How to improve food intake of hospitalised patients

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Is improvement necessary?

- Disease-related undernutrition is common among patients in European hospitals
- Hospital food has an image problem
- The "food chain" is complicated by a lot of stages
- Responsibility for food service and nutritional care are not highly regarded

Strategi for improvement

Recommendations from the Danish National Board of Health:

• Screening of hospitalised patients by NRS 2002
• Monitoring of nutritional status for all patients at nutritional risk

Does screening and monitoring of nutritional status lead to increased intake?
Systematic screening and monitoring

Before
N = 137

After
N = 180

Patients reaching < 75% of recommendations

Patients reaching > 75% of recommendations

Most frequent reasons why patients do not eat enough:

- Lack of appetite
- Patients are not motivated to eat more
- Fasting procedures

Johansen et al, Clin Nutr. 2004
Can hospital food increase energy and protein intake?

• Serving meals is not a hotel service - it is a part of treatment
• Succeed in improving food intake is related to attitudes and professional expertise in serving meals
Appetite / hunger

- How is appetite different from hunger?

- Is it essential to the patient, that nurses distinguishes between hunger and appetite?

- How is food intake influenced by this?
Hunger is.....

- A physiologic signal that nutrients are needed to maintain body functions
- The opposite of hunger is satiety
- Hunger and satiety are expressions from a natural science approach to eating

Kristensen S T, Eur Jour of Clin Nutr 2000
Hunger is.....

- A physiologic signal that nutrients are needed to maintain body functions
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Appetite is....

- Appetite connects to food and meals
- Appetite and hunger does not necessarily go together
- Appetite is a sociological as well as a biological expression

Meals at hospital

• Hospital food was not served as a part of a meal
• Sociological and cultural aspects of the meal were not systematically used to improve food intake
• Patients expected to be served meals - not only nutrients and that effected how much they eat

Holm et al, Scand Jour of Nutr, 1996
Observational study of meals

Intervention:
Change of eating environment, food and catering system to children with cancer

<table>
<thead>
<tr>
<th>Fraction of children reaching requirement by eating food %</th>
<th>Before</th>
<th>After</th>
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<tbody>
<tr>
<td></td>
<td>49</td>
<td>70</td>
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Kok et al Clin Nutr 1992
What can encourage appetite?

A qualitative interview study:

• 8 in-patients at nutritional risk by purposeful sampling:
  – Various experience with food and cooking
  – Different values from food culture

• Median age(IQR): 52 years (46 – 62)
• 4 men / 4 women
What can encourage appetite?

3 consistent themes:

• Expectations to the catering system
• Nursing procedures in serving meals
• The meaning of relations in nursing procedures
What can encourage appetite?

1. Expectations to the catering system:
   - flexibility
   - choice of different menu's
   - food presentation on the plate
   - security of supply
What can encourage appetite?

2. Clinical nursing procedures
   – Recognition of values from their own food culture in serving a meal
   – Initiative and drive
   – Serving skills
   – Explicit professional judgement
What can encourage appetite?

3. The meaning of relations in nursing procedures
   – To serve a meal is communication
   – Serving a meal is an act of due care
   – Patients do notice and it makes a difference
## Effect on food intake

<table>
<thead>
<tr>
<th></th>
<th>Unit 1 (Surgical)</th>
<th>Unit 2 (BMT)</th>
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</thead>
<tbody>
<tr>
<td>Catering system:</td>
<td>Room service</td>
<td>Usual catering system</td>
</tr>
<tr>
<td>Nutrition care organised:</td>
<td>Usual organisation</td>
<td>Trained “nutrition nurse”</td>
</tr>
</tbody>
</table>

Plum et al, ESPEN 2005
Intervention: ROOMSERVICE

- Call the kitchen from the bed and order from a menu
- The meal is delivered ready to eat within one hour at the ward
Intervention: "Nutrition nurse"

- Nutritional guidance of patients
- Daily follow up on nutrition plans
- Serving snacks between meals twice a day to all patients
- Teaching, guiding and helping out the staff in all nutrition matters
- Responsible for ordering food
Fraction of patients reaching minimum requirement of energy and protein by food

Plum et al, ESPEN 2005
Florence Nightingale

Thousands of patients are starved annually in the midst of plenty, from want of attention to the ways which alone make it possible for them to take food. (Notes on Nursing 1859)
Key messages

• Meals is much more than the food
• Food intake can be increased by using hospital food as a tool
• Nutritional care is depending on recognising the person in the patient
• Serving meals requires nursing skills
Bon appetite
Key words

• Nutritional care
• Appetite
• Hospital food
• Food intake
References:

Johansen et al, Clin Nutr. 2004
Holm et al, Scand Jour of Nutr 1996
Kok et al, Clin Nutr 1992
Plum et al, ESPEN 2005 (poster)
Nightingale, Notes on Nursing. 1859