WHAT IS THE NUTRITION CARE PROCESS AND MODEL

A systematic problem-solving method that food and nutrition professionals use to think critically and make decisions that address practice-related problems.

A standardized model intended to guide Registered Dietitians and Registered Dietetic Technicians, in providing high quality nutrition care.
WHY WAS THE NCP DEVELOPED

• Improve the consistency and quality of individualized patient/client care and the predictability of the patient/client outcomes.

• Provide structure and terminology for research studies and data collection.

• Provide a standardized language.

• Developed by the Academy of Nutrition and Dietetics (AND)
1. Assessment: nutritional health status
2. Diagnosis: interpret data
3. Intervention: develop a plan of action
4. Monitor/Evaluate: monitor the effectiveness of the plan
STEP 1: NUTRITION ASSESSMENT

• Initiates the data collection process that is continued throughout the NCP and forms the foundation for reassessment and reanalysis of the data in Nutrition Monitoring and Evaluation (Step 4).
For individuals:

- Patient/client through interview
- Observation and measurements
- Medical records
- Referring health care provider

For population groups:

- Data from surveys
- Administrative data sets
- Epidemiological or research studies

Nutrition Care Process Snapshot NCP step 1: Assessment

www.eatright.org
Food and nutrition-related history:

- Food intake, nutrition and health awareness and management, physical activity and exercise, and food availability.

Biochemical data, medical tests and procedures

Anthropometric measurements
Nutrition-focused physical findings

Client history
NUTRITION ASSESSMENT: CRITICAL THINKING

- Determining appropriate data to collect
- Determining the need for additional information
- Selecting assessment tools and procedures that match the situation
- Applying assessment tools in valid and reliable ways
- Distinguishing relevant from irrelevant data
- Distinguishing important from unimportant data
- Validating the data

Nutrition Care Process Snapshot NCP step 1: Assessment www.eatright.org
STEP 2. NUTRITION DIAGNOSIS

WHAT IS NUTRITION DIAGNOSIS?

• Identification and labeling of a nutrition problem that the RD is responsible for treating independently.
• Standardized terminology for nutrition diagnosis has been developed to facilitate this step.
• It is suggested that the RD use a PES Statement to communicate the nutrition diagnosis (problem, etiology, and signs/symptoms).

Examples:
• “inadequate energy intake”,
• “overweight/obesity”,
• “food and nutrition related knowledge deficit”,
• “limited access to food or water”
STEP 2. NUTRITION DIAGNOSIS

PURPOSE

• Critical step between nutrition assessment and nutrition intervention.
• Identification of an existing nutrition problem, by using the data collected in the nutrition assessment that the RD is responsible for treating.
• Creates a standardized nutrition diagnosis language to describe nutrition problems consistently.
• Different from a medical diagnosis.
<table>
<thead>
<tr>
<th>Medical Diagnosis</th>
<th>Nutritional Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes</td>
<td>Excessive CHO intake r/t visits to Coldstone Creamery as evidenced by diet hx and high hs blood glucose</td>
</tr>
<tr>
<td>Trauma and closed head injury</td>
<td>Increased energy needs r/t multiple trauma as evidenced by results of indirect calorimetry</td>
</tr>
<tr>
<td>Liver failure</td>
<td>Altered gastrointestinal function r/t cirrhosis of the liver as evidenced by steatorrhea and growth failure</td>
</tr>
<tr>
<td>Medical Diagnosis</td>
<td>Nutritional Diagnosis</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>---------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Obesity</td>
<td>Excessive energy intake r/t lack of access to healthy food choices (restaurant eating) as evidenced by diet history and BMI of 35.</td>
</tr>
<tr>
<td>Dependence mechanical ventilation</td>
<td>Excessive energy intake r/t high volume PN as evidenced by RQ &gt; 1</td>
</tr>
<tr>
<td>Anorexia nervosa</td>
<td>Undesirable food choices r/t history of anorexia nervosa and self-limiting behavior as evidenced by diet history and weight loss of 5 lb</td>
</tr>
</tbody>
</table>
NUTRITION DIAGNOSIS COMPONENTS

Nutrition diagnosis is documented by writing a PES statement.

