

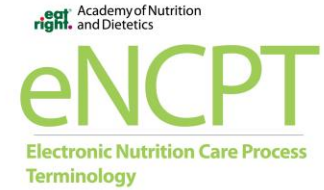
## Module 6: Case Study Examples

Slide Number	Title	Script
1	Module 6: Case Study Example	<p>Welcome to the Nutrition Care Process Tutorial. This is Module 6: Case Study Example. This module is based on the eNCPT 2019 edition available on <a href="http://www.ncpro.org">www.ncpro.org</a>.</p> <p>Please note that subject matter experts contributed to this case study from actual practice. However, it should be noted that there are regional- and institution-specific styles for nutrition delivery documentation. The case study presented is intended to provide examples of applying the NCP in practice. Therefore, the case study presented is for educational purposes, and not meant to be considered “best practice” or the recommendations of the Academy. Further, these examples are provided with the express understanding that they do not establish or specify particular standards of care, whether legal, medical, or other.</p>
2	NCP Tutorial: Module 6 Objectives	The objective of module 6 is to review and understand the implementation of the Nutrition Care Process by reviewing a sample case study. This case study is in the ADIME format. ‘ADIME’ stands for Assessment, Diagnosis, Intervention, Monitoring and Evaluation.
3	Case Example – Nutrition Assessment	Let’s begin the case by reviewing the Nutrition Assessment step
4	Relevant Data	<p>A 67-year-old male with a medical diagnosis of congestive heart failure presenting with dyspnea is referred to the outpatient RDN upon discharge. This is his first time speaking with a Registered Dietitian Nutritionist.</p> <p>Upon speaking with the client at his first encounter and reviewing his electronic health record, the RDN captures the following data:</p> <ul style="list-style-type: none"> <li>➤ 67-year-old Male</li> </ul>

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		<ul style="list-style-type: none"> <li>➤ Diagnosed with congestive heart failure 2 months ago</li> <li>➤ Retired engineer and lives alone</li> <li>➤ Height: 5’6”</li> <li>➤ Weight: 135 lbs             <ul style="list-style-type: none"> <li>➤ Weight loss of 7 lbs. over past 2 months due to reported lack of appetite from dyspnea</li> </ul> </li> </ul>
5	Relevant Data Continued	<p>Additional relevant data from the client’s encounter and health record are found on this slide.</p> <p>Assessment data that is relevant to a suspected nutrition diagnosis can be documented using indicators, which are Nutrition Care Process terms. The next few slides demonstrate sample indicators organized by nutrition assessment domains.</p>
6	Food/Nutrition Related History (FH)	<p>To capture the clients reported food and fluid intake, along with meal patterns, the following NCP terms were used, followed by the client’s assessment data:</p> <ul style="list-style-type: none"> <li>● Total energy estimated intake in 24 hours: <b>1200 kcal/day</b></li> <li>● Total fluid estimated intake in 24 hours: <b>64 oz/day</b></li> <li>● Processed Food Intake: <b>Present, frequently consumes frozen meals and other processed foods</b></li> <li>● Number of meals estimated in 24 hours: <b>2 meals/day</b></li> </ul> <p>Please note that throughout this case example, term codes such as FH-1.1.1 are used for training and information purposes. The Academy does not recommend using codes in documentation, and RDs should document only the term in their notes.</p>

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7	Anthropometric Measurements (AD)	On this slide, terms from the anthropometric measurements domain are used to capture the client’s measured height, measured weight, and weight loss.
8	Biochemical Data, Medical Tests, and Procedures (BD)	On this slide, we see various labs that are pertinent to the client’s condition and nutritional status captured using terms from the Biochemical Data, Medical Tests, and Procedures domain.
9	Nutrition-Focused Physical Findings (PD)	The indicators listed on this slide contain relevant nutrition related physical signs and symptoms obtained from the Nutrition Focused Physical Exam, interview, or health record.
10	Client History (CH)	In the Client History domain, the indicators listed capture the client’s relevant personal and medical information.
11	Comparative Standards (CS)	Lastly, comparative standards are what assessment data is compared against. As you can see, estimated energy, sodium, and fluid needs have been calculated and documented.
12	Nutrition Assessment Review	<p>This completes the nutrition assessment portion of the case study. In summary, during nutrition assessment the RDN will:</p> <ul style="list-style-type: none"> <li>✓ Review observed and measured data collected for factors that affect nutritional and health status</li> <li>✓ Identify standards by which data will be compared</li> <li>✓ Cluster relevant data elements to identify a nutrition problem/diagnosis</li> </ul> <p>Nutrition Assessment provides the evidence needed to identify a nutrition diagnosis which is the next step of the nutrition care process.</p>

