Nutrition Care Process

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What Is The Nutrition Care Process And Model?

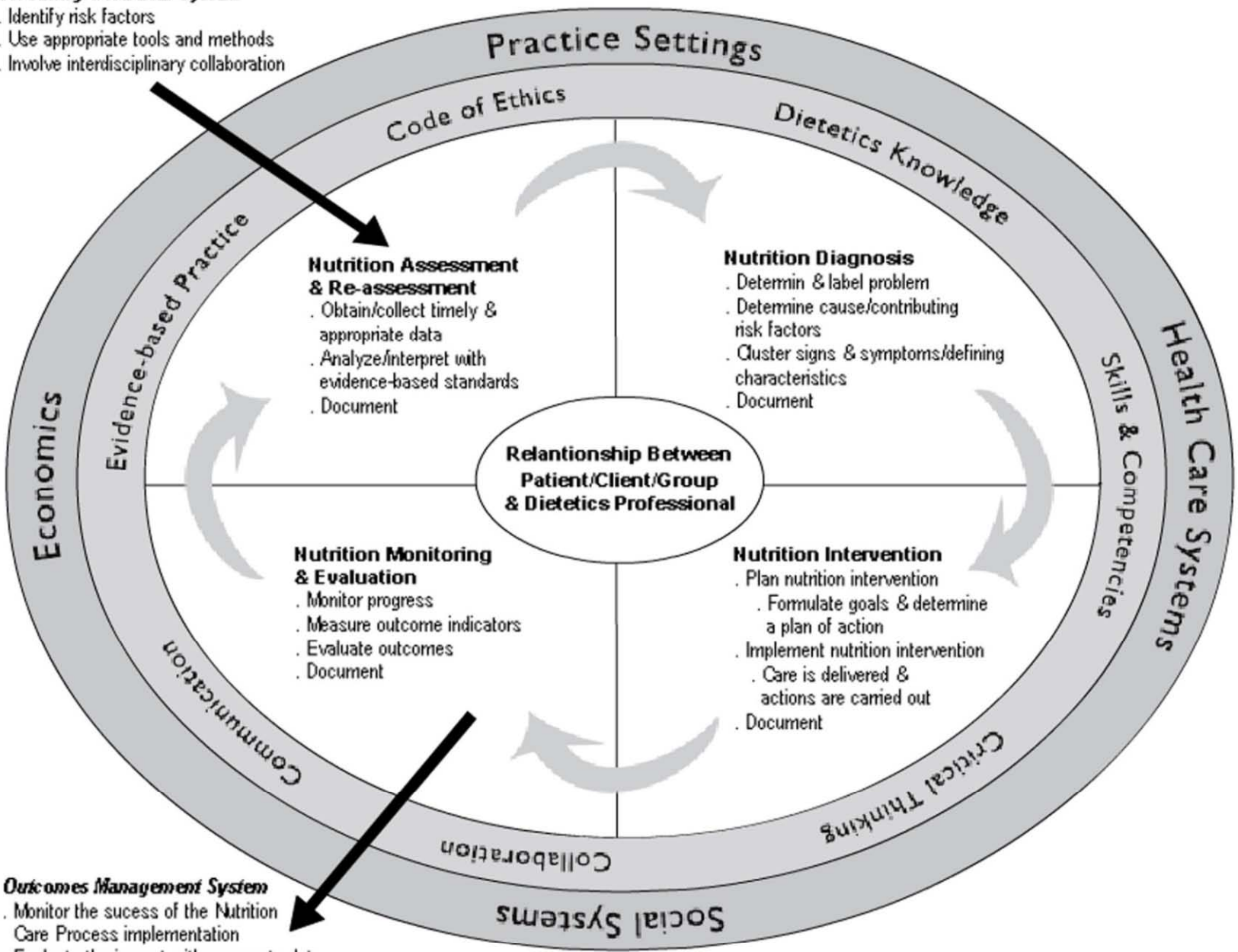
- A systematic problem-solving method that food and nutrition professionals use to think critically and make decisions that address practice-related problems.
- A standardized model intended to guide Registered Dietitians and Registered Dietetic Technicians, in providing high quality nutrition care.

