A GUIDE FOR DOCTORS, NURSES, HEALTHCARE ASSISTANTS, AUXILIARY NURSES AND CLINICAL DIETITIANS

Screening and treatment of patients at nutritional risk
Preface

In recent years, the Danish Ministry of Health has highly prioritised initiatives under the project ‘Better food for patients’. It is intended that patients at nutritional risk are to be identified at admission and then treated accordingly. Patients who are not at risk at admission are monitored on a weekly basis for eventually becoming at risk for undernutrition. The initiatives of the Danish National Board of Health in this field are reflected in this guide, which is a practical guide to how to professionally attend to nutritional problems in the individual wards.

In addition to this guide, the Danish National Board of Health and The Danish Veterinary and Food Administration have collaborated in publishing a ‘Catalogue of ideas’ containing inspiration for local government administration, hospital management and the individual wards on how nutritional initiatives can be integrated in dietary policies and implemented in the various links of the foodservice chain from patient to kitchen and back to the patient (1). This catalogue of ideas can be found on the homepage of the Danish National Board of Health.

Additionally, we refer to ‘Recommendations for food in Danish institutions’ as a reference book on the daily work in nutrition (2).

In December 2001, The Danish National Board of Health formed a working committee aimed at assisting the Board of Health with collecting health-related documentation for targeted nutritional initiatives in Danish hospitals. The members of the working committee included:

- Jens Kondrup, chief physician, DrMedSc, Rigshospitalet
- Linda Greffel, chief nurse, Hobro Hospital
- Vibeke Graff, office manager, The Danish National Board of Health, chairman of the working committee
- Ulla Hølund, head clerk, The Danish National Board of Health
- Susanne Lorenzen, nutrition assistant, The Danish National Board of Health
- Kirsten Schroll Bjørnsbo, academic assistant, The Danish National Board of Health

The members of the committee are thanked for their great contribution.

In 2008, minor alterations of a clarifying nature were made to the publication.

Jesper Fisker
Director of the Danish National Board of Health
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1 Introduction

1.1 Increasing significance of nutrition in hospitals

The nutritional status of people suffering from illness and the problem of undernutrition in hospitals have become objects of greater attention. There are several reasons for this:

Firstly, it concerns a large group of patients. Approx. 30% of patients in Danish hospitals are estimated to be undernourished. According to the project Undernutrition in Hospitals from 2002 (UPS), approx. 20% of patients are at nutritional risk at admission to the hospital (cf. secondary screening page 13) of which only 25% get their nutritional requirements covered during their admission (3).

Secondly, there is good evidence to suggest that targeted nutritional interventions improve the clinical course of treatment and thus results in a more effective course of treatment for the individual patient.

Thirdly, a number of complaints to the patients’ complaints board that have, among other things, assessed the concentration on patients’ nutritional problems indicate that professional efforts are required.

1.2 Reasons for undernutrition

The reasons for undernutrition can be attributed to patient conditions and conditions in the hospital/ward. Where the patient is concerned, the main reasons are lack of appetite combined with increased nutritional requirements. Therefore, relieving lack of appetite must also be seen as one of the problems for which the patient has become hospitalised.

In hospitals, ward rounds, examination and treatment times may collide with meal-times, and a replacement meal is not always provided when examinations have been completed or surgeries have been cancelled. Consequently, it is important to ensure cohesion between the treatments, the wishes of the patient and the meals offered. Furthermore, nutritional problems have been a low priority for many years and as a result, there is a lack of attention to and knowledge of the problem.

1.3 Reading instructions

In this guide, the procedure for screening and treating patients at nutritional risk is first explained. This procedure is outlined in the flow chart. Procedure for primary and secondary screening describes how to identify patients at nutritional risk. The treatment plan covers the establishment of energy/protein requirements by means of the table of requirements, choice of diet and monitoring of weight changes and food intake. The result of the monitoring is assessed, reasons for insufficient food intake or for weight loss are examined and the treatment plan is adjusted accordingly.

Subsequently, suggestions are made with respect to the delegation of responsibilities and tasks, indicators for inclusion in a quality control are suggested as well as a
suggestion for a strategy plan for implementing the nutritional initiatives (how it can be done). Appendices 1-4 contain detailed documentation for the significance of nutritional initiatives, advice on dietary regimes, alleviating eating problems as well as patient motivation.

The responsibility of nutritional problems affects many professional groups in the hospital. For reasons of convenience, nurses, auxiliary nurses and healthcare assistants are jointly termed 'nursing staff'.
2 Flow chart for screening, treatment and medical record-keeping for patients at nutritional risk

The procedure for screening, treatment and medical record-keeping is shown in the flow chart. There are 4 main elements:

1) Primary screening consists of 4 simple questions addressed within the first 24 hours for all patients, which are not in terminal care.

2) Secondary screening consists of more detailed information on BMI, recent weight loss, recent food intake and severity of disease (as an expression of nutritional requirements). At-risk patients hospitalised for shorter than 3 days have the screening result entered in the discharge summary with notice given to the primary sector.

3) The treatment plan consists of treatment goals (weight maintenance or gain), estimation of requirements, determination of the dietary regime, and monitoring of food intake and weight changes. A treatment plan is compiled for at-risk patients who are hospitalised for longer than 2 days.

4) Assessment of results: If patients have inadequate food intake or lose weight, the reasons are determined, the treatment plan is adjusted and monitoring resumed. If the patient eats sufficiently and their weight is appropriate, an assessment to establish whether the patient is still at-risk is carried out by means of a secondary screening. If the screening score is less than 3 and the patient is able to eat sufficiently, the patient is no longer at nutritional risk. A dietary regime is prescribed and the patient is re-screened on a weekly basis. Otherwise, monitoring is continued until the patient is no longer at risk.

The result of each of the 4 main elements is entered into the medical records.