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13	Case Example – Nutrition Diagnosis	Next, lets review the nutrition diagnosis section for this case example.
14	Potential PES Statements	<p>On this slide, two potential PES statements are listed. The Nutrition Diagnosis term is bolded and in the color purple on the slide. The first PES statement is:</p> <ol style="list-style-type: none"> <li>1. Inadequate Protein Energy Intake <i>related to</i> lack of appetite due to dyspnea as evidenced by reported caloric intake of 400 calories less than estimated requirements, 5% (7 lbs) weight loss in 2 months, congestive heart failure</li> </ol> <p>The second PES statement is:</p> <ol style="list-style-type: none"> <li>2. Excessive Mineral Intake (Sodium) <i>related to</i> food and nutrition knowledge deficit <i>as evidenced by</i> reported frequent intake of processed foods and frozen meals containing high amounts of sodium, dyspnea, congestive heart failure, sodium 146 mEq/L, ankle edema</li> </ol>
15	PES Statement Review	<p>Let’s review the first PES statement.</p> <p>There are several questions the RDN can review to evaluate the appropriateness of the nutrition diagnosis:</p> <ol style="list-style-type: none"> <li>1. Can the RDN resolve the problem?             <ol style="list-style-type: none"> <li>a. In this instance, yes. This nutrition problem is from the Intake domain, which is most specific to the role of the RDN.</li> </ol> </li> <li>2. Does the etiology address the root cause? Does it align with the assessment data?</li> </ol>

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		<ul style="list-style-type: none"> <li>a. Yes. The lack of appetite from the dyspnea is the cause of the inadequate protein energy intake.</li> <li>3. Is there a reasonable nutrition intervention?               <ul style="list-style-type: none"> <li>a. Yes, we will review that in the next section of this module.</li> </ul> </li> <li>4. Can you monitor this client on the basis of the stated, quantifiable signs and symptoms?               <ul style="list-style-type: none"> <li>a. Yes. These symptoms are specific and can be measured to evaluate changes that might demonstrate improvement or resolution of the nutrition diagnosis.</li> </ul> </li> </ul>
<p style="text-align: center;"><b>16</b></p>	<p>PES Statement Review</p>	<p>Take a moment to review the second PES statement before evaluating the appropriateness of the Nutrition Diagnosis.</p> <ul style="list-style-type: none"> <li>1. Can the RDN resolve the problem?           <ul style="list-style-type: none"> <li>a. Yes, again this is another nutrition problem from the Intake domain, which is most specific to the role of the RDN.</li> </ul> </li> <li>2. Does the etiology address the root cause? Does it align with the assessment data?           <ul style="list-style-type: none"> <li>a. Yes – the client has a knowledge deficit as he has a new medical diagnosis of congestive heart failure and has never met with a dietitian before.</li> </ul> </li> <li>3. Is there a reasonable intervention?           <ul style="list-style-type: none"> <li>a. Yes</li> </ul> </li> <li>4. Can you monitor this client on the basis of the stated, quantifiable signs and symptoms?           <ul style="list-style-type: none"> <li>b. Yes. These symptoms are specific and can be measured to evaluate changes that might demonstrate improvement or resolution of the nutrition diagnosis.</li> </ul> </li> </ul>

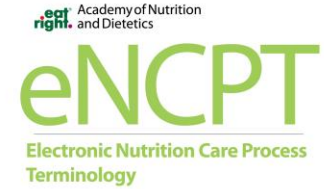
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17	Prioritizing PES Statements	<p>Nutrition diagnoses may be addressed sequentially or concurrently. Sometimes, the nutrition problems need to be prioritized. Let's review the impact the RDN can have on the Excessive Mineral Intake (Sodium) PES statement shown on this slide.</p> <p>This PES statements' etiology or 'root cause', food and nutrition knowledge deficit, can be directly impacted by the RDN. The RDN can plan an intervention that can be monitored and evaluated to determine the client's progress.</p>
18	Case Example – Nutrition Intervention	<p>The next section of our case example is the nutrition intervention step. Let's first refer back to a PES statement when planning the nutrition intervention.</p>
19	Nutrition Intervention	<p>Review the PES statement on this slide.</p> <p>The RDN can address the etiology of the clients' food and nutrition knowledge deficit and plan an intervention that can lead to an increase in nutrition related knowledge.</p> <p>The signs and symptoms of sodium intake, sodium levels, ankle edema and dyspnea can be effectively monitored.</p>
20	Potential Nutrition Intervention	<p>On this slide, an example nutrition intervention is shown. The first step in the planning phase is to collaborate with the client to identify goals based on client preference, urgency, impact potential and available resources.</p> <p>This goal set with the client is to increase protein intake and decrease sodium intake during meals by the next visit.</p> <p>The nutrition prescription, "Recommend general, healthful diet with sodium (2500 mg/day) and fluid (&lt;2000 ml/day) modifications" concisely states the</p>