ADA's Nutrition Care Process Steps

- The **NCP** consists of four distinct, interrelated steps:
  - **Nutrition Assessment**
  - **Diagnosis**
  - **Intervention**
  - **Monitoring/Evaluation**

The Nutrition Care Process and Model

Screening & Referral System
. Identify risk factors
. Use appropriate tools and methods
. Involve interdisciplinary collaboration



Outcomes Management System
. Monitor the sucess of the Nutrition Care Process implementation
. Evaluate the impact with aggregate data
. Identify and analyze causes of less than optimal performance and outcomes
. Refine the use of the Nutrition Care Process

ADA's Nutrition Care Process Steps

- Nutrition Assessment
- Nutrition Diagnosis
- Nutrition Intervention
- Nutrition Monitoring and Evaluation

Nutrition Assessment (Definition)

- *A systematic process of obtaining, verifying, and interpreting data in order to make decisions about the nature and cause of nutrition-related problems.*

Nutrition Care Process Snapshot NCP step 1: Assessment www.eatright.org

Step 1: Nutrition Assessment

- Nutrition Assessment is the first of four steps in the Nutrition Care Process.
- 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).

How does a food and nutrition professional determine where to obtain nutrition assessment data?

- **For individuals:**
  - Patient/client through interview
  - Observation and measurements
  - Medical record
  - The referring health care provider
- **For population groups:**
  - Data from surveys
  - Administrative data sets
  - Epidemiological or research studies are used

Nutrition Care Process Snapshot NCP step 1: Assessment www.eatright.org

Categories of Nutrition Assessment Data

- 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
  - Include laboratory data (e.g., electrolytes, glucose, lipid panel, and gastric emptying time).
- Anthropometric measurements
  - Include height, weight, body mass index (BMI), growth rate, and rate of weight change.
- Nutrition-focused physical findings
  - Include oral health, general physical appearance, muscle and subcutaneous fat wasting, and affect.
- Client history
  - Medication and supplement history, social history, medical/health history, and personal 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

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Step 2: Nutrition Diagnosis

- 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.
- It creates a standardized nutrition diagnosis language to describe nutrition problems consistently.
- It is different from a medical diagnosis.

Nutrition Diagnosis

- Purpose:
  - To identify a specific nutrition problem that can be resolved or improved through nutrition intervention.
  - To create a standardized language that will enhance communication and documentation of nutrition care.
  - To provide data for future research.

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 _____."
- Ex: 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.

Nutrition Diagnosis Components

The three components are:

(P) Problem or Nutrition Diagnosis Label : Describes alterations in the patient's nutritional status.

(E) Etiology: Cause/Contributing Risk Factors Linked to the nutrition diagnosis label by the words "related to."

(S) Signs/Symptoms: Data used to determine that the patient has the nutrition diagnosis specified. Linked to the etiology by the words "as evidenced by."

Nutrition Diagnosis Components

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

Evaluating PES Statement

(P) - Can the RD resolve or improve the nutrition diagnosis?
Consider the Intake Domain as the preferred problem type

(E) - Is the etiology listed the "root cause"?

- Will RD intervention resolve or improve the problem by addressing the etiology?

- Can RD intervention at least lessen the symptoms?