A preventive approach is also included in the flow chart since many patients are hospitalised for challenging treatment, e.g. major gastro surgery, which will quite likely place the patient at nutritional risk.
2.1 Flow chart for screening, treatment and medical record-keeping for patients at nutritional risk

FLOW CHART FOR SCREENING, TREATMENT AND MEDICAL RECORD-KEEPING FOR PATIENTS AT NUTRITIONAL RISK

1. Primary screening
   (within 24 hours)
   BMI < 20.5?
   Recent weight loss?
   Reduced food intake?
   Severe illness? *
   YES, to only one question

2. Secondary screening
   Nutritional status
   * Severity of disease
   * Age adjustment
   Score ≥ 3? *
   YES, hospitalized ≥ 3 days
   YES, hospitalized < 3 days

3. Treatment plan
   Aim of treatment
   Estimation of requirements
   (energy/protein)
   Choice of dietary regime
   Monitoring of food intake and weight changes *

4. Assessment of results
   Low food intake or weight loss? *
   YES
   Diagnose cause
   Adjust plan *

   NO
   At-risk patient?
   is documented by the screening score
   Patient requires continued nutritional support *
   YES
   Continue monitoring
   Until patient is no longer an at-risk patient *

   NO
   Discharge summary
   Results are described in the discharge summary report to the primary sector

   * The result of each element is to be noted in the medical records.
3 Procedure: Primary and secondary screening

The objective of the screening is to identify patients for whom the course of illness will deteriorate without a targeted nutritional intervention.

Primary screening and subsequent secondary screening quickly and easily identify patients at nutritional risk already at the time of admission to the hospital and systematically during hospitalisation. The result of the screening forms the basis for decisions when developing the treatment plan.

3.1 Who is to be screened for nutritional risk?

All patients not in terminal care are screened for potential nutritional problems at admission (see flow chart). This is done by means of 4 questions:

3.2 Primary screening

| YES/NO |  
|--------|---
| is BMI <20.5? | 
| has the patient lost weight in the past 3 months? | 
| has the patient had reduced food intake in the past week? | 
| is the patient severely ill, i.e. in metabolic stress (see below), e.g. a patient in intensive therapy? | 

Stress metabolism:
Hormone triggered changes in metabolism resulting in e.g. increased basal metabolic rate and protein degradation. Stress metabolism is present during e.g. fever, trauma, surgery and burns.

If the answer to all questions is No, a preventive approach should be considered, e.g. if the patient is to receive major surgery. If this is not the case, a suitable diet is prescribed and the patient is re-screened once a week during hospitalisation.

If the answer to just one question is Yes, a secondary screening is conducted to determine whether the patient is at nutritional risk by use of a thorough assessment as specified in the screening table (page 13).
3.3 Secondary screening – screening table

Nutritional risk is estimated from a combination of nutritional status, severity of disease and age. Severity of nutritional status and disease is awarded points from 0-3, whereas 1 point is given for age. Nutritional risk is thus expressed as an age-corrected score of 0-7 points: The higher score, the greater the risk for undernutrition. It should be noted that many patients do not have an increased requirement for nutrition and consequently have a score of 0.

3.3.1 Nutritional status

- It should be established whether recent weight loss is low, moderate or severe, i.e. > 5 % in the course of 3 months, 1½ months or 1 month.
- It should be established whether food intake in the week prior to admission has been low, moderate or high, i.e. 50-75 %, 25-50 % or 0-25 % coverage of the patient’s requirements.
- The most affected value (for BMI, recent weight loss or recent food intake) determines the patient’s score for nutritional status.

<table>
<thead>
<tr>
<th>Calculation of weight loss</th>
</tr>
</thead>
</table>
| \[
\frac{\text{Weight loss}}{\text{Previous weight}} \times 100 = \text{Weight loss in } \%
\] |

Example: (more than 5 % weight loss)
- more than 4.0 kg from 80 kg
- more than 3.5 kg from 70 kg
- more than 3.0 kg from 60 kg
- more than 2.5 kg from 50 kg

It is important to bear in mind that persons overweight at the time of screening can also have experienced a large unintentional weight loss. Greater priority must be given to reducing nutritional risk rather than preventing further weight increase.
3.3.2 Severity of disease

- The severity of the patient’s disease is estimated as low, moderate or severe based on the patient categories given in the screening table. It should be noted that severity of disease is an expression for increased nutritional requirements and not for e.g. prognosis or degree of disability.

- The patient categories in the table given in normal font correspond to controlled studies (appendix 1). ‘Others’ given in italics are included according to clinical estimates, e.g. based on knowledge of protein requirements. Similarly, the individual wards note the most frequent patient categories in the table.

- The clinical condition (see prototypes) determines the patient’s score for severity of disease.

Prototypes for severity of disease

Low (Score = 1): a patient with a chronic disease, who is admitted to hospital due to complications. The patient is weak, but ambulatory. Nutritional requirements are increased, but can generally be covered by increased food intake and/or liquid supplements.

Moderate (Score = 2): a patient confined to bed due to illness, e.g. following major gastro surgery. Nutritional requirements are considerably increased, but can be covered. However, in many cases liquid supplements or tube feeding are necessary.

Severe (Score = 3): the patient receives intensive therapy due to multiple organ failure. Nutritional requirements are increased to the extent, where they cannot be covered even by tube feeding or parenteral nutrition. Losses (e.g., nitrogen losses) from the body may, nevertheless, be significantly reduced.

If the necessary information on nutritional status and severity of disease is not available, a total score of 3 is given. Consequently, the assumption is that the patient is at nutritional risk until it has been discovered that the patient is eating sufficiently by their own accord. A diet is then prescribed and the patient is re-screened on a weekly basis.

3.3.3 Age adjustment

- At an age of ≥ 70 years, an age adjustment is calculated by adding one point to the total score.

If age-corrected Total score ≥ 3,
the patient is at nutritional risk and a treatment plan is developed (see page 14).

In cases where the patient is at nutritional risk, but needs to be hospitalised for only 2 days or less, the results of the secondary screening are noted in the discharge summary and the primary sector/GP is notified in order to initiate action following discharge from the hospital.
If age-corrected Total score < 3, preventive measures are considered, such as if the patient is about to undergo major surgery. If this is not indicated, a diet is prescribed and the patient is re-screened weekly during hospitalisation.

The results of the primary and secondary screenings are documented in the medical records and the letter of discharge.

