



This document provides an overview over nDay hospital and oncology questionnaires and it provides explanations and definitions.

Hospital sheets

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nDay Hospital questionnaires

Sheet 1a/1b: Unit Sheets

General terms:

Date: Insert the nutritionDay date of your data collection by entering (dd/mm/yyyy).

Centre Code: Please insert the anonymous Code (1 to 9999) that you received from the coordinating center. Codes from previous years remain valid.

Unit code: Please insert the anonymous Code (1 to 9999) that you received from the coordinating center. Codes from previous years remain valid.

1. **a. Main speciality:** Please choose the main speciality of this unit.
b. For surgical units only: if in 1a you selected a surgical specialty, please indicate if your unit follows the ERAS (Enhanced Recovery After Surgery) protocol, if there is a ERAS team and if you audit your results.
2. **Number of registered inpatients at noon:** Please indicate the total number of patients that are present and registered at midday of nutritionDay. Please include patients who have been admitted earlier today or who have not yet been discharged.
3. **Total bed capacity of the unit:** Please enter the total bed capacity of the unit independent of how many beds are currently staffed.
4. **Number of each type of staff in the unit for today's morning shift (excluding cleaning and temporary nDay staff):** Please fill in the total number of people working on your unit on today's morning shift in each of the categories. Choose any morning shift if data of working staff is not fully available at point of data entry. Please also count external staff.

Medical doctors/fully trained: doctors who have completed their medical degrees to become specialists.

Medical doctors/in training: Doctors with an ongoing training to become a medical specialist and all other doctors which are not considered medical specialists apart from medical interns or medical students.

Medical students: all medical interns or medical students working in the unit.

Nurses/fully trained: all registered nurses with a nationally accepted diploma. Nurse/in training: nurses with ongoing training to become a registered nurse and interns.

Nursing aides: nurse auxiliaries and nursing aides that have either completed their training courses (fully trained) or with ongoing training courses (in training).

Dieticians/fully trained: staff with completed training as required in the country to become a dietician. A dietician is a nutrition expert with training (or in some countries, accreditation) to provide patient medical nutrition therapy including administering artificial nutrition. Count staff/interns with ongoing training to become a dietician as “dieticians in training”. Nutritionists: please consider any other nutrition expert who consults patients on eating and dietary habits, but is not trained or accredited to provide artificial nutrition as a “nutritionist”. Consider as fully trained staff with completed training required in the country to become a nutritionist. As nutritionist in training count staff/interns with ongoing training to become a nutritionist and interns. Administrative staff: please include all administrative staff not involved in patient care working in the unit and interns.

Other staff involved in patient care/as fully trained comprises all physiotherapists, logo therapists, ergo therapist, occupational therapists, psychologists, psychotherapists with degree. In training count the above professions with ongoing trainings and interns.

5. **Is there a nutrition support team in your hospital available?** Please answer this question by selecting “Yes” or “No”.
6. **Does the unit have a nutrition care strategy?** Please answer this question by selecting “Yes” or “No”. A nutrition care strategy applies if general nutrition goals, standards, tasks, roles and responsibilities and/or reporting are defined on a unit level.
7. **Is there a person in your unit responsible for nutrition care?** Please answer this question by selecting “Yes” if there is a person who is the first contact person for dealing with a nutrition care issue in the unit.
8. **Is there a dietician, nutritionist or dietetic assistant available for your unit?** Please answer the question with “Yes” if one of the above mentioned professions are permanently or partly available for the unit or if someone is available on request.
9. **Is specific staff responsible for providing feeding assistance to patients during meal times?** Please answer with “Yes” if there is specific staff responsible for helping patients eat.
10. **How do you MAINLY screen/monitor patients for malnutrition?** Please answer this question separately for screening and monitoring (one option per column). Please choose only the tool which is mainly used for screening at admission and which tool is mainly used for monitoring during hospital stay. Please choose “no routine screening” or “no routine monitoring” if screening and monitoring are not routinely performed using a specific tool.
11. a. **Do you routinely use guidelines or standards for nutrition care?** Please only answer with “Yes” if procedures exist and they are commonly used in your unit.
b. **If yes, which one is mainly used?** Please choose only one of the answering options.
- 11.
12. **What is routinely done in your unit for given patient groups?** Please mark for each patient group what is routinely done in your unit. Please mark all that apply per row.
13. **When do you routinely weigh your patients?** Please select answer/s
14. **What do you do to support adequate food intake of patients?** Please mark all that are routinely offered or considered for patients in your unit.
15. **Which nutrition-related standards or routine activities exist in your unit?** Please mark all that are routinely offered or done in your unit. A nutrition training is to be considered available if trainings or specific courses are provided for unit staff. A

nutritional steering committee is responsible to set the overall strategic direction for nutritional care and overlooks its implementation. Nutrition related quality indicators are statistical measures of output or process quality that can be used by managers and decision makers to improve care.