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		<p>client’s customized recommended dietary intake of energy, sodium and fluid based on current reference standards and the client’s health condition and nutrition diagnosis.</p> <p>The implementation phase, or action phase, is when the RDN collaborates with the client to carry out the planned intervention. Here, the intervention is Nutrition Education – Content related nutrition education. Note that this nutrition intervention addresses the root cause of the nutrition problem.</p>
<b>21</b>	Evaluate the Nutrition Intervention	<p>When evaluating a nutrition intervention, remember:</p> <ul style="list-style-type: none"> <li>➤ The etiology (or root cause) from the PES statement drives the selection of the intervention, and</li> <li>➤ If the RDN cannot resolve the problem by addressing the etiology, the RDN should aim to lessen the signs and symptoms with the nutrition intervention</li> </ul>
<b>22</b>	Case Example – Nutrition Monitoring and Evaluation	<p>Next, we will review the nutrition monitoring and evaluation step for this case example.</p>
<b>23</b>	Nutrition Monitoring and Evaluation	<p>The signs and symptoms from your PES statement indicate what needs to be monitored &amp; evaluated at future visits.</p> <p>This will help determine the efficacy of the nutrition intervention and determine if any adjustments are needed.</p>
<b>24</b>	Nutrition Monitoring and Evaluation	<p>On this slide, several indicators and their criteria are listed. Notice that all indicators selected are measurable and can demonstrate the effectiveness of the nutrition intervention. In this case, we are measuring the outcome of the nutrition education regarding the low sodium, fluid restricted diet with increased protein.</p>

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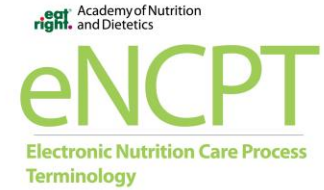
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25	Evaluating the Nutrition Monitoring and Evaluation step	<p>When evaluating the nutrition monitoring and evaluation step, ask the following questions:</p> <ul style="list-style-type: none"> <li>✓ Are you monitoring quantifiable indicators?</li> <li>✓ Are the indicators appropriate based on the Nutrition Intervention and do they address the Nutrition Diagnosis?</li> <li>✓ Are the indicators specific, and do they include a time frame?</li> </ul>
26	Summary	<p>In this presentation we have reviewed the following steps of the nutrition care process for a case study involving a 67-year-old male with heart failure:</p> <ul style="list-style-type: none"> <li>➤ Nutrition Assessment</li> <li>➤ Nutrition Diagnosis</li> <li>➤ Nutrition Intervention</li> <li>➤ Nutrition Monitoring &amp; Evaluation</li> </ul>
27	Continuing Education Credit	<p>Congratulations on completing all 6 modules of the Nutrition Care Process Tutorial. RDNs are required by CDR to complete the Critical Thinking Self-Study Evaluation tool prior to taking the Orientation Tutorial quiz. Once the tool is complete, you will be redirected to take the Orientation Tutorial quiz. Upon receiving a passing grade of 80% on the quiz, you will receive a link to download your CEU certificate.</p> <p>Students and Interns can download a certificate of completion with no CEUs upon passing the NCP Tutorial quiz.</p>
28	Learn more & acknowledgements	<p>To learn which eNCPT subscription type is right for you or your organization, visit <a href="http://www.ncpro.org">www.ncpro.org</a>.</p> <p>We would like to acknowledge the Academy's Nutrition Care Process Research Outcomes (NCPRO) Committee for their work which greatly</p>



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		<p>contributes to the content within this tutorial. The NCPRO committee develops and maintains the standardized terminology for the four steps of the NCP.</p> <p>We would also like to thank Rush University dietetic interns Sabrina Ferraro and Cole Patoine for creating this tutorial.</p>
29	Thank you	Thank you for completing the Nutrition Care Process Tutorial.