**SCREENING TABLE FOR DETERMINING NUTRITIONAL RISKS**

<table>
<thead>
<tr>
<th>Nutritional status</th>
<th>Severity of disease (stress metabolism - increased requirements)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal score = 0</td>
<td>Normal nutritional status</td>
</tr>
<tr>
<td>Mild score = 1</td>
<td>Weight loss &gt; 5 % in 3 months or Food intake 50-75 % of normal requirements in preceding week</td>
</tr>
<tr>
<td>Moderate score = 2</td>
<td>Weight loss &gt; 5 % in 6 weeks or BMI 18.5-20.5 or Food intake 25-50 % of normal requirements in preceding week</td>
</tr>
<tr>
<td>Severe score = 3</td>
<td>Weight loss &gt; 5 % in 1 month / 15 % in 3 months or BMI &lt; 18.5 and affected general condition or Food intake 0-25 % of normal requirements in preceding week</td>
</tr>
</tbody>
</table>

Score: +

Age correction:
at age ≥ 70 years, add 1 to the scores above

= age-corrected total score:

If age-corrected Total score ≥ 3, the patient is at nutritional risk and a treatment plan is initiated:
1) aim of treatment
2) estimation of nutritional requirements,
3) determination of dietary regime,
4) plan for monitoring, evaluation and adjustment of intake and weight

If age-corrected Total score < 3, preventive measures are considered, such as if the patient is about to undergo major surgery. If this is not indicated, a diet is prescribed and the patient is re-screened weekly during hospitalisation.
4 Procedure: Treatment plan

Based on the secondary screening, a target is established as to whether the nutritional status of the patient is to be improved or maintained. The approximate energy requirements of the patient are determined in the treatment plan. Based on questions on appetite, diet and eating disorders if any, a dietary regime is determined. The treatment plan must state what is to be done to alleviate eating problems as well as the extent to which the patient needs assistance to eat. Finally, it must state how the treatment is to be monitored, evaluated and adjusted. The result of the treatment and suggestions for follow-up at discharge are documented in the medical records.

4.1 Table of requirements: Determination of energy and protein requirements

Based on the patients body weight, physical activity and temperature, the table of requirements (page 15) shows the calculations for energy and protein requirements of normal weight adults (maintenance) and of individuals who need to gain weight (weight gain). No adjustments are made for gender and age since such an adjustment would be so small as to be clinically insignificant. In cases of adiposis, energy and protein requirements are calculated according to the patient’s actual weight and activity level. A small weight loss in these patients is acceptable if they are ensured a sufficient protein intake.

In the table of requirements, energy levels and protein requirements are read based on the patient’s actual weight combined with the patient’s target (maintenance/weight gain) and activity level (confined to bed/ambulatory).

Energy requirements are increased during fever and are calculated by multiplying energy and protein levels with a stress factor for weight maintenance determined by the increase in temperature.

In cases of adiposis (BMI > 30), energy and protein requirements are calculated according to the patient’s actual weight and activity level.

4.2 Choice of feeding regime

The energy requirement of the patient is the basis for the choice of energy level. The dietary regime is determined according to the patient’s appetite, preferences in taste and any problems with eating, swallowing or digesting food. For many patients, the energy density needs to be increased, such as by serving food suitable for people with small appetites and in combination with energy and protein supplements and/or tube feeding where appropriate. Dietary regimes are described in more detail in appendix 2. Inspiration for collaboration regarding the food is described in the catalogue of ideas.
### ASSESSMENT OF ENERGY AND PROTEIN REQUIREMENTS:
#### TABLE OF REQUIREMENTS

#### MAINTENANCE

<table>
<thead>
<tr>
<th>Current weight in kg</th>
<th>Confined to bed</th>
<th>Ambulatory</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Energy level</td>
<td>Energy level</td>
</tr>
<tr>
<td>90</td>
<td>9,000</td>
<td>10,000</td>
</tr>
<tr>
<td>85</td>
<td>8,000</td>
<td>9,000</td>
</tr>
<tr>
<td>80</td>
<td>7,000</td>
<td>8,000</td>
</tr>
<tr>
<td>75</td>
<td>6,000</td>
<td>7,000</td>
</tr>
<tr>
<td>70</td>
<td>5,000</td>
<td>6,000</td>
</tr>
</tbody>
</table>

**In case of 3 days of fever:**

- **38°C**
  - 1.2 x energy for weight maintenance =
  - 1.2 x protein for weight maintenance =

- **39°C**
  - 1.3 x energy for weight maintenance =
  - 1.3 x protein for weight maintenance =

- **40°C**
  - 1.4 x energy for weight maintenance =
  - 1.4 x protein for weight maintenance =

**In case of adiposis (BMI > 30):**

- **Confined to bed**
  - Energy: current weight x 85 kJ =
  - Protein: current weight x 0.9 g =

- **Ambulatory**
  - Energy: current weight x 100 kJ =
  - Protein: current weight x 1.1 g =

#### INCREASE OF WEIGHT

<table>
<thead>
<tr>
<th>Current weight in kg</th>
<th>Confined to bed</th>
<th>Ambulatory</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Energy level</td>
<td>Energy level</td>
</tr>
<tr>
<td>90</td>
<td>11,000</td>
<td>13,000</td>
</tr>
<tr>
<td>85</td>
<td>10,000</td>
<td>11,000</td>
</tr>
<tr>
<td>80</td>
<td>9,000</td>
<td>10,000</td>
</tr>
<tr>
<td>75</td>
<td>8,000</td>
<td>9,000</td>
</tr>
<tr>
<td>70</td>
<td>7,000</td>
<td>8,000</td>
</tr>
<tr>
<td>65</td>
<td>6,000</td>
<td>7,000</td>
</tr>
<tr>
<td>60</td>
<td>5,000</td>
<td>6,000</td>
</tr>
</tbody>
</table>

**Energy requirement (kJ) and protein requirement (g)**

#### 4.2.1 Tube feeding (enteral nutrition)

Tube feeding is used for patients when nutritionally sufficient dietary intake cannot be achieved through diet and/or protein and energy supplements. Tube feeding is preferable to parenteral nutrition since tube feeding leads to fewer serious complications, ensures a more natural nutrition turnover in the organism and is far less expensive.
4.2.2 Total parenteral nutrition

Is used for patients where oral/enteral nutrition is not possible. The greater risk of serious complications must be considered and the age-corrected total score must be $\geq 4$ in the screening table for parenteral nutrition to be clinically effective.

4.2.3 Side effects

The side effects of tube feeding and parenteral nutrition are immediately very visible (see box), but to a large extent they can be prevented by including the possibility of side effects in the planning of the nutritional therapy. Consequently, every ward must be instructed in these types of nutritional therapy. The Danish National Board of Health has issued a guide about the use of tube feeding (4).