16. **At admission what is asked and documented?** Please mark all options that are routinely asked and documented during the process of admitting a patient.
17. **On what forms is there a specific part about eating, nutrition or malnutrition?** Please answer both sections (a and b) separately by marking all answering options that apply.
18. **Do you provide brochures about malnutrition to at risk/malnourished patients?** Please answer this question by selecting “Yes” or “No”.
19. **Who filled in this sheet?** Please select option/s

Hospital sheet

Completing this questionnaire may need support of the hospital management, the human resource department or the financial department.

1. **Total number of beds in the hospital:** Please enter the total bed capacity of the hospital independent of how many beds are currently available.
2. **Total number of admissions in the hospital last year:** Please enter the number of hospital admissions to the hospital in the last year. Do not count day patients. Please consider a 12 months period.
3. **Total number of staff in the hospital:** Please enter the most recently available number of staff employed in the hospital for each of the given categories. Please do not consider staff who are consultants, freelance, and/or contract workers. If possible also provide full time equivalents.
4. **Does the hospital have a nutrition care strategy:** A nutrition care strategy applies if general nutrition goals, standards, tasks, roles and responsibilities and/or reporting are defined on a hospital level.
5. **Which nutrition-related standards or activities exist in your hospital?** Please tick all that are routinely offered for or done in your hospital. A **nutrition training** is to be considered available if trainings, meetings, congress participation are provided for hospital staff. A **nutritional steering committee** is responsible to set the overall strategic direction for nutritional care and overlooks its implementation. Nutrition related **quality indicators** are statistical measures of output or process quality that can be used by managers and decision makers to improve care.
6. **Which codes are available/routinely used in your hospital for billing and reimbursement purposes?** Please contact your billing or controlling department for information on what codes are available (exist) and what codes are typically actually used for billing and reimbursement.
Available codes refer to those codes which are available for billing a reimbursement authority. Routinely used codes are those that are typically used by the hospital for billing reimbursement authority.

Sheet 2a / Sheet 2b: About your patients' sheets

Patient inclusion & general information

All patients in the unit should be provided with an individual patients ID and information (patient ID, year of birth, sex, date of admission and patient consent) should be collected. Data collection can be done by any person with access to the patient records.

Date: Insert the nutritionDay date of your data collection by entering (dd/mm/yyyy).

Patient number (ID): Please assign an individual number (ID) to each patient present on nutritionDay. The ID of one patient should be the same on all sheets (2a, 2b, 2c, 3a, 3b and outcome). Please keep this record sheet in order to track patients later during data collection and for outcome data collection.

Patient consent: Please indicate if the patient gave his/her oral or written consent to participate in nutritionDay. This project is considered an audit in many countries that does not necessitate a formal approval.

Date of admission: Please enter the date when the patient was admitted to this hospital like this: dd/mm/yyyy.

Year of birth: Please enter the patient's year of birth (e.g. 1973)

Sex: please select the patient's sex (female/male/other)

Weight in (kg/pounds): Please enter the patient's most recently measured weight in kg or pounds if this patient was weighed during this hospital stay. If weight is not available please estimate the current weight of the patient or ask the patient for his/her current weight.

Height in (cm/ft./inch): Please enter the patient's measured height in cm or feet/inches if it was measured during this hospital stay. If the height is not available please estimate the height or ask the patient for his height.

This hospital Admission was: Please mark whether admission to hospital was planned, an emergency or unknown

1. **Diagnosis at admission:** Please mark all diagnosis codes that apply at admission of this patient. Mark this in 1. The ICD-10 codes are displayed according to the body figure and relative organ position for quicker identification of the ICD-10 code.
2. **Main reason for admission:** Please indicate which of the above codes corresponds to the main reason for the current hospital admission.
3. **Which conditions/comorbidities does this patient have:** Please mark which of the indicated comorbidities/conditions the patient is currently or in general suffering from. Note that comorbidities are organized by specific comorbidities and more general ones. Indicate if the patient has no comorbidities or other comorbidities not listed above.
4. **Previous ICU admission before hospital stay?** Please mark "Yes" or "No" or I don't know.
5. **Is this patient terminally ill?** Please indicate "Yes" if treatment limitations are considered or applied.
6. **Fluid status today:** please select among options
7. **Number of different medications planned TODAY?** Please count separately all oral medications and non oral medications including chemotherapy independent of the exact dose given. As medication please consider any medications that are given internally, whether orally, anally, intravenously. You may count the numbered order lines in the patient record.