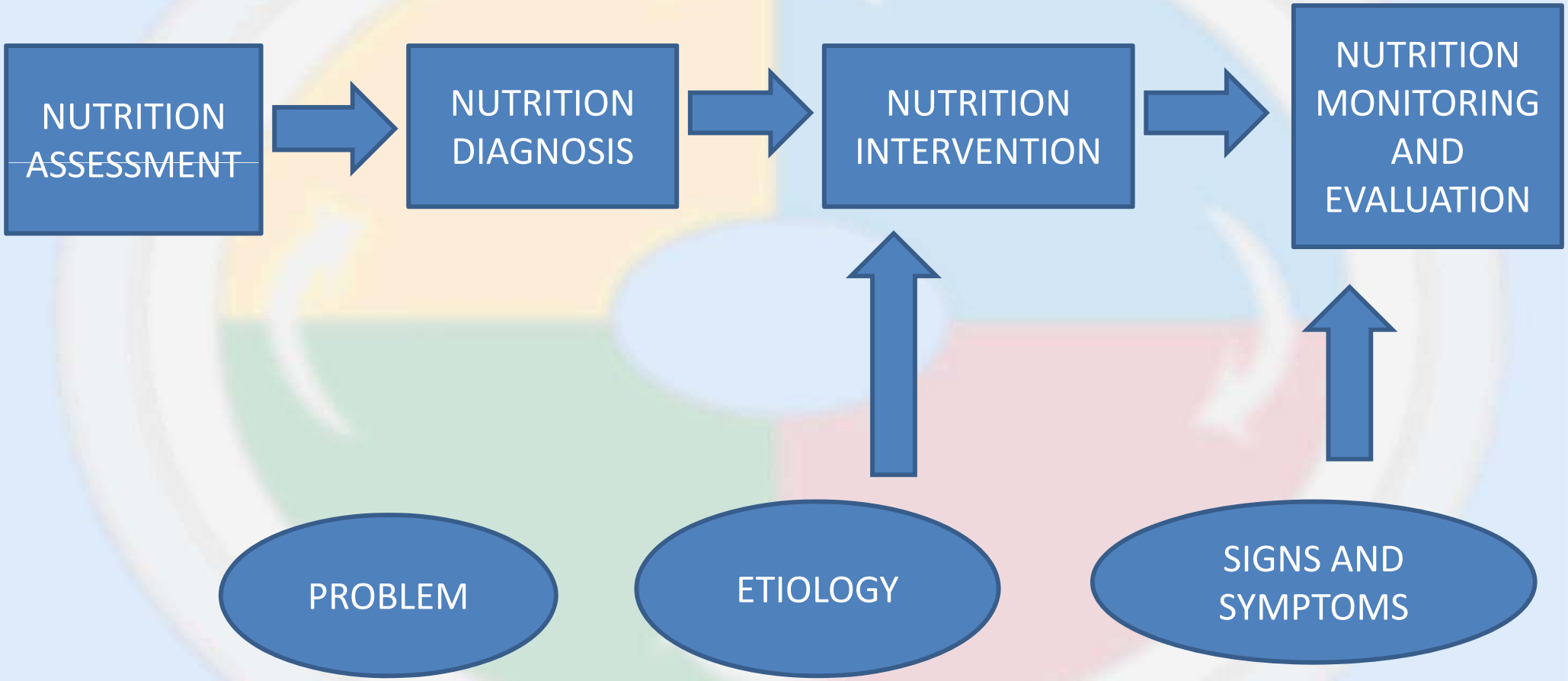
(S) - Will measuring the Signs and Symptoms tell you if the problem is resolved or improved?

- Are the Signs and Symptoms specific enough?

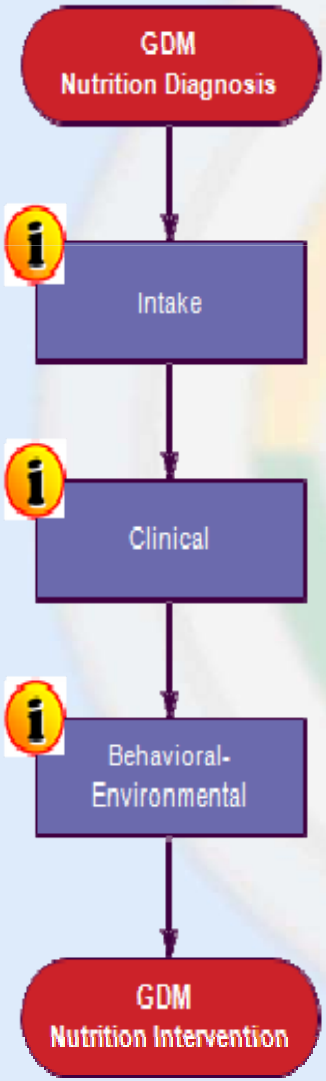
PES Overall

Do nutrition assessment data support the nutrition diagnosis, etiology, and Signs and Symptoms?

