

CONTINUING COMPETENCE PROGRAM

Members are required to participate in the Continuing Competence Program (CCP), which includes the completion of two learning objectives in each year of registration. When renewing their registration, members must identify the two learning objectives achieved as well as the learning activities and self-reflection related to each learning objective. In addition, they must identify two new learning objectives for the following CCP year.

Learning objectives may change during the CCP year and members may make necessary changes to their learning objectives throughout the year in their NBAD member account. Upon renewal of registration, members must make the necessary changes, if any, to reflect the learning objectives that have been achieved during the CCP year.

Members are strongly encouraged to use the CCP Member's Handbook to write CCP submissions as well as to complete Step 1 – Self-Assessment to identify learning objectives and related competencies. Consult the PPC webpage to access the PPC Member Handbook and other CCP resources.

NBDA may request to review the CCP supporting documents at any time. Keep them for a minimum of five years.

Year PPC1 April 2024 - 31 March 2025

LEARNING OBJECTIVE 1

1. How did you determine your first learning goal?

Workplace needs (e.g. a new project or work responsibilities)

2. What knowledge or skills do you need or want to learn?

By March 31, 2025, I will enrich my knowledge on nutritional recommendations to support good gut health by completing the online course "Certificate of Gut Microbiome" to better guide my patients with bowel disorders.

3. How will the apprenticeship allow you to update your skills as a dietitian?

Based on the results of the Phase 1 self-assessment, determine the standard of practice, competency and performance indicator that will be addressed through this learning objective.

3: Nutrition Care

Competency **3.2**

Performance indicator **3.2.2**

Selects appropriate nutrition interventions.

4. What learning activities have you planned/envisioned to achieve this learning objective?

Checks all that apply

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- Races/Residency
- Self-directed research/journal reviews
- Networking/discussion Groups

5. When will you complete the learning activities for this learning objective?

Multiple activities throughout the year

6. What have you considered to ensure that your goal is realistic and can be achieved during the renewal year?

Checks all that apply

- Finances - what are the costs; are you seeking funding (e.g., from your employer or another source); can you pay the costs if funding is not available?
- Timing of activities – will activities be during work time or personal time; scheduled course/event or self-paced; does timing conflict with any work or personal commitments or deadlines?
- Workload - how much work/time is required to complete the proposed activity; can you complete the required workload in the CCP/Renewal year?

ACTIVITY LOG

Please note: March is considered a transition month and learning activities completed in March can be used to meet your learning goals for the current CCP year or the following CCP year.

Date 2024-04-30

Type of supporting documentation (certificates, receipts, references, etc.) Receipts online courses

Description of the learning activity Readings on the gut microbiome.

Date 2024-05-01

Type of supporting documentation (certificates, receipts, references, etc.) Networking with Epithelia

Description of the learning activity Review of the resources of Andréanne Martin Dt.I. with the Epithelia clinic, a leader in gut health

SELF-REFLECTION

1. What effect has your learnings had on your professional growth?

Checks all that apply

- Improved critical thinking or decision-making
- Improved confidence
- Improvement of knowledge, skills or competencies

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- Revision or reinforcement of knowledge
- Change in perception, understanding, awareness, enlightenment, or philosophy
- Professional skills development
- Awareness of the need for additional information or actions

2. Describe an overview of the new knowledge/skills acquired:

I learned about the extent of the importance of the gut microbiota for overall health. Notably, I didn't know that gut health plays such an important role in other systems like the immune system and even mental health (psychobiotics). I learned about the different kinds of probiotics and the importance of selecting bacteria based on the person's symptoms. If a probiotic doesn't provide any benefit after a few weeks, it's probably not the right strain and it doesn't work to treat the symptom (don't give a probiotic for constipation like BioGia for antibiotic diarrhea). For example, for diarrhea you can choose lactobacillus reuteri, lactobacillus rhamnosus and saccharomyces boulardii. For irritable bowel syndrome one can choose lactobacillus reuteri, lactobacillus rhamnosus, and bifidobacterium longum. For antibiotic-associated diarrhea lactobacillus rhamnosus, lactobacillus casei and saccharomyces boulardii can be chosen. As a psychobiotic one can choose lactobacillus rhamnosus (increases GABA), bifidobacterium longum (for anxiety), bifidobacterium infantis (increases tryptophan which is a precursor of serotonin). Dysosmobacter welbionis increases butyrate production and may help with insulin resistance. Butyrate is a short-chain amino acid. Short-chain amino acids act as a source of energy for the colon cells, nourish the mucous layer, produce vitamins, interact with the immune system and can have an anti-inflammatory effect. I learned the important criteria for the selection of probiotics, such as the importance of not using expired probiotics or the importance of shipping the product in controlled temperatures so as not to kill bacteria (e.g. not buying our probiotics on Amazon). Allergies are also important, some probiotics contain gluten or dairy products (for example, Align continent milk, so even if it is known for irritable bowel syndrome, do not give it to someone who has a milk allergy). I also read about SIBO (small intestine bacterial overgrowth), an intestinal problem that I didn't know existed before my reading. The symptoms of SIBO can be similar to irritable bowel syndrome (bloating, gas, burping, nausea, vomiting, diarrhea, constipation, and brain fog). SIBO is characterized by an accumulation of bacteria in the small intestine where there are usually fewer bacteria. Taking antibiotics is usually the treatment. I learned that endometriosis, functional dyspepsia, and abdominal dyssynergia should be diseases to consider if someone has bloating. Bloating and abdominal distension are not the same thing (subjective vs. objective). Constipation causes the intestinal bacteria to run out of food and start feeding on ammonia or sulfur, which damages the colon. Kiwis, psyllium, and flaxseeds can be good natural laxative choices. Yoga, abdominal (or diaphragmatic) breathing, and abdominal massage can help with constipation and bloating. And more! Please refer to my notes for more information.