The format for the PES statement is:

"Nutrition problem label related to ___ ______ as evidenced by _____________."

Example:

Inadequate fiber intake (NI-5.8.5) related to lack of nutritional knowledge about desirable quantities of fiber as evidenced by patient’s intake of fiber that is insufficient when compared to the RDA.
PES statement should be:

• Clear and concise
• Specific to the patient
• Limited to a single problem
• Accurately related to one etiology
• Based on signs and symptoms from the assessment data
PES statement components:

(P)

(E)

(S)
EVALUATING PES STATEMENT

(P)
1. Can the RD resolve or improve the nutrition diagnosis?

(E)
1. Consider the Intake Domain as the preferred problem type
2. Is the etiology listed the "root cause"?
3. Will RD intervention resolve or improve the problem by addressing the etiology?

(S)
1. Can RD intervention at least lessen the symptoms?
2. Will measuring the signs and symptoms tell you if the problem is resolved or improved?
3. Are the signs and symptoms specific enough?

PES Overall

Does nutrition assessment data support the nutrition diagnosis, etiology, and signs and symptoms?
NUTRITION DIAGNOSIS HAS THREE GENERAL DOMAINS

• Intake
• Clinical
• Behavioral
Intake (NI)

Composed of five categories:

1. Energy balance
2. Oral or nutrition support intake
3. Fluid intake
4. Bioactive substance
5. Nutrient
NUTRITION DIAGNOSIS HAS THREE GENERAL DOMAINS

Clinical

Composed of three categories:
Behavioral

Composed of three categories:

NUTRITION DIAGNOSIS HAS THREE GENERAL DOMAINS
Step 3: Nutrition Intervention

Steps of Nutrition Intervention

1. Selecting
2. Planning
3. Implementing
STEP 3: NUTRITION INTERVENTION

The nutrition intervention chosen is based on the nutrition diagnosis and uses:

1. Team involvement
2. Science-based principles
3. Additional research, if available.

The key element is that the RD improves the issue by creating a rational plan with the help of the whole family including the individual.
NUTRITION INTERVENTION STRATEGIES

• Food and/or Nutrient Delivery
• Nutrition Education
• Nutrition Counseling
• Coordination of Nutrition Care
PLANNING THE NUTRITION INTERVENTION

- Prioritize nutrition diagnoses
- Consult A and EBNPG
- Determine patient-focused expected outcomes
- Confer with family members/caregivers
- Define nutrition plan and strategies
- Define time and frequency of care
IMPLEMENTING THE NUTRITION INTERVENTION

• Communicate the nutrition care plan
• Help carry out the plan
The plan of action will be based on the patient's diagnosis:

1. Select the appropriate strategy based on the problem
2. Discuss the intervention to the patient (include family)
3. Explain the plan (i.e. nutrition education)
4. Schedule of care (program duration, follow-ups)
5. Additional materials, documentations, financial/food resources
An on-going course of action

Accurate, timely, and applicable records

Scrutiny of patient's file should include:

1. Date and time
2. Goals and outcomes
3. Plan's adjustments
4. Patient's receptiveness
5. Resources and referrals
6. Follow-ups (observe progress) and frequency
7. Discharge (if applicable)
STEP 4: NUTRITION MONITORING AND EVALUATION

• Critical step that defines the outcomes specific to nutrition care.

• Overlapping between nutrition assessment, monitoring and evaluation terminology (except client history).

• Generating a standardization of evaluating the effectiveness of nutrition intervention.
Purpose

• To determine whether progress made is related to the patient's nutrition intervention goals and/or desired outcomes.
• To provide evidence if the intervention has been effective in changing the behavior or status of the patient.
• To evaluate nutrition care outcomes.
• To create a standardized language for nutrition intervention.
RELATIONSHIP BETWEEN MONITORING & INTERVENTION AND NCP
Monitoring

Measuring

Evaluate

Monitoring and Evaluation Components
NUTRITION OUTCOME CATEGORIES OF MONITORING AND EVALUATION

• Nutrition related behavioral and environmental outcomes
• Food and nutrient intake outcomes
• Nutrition related physical signs and symptoms
• Nutrition related patient/client centered outcomes
Nutrition Monitoring and Evaluation