Relationship between diagnosis and NCP



Nutrition Diagnosis Domains



Nutrition Diagnosis is organized in three domains

1) Intake
2) Clinical
3) Behavioral-Environment

(http://www.images.google.com)

Nutrition Diagnosis Domains

1) Intake (NI): actual problems related to intake of energy, nutrients, fluids, bioactive substances through oral diet or nutrition support (too much or too little of a nutrient compared to actual or estimated needs).

   Composed of five categories:

   - Energy balance
   - Oral or nutrition support intake
   - Fluid intake
   - Bioactive substance
   - Nutrient

Nutrition Diagnosis Domains

2) Clinical (NC): Nutritional finding/problems identified that relate to medical or physical conditions.

Composed of three categories:

- Functional
- Biochemical
- Weight

Nutrition Diagnosis Domains

3) Behavioral-Environmental (NB): Nutritional findings/problems identified that relate to knowledge, attitudes/beliefs, physical environment, access to food, or food safety.

Composed of three categories:

- Knowledge and beliefs
- Physical activity and function
- Food safety and access

ADA's Nutrition Care Process Steps

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Step 3: Nutrition Intervention

The principle concentrates on the issue at hand taking a detailed course of action and utilizing resources. The final goal is to modify an individual, a specific group or a community's nutrition behavior.

