Technical Evaluation of Nutrition Products

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HELP US make a better...
UNICEF SUPPLY CATALOGUE

To enter click on one of the categories below.
(Note: This catalogue is best viewed with Internet Explorer)
PHARMACEUTICALS AND NUTRITION

The product groups

- 02 PHARMACEUTICALS and
- 03 NUTRITION

of the UNICEF Supply Catalogue contain information about pharmaceutical products, micronutrient products and nutrition products. This information is intended for health professionals and supply and logistics staff working in the health services area, involved in preventive and curative care and the supply management of pharmaceutical and nutrition products.

The pharmaceutical products listed are all considered essential medicines and are on the World Health Organization (WHO) Model List of Essential Medicines. Further information on medicines can be found in the WHO Model Formulary 2002 (see footnote), or by contacting the Pharmaceutical and Micronutritional Team, Supply Division.

Pharmaceuticals

Since its creation in 1946, UNICEF has been supplying pharmaceutical products at competitive rates worldwide. Since 1978, UNICEF and other UN agencies and bilateral aid agencies have been providing support to governments in the acquisition, storage, distribution and correct and rational use of essential medicines. Provision of essential medicines not only alleviates suffering and disease directly, but also underpins all other aspects of primary health care.

Appropriate and rational utilization of essential medicines is of prime importance as a failure at this final stage can negate the effort and expense involved in providing supplies in the first place. Considerable attention must therefore be
Nutrition

Please click on specific category for item names and descriptions. If you have problem finding an item, see Navigation Tips and Search Tips.
Anthropometric equipment
Supplementary Food

- 000218 Biscuit, high energy/protein, CAR/20x400g
- 000230 Emergency food ration, 24 x 500g
- 1550201 Multiple micronutrient pdr, sach./PAC-30
- 0114035 Nutrition Kit 3 (Suppl. Feeding)
- 0114045 Nutrition Kit 3A (Reg. Suppl. Feeding)
- 0000292 UNIMIX (CSB), 10% sugar/BAG-25kg
- 0000291 UNIMIX (CSB), 5% sugar/BAG-25kg
Therapeutic food

<table>
<thead>
<tr>
<th>Therapeutic food</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000217 F-100 therapeutic diet</td>
<td>450g</td>
<td>CAR-30</td>
</tr>
<tr>
<td>0000216 F-75 therapeutic diet</td>
<td>410g</td>
<td>CAR-20</td>
</tr>
<tr>
<td>0114015 Nutrition Kit 4 (Therapeutic feeding)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0114025 Nutrition Kit 4A (Reg. Therapeutic)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0000221 ReScMal, 84g sachet for 2 litres</td>
<td></td>
<td>CAR-130</td>
</tr>
<tr>
<td>0000230 Therapeutic CMV, tin 600g</td>
<td></td>
<td>CAR-6</td>
</tr>
<tr>
<td>0000242 Therapeutic food, ready to use, BP-100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0000240 Therapeutic spread, sachet 92g</td>
<td></td>
<td>CAR-150</td>
</tr>
</tbody>
</table>
Technical evaluation of the products

• Conducted after each bidding exercise;
• Evaluation criteria are clearly listed in bid document;
• Based on comparison of offered product with Product specification in bid document;
• Requested documentation must be submitted – Stability study, CoAs, Acceptability study, etc…
• Samples should be submitted as specified in bid document.
Process of Technical Evaluation

• Food product questionnaire
  – Manufacturing site
  – Product specification
    • Ingredients/ Standard of raw materials used
    • Packaging material (sturdy export quality)
    • Pack size
    • Shelf life (stability study)
  – Certificate of analysis (raw materials, finished product)
  – Acceptability study
    – (Radiation certificate)
    – (Halal certificate)
Technical evaluation - challenges

• Incomplete documentation submitted;

• Samples not received;

• Potential suppliers offer products that they are not familiar with.
Challenges with RUTF Product Specification (1)

- Details on ingredients not provided

**Nutritional composition per 100g of food:**

**Minerals**

<table>
<thead>
<tr>
<th>Mineral</th>
<th>Amount (mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium</td>
<td>290 max</td>
</tr>
<tr>
<td>Potassium</td>
<td>1100 - 1400</td>
</tr>
<tr>
<td>Calcium</td>
<td>300 - 600</td>
</tr>
<tr>
<td>Phosphorus</td>
<td>300 - 600</td>
</tr>
<tr>
<td>Magnesium</td>
<td>80 - 140</td>
</tr>
<tr>
<td>Iron</td>
<td>10 - 14</td>
</tr>
<tr>
<td><strong>Zinc</strong></td>
<td>11 - 14</td>
</tr>
<tr>
<td>Copper</td>
<td>1.4 - 1.8</td>
</tr>
<tr>
<td>Selenium</td>
<td>20 - 40</td>
</tr>
<tr>
<td>Iodine</td>
<td>70 - 140</td>
</tr>
</tbody>
</table>

- **Zinc gluconate** $\text{C}_{12}\text{H}_{22}\text{O}_{14}\text{Zn}$
Challenges with RUTF Product Specification (2)

1. Source of vitamin & mineral: vitamin & mineral premix should be produced by specialized companies;
2. Artificial antioxidants are not permitted, only natural antioxidants are allowed in infant food;
3. Artificial flavorings are not allowed in infant food;
4. Soy sources are not accepted because of the high content of anti-nutrients.
Labeling and packaging

• UNICEF Requirements on labeling should be followed;
• Commercial name of the product should be kept simple;
• Therapeutic claims should be documented/ supported by clinical trials (e.g. *RUTF for treatment of SAM in Adults*);
• Raw materials listed in order of descending quantities;
• Layout of label given in English and French;
• “Best before date” clearly printed on the sachet;
• Leaflet per carton with detail composition of mineral and vitamin premix.;
• Clear pictorial instructions on the label.
Acceptability study

• Needed if major change in recipe;

• Should be done on malnourished children in typical beneficiary countries. Mothers need to be there.
Stability study

• Stability study must be conducted to confirm product shelf-life;

• Long-term and accelerated stability studies should be provided (see WHO guideline on stability testing).
Certificates of Analyses of Raw Material

• Certificates of Analysis for each component of the vitamin and mineral premix should be provided;

• Certificates of Analysis of oil used should be provided.
Certificates of Analyses of Finished Product

• Certificates of Analysis for each component of finished product should be provided;

• Microbiological testing of finished product should be provided.
## Product safety

- **Aflatoxin level**: 5 ppb maximum
- **Micro organism content**: 10,000 in 1g maximum
- **Coli form test**: negative in 1 g
- **Clostridium perfringens**: negative in 1 g
- **Yeast**: maximum 10 in 1 g
- **Moulds**: maximum 50 in 1 g
- **Pathogenic Staphylococci**: negative in 1 g
- **Salmonella**: negative in 125 g
- **Listeria**: negative in 25 g

- RUTF should be free from objectionable matter. It must not contain any substance originating from micro organisms or any other poisonous or deleterious substances, including anti nutritional factors, heavy metals or pesticides in amounts that may represent a hazard to health;

- **Pesticides and radioactivity** should be checked once a year in finished product;

- **Chronobacter Sakazakii** need to be tested.
The supplier should provide:

- Food Questionnaire;
- Product specifications;
- Specifications of vitamin and mineral premix;
- Source of vitamin and mineral premix;
- CoA for each component of vitamin and mineral;
- CoA of oil used;
- Certificates of Analysis of microbiological testing of finished product;
- Stability study;
- Acceptability study;
- Samples/ Packaging material.
Thank you !