8. **Was this patient identified as malnourished or at risk of malnutrition?** Please indicate according to your assessment or as a result of a nutritional screening.
9. **IV Fluids today:** please select among options
10. **Number of ONS drinks planned (TODAY):** Please enter the number of oral nutritional supplements (ONS) drinks given independent of size or density.
11. **Nutrition intake (TODAY):** please enter “Yes”, “No” or “I do not know” for each line.
Regular hospital food is the standard food (including vegetarian option) available at the hospital that is unchanged in texture and without changes to micro- or macronutrients.
Fortified/enriched meals are meals with increased content to macronutrients (energy, fat, fibre, protein, fat, salt, etc.).
Special diets is indicated when the regular hospital food is modified or replaced due to allergies, intolerances or swallowing problems. This includes diabetic diet, texture modified diets (processed meals, pureed meals, thickened fluids) and vegan diets or any other therapeutic diet (e.g. low fat, low salt, low carbohydrates,...).
As protein/energy supplements tick if the patient received oral nutritional supplements only or in addition to his meal.
- 12a. **All lines and tubes (TODAY):** Please mark “yes” or “no” for each line. Count all lines and tubes irrespective of use for nutrition or other purposes.
- 12b. **Complications with nutrition lines and tubes:** Please select among options
13. **Please indicate if any of the following was done for this patient since admission:** please mark “Yes”, “No” or “I do not know” for each line.
- 14a. **Energy goal (YESTERDAY):** Please indicate what the energy goal of this patient was yesterday. Please enter “not determined” if energy goal was not set or mark “I do not know” in any other case.
- 14b. **Energy intake (YESTERDAY):** Please mark the documented energy intake of this patient yesterday. Please indicate “not determined” if the energy intake was not calculated or mark “I do not know” in any other case.
15. **Since admission, this patient’s health status has...** Please provide your professional opinion of how this patient’s health status changed since hospital admission. If you are external staff/intern please ask your contact person in the unit for his/her opinion.

Sheet 2c: Surgery sheet (only for surgical patients)

16. **a. Previous operation during this hospital stay:** Please indicate if this patient has undergone surgery during this hospital stay. Please count any surgical procedure regardless of whether or not it is related to the current reason for admission.
b. Planned operation during this hospital stay: Please indicate if this patient has an operation planned during this hospital stay. Please count any surgical procedure regardless of whether or not it is related to the current reason for admission.
17. **Surgery type (single choice)** Please select among options to describe a planned or unplanned surgery
18. **Surgical approach (single choice)** Please select if this is an open surgery (major surgery) or a minor one, less invasive (laparoscopy, robotics)
19. **Duration of operation (single choice)** Please select among possible
20. **Main organ operated/surgical procedure, planned or done (single choice)**
Please select among the organs or surgical procedures.

21. Indication to the use of nutritional therapy (single choice)

Please select among determinants which made appropriate the use of nutritional therapy

20. Days since nutritional therapy Please indicate number of Days since nutritional therapy (EN, PN, ONS) started.

Patient Sheet 3a / 3b

This questionnaire should be completed by the patient himself/herself. Please provide assistance when requested or needed

General terms

Date: Insert the nutritionDay date of your data collection by entering (dd/mm/yyyy).

Patient number (ID): Please assign an individual number (ID) to each patient present on nutritionDay. The ID of one patient should be the same on all sheets (2a, 2b, 3a, 3b and outcome). Please keep this record sheet so that you can track patients later during data collection and for outcome. All patients present on nutritionDay should be listed in the online database.

1. **What are your typical dietary habits? (Multiple choices possible)** please select among the possible diet habits
2. **Where did you live before your current hospital admission?** please select one answer describing where the patient was living before being admitted to hospital.
3. **In general, are you able to walk?** Please specify level of patient's mobility.
4. **In general, how would you say your health is?** The patient self-rates his/her health
5. **Over the last 12 months prior to your current hospital admission approximately...** please enter precise numbers or if not known estimations for each line. As "doctor" count any visit to medical doctors or medical specialists independent if related to your current hospital admission and also admissions to day care clinics or outpatient care. As "hospital admission" count admissions to any unit but does not count day care or outpatient care. If the patient was transferred between units or hospitals please count only once. As "nights" please only consider only inpatient care.
6. **How many different medications did you routinely take each day prior to hospitalisation?** Please count pills, intravenous, and liquid medications. Count each drug only once even if taken multiple times per day.
7. **Do you have health insurance?** Please indicate what applies
8. **What was your weight 5 years ago?** Please indicate your weight 5 years ago or give an estimate. Select "I do not know" if you do not remember and cannot give an estimate.
9. **a. Have you lost weight within the last 3 months?** If yes, whether intentional or unintentional, please let us know how many kilograms you have lost. If the exact kgs lost are not known, an estimation of the lost weight is also accepted.
b. If yes, how many kg/pounds did you lose? Please indicate the kg/pounds or give an estimation. Tick "I do not know" if you do not remember.
10. **Did you know about your hospitalisation two days before admission?** Please choose "Yes" or "No".
11. **Please indicate if you ...** Please choose "Yes" or "No" or "I don't know" for each of the indicated options
12. **How well have you eaten in the week before you were admitted to the hospital??** Please select one of the provided options. Please select "I do not know" if you do not remember.