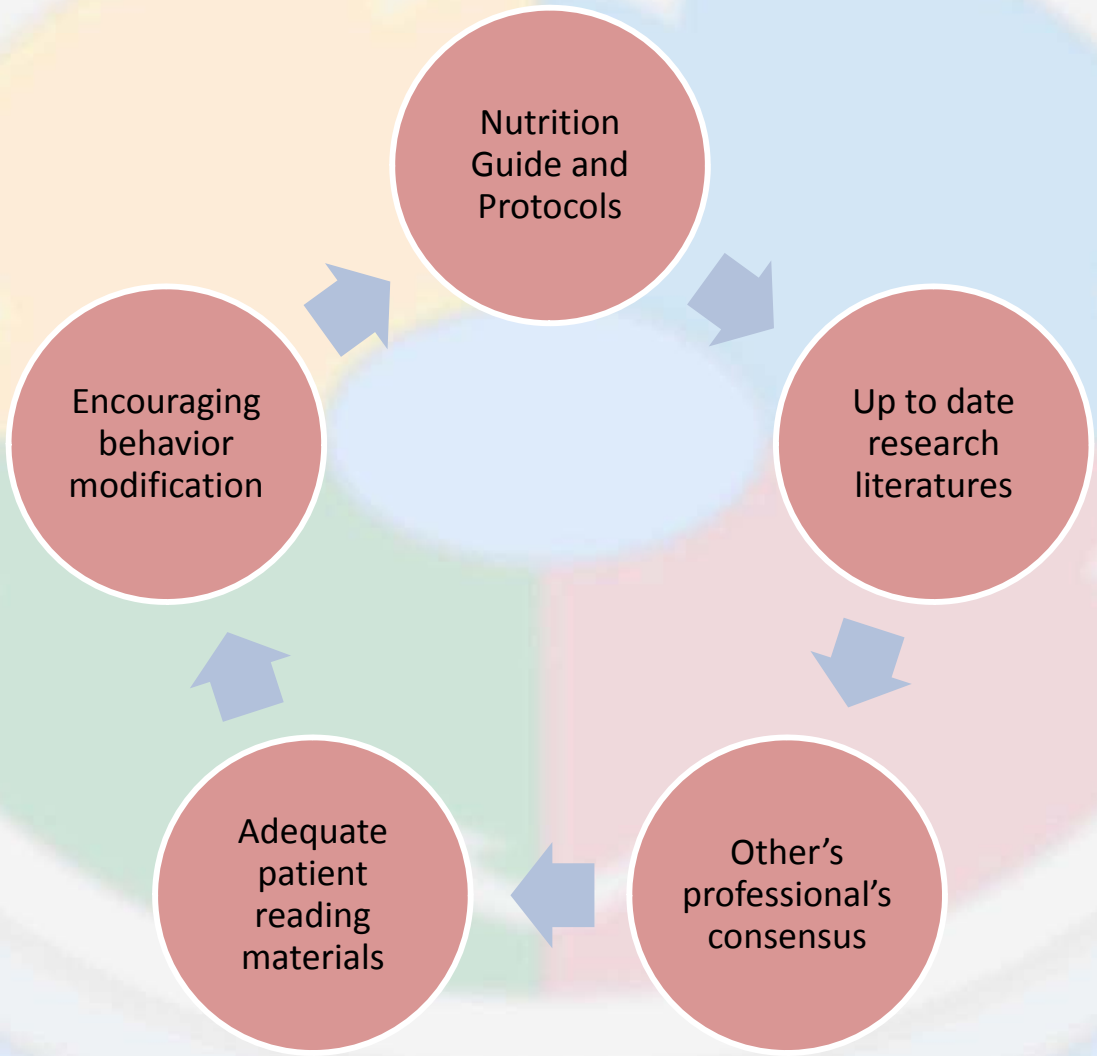
Steps of Nutrition Intervention

- SELECTING
- PLANNING
- IMPLEMENTING

Step 3: Nutrition Intervention

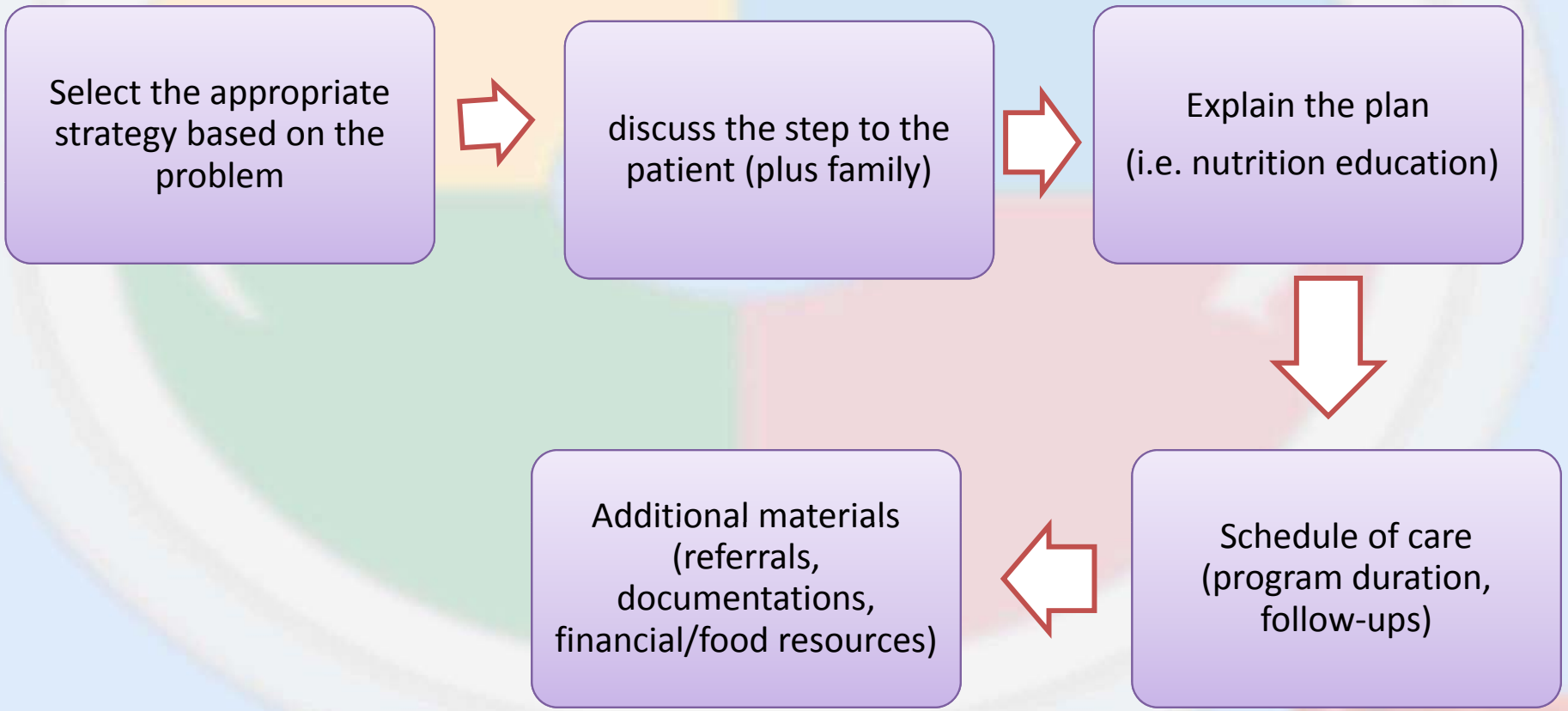
- The nutrition intervention chosen is based by the nutrition diagnosis and uses
  - team involvement
  - science based principles
  - Back-up with research, if available.
- The key element is that the RD creates a rational plan with the help of the whole family, not just the individual in order to improve the issue.

