Promoting malnutrition awareness in pediatric wards

de Luca A, Hankard R. The Pediatric Nutritional Assessment Network
On behalf of the Société Francophone de Nutrition Clinique, Métabolisme (SFNEP)

We organized for the fourth year a "Nutrition Week" in pediatrics aiming at promoting systematic hospital nutritional assessment using a web based tool available 24/7. This year, 62 centers in 5 countries and 4735 visits were recorded. 76% of participating centers claimed using e-Pinut to develop the awareness of systematic nutritional assessment within their staff. The standardized diagnostic procedure became the French National Guidelines in 2012 (Nutrition Committee of the French Pediatric Society). We obtained the French PEN (SFNEP) label in 2012 for this initiative.

Rationale
Hospital malnutrition is seldom reported in pediatric medical files. We are convinced that only a simple tool will improve malnutrition detection in children. This project aims at promoting malnutrition awareness in pediatric wards, identifying patients requiring nutritional support and evaluating the impact of nutritional support on the outcome.

A simple standardized procedure
Every child must be weighed and measured at admittance and BMI reported on currently available standards (Figure 1). The standardized procedure became the French national guidelines in 2012.

Activities
For the fourth consecutive year, we conducted a malnutrition screening campaign called "The Pediatric Nutrition Week" (Figure 2)

1. National studies in 2010 and 2011
   From one pilot study in 2010 (3 centers and 133 patients) to a large scale multicenter study in 2011 (14 centers, 956 patients, e-SPEN 2013) the pediatric nutrition week demonstrated its ability to mobilize pediatric wards all over France

2. International studies
   In 2012, initiative extended to other countries (Belgium, Congo, Tunisia, Canada and Colombia) (2845 patients, 47 centers, ESPEN 2012). Up to 5000 observations, 62 centers (124 wards) and improved phenotypic description were included in the 2013 survey (ESPEN late breaking news 2013)

3. Web based diagnostic tool "e-Pinut" available since 2012 (Figure 3)

Results/outcomes
1. One hospitalized child of ten is malnourished in occidental countries, more elsewhere (Figure 4)

2. A growing number of centers/staff participates every year in e-Pinut

3. e-Pinut as a tool to develop the awareness of malnutrition in pediatric medical and paramedical staff. 76% of participating centers claimed to do so, 78% performed systematic nutritional assessment at admittance, 75% of children were measured by paramedical staff. Only 29% had written procedure.

4. This survey contributed to standardize the diagnostic procedure among participating centers

5. Malnutrition has to be diagnosed to cure hospital malnutrition and perform nutritional care!

Conclusions
- e-Pinut succeeded in mobilizing a growing number of pediatric wards in France, Europe, Africa and the Americas
- e-Pinut contributed to standardize malnutrition diagnostic procedure i.e. National guidelines from the French Pediatric Society
- Still many points to improve : local written diagnosis procedure, awareness within health professionals, european standards

Next steps
- Make e-Pinut a wide institutional European awareness week
- Extend the initiative toward paramedical health professionals
- Conduct Research: determinants of malnutrition, cohort and intervention studies

A simple standardized procedure

**Figure 1**

- **BMI < 3rd centile for age and sex**
- **Full nutritional diagnostic procedure**
  - Growth chart
  - Clinical signs of malnutrition
  - Origin of malnutrition
- **Confirmed malnutrition**
- **Nutritional care**

An increasing number of participants

1. **Welcome page**
2. **Basic data**
3. **Diagnosis procedure**

**Implementation**

1. **Pediatric Nutritional Assessment Network**
   - International network of pediatric (Figure 4 and logo collection)

2. **Nutritional tools**
   - e-Pinut provides a printed report including ICD-10's diagnostic code for malnutrition severity classification to be inserted in medical files

3. **Expert committee**
   - National guidelines by the Nutrition Committee of the French Pediatric Society:
     - Arch Pediatr 2012 (Top 10 downloads of the journal- www.sfpediatrie.com)
     - Nutr Clin Metab 2013 (SFN journal) (full text and summary paper) and Cahiers Nutrition Detetique 2013 (SFN journal).
     - National handbook for medical students http://umvf.univ-nantes.fr/pediatrie/
     - Task force on Nutritional indicators within the French National Nutritional program

4. **Initiative supported by the SFNEP (label 2012)**

**Figure 2**

- **Centres**
- **Observations**
- **Added data**
- **Improved phenotype**

- **French study**
- **International recruitment**
- **National guidelines**
- **SFNEP label**

**Figure 3**

- **Follow us on www.facebook.com/Epinut and direct access to nutritional tool !**