- Determine proper indicator/measures
- Determine suitable data for comparison
- Determine the process of the clients relating to expected outcomes
- Determine why the patient outcomes are different from the expected outcomes
- Determine issues that assist or hamper improvement
- Determine how long a patient needs to be under nutrition care

Nutrition Care Process Snapshot NCP step 4: Assessment

[www.eatright.org](http://www.eatright.org)
Patient outcomes

• Improved nutrition intakes
• Changes in physical signs and symptoms
• Increases patients quality of life

Cost outcomes

Health & disease outcomes

• Prevention or maintenance of health
• Changes in knowledge
• Changes in severity, duration of disease

Cost outcomes

• Decreased cost to health care system
• Length of hospital stay
• Outpatient visits
• Procedures
• Medication and equipment used

http://adaeal.com/ncp/NCP14
Nutrition Assessment

NCP EXAMPLE #1: ACUTE CARE

Nutrition Assessment

• Medical hx: 72 y.o. female admitted with decompensated CHF; heart failure team consulted; has been admitted with same dx 2x in past month; meds: Lasix and Toprol; current diet order: 2 grams sodium; has lost 5 pounds in 24 hours since admission; Output > input by 2 liters

• Nutrition history: has been told to weigh herself daily but has no scale at home. Does not add salt to foods at the table. Noticed swollen face and extremities on day prior to admission. Day before admission ate canned soup for lunch and 3 slices of pizza for dinner; does not restrict fluids; has never received nutrition counseling
Nutrition Diagnosis

NCP EXAMPLE #1: ACUTE CARE
Nutrition Intervention

NCP EXAMPLE #1: ACUTE CARE

- Excessive sodium intake: Patient will attend Senior Feeding site that provides low sodium meals; Patient will implement survival skills low sodium diet principles and attend heart failure diet program in heart failure clinic.

- Self-monitoring deficit: Patient will obtain free home scale from CHF case manager; will limit fluids to 2 liters/day per instructions in Heart Failure Clinic if adherence to low sodium diet does not achieve appropriate fluid balance.
Monitoring and Evaluation

NCP EXAMPLE #1: ACUTE CARE

• Patient will weigh himself daily and keep log; report to heart failure case manager if weight ↑ 2 lb in 24 hours
• Patient will bring 3 day diet record to heart failure clinic for review by dietitian
• Heart failure case manager will track hospital readmissions over 12 months
Nutrition Assessment

• JW is a 70 yr. old white man admitted for cardiac bypass surgery. The nutrition risk reveals that he has lost weight without trying and has been eating poorly for several weeks before admission, leading to referral to the RD for nutrition assessment.

• Caloric intake: 1,200kcal/day (less than energy requirements as stated in the recommended dietary allowances). Meals: irregular throughout the day; drinks coffee frequently. History of hypertension, thyroid dysfunction, asthma, prostate surgery. JW lives alone in his own home. He lost his wife 3 months ago, and for the past 6 months he rarely sits down to a cooked meal.
Nutrition Diagnosis

• Involuntary weight loss related to missing meals as evidenced by loss of 15 lbs over 3 months.
• Inadequate oral food and beverage intake
Nutrition Intervention

• Diagnosis 1: Involuntary weight loss
  • During the hospitalization JW will maintain his current weight, following discharge he will begin to slowly gain weight up to a target weight of 145lb.
  • JW will modify his diet to include adequate calories and protein through the use of nutrient-dense foods to prevent further weight loss and eventually promote weight gain.
Nutrition Intervention

• While in the hospital JW will include nutrient-dense foods in his diet, especially when his appetite is limited.

• Following discharge JW will attend a local senior center for lunch on a daily basis to help improve his socialization and caloric intake.
Monitoring and Evaluation

- Monitoring will include weekly weight measurements and nutrient intake analyses while he is in the hospital and biweekly weight measurements at the senior center or clinic when he is back at home.
- If nutrition status is not improving, such as JW's weight records and goals not being met, JW needs to be reassessed and develop new goals and create plans for new interventions.
REFERENCES


REFERENCES