3. Describe how the knowledge/skills have been applied to your practice (if the learning has not influenced your practice, explain why it has)

The majority of my patients have problems with constipation or diarrhea, so I often have the opportunity to apply my new knowledge. With my new knowledge, I am able to better explain to my

patients the importance of a good diet that supports gut health and the possible benefits. I had some patients in particular who had a reduced quality of life because of their gut health. One of the patients had been diagnosed with irritable bowel syndrome (diarrhea) and now that she is paralyzed, she can no longer go to the bathroom independently and she is left alone during the day and often had accidents. She also has a history of frequent urinary tract infections and often needs to be on antibiotics and is depressed. After reading, I applied my knowledge by making nutritional recommendations and selecting a probiotic that works for its symptoms (diarrhea, depression and taking antibiotics). Also, considering that people with spinal cord injuries or neuromuscular diseases often have slowed transit, I take into account the possibility that my patients' symptoms are caused by SIBO, a disease that I did not know existed before my reading.

4. Describe how your practice and skills as a registered dietitian have been improved as a result of your new knowledge or skills.

For the first time in 8 years, the patient mentioned above no longer has diarrhea. I had consulted with this patient before my reading, and she continued to have problems, so I think it shows that my skills have improved. I think that by better explaining the relationship between diet and gut health and overall health, it motivates patients to take action. Thus, my practice has improved.

LEARNING OBJECTIVE 2

1. How did you determine your first learning goal?

Workplace needs

2. What knowledge or skills do you need or want to learn?

By March 31, 2025, I will develop my knowledge of the ketogenic diet for epilepsy management through collaboration with another dietitian and reading so that I can apply my knowledge for a need in the workplace.

3. How will the apprenticeship allow you to update your skills as a dietitian?

Based on the results of the Phase 1 self-assessment, determine the standard of practice, competency and performance indicator that will be addressed through this learning objective.

2: Communication and Collaboration

Competency **2.6**

Performance indicator **2.6.2**

Uses expertise of other health care providers as it is a key element in dietetic practice.

4. What learning activities have you planned/envisioned to achieve this learning objective?

Checks all that apply

- Consultation with other health professionals/peers

- Professional Group Activities/meetings/committee work
- Self-directed research/journal reviews

5. When will you complete the learning activities for this learning objective?

Multiple activities throughout the year

6. What have you considered to ensure that your goal is realistic and can be achieved during the renewal year?

Checks all that apply

- Timing of activities – will activities be during work time or personal time; scheduled course/event or self-paced; does timing conflict with any work or personal commitments or deadlines?
- Workload - how much work/time is required to complete the proposed activity; can you complete the required workload in the CCP/Renewal year?

ACTIVITY LOG

Please note: March is considered a transition month and learning activities completed in March can be used to meet your learning goals for the current CCP year or the following CCP year.

Date 2024-04-12

Type of supporting documentation (certificates, receipts, references, etc.) Notes, references

Description of the Learning Activity/Meeting/collaboration with IWK Dietitian Erin Walker, RD:
She gave me a lot of information about the diet and shared her resources with me.

Date 2024-04-15

Type of supporting documentation (certificates, receipts, references, etc.) references

Description of the Learning Activity: Erin guided me through further reading including the International Recommendations for the Management of Adults Treated with Keto Diet Therapies

Cervenka, M. C., Wood, S., Bagary, M., Balabanov, A., Bercovici, E., Brown, M. G., Devinsky, O., Di Lorenzo, C., Doherty, C. P., Felton, E., Healy, L. A., Klein, P., Kverneland, M., Lambrechts, D., Langer, J., Nathan, J., Munn, J., Nguyen, P., Phillips, M., Roehl, K., Zupec-Kania, B. (2021). International Recommendations for the Management of Adults Treated With Ketogenic Diet Therapies.