Tools for Interventions



Steps of Nutrition Interventions:

The plan of action will be based on the patient's diagnosis:



Documentation of Nutrition Interventions

- Is part of an on-going course of action
- Records should be accurate, timely and applicable.
- Scrutiny of patient's file should include:
  - Date and time
  - Goals and outcomes
  - Plan's adjustments
  - Patient's receptiveness
  - Resources and referrals
  - Follow-ups (observe progress) and frequency
  - Discharge (if applicable)

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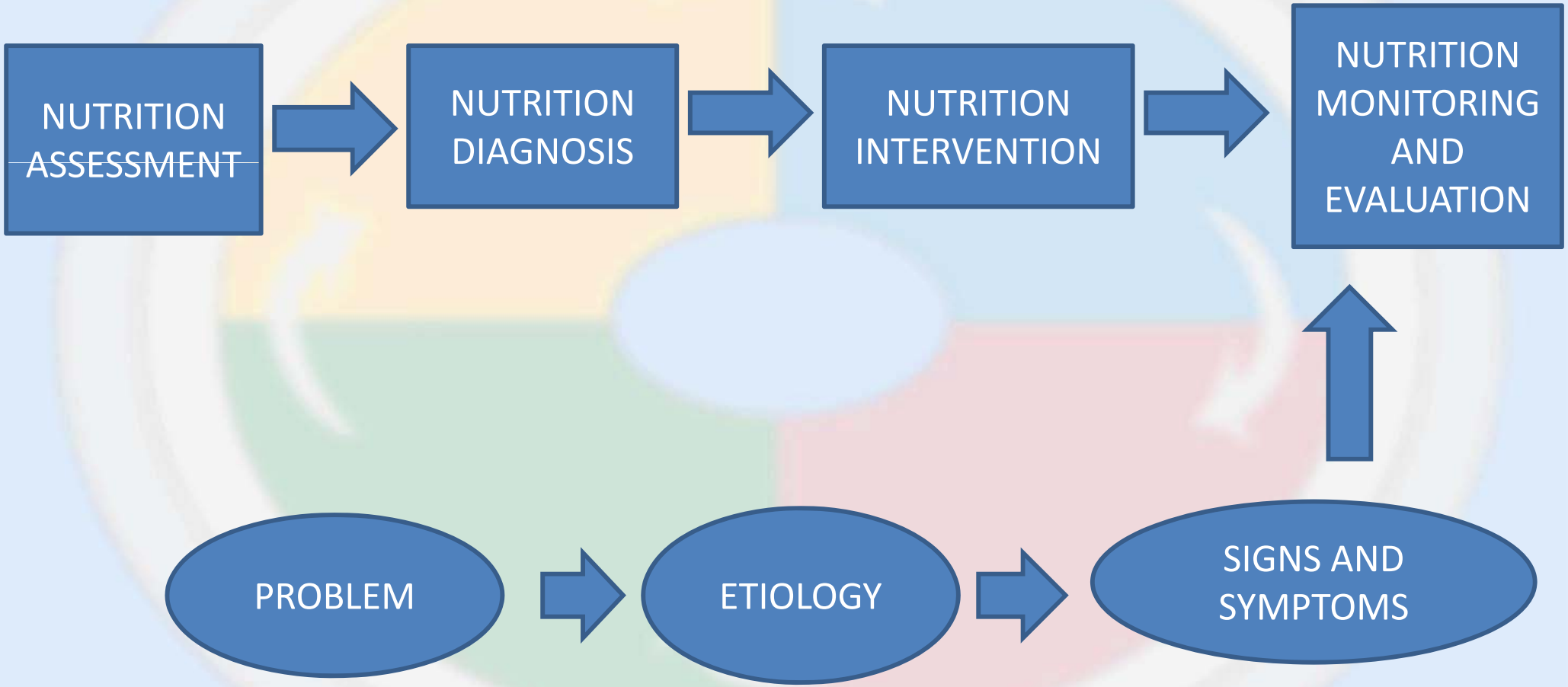
Step 4: Nutrition Monitoring and Evaluation

