patients, the prevalence of malnutrition in Swiss hospitals was estimated using NRS-2002. Overall, 18.2 % were classified as severely malnourished or at high risk for malnutrition. There was an age-dependent distribution of the NRS-2002 (Figs).
  - Immendorfer et al. Clin Nutr 2010; 29: 36-41

- In a randomised controlled trial the impact of nutritional therapy was studied in undemandsed hospital patients. One group received individual nutritional counselling and diet instruction. The other group received only oral nutritional supplements without further instruction (ONS group).
  - Both nutritional interventions resulted in increased energy (Figs) and protein intakes. QoL improved in both groups during the hospital stay.
  - Rollenschi et al. Nutrition 2010; 26: 53-60

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**Multidisciplinary project meeting**

<table>
<thead>
<tr>
<th>Year</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>2003-2005</td>
<td>Prevalence of malnutrition in Switzerland</td>
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<tr>
<td>2005-2009</td>
<td>Effectiveness of nutritional intervention</td>
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**Develop evidence base**

- The multidisciplinary project team prepared a flow chart to ensure that ONS are only reimbursed, when they are medically indicated:

  - Patient with or at risk for malnutrition
  - Physician / dietician
  - Request for reimbursement
  - Medical assessment
  - ONS are medically indicated: coverage of treatment
  - Nutritional therapy
  - Annual re-evaluation of medical indications
  - Physician / dietician
  - Homecare service
  - Delivery of ONS
  - Regular check of nutritional therapy

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**Health economics analysis & literature review**

- **Details of the health economic analysis**
  - Initially, tube feeding at home (comparator) was covered by the compulsory health insurance, but not the service of sip feeding at home (requested service). Patients often need to be fed by tube feeding due to their disease. However, there are patients in which both artificial feeding types are possible. Due to the different regulations in regard to the reimbursement, many patients initiate the invasive and costly tube feeding at home instead of sip feeding at home (requested service). Patients often need to be fed by tube feeding due to their disease. However, there are patients in which both artificial feeding types are possible. Due to the different regulations in regard to the reimbursement, many patients initiate the invasive and costly tube feeding at home instead of sip feeding at home (requested service).
  - Several members of the Federal Commission of General Services (ELGK) were contacted and personally informed about the benefit of reimbursement of ONS. The ELGK is an important commission for the reimbursement of medical services. A medical service is considered as effective, appropriate and cost-effective, this medical service is included in the compulsory health insurance.
  - Before submission of the request, the documents were shown to a renowned expert in the area of cost-efectiveness of medical services. The expert is a member of the alliance of health insurers.

- **Results of the health economics analysis & literature review**

  - **Effectiveness**
    - ONS are an effective mean to increase energy and protein intake. They reduce mortality and complications in elderly, hospitalised and acutely-ill patients. Furthermore, it is likely that ONS are associated with functional benefits.

  - **Appropriateness**
    - ONS can be regarded as a protein source and are no no trials show significant adverse effects. There may be minor gastrointestinal symptoms.

  - **Cost-effectiveness**
    - Tube feeding is more than twice as expensive as sip feeding. Costs arising from reimbursement are largely covered by direct cost savings within five years. In the long term additional cost savings are expected.

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**Implementation**

The reimbursement of medically indicated ONS at home by the compulsory health insurance is critically important for the good of the patient and cost-minimization. This is particularly true in a longer term view comparing the demographic trends in industrialised western countries.

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**Upon approval we expect following benefits:**

1. Reduction of hospital costs
2. Cost savings by replacing expensive tube feeding at home
3. Reduction of indirect costs caused by malnutrition
4. Elimination of an unfair cost burden for the patient

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**Key achievements and future plans**

**Key achievements**

- Although it is too early to assess the benefit of reimbursement in terms of health outcomes, ongoing collection and analysis of artificial nutrition data in Switzerland has shown an increase in change in clinical practice since July 2012:
  - Total artificial nutrition therapies increased from 6107 cases in 2011 to 11’505 cases in 2013. The impressive increase is attributable to an increased use of sip feeding (increase of 146%). In contrast, the service of tube feeding decreased slightly (decrease of 7%). As expected, no change in parenteral nutrition therapies occurred.
  - Despite the increase in total nutrition therapies, total costs for artificial nutrition therapies decreased from CHF 25’307’005 in the year 2011 to CHF 22’815’237 in the year 2013.
  - No increase could be prevented by the strict and well defined guidelines for reimbursement.

**Next steps:**

- Analysis of the epidemiological data of home artificial nutrition will be repeated to assess changes in terms of nutritional therapies (distribution, length and costs of home artificial nutrition in Switzerland since July 2012)
- Swiss Federal office of Public Health will be invited to repeat their analysis on the impact of malnutrition in Switzerland. This will enable to assess the benefit of reimbursement in terms of health outcomes.