Neurology. Clinical practice, 11(5), 385–397. <https://doi.org/10.1212/CPJ.0000000000001007>

Date 2024-05-01

Type of supporting documentation (certificates, receipts, references, etc.) references

Description of the learning activity: Reading UpToDate Ketogenic Dietary Therapies for the Treatment of Epilepsy. UpToDate is an evidence-based clinical resource widely used in the health

field. UpToDate is recognized for its reliability and is used by doctors to access up-to-date medical knowledge in various specialties.

Date 2024-04-12

Type of supporting documentation (certificates, receipts, references, etc.) Handout

Description of the Learning Activity: A review of IWK patient materials.

SELF-REFLECTION

1. What effect has your learnings had on your professional growth?

Checks all that apply

- Improved critical thinking or decision-making
- Improved confidence
- Improvement of knowledge, skills or competencies
- Change in perception, understanding, awareness, enlightenment, or philosophy
- Professional skills development
- Awareness of the need for additional information or actions

2. Describe an overview of the new knowledge/skills gained:

I was asked by a neurologist to follow a patient with epilepsy who was not responding to medication to try to manage his seizures on a ketogenic diet. I learned that there is a lot of evidence on the effectiveness of the ketogenic diet for the management of epilepsy. I learned that the ketogenic diet for epilepsy management is extremely strict. For example, there are several preliminary steps before start the diet (review of medications so that the drugs provide less than 1 g of carbohydrate, contraindications to starting the diet, arranging admission to the hospital for the initiation of the diet, laboratory values to check, etc.). Absolute contraindications for the diet include defects in the oxidation of fatty acids. Constipation, kidney stones, dyslipidemia, liver disease, pancreatitis, metabolic acidosis and cardiomyopathy are relative contraindications. There are different formats, but for adults, the "Modified Atkins" version would be the most appropriate. This version allows more flexibility in terms of proteins and is therefore more favorable for adults. I learned the ratios of protein, fat and carbohydrates needed for the Modified Atkins diet (30% protein, 65% fat and 5% carbohydrates, about 20g of carbohydrates per day). The recommended fat intake is high, so oil, butter, cream or mayonnaise should often be added to meals and snacks. The diet is often incomplete in terms of micronutrients. A complete diet analysis is recommended and supplementation should be taken as needed. A carbohydrate-free multivitamin is often recommended as well as zinc, calcium, selenium, vitamin D and carnitine supplements. Symptoms of the ketogenic diet can include constipation, reflux, kidney stones, dyslipidemia, carnitine deficiency, pancreatitis, bone fracture, and cardiomyopathy. It is also possible to have hypoglycemia. I learned how to treat hypoglycemia in a patient in ketosis. The blood sugar should be above 2.2mmol/L. If we fall below 2.2mmol/L we give 30 ml of juice, then we have to increase the general caloric intake of the patient. Hypoglycemia may be an indication that the patient is not

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getting enough calories. Blood glucose should be taken every 6 hours. I learned about excess ketosis. Symptoms of excess ketosis include turning red, vomiting, weakness, thirst, confusion, abdominal pain. Ketone levels in the urine should be 8-16 mmol/L. Urine should be tested twice a day. When you start the diet, you do it in the hospital as mentioned above. Usually it is a 3-7 day admission. Diet tolerance is assessed, blood is taken, and education is provided for management at home. The patient should take specialty beverages like KetoCal, which helps the patient stay in ketosis. As you can see from the information shared above, it's a complex diet that requires a lot of assessment and education and requires an interdisciplinary team. After 3 months, if the diet does not reduce the attacks, you can quietly stop. It is recommended to reintroduce carbohydrates gradually. I could go on and give more information, but your software prevents me from adding more

3. Describe how the knowledge/skills were applied to your practice (if the learning did not influence your practice, explain why it did):

After enriching my knowledge, I was able to apply it by collaborating with the neurologist and psychiatrist to explain the recommendations of this diet. I also met with the mother and the patient and was able to educate the family so that they could make an informed decision. The family decided to start by trying to keep their child hydrated without the use of juice, milk, or soda. Unfortunately, the patient was not able to stay hydrated and so the family opted not to continue the diet. So, I didn't have the chance to apply my knowledge to the fullest. That said, since this patient, I have been in contact with 2 dietitians who received the same request, to start a ketogenic diet for epilepsy management, so I have offered education to these dietitians.

4. Describe how your practice and skills as a registered dietitian have been improved as a result of your new knowledge or skills.

Even though I didn't have the chance to apply my knowledge to the fullest, actively follow a case and initiate the entire diet, I gained knowledge about a rare and complex diet and was then used as a resource at the provincial level for this "expertise", so I would say it improved my practice. We don't have a dedicated epilepsy management centre like other provinces, but as a tertiary dietitian at a neurorehabilitation centre, perhaps this service will grow at the Stan Cassidy Centre and I feel confident after my research and discussions with Erin to become that resource and help patients in our province.

Please note that this form must be complete, as it will be the form used to submit to the Quality Assurance Committee if you are selected for an audit on April 1.

Yes/Oui: I have achieved both learning objectives during the current CCP year (April 1 to March 31).