- Critical step that defines the outcomes specific to nutrition care.
- Overlapping between nutrition assessment and nutrition monitoring and evaluation terminology (except client history)
- Generating a standardization of evaluating the effectiveness of nutrition intervention.

Nutrition Monitoring and Evaluation

- Purpose
  - To determine whether progress made related to the patient's nutrition intervention goals and/or desired outcomes.
  - To provide evidence if the intervention is or 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



M&E Components

- Monitoring provides findings that the nutrition intervention has impacted the patient's status positively or negatively
- Measuring outcomes by using data from the nutrition care indicators *
- Evaluate patient outcomes by comparing current findings with previous status/behavior and patient's nutritional intervention goals

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

4 Categories of M & E

Food/Nutrition-Related History Outcomes	Anthropometric Measurement Outcomes	Biochemical Data, Medical Tests, and Procedure Outcomes	Nutrition-Focused Physical Finding Outcomes
Food and nutrient intake, food and nutrient administration, medication/herbal supplement use, knowledge/beliefs, food and supplies availability, physical activity, nutrition quality of life	*Height, weight, body mass index (BMI), growth pattern indices/percentile ranks, and weight history*	*Lab data (e.g., electrolytes, glucose) and tests (e.g., gastric emptying time, resting metabolic rate)*	*Physical appearance, muscle and fat wasting, swallow function, appetite, and affect*

http://www.adancp.com/category.cfm?ncp_category_id=1007

Nutrition Monitoring and Evaluation: Critical Thinking

- 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

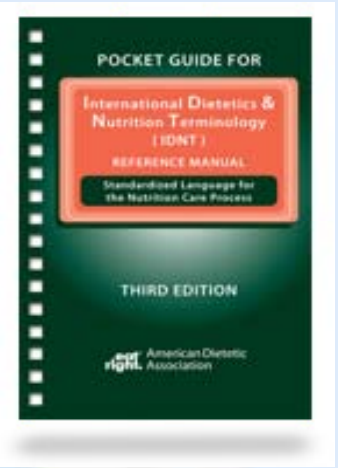
Nutrition Care Process Snapshot NCP step 4: Assessment www.eatright.org

Health Care Outcomes

- Patient outcomes
  - Improved nutrition intakes
  - Changes in physical signs and symptoms
  - Increases patients quality of life
- Health and 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

Resources Available



- Book: (ADA item ID# 417310, $30.00)
  International Dietetics and Nutritional Terminology (IDNT)Reference Manual, ed. 3
- IDNT Pocket Guide, ed. 3, (ADA ID #418110)
- IDNT Online Access available
- ADA Journal Article
  - July 2008, vol. 108, No 7, pp. 1113-1117
  - August 2003, vol.103, No 8, pp. 1061-1072
- ADA Website: www.eatright.org

Case Studies and PES Statements

Case # 1

56 year old female with Type 2 DM

Ht. 5’6”, Wt. 160, BMI 25

Labs: FBG 200 mg/dl, A1C 8.2%

Diet: Pt usually eats 14 portions of CHO. Most of them are simple CHO.