13. **Please indicate how much hospital food you ate for lunch or dinner today?** Please tick one of the boxes below the plate that best describes how much you ate for the chosen meal at nutritionDay.
13. **The portion size of the meal I ordered today was...** Please select one of the provided options. Please select "I do not know" if you did not choose a portion size of if you do not remember.
14. **In general, how satisfied are you with the food at the hospital?** Please select you level of satisfaction with the hospital food the patient has been provided with.
15. **Did you get any help with eating TODAY?** Please select if the patient needed help while eating.
16. **Were you able to eat without interruption today?** Please choose "Yes" or "No". Please count external causes of interruption however do not consider personal reasons for taking a break.
17. **If you did not eat everything of your meal, please tell us why?** Please select one or more reasons of the provided options behind not finishing/not eating the food provided at the hospital.
18. **Enter the number of glasses/cups of the drinks you consumed in the last 24 hours.** One cup/glass is approximately 200ml. Indicate "0" if you did not consume this drink in the last 24 hours.
19. **a. Did you eat any food apart from hospital food TODAY?** Indicate yes or no
b. if yes, what did you eat? Please specify which type among the possible. Multiple selection possible
20. **Since hospital admission, do you eat more or less?** Please select if, compared to when the patient was admitted to the hospital, food intake has changed
21. **TODAY, compared to admission I feel...** Please select if, compared to when the patient was admitted to the hospital, patient strenght has changed
22. **Can you walk without assistance TODAY?** Please indicate to what extent you are mobile today.

Outcome Sheet

Hospital patients' outcome is evaluated 30 days after "nutritionDay".

General terms

Date: Insert the nutritionDay date of your data collection by entering (dd/mm/yyyy).

Centre Code: Please insert the anonymous Code (1 to 9999) that you received from the coordinating center. Codes from previous years remain valid.

Unit Code: Please insert the anonymous Code (1 to 9999) that you received from the coordinating center. Codes from previous years remain valid.

Patient name, birthdate or patient sticker: this information is used by the unit only and it is not transferred in the nDay database. This list works as patient list and should be filled out with an identification to then collect outcome after 30 days.

Patient number (ID): Please assign an individual number (ID) to each patient present on nutritionDay. The ID of one patient should be the same on all sheets (2a, 2b, 2c, 3a, 3b and outcome). Please keep this record sheet so that you can track patients later during data collection and for outcome. All patients present on nutritionDay should be listed in the online database.

Discharge Date: Please enter the date on which the patient was discharged as follows: dd/mm/yyyy. Please enter “-” if this patient was not yet discharged from this hospital.

Discharge Diagnosis: Please enter up to 6 codes in the same order as in your records. From BOX1, please use full ICD-10 codes OR if your hospital uses a different system, use the categories (0100, 0200, ...) which are provided on the bottom of the sheet (box 1) that best correspond to the codes in your system.

Outcome: Please enter one of the outcome codes (1-7) that are provided on the bottom of the sheet in BOX 2

Readmission code: Please enter one of the readmission codes (1-6) that are provided on the bottom of the sheet in BOX 3

Admission to ICU: Please indicate if within the 30 days after nutritionDay the patient has been admitted in a Intensive Care Unit.

Re-operated after nutritionDay: Please indicate if within the 30 days after nutritionDay the patient has been operated/ underwent surgery. If yes answer as well next question.