<table>
<thead>
<tr>
<th>Side effects</th>
<th>Parenteral nutrition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nausea</td>
<td>Pneumothorax</td>
</tr>
<tr>
<td>Vomiting</td>
<td>Haemorrhage</td>
</tr>
<tr>
<td>Aspiration</td>
<td>Infections</td>
</tr>
<tr>
<td>Stomach pains</td>
<td></td>
</tr>
<tr>
<td>Diarrhoea</td>
<td></td>
</tr>
</tbody>
</table>

Blood samples during both parenteral and enteral nutrition:
- Hgb, Na, K, creatinine, carbamide, phosphate, magnesium, glucose in plasma or urine.
- For parenteral nutrition also:
  - bilirubin, alkaline phosphatase, alanine aminotransferase, prothrombin time (PT)

4.3 Plan for monitoring food intake and weight changes

It is essential to monitor patients’ food intake and weight in order to document the nutritional intervention since there is generally no immediately visible clinical effect suitable for monitoring the effects of the nutritional therapy. Prevention of weight loss is the top priority with respect to treatment of nutritional risk. However, the anticipated weight change (e.g. 0.5-1.0 kg/week) is relatively modest in comparison with the precision of the weighing. Hence, significant weight loss/gain is not revealed until after some time has passed. Consequently, in clinical routines, more emphasis is placed on the dietary recording than on a single weighing. On the other hand, the dietary recording will show after few days whether the food intake is sufficient for the weight to increase.
4.3.1 Dietary recording

For all patients receiving nutritional therapy, an actual dietary recording must be carried out in which energy and protein intake is calculated daily. It is helpful to base the dietary recording on a standard daily diet plan made by the kitchen corresponding to each of the existing energy levels. An excerpt of a dietary recording form or an actual suggestion for one can be seen in Anbefalingerne for den danske institutionskost ("Recommendations for food in Danish institutions") (2).

Portion sizes are an essential basis for evaluating patients’ intake. The ability to meet patients’ energy requirements thus depends on the healthcare assistants’ knowledge of the energy content of food converted into amounts. The dietary recording form includes the meals necessary in order to cover the energy/protein requirements of a patient on a hospital diet, diet for people with small appetites or standard diet. Beside each meal, the patient’s intake of energy and protein is stated. An estimate of the intake as a percent of the daily requirement of the patient is also stated.

As such, the healthcare assistant is able to monitor sufficiency throughout the day. A rule of thumb is that each of the 3 main meals must correspond to covering an energy intake of 20-25 % and that each of the 3 snacks should cover 5-10 %. However, for patients with small appetites the snacks may constitute up to 50 % of the total energy requirement. After each meal, the healthcare assistant inquires about insufficient intake and encourages the patient to eat a little more or gives suggestions as to how the remainder may be made up for during the day.

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Example of ongoing calculation of sufficiency:
The patient has eaten all of their breakfast, taken the midmorning supplement and eaten half their lunch. As a result, coverage after lunch will be:

\[ 25\% + 10\% + \frac{1}{2} \times 25\% = 37.5\% \]

In order to catch up, the staff may suggest both an early and a late afternoon liquid supplement.

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4.3.2 Monitoring weight changes

Patients receiving nutritional therapy are to be weighed 3 times per week. The average of the 3 weighings is seen as the weekly result, which will alleviate potential errors in connection with visits to the toilet or meals before/after the weighing. The weight changes are monitored over time and within a couple of weeks, it will show whether the treatment is having the desired effects.
A guide for doctors, nurses, healthcare assistants, auxiliary nurses and clinical dietitians

SECTION OF DIETARY RECORDING TABLE WITH SUGGESTED MENUS FOR DIETS FOR PATIENTS WITH SMALL APPETITES AND NORMAL DIETS, RESPECTIVELY

<table>
<thead>
<tr>
<th>Diet for patients with small appetites</th>
<th>Normal diets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiled flat fish</td>
<td>¾</td>
</tr>
<tr>
<td>Shrimp and asparagus sauce</td>
<td>1 dl</td>
</tr>
<tr>
<td>Shrimp and asparagus sauce with double cream</td>
<td>1 dl</td>
</tr>
<tr>
<td>Potatoes</td>
<td>1</td>
</tr>
<tr>
<td>Shredded raw carrots</td>
<td>1</td>
</tr>
<tr>
<td>Canned pears</td>
<td>1</td>
</tr>
<tr>
<td>Custard sauce</td>
<td>1 dl</td>
</tr>
<tr>
<td>Buttermilk</td>
<td>2 dl</td>
</tr>
<tr>
<td>Full-fat milk</td>
<td>1.5 dl</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
</tr>
</tbody>
</table>

**A weight loss of one kilo** corresponds to an energy deficiency of approx. 20,000 kJ. If an ambulatory patient of 60 kg were to consume 7,000 kJ daily in accordance with the table of requirements in order to maintain their weight, but has only consumed 5,000 kJ/day, the anticipated weight loss will be approx. \((7,000-5,000)\times7)/20,000 = 0.7 \text{ kg / week}\.

All patients who consume less than 75 % of their maintenance requirements as stated in the table of requirements will lose weight. If the patient cannot be weighed, or if, owing to retention or loss of fluid, the weight is not applicable for assessing nutritional status, it must be ensured that the patient does not consume less than 75 % of their maintenance requirement.

**A weight gain of one kilo** corresponds to an energy surplus of approx. 30,000 kJ since it takes more energy to generate one kg of tissue than what is stored in the tissue. If an ambulatory patient of 60 kg consumes 10,000 kJ daily in order to gain weight, the anticipated weight gain will be approx. \((10,000-7,000)\times7)/30,000 = 0.7 \text{ kg / week}\. It is not realistic to achieve larger weight gains than this and in patients with a larger weight gain, one should suspect e.g. fluid retention as a contributing factor.

4.4 Evaluation of monitoring and adjustment of the treatment plan

If the patient’s food intake is insufficient to cover 75 % of their requirements for energy and protein or if the patient is losing weight, the nursing staff together with the doctor must assess the reason for the lack of appetite and adjust the treatment plan. Relieving lack of appetite must be seen as one of the problems for which the patient has become hospitalised. Part of the assessment is to determine how much of the calculated requirements for energy and protein that the patient managed to intake in the past 24 hours and allowances must be made for any potential effects of the illness and medication on the nutritional status. The doctor assists with promotion and maintenance of the patient’s appetite by explaining the underlying factors for poor appetite to the patient in a comprehensible manner. The nursing staff con-
tributes by giving concrete suggestions and initiating dialogue with the patient about solving the problem. Explain to the patient what needs to be done in order to improve their desire for food as well as its prognosis for the following couple of days, and to motivate the patient to eat in time with their appetite returning.

4.5 Reasons for low food intake or weight loss

In connection with the survey of Malnutrition in Hospitals (MIH), the following reasons for insufficient food intake (< 75 % of energy requirements) were identified as the most frequent:

- poor appetite,
- the patient lacked motivation,
- the patient was fasting due to medical examinations,
- the patient was too weak to eat or
- the patient was unable to eat because of nausea and vomiting.