Physical activity: Pt walks 3 days per week for 45 minutes.

Medications: metformin

Pt was referred to the RD for diet modification and counseling (first visit)

PES Statement for Case #1

(P)Excessive carbohydrate intake (NI-5.8.2)

(E) Related to lack of nutritional knowledge concerning appropriate amount of carbohydrate intake.

(S) As evidenced by hyperglycemia (FBG 200 mg/dl) and A1C of 8.2%

Case # 2

Mr. C, a 50 year old man, 5 ft 8 in tall an weighing 178 lb (BMI 27), is admitted to the hospital with chest pain.

Mr. C gained 25 pounds over the last year.

Labs: LDL 240, HDL 30, TG 350

BP 120/80

Diet is poor, skips meals and eats large dinner meals.

PES Statement for Case #2

(P) Altered nutrition-related laboratory values (lipid profile) (NC-2.2)

(E) Related to undesirable food choices

(S) As evidenced by hyperlipidemia with elevated LDL and low HDL.

Case # 3

- 19 year-old female. Her height is 65 in. and her weight is 138 lb (BMI 22.9).
- Always unhappy with her weight. She has been on many fad diets and lost some weight but always regained it.
- About 6 months ago, she began binge eating
- Binge episodes occurs frequently and she consumes about 1700 cal (caloric dense food) in a 2-hour period.

Case # 3 (Cont)

- After binge eating she feels extremely guilty, and vomiting is self-induced.
- Next day, she consumes around 700 Kcal.
- Two months ago, she started on laxatives.
- She feels fat in her abdomen and thighs. She is extremely worried about her weight.
- Physical Activity: works out 4 times per week

PES Statement for Case # 3

(P) Disordered eating pattern (NB-1.5)

(E) Related to excessive preoccupation about her weight

(S) As evidenced by self-induced vomiting following binge episodes accompanied by guilt and restricted eating.

Case # 4

- Mr. G is a 78-year-old male. He had a stroke 6 months ago. As a result, he has a hemiplegia (right part of his body).
- He lives alone in his apartment.
- Mr. G is unable to eat his meals by himself.
- He has noticed a weight loss of 25 lb in the last three months. He is 5’4” tall and weights 115 lb; his UBW was 140 lb.

PES Statement for Case # 4

- (P) Involuntary weight loss (NC-3.2)
- (E) Related to lack of self-feeding ability
- (S) As evidenced by weight loss of 17.8 % in three months.

Case # 5

- Ms. S is a 33-year-old women with Crohn's disease who has abdominal pain, bloating, and occasional nausea and diarrhea.
- Physician suspects a distal small-bowel stricture.
- She seeks out information on what to eat to prevent the problem from worsening during the 3-day period before her appointment

PES Statement for Case # 5

- (P) Altered GI function (NC-1.4)
- (E) Related to pain, bloating nausea and diarrhea
- (S) As evidenced by history of Crohn's disease

Case # 6

- Mr. B a 56-year-old white man who works as a truck driver and on the road every week
- Has headaches, dizziness, and insomnia.
- Diagnosed as having hypertension with 3 blood pressure tests of
    - 160/90 175/95 177/92
- Dr. gave him prescription or diuretic, Lasix and ß-blockers.
- Diet prescription of a no-added-salt diet
- He contacted Dietitian to plan menus he can follow

PES Statement for Case # 6

- (P) Food- and nutrition-related knowledge deficit (NB-1.1)
- (E) Related to lack of prior exposure to nutrition information about low Na diet
- (S) As evidenced by new medical diagnosis of hypertension

References

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Questions?