How many days after nutritionDay: Please indicate how many days after nutritionDay the patient has been re-operated/ underwent surgery

Oncology Sheets

Only for patients with cancer in your unit



General items:

1. **Date:** Insert the nutritionDay date dd/mm/yyyy.
2. **Center Code:** Please insert the anonymous Code (1 to 9999) that you received from the coordinating center. Codes from previous years remain valid.
3. **Unit Code:** Please insert the anonymous Code (1 to 9999) that you received from the coordinating center. Codes from previous years remain valid.
4. **Patient (4 initials):** leave this blank – not needed
5. **Patient's number:** Please assign each patient a number and keep this record sheet (Patient list) so that you can track them later (for outcome). The same number has to be filled into the appropriate sheets 3a and 3b.
9. Please answer this question by marking "YES" or NO"
10. Please answer this question by choosing the correct answer. You can tick more than one if necessary.
11. Tick the correct answer or choose the last option.
18. **Sheet number:** Depending on the number of patients admitted to your unit, you will eventually need more than one of these sheets. Please indicate the number here.

Sheet 1_ oncology (unit's nutritional cancer strategy):

Sheet 1 oncology should be filled in by unit staff. This sheet gives information on oncology related unit organization and unit structures on your ward.

38. Please answer this question by choosing the correct answer. You can tick more than one if necessary or indicate other options in the last row.
39. Please answer the question for each row by ticking the correct answer given in the columns. Please choose only one of the possible answers given in the columns or choose the last option.

Sheet 2_ oncology (unit all patients with cancer):

All adult patients present in the unit from 0700hr to 0700hr (e.g: from the start of the first nursing shift start on Day 1 to the start of the first shift on Day 2 including all admissions and discharges within the period).

18. **Sheet number:** Depending on the number of patients admitted to your unit, you will eventually need more than one of sheets 2. Please indicate the number here.

40. **Outpatient/ward:** Please indicate whether the patient is admitted into a ward (w) or is treated in outpatient care (o).
41. **Goal of therapy:** please indicate c, p, or t for each patient: c=curative - goal of therapy is to cure the cancer, p= palliative – life-prolonging therapy (cure of cancer illness is not possible) or t=terminal – patient will die due to his cancer illness any time soon.
42. **Reason for admission:** Please insert the reason for the actual hospital admission. Please choose the corresponding number. The code is given below on the sheet.

43. **Actual cancer diagnosis:** Please insert the actual cancer diagnosis. Please choose the corresponding number. The code is given below on the sheet.
44. **Time since cancer diagnosis:** Please insert how long ago the actual cancer of the patient was diagnosed. Please choose the corresponding number. The code is given below on the sheet.
45. **Cancer Staging:** Please indicate the stage of the actual cancer of the patient. Please select the applicable stage from 0-IV of the staging system given on the sheet.
46. **Time since first therapy start of actual cancer diagnosis:** Please insert how long ago the therapy started. Please choose the corresponding number. The code is given below on the sheet.
47. **Therapy situation:** Please insert the actual therapy situation of the patient. Please choose the corresponding number. The code is given below on the sheet.
48. **Infections:** Please insert if the patient has an infection. Please choose (1) if the patient does not have an infection, (2) if the infection is local or (3) if the patient has a general infection. Please choose the corresponding number. The code is also given below on the sheet.
49. **Laboratory parameter (CRP):** Please insert the laboratory parameter “CRP” of the patient only if the parameter is already assessed. Please also choose if the laboratory parameter is indicated in mg/dL or mg/L.
50. **Laboratory parameter (Albumin):** Please insert the laboratory parameter “Albumin” of the patient only if the parameter is already assessed. Please also choose if the laboratory parameter is indicated in g/L or g/dL.
51. **Nutrition treatment:** Please insert the actual nutrition treatment of the patient. Please choose the corresponding number. The code is given below on the sheet.

Sheet 3_oncology - Patient sheet:



52. Date, Patient’s number and initials, Centre and Unit Code should be filled in by unit staff. Numbers listed here correspond to the corresponding exponents on the sheets.
53. **Your standard weight before your cancer illness:** Please insert your standard weight before your cancer illness in kg. Skip the question if you don’t know.
54. **Your actual weight:** Please insert your actual weight in kg. Skip the question if you don’t know.
55. **Change in weight:** please indicate if you lost or gained weight intentionally or unintentionally. Please choose one of the possible answers and mark an X.
56. Please answer the question in each row by marking only one of the answering options given in the columns.
57. **Activity level:** Please choose one of the possible answers and mark an X.

45. Cancer Staging

National Cancer Institute www.cancer.gov/cancertopics/factsheet/Detection/staging

55. EORTC QLQ c30

www.clinicalresearch.nl/portec3/Quality_of_life_questionnaire_PORTEC3_English

56. WHO/ECOG Performance Scale

Eastern Cooperative Oncology Group Robert Comis M.D. Group Chair

Oken et al. (1982) Toxicity And Response Criteria Of The Eastern Cooperative Oncology Group. Am J Clin Oncol 5:649-655. ecog.dfci.harvard.edu/general/perf_stat.html

Members of nutritionDay hospital group

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