Nausea and vomiting should be medically prevented.

Appendix 3 contains advice on how to alleviate lack of appetite and eating disorders. Appendix 4 describes patient motivation. In the catalogue of ideas, permanent and other problems in relation to treatment procedures are discussed.

4.6 Completion of nutritional therapy

When the evaluation of the monitoring shows that the patient eats sufficiently and the weight is suitable, an assessment to establish whether the patient is still an at-risk patient is conducted by means of a secondary screening. If the screening score is less than 3 and the patient is able by their own means to consume enough to cover their energy and protein requirements, the patient is no longer at nutritional risk. A diet is prescribed, and the patient is re-screened on a weekly basis.

If the patient is discharged before the nutritional therapy has been completed, suggestions for follow-up are noted in the letter of discharge.
5 Delegation of responsibilities and tasks

Responsibility for patient nutrition lies with the management as well as doctors, nursing staff, clinical dietitians, catering officers and catering staff.

The hospital management is responsible for having a general food policy and for instilling the policy within the organisation. The ward management is responsible for implementing the food policy. It is also the responsibility of the management to ensure that all new patients are informed about the food policy of the hospital. Additionally, the hospital management in collaboration with the individual wards must ensure that all necessary guides and instructions are available and that all staff groups are taught about them.

Below are suggestions for delegating responsibilities in the wards. It is not vital that responsibilities are delegated according to the guidelines below, but it is the responsibility of the management to ensure that responsibilities for each step are described and clearly placed.

5.1 Suggestions for organisation

5.1.1 Screening

The doctor ensures that all at-risk patients are identified according to the screening table and that all results are noted in the medical records. Screening may be conducted by the nursing staff.

5.1.2 Treatment plan

Estimates of requirements are determined by the nursing staff or a clinical dietitian. Prescription of the dietary regime, including tube feeding or parenteral nutrition, is conducted by the doctor in collaboration with the nursing staff and, where appropriate, a clinical dietitian. The dietary regime is entered in the medical records. The nursing staff inform the patient of the importance of the diet and involves the patient in ordering the food.

The ward ensures that the patients receive the assistance needed and time to eat. Since the reasons for insufficient energy intake are multifactorial, support is required from others, e.g. physiotherapist, pharmacist or dental assistant.

Recording of food intake and weight changes is conducted by the nursing staff closest to the patient. If, for several days, the patient consumes less than 75% of their maintenance requirements or if the patient has lost more than 1 kg in a week, the doctor assesses the reason for this and adjusts the nutritional therapy accordingly. The monitoring results are noted in the medical records and the discharge letter.
6 Quality control

The aim of the quality control is to conduct ongoing assessments and to adjust the nutritional initiatives keeping in mind minimisation of the gap between the explicit demands and the level actually achieved. The structure, process and result of the initiatives can be quality controlled. We recommend that results are assessed initially followed by the process. To begin with, it is recommended to examine whether all patients are screened and whether a treatment plan is made for all patients at nutritional risk. The next step is the central measurement of whether the patients receive enough food. Finally, a measurement to ensure that all non-risk patients will be re-screened is recommended. Depending on the patients in the ward, the individual ward has the discretionary power to select the indicators relevant to quality control.

- Percentage of patients screened for nutritional risk
- Percentage of patients at nutritional risk receiving a treatment plan
- Percentage of at-risk patients having their requirements for energy and nutrients covered
- Percentage of not at-risk patients re-screened during hospitalisation

It is recommended to carry out a basic assessment to document the need for targeted nutrition initiatives. Subsequently, the quality control is performed at regular intervals and possibly supplemented by an external assessment.

For further details on the quality control, see the catalogue of ideas (in Danish).
7 How it can be done

“Netværk af Forebyggende Sygehuse” (Network of Prophylactic Hospitals) has compiled a series of recommendations and methods for establishing a systematic preventive initiative in the field of nutrition in hospitals. Together with the examples in the catalogue of ideas the network points out that it would be appropriate for the management to adhere to the following strategy plan for nutritional initiatives:

1) *Appointment and education* of resource persons

2) *Multidisciplinary Nutritional Groups (MNG)* to be set up in the wards in order to *ensure implementation and concrete achievement* of goals in relation to:
   - how to *assess and monitor* the nutritional status of patients
   - how to *plan and initiate* nutritional therapy of patients at risk of undernutrition
   - how to *counsel* in connection with diet-related and preventable problems
   - how to concretely place *responsibility* for conducting the tasks
   - how to *organise* the meal service – including the physical framework and resources for solving the tasks
   - how *communication* between patient and staff, ward and kitchen, hospital and primary health sector is to take place
   - how to carry out *quality control*
   - how to *maintain* and adjust the initiative

3) *Education* of clinical staff regarding initiatives aimed at patients and their families

4) *Establishment of initiatives* aimed at patients and their families

5) *Execution* of standards for sound nutritional practice

6) *Quality control* of certain indicators to be conducted at regular intervals

7) *Causal analysis* of the results of the quality control

Intervention projects focused on screening, dietary recording, and development of menus aimed at individuals suffering from illness or with small appetites have shown that dietary intake can be increased considerably among at-risk patients (5).

7.1 Networks

“Dansk Selskab for Klinisk Ernæring” (Danish Society for Clinical Nutrition) was founded in 1996. The society has approx. 200 members who are employed by hospitals and approx. 30 % of them are doctors. The society issues a newsletter, arranges an annual meeting and arranges 4 theme-oriented multidisciplinary meetings as well as separate supplementary education for nurses and clinical dietitians. Further information can be found at [www.dske.dk](http://www.dske.dk)
“Netværk af Forebyggende Sygehuse” founded the network group “Nutrition” in August 2000. In April 2003, the network’s action plan for “Nutritionally correct hospital” was launched: www.forebyggendesygehuse.dk The network closed down by the end of 2007 but the website is accessible throughout 2008.

Since 2000, the project “The Good Medical Department” (GMD) has had status as a national project with its own secretariat financed by all counties in Denmark. The aim of GMD is to involve medical departments in a clinical quality development process. It is based on a series of proposals for standards compiled by doctors and nurses such as from the scientific societies and DSR (Danish Nurses Organisation). The project is planned to run for 5 years and it involves quality development of wards by their participation in annual cross-sectional studies or completion of individual projects. In 2001, in collaboration with DSI Danish Institute for Health Services Research, the Danish College of General Practitioners, the Association of home care nurses and representatives from the hospitals, GMD compiled standards and indicators for the themes: Discharge, Ambulatory course and Patient information. Further information at: www.dgma.dk
Appendix 1: Documentation for nutritional initiatives

Occurrence of undernutrition: Scope of the problem

According to several studies from the mid 1980s until today, undernutrition in hospitals is a frequent occurrence. It is estimated that approx. 30% of patients in Danish hospitals are undernourished and that dietary intake during admission corresponds to approx. 60% of the nutritional requirements (6). Among long-term admitted patients (> 10 days in hospital) the occurrence of undernutrition is probably somewhat higher since undernourished patients are hospitalised for considerably longer than non-undernourished patients. An in-depth American study of approx. 800 hospitalised patients (7) revealed that the occurrence of complicated hospitalisations were three times higher among undernourished patients as compared to non-undernourished patients. As in Danish hospitals, the undernourished patients accounted for approx. 30% of all American patients. An English study revealed that 75% of the patients who were undernourished at admission to the hospital were even more undernourished when discharged (8). During the project Undernutrition in Hospitals, 250 patients were screened at admission to each of 3 hospitals: Hobro-Terndrup Sygehus, Nykøbing Falser Centralsygehus and Rigshospitalet. Approx. 20% of the patients were at nutritional risk at admission to the hospital according to the secondary screening on page 13. Only 25% of these patients had their nutritional requirements covered. It took 5 weeks before 90% of the at-risk patients were discharged, whereas 90% of the patients who were not at nutritional risk were discharged within 2 weeks. The main reason for the inadequate treatment of nutritional problems was a lack of procedures and guidelines, lack of education and knowledge and lack of practical experience (3).

Reasons for undernutrition

The reasons for undernutrition can be attributed to patient conditions and conditions in the hospital/ward. When attributed to the patient, the primary reason is often lack of appetite combined with increased nutritional requirements (particularly energy and protein), which accompanies most illnesses during their “active phase” (stress metabolism) (9). In addition, illnesses and symptoms (e.g. swallowing problems and constrictions in the stomach and intestines) may contribute to reduced food intake just as pains and tension caused by the stressful situation the patient finds themselves in can influence their desire to eat. For some patients, weight loss and incipient undernutrition are the very reasons leads the patient to consult their GP and being referred to hospital.

In the hospital, lack of attention to nutritional problems is to a large degree a contributing factor to undernutrition; cf. the weight loss during hospitalisation mentioned above (9). Obviously, the patients’ lack of appetite continues to be a major problem and, as such, helping lack of appetite must be regarded as one of the problems for which the patient has been hospitalised for.

There is often conflict between the patient’s wishes, the treatment given and the meal service offered. Medicine can contribute to lack of appetite. Ward rounds, ex-
aminations and treatment may occur during mealtimes and many examinations require fasting according to poorly documented traditions. No replacement meals are arranged following examinations or when surgery is cancelled.

The lack of delegation of responsibility for the various links in the chain that may be involved in the nutritional therapy (patient, healthcare assistant, nurse, doctor, clinical dietitian, kitchen and pharmacy) contributes to the scope of the problem. A questionnaire (10) has shown that both doctors and nurses felt that they were the one in charge of seeing to the patients’ nutritional problems, but none took on the responsibility in practice.

The consequences of undernutrition

The consequences of undernutrition in people suffering from illness can be difficult to distinguish from the consequences of the illness itself. Undernutrition (> 15% weight loss) in healthy research subjects leads to, amongst other things, weakening of muscles, loss of fitness and apathy.

For patients, undernutrition is related to, amongst other things, slow mobilisation and reduced respiratory muscle strength. The immune system deteriorates and infections frequently occur. Healing of wounds deteriorates and the risk of bedsores increases. All of the above contribute to prolonging the illness and recovery. The degree to which energy, protein, vitamin and mineral deficiencies individually contribute to these consequences is not known.

Effect of targeted nutritional therapy

A recent systematic review of all studies of supplements or tube feeding (11) showed that nutritional intervention improves survival rate. A meta-analysis of 67 controlled studies of 4,700 patients highlighted that nutritional intervention increases survival rate, reduces the occurrence of complications and reduces the occurrence of infections (12).

A recent meta-analysis of all studies of parenteral nutrition (13) showed that there is virtually no beneficial effect from using parenteral nutrition. However, the meta-analysis emphasises that there are only few studies of the patient categories where parenteral nutrition is most frequently used (severely undernourished or severely stress metabolic patients in which enteral nutrition is not possible). A literature analysis (14) of all controlled studies of nutritional intervention (food, supplements, tube feeding, parenteral nutrition) versus spontaneous intake revealed that nutritional therapy has a positive effect in those patient categories where it is indicated according to the screening table.
Financial consequences of nutritional therapy in hospitals

An American study of approx. 800 hospitalisations (7) revealed that the occurrence of complications were approx. 3 times higher among undernourished patients as compared to non-undernourished patients. The study further revealed that the variable costs of treating an undernourished patient are higher than treating a non-undernourished patient. As a result of the more frequent occurrence of complications, the average hospitalisation for an undernourished patient is 50 % more expensive than an average hospitalisation for a non-undernourished patient, which is jointly because of higher costs per day in hospital and because of a longer length of stay.

According to the available randomised studies, the higher occurrence of complications among undernourished patients may be reduced by 50-100 % through a targeted nutritional intervention. An estimate by the Danish Veterinary and Food Administration (6) suggests that the annual savings in Denmark as a result of introducing nutritional therapy in hospitals would be DKK ½-1 billion (in 1997).

Screening for nutritional risks

The design of the screening table is based on a systematic analysis of 128 controlled studies of dietary intervention versus spontaneous food intake (14). Of these, 57 studies revealed a positive effect on the clinical course (see box above) on effects of nutritional therapy), whereas the others showed no effect. The studies that revealed a positive effect were characterised by the fact that the patients were severely malnourished, severely ill (i.e. stress metabolic), moderately malnourished + slightly ill or slightly ill + moderately malnourished (cf. the screening table), whereas the studies with no effects were characterised by the patients not meeting those criteria. Furthermore, the analysis showed an increased effect among the elderly (≥ 70 years) and a smaller effect of parenteral nutrition compared to supplements or tube feeding. An important aspect of the screening table is that secondary
screening not only reveals current undernutrition, but also the risk of becoming undernourished, e.g. in the case of a patient in intensive therapy who has adequate nutritional status at admission.

The screening table is compiled by the Danish Society for Clinical Nutrition in collaboration with ESPEN (European Society for Clinical Nutrition and Metabolism) and is part of the ‘Recommendations for food in Danish Institutions’ (2).

It should be noted that there are no laboratory tests that can specifically identify whether a patient is suffering from undernutrition. Most nutrition-related laboratory tests (e.g. plasma albumin) are only slightly affected by undernutrition, but very much affected by other conditions (e.g. illness activity or fluid retention).
Appendix 2: Diet in hospitals

The following examples are from *Recommendations for food in Danish Institutions* (2) issued by the Danish Veterinary and Food Administration in which the various types of diets are described in more detail.

Depending on the energy requirements of the patient, various energy levels are offered. Energy levels of 7 MJ (small portion), 9 MJ (standard) and 12 MJ (large portion) cover most patients’ requirements – this includes drinks that are expected to be served by the nursing staff. Other energy levels will often be accommodated for by supplementing the three phases with energy dense drinks.

**Hospital diet** is suitable for patients who are undernourished at admission or who are at-risk of becoming so. It is important to be aware that a prescribed diet is not definitive, but should be continuously assessed in relation to the nutritional status of the patient (see flow chart). In particular, patients who are hospitalised for a long time and older patients with reduced appetite require increased attention. The hospital diet should be composed so that it covers the individual’s energy and nutritional requirements and should allow the patient the opportunity to intake more energy and protein in smaller amounts of food. In order to achieve this, the hospital diet must have higher contents of fat and protein and lower contents of carbohydrates and fibres than a standard diet. *As such, the hospital diet is not an ideal example of a dietary regime for healthy people.*

**Hospital food should have the following composition:**

<table>
<thead>
<tr>
<th>Energy: corresponding to the patients’ nutritional requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>(9 MJ per 24 hours (standard portion) covers most patients’ requirements)</td>
</tr>
<tr>
<td>Fat: approx. 40% of the energy (approx. 100 g per 24 hours)</td>
</tr>
<tr>
<td>Carbohydrate: approx. 42% of the energy (approx. 225 g per 24 hours)</td>
</tr>
<tr>
<td>Protein: approx. 18% of the energy (approx. 95 g per 24 hours)</td>
</tr>
<tr>
<td>Fibre: given as a supplement when appropriate (15-20 g per 24 hours)</td>
</tr>
<tr>
<td>Vitamins and minerals: corresponding to the Normal diet</td>
</tr>
<tr>
<td>Nutritional supplement: one multi-vitamin-mineral tablet</td>
</tr>
<tr>
<td>Distribution of meals: three main meals and three snacks</td>
</tr>
</tbody>
</table>

(spread over the entire day and evening)

**Diet for patients with small appetites** is furthermore energy-dense, but particularly developed in order to generate to the appetite of patients with very little desire for food. This type of diet involves e.g. various options and consists of many smaller portions distributed over 6-7 meals. Snacks are often a good strategy for achieving optimal results. For snacks, energy intake can be increased without adversely affecting the main meals, e.g. by offering liquid energy/protein supplements. It is easier to drink calories than to eat them.
Snacks should be offered regularly throughout the day by staff that is well informed about the kitchen’s offers, products, taste variants and serving possibilities.

**Texture modified diet** is of a softer texture than the hospital diet. Easily chewed/swallowed food is used for patients with reduced chewing/swallowing capacity (dysphagia), such as with pain (infections) in the mouth cavity and throat, paralysis and deteriorated general conditions in cases of Alzheimer’s disease and amyotrophic lateral sclerosis (ALS).

Easily chewed/swallowed food is often a part of the diet for people with small appetites and it is also an important component of individualised nutritional therapy such as when weaning from tube feeding.

Thick consistency foods, such as fermented dairy products, are often easier to swallow than liquid or solid foods. It is important that the texture of the food is adapted to the individual patient’s needs in order to ensure sufficient intake of energy and protein, since this group of patients is at a particularly high risk of developing nutritional problems.

The correct consistency is often vital for whether the patient eats the food.

Additionally, the food has the ability to support the patient’s eating rehabilitation. It is often necessary to complement the food with energy and protein supplements since mincing increases the volume of the food and often results in low dietary intake of especially meat and, therefore, protein. The nutritional status of the patient should be closely monitored.

**Standard diet** is prescribed to patients who are assessed as currently being free of nutritional problems. Also, the standard diet is the appropriate basic treatment for patients with atherosclerotic diseases, diabetes and obesity provided as long as the patient is not at nutritional risk. It should be noted that obese patients might also be at risk of undernutrition due to stressful illnesses.
Appendix 3:
Tips for alleviating lack of appetite and eating disorders

Stimulation of appetite

The fact that patients lose their appetite is a part of stress metabolism; reduced appetite consists of lack of hunger stimulation, a premature feeling of fullness or a combination of both. Thus, much can be gained by reminding the patient to eat and by serving small portions regularly.

Tips

Give many small appetisers/snacks throughout the day
At admission to the hospital, the patient should be given an information leaflet about choices on the ward regarding the various meals including snacks. The patient should be given the opportunity to eat when hungry or when their lack of appetite is at its least. Therefore, the ward should have a stock of frozen soups, desserts and snacks available for quick reheating in a microwave oven for use outside of normal meal times. An appetiser, such as a glass of juice half an hour before the meal, enhances appetite.

Appetite can also be stimulated by offering fresh, warm bread with a strong aroma as an accompaniment to meals. Ensure that spices – preferably fresh ones – are served with meals so that the patient can season the food as preferred.

Give medicine at the right times
Medicine should be given at times when they enhance appetite. If painkillers are prescribed, they should be given well in advance to give an optimal effect when the meal is served. Medicine causing dyspepsia should be avoided since the recommended dosage together with the meal may reduce the food intake. Medicine that causes decreased appetite should not be given near a meal.

Offer hand and mouth hygiene
The patient will enjoy the food better with clean teeth/dentures, mouth cavity, lips and hands – the patient should be offered hand and mouth hygiene before and after the meal.

Ensure that the environment stimulates appetite
The dining table or bedside table should be set and the room should be aired out well. The patient should not be disturbed when eating. The patient should have the option of eating together with others or eating alone.

Ensure appropriate position
Patients, including patients confined to a wheelchair or to bed, should be able to sit comfortably during the meal.
Nausea and vomiting

Nausea can manifest from a severe degree of lack of appetite, but it can also be caused by many other things including insufficient food intake. It is important to review potential causes systematically. If the nausea is constant, the reason must be assessed and treated with painkillers and anti-nausea medicine where appropriate.

Nausea may get worse because of:

- Tiredness. A rest before the meal can reduce nausea and improve appetite.
- A full stomach. Distribute meals over as many hours in the day as possible. Ensure a good position during the meal. Avoid lying flat immediately after the meal in order to minimise gas and nausea. By eating slowly and thoroughly chewing food, nausea and discomfort can be avoided. The food should be easy to chew and easy to swallow.
- Poor indoor climate. Ensure therefore that the room has been aired out before the meal.
- The smell of hot food: Offer cold meals.
  - Bananas, oatmeal, toast, rusks, biscuits and crisp bread can alleviate nausea and are best at preventing vomiting.
  - A sour hard candy, a peppermint tablet or brushing ones teeth can remove unpleasant flavours from the mouth, freshen up and thus prevent nausea.
  - Fizzy drinks (cola in particular) and sour drinks can alleviate nausea and are generally gentler than other drinks.

Constipation

Take note of how much constipated patients eat and drink. If the reason for constipation is too low an energy intake, the best cure is to eat and drink more. This is best achieved by offering a Diet for patients with small appetites and complementing it with dietary fibre supplements in the form of e.g. Husk or ordinary wheat bran. It is important that patients have plenty to drink, approx. 2½ litres of fluids every day. Prune juice (and prunes) improves bowel movements. Fermented dairy products may also be beneficial. There is no evidence that milk should cause constipation when part of a varied diet. As such, encourage patients to continue drinking milk since it provides both energy and fluids – both are helpful against constipation. Exercise and physical activity are important and a vital part of treating constipation since it stimulates the appetite among other things.

Diarrhoea

Assess the cause and bananas, grated apples, oat soup, oatmeal, white bread, potatoes, mashed potatoes and rice can usually alleviate the worst discomfort in the first 24 hours. Do not offer a ‘Skåne diet’ (e.g., mostly grated fruits and various fluid mixtures and porridges) since this has no beneficial effect on diarrhoea. Fermented dairy products and products containing useful intestine bacteria (Idoform, Paraghurt etc.) can help with building up a normal intestinal flora.
Alleviating eating disorders

Patients suffering from dysphagia should be offered easily chewed/swallowed food. The consistency of the food is vital for whether the patient can eat it: both solid food and liquid food can be impossible to swallow for a patient suffering from dysphagia. An occupational therapist can evaluate the dysphagia.

In some cases, the patient needs to be spoon-fed. A patient may find it humiliating to be spoon-fed. Therefore, it requires a sound knowledge of the patient and fine improvisation skills to feed a patient. The patient must sit comfortably and in privacy from other patients. The patient must be able to see the food so that the sight and smells can stimulate their appetite. The nursing staff must pay attention to the patient’s reaction to the food. During the meal, the nursing staff must stay with the patient and exercise patience.

Changes in taste

Illness and treatment may affect sense of taste and smell. The food will no longer taste and smell as it used to do. General distortion of sense of smell can also occur. For example, perfume, flowers and body odours may seem different and cause nausea and discomfort. Sour and bitter tastes often seem more powerful than usual, whereas sweet and salt can seem weaker in flavour.

Beef and pork may be perceived as bitter, and, as such, poultry, fish or eggs are recommended instead. Give the patient the opportunity to season the food with herbs, salt or sugar to adapt the food to the changed sense of taste.

Mouth problems

Dryness of the mouth is frequently overlooked. Several things can cause dryness of the mouth. Many medications have anticholinergic side effects, e.g. opioids, antidepressants and neuroleptics. Fungal, virus or bacterial infections often occur in the mouth cavity, not only as a complication in connection with chemotherapy or radiation of the mouth cavity and salivary glands, but also as part of ordinary weakness and diminished resistance. Reduced food intake reduces the secretion of saliva, which can aggravate dryness of the mouth. Other provoking and aggravating factors can be oxygen treatment or mouth respiration. Dehydration causes dryness of the mouth.

Mouth infection

Irritation or fungal growth can be painful. Local anaesthetic or painkillers are recommended. Jellied foods are particularly suitable for patients with a sore mouth. The jelly melts in the mouth and makes it easier to swallow the food. Drinks containing energy and protein, to which a thickening agent may be added, should be used to supplement the diet.
A sore mouth can also be soothed by:

- Cold yoghurt, ice-cream or crushed ice before, during or after the meal
- A drinking straw can take liquid past the sore mucosa in the mouth

Serious long-term mouth problems are best alleviated by using tube feeding.

Inspiration for this section was found in the Danish National Board of Health’s publication Faglige retningslinier for den palliative indsats (Professional guidelines for palliative efforts) (15), the Danish Veterinary and Food Administration’s publication Uden mad og drikke (Without eating or drinking) (16) and Allingstrup’s book on Kræft, kost og energi (Cancer, diet and energy) (17).
Appendix 4:

Patient motivation

A large number of the patients with reduced food intake do not have any other problems apart from forgetting to eat owing to their reduced appetite. In other patients, direct coaxing is necessary. The doctor and the nurses carry a large responsibility to motivate the patients. Persuade the patient to start eating. Explain to the patient that it is important to eat well when ill. One recovers quicker and more easily if one receives the energy and protein the body requires.

Talk to the patient about how to ‘spoil’ him- or herself in particular, and make agreements about how you are going to collaborate to achieve the targets agreed upon. Use the dietary recording table as a basis for the dialogue. To base the efforts on measured data is a strong motivation factor.

Praise the patient for the portion of the daily requirements of energy and protein that has been covered. Discuss with the patient how any deficiencies can be covered at the next meal.

Energy and protein tables can assist the nursing staff and the patient to convert lacking energy/protein to manageable portions.

If discomfort from the illness or side effects from the medicine makes the patient unable consume what has been agreed, despite the best will in the world, then discuss this with the patient and explain what can be done to alleviate the discomforts. A clinical dietitian has a great amount of experience in assessing and alleviating eating problems and should be consulted when in doubt.

Consciously or not, the main meals of the day are “rituals” to many people. The nursing staff must try to get wholeheartedly involved in the patient’s rituals. This is achieved by spreading out the napkin, taking the lids off the dishes, telling the patient what is on the plate, assisting with opening any pre-packed items, pouring milk over porridge and into the glass, cutting up the meat, buttering the bread and so on.

The last remaining desire for food can easily be lost if the patient’s meal culture is not respected. Conversely, showing an interest in the patient’s rituals and meal culture will give the impression of caring. This care can make it easier for the patient to come to terms with unpleasant and treatment-related experiences.
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