



EPISODE 26 - Nutrition Related Medications

Transcript

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When I first started working in clinical, everything was new to me. And when something is new, it can be scary. I mean, this is why so many people are afraid of change. It's the unknown and quite frankly, that can be a frightening feeling. Well, I was seeing a patient who had so many loose stools and diarrhea. I immediately thought there was something wrong. They were sick. They had the flu. They had a terrible bug. After I reviewed the patients medications, I came across one I hadn't seen before. The patient happened to be a liver patient and had elevated ammonia levels. This particular medication was doing what it was supposed to be doing. It was supposed to cause frequent bowel movements and diarrhea and also happens to be used to help patients with chronic constipation.

Many medications have diarrhea as a side effect. But there are medications that stimulate bowel movements - that's their goal.

[Music and Intro]

Hey there. This episode was requested by a few listeners who've expressed some concerns about medications showing up on the exam. So I'm gonna break down some common medications you'll see and the impact it has particularly for us as dietitians. I think that's really important to emphasize because throughout my career, I've seen some dietitian notes that look less like nutrition notes and more like physician documentation and that's really not our role. While it's fabulous to have a good and through understanding of someones medical condition because that way, we as dietitians can help our patients and clients to the absolutely best of our abilities, our nutrition documentation should be nutrition focused. The same is true for other professions. Let me give you an example. If I had a patient who was having a hard time swallowing and was seen by a speech therapist, I expect and hope to see recommendations regarding what type of texture the foods need to be for the patient or what is and isn't safe for them. That's the purpose and focus of their note. Our note as dietitians is nutrition focused. Ok. So let's do a quick review of the Nutrition Care Process. Remember: the Nutrition Care Process or NCP standardizes the charting dietitians do using the ADIME format. Assessment, Nutrition Diagnosis, Nutrition Intervention, Monitoring and Evaluation.

That means we need to focus on what's included in each of these sections of the note. It's easy to go down a rabbit hole but try to focus on the information that's nutritionally pertinent. That includes medications too. Many medications have side effects and let's be honest, there's a ton of medications. Most of the medications we document in the medical record are medications that impact either the patient in a way that interferes with their nutrition or the nutrition intervention. The medications can also cause alterations in the labs that impact us as dietitians. I'm gonna focus on those medications in this episode. Keep in mind that there are many I'm not gonna mention because we just don't have the time for that.

Also I want to say that the purpose of this episode is to share some information on medications that can help you with the RD Exam. The information is not to be taken as medical advice. It's for educational and informational purposes only. If you have questions about medications for your own personal use, please always reach out to a physician for guidance. And I want to take that further. When you're a dietitian, keep asking questions. Just like the listeners of this podcast did by asking me to review medications for the exam. As professionals, you need to remember your role as a dietitian. Continue to help patients, advocate for them, and always keep their best interest in mind. That's your role and the role of all the healthcare providers who care for that patient.

So I want to go over some medications we often deal with as dietitians. Like I already mentioned, I can't go over every single medication because my goal is to be informative while also being concise and practical. I also asked an intern what medications they've seen the most during their clinical rotation that was new or they felt would be most helpful for this episode. So I added those to the list I'll go over to make sure it's as thorough as possible. And one more thing, dietitians aren't pharmacists. They have a very important role. Their expertise is working with medications and as a dietitian, I reach out to pharmacists ALL THE TIME. I'm so thankful for them. In fact, one of my favorite things I did in my clinical role and as the Nutrition Support Specialist was educate the pharmacists on nutrition, particularly on estimated needs. Not only was it fun because I loved the team of pharmacists I worked with but it was also great because we collaborated and taught each other. Super valuable right. And honestly, this is how I learned and grew as a dietitian. Teaching is really the best way to learn.

Ok. So I wanna circle back to the opening case study where I mentioned this patient had frequent bowel movements and diarrhea. At first I thought they were sick with the flu until I came across a medication. That medication was lactulose. Now I was new and was hyper focused on the diet order and what type of nutrition they were getting. So this patient wasn't sick with the flu. The diarrhea was because of the lactulose. Now whenever someone has diarrhea, you have to think about losses such as electrolytes and zinc. And I want to share a little about diet orders since this was when we were trying to bring awareness to the "hepatic diet" and that it's actually not really a diet. The appropriate diet is a "low sodium diet".

So let's move on to corticosteroids. Steroids help control inflammation. They can cause fluid and sodium retention which results in weight changes. They can also change fat distribution and cause fat deposits in the face. A common term I've seen is "moon face". You'll see this in people who've had an organ transplant too. And one of the big side effects of steroids that affects metabolism is decreased carbohydrate tolerance. What you'll typically see clinically is elevated blood sugars. It affects their nutrition because these patients need to be mindful of the carbohydrates they eat. Steroids can also increase someone's appetite which can lead to weight gain. Now, I don't know if you'll be asked about a specific medication on the exam. But I want to share a tip with you because I've taken the CNSC three times and medications are part of the exam review. So what I do is I pay attention to the nomenclature. Often times, I can at least figure out what class of medication it is from the name. So with steroids, many of them end in "one". For example, prednisone, hydrocortisone, dexamethasone. Now there are some that are named differently but this is a little tip that has helped me over the years.

When I worked in the neurological critical care unit, I saw a lot of patients with brain injuries, brain aneurysms, and seizures. Because I saw patients who had seizures, I saw many patients who were on Dilantin. Dilantin or another name for it is phenytoin, is an anti-seizure medication and it also happens to be a medication that requires the patient to not eat or receive nutrition before and after each dose. So this of course has a big impact on nutrition. Let me give you a scenario. Let's say you have a patient in the ICU who's getting continuous tube feeding. The doctor orders phenytoin to be given 3 times in a 24 hour period. This means the patient would likely get the medication every 8 hours. The pharmacist calls you after the doctor places the order and tells you the patient can't receive tube feeding for 2 hours before and after each dose. So you have to change things up and do some calculations. This is how you could go about it. Look to see your daily tube feeding volume. For example, if this patient is getting tube feeding with an hourly rate of 65 ml/hr, this would give a total of 1560 ml in a 24 hour period. If the formula is a 1 cal/ml formula, it means the patient is getting 1560 calories. So that's how many calories you want the patient to continue to get but now, you have to increase the rate of the tube feeding because the patient can't get the tube feeding over 24 hours. Now they need to get the tube feeding over 12 hours because for each dose, the tube feeding needs to be held for 2 hours before and after each dose which means for each dose, the feeds need to be held for 4 hours. If the patient gets 3 doses in a 24 hour period, 4 hours for each dose x 3 equals 12 hours. So for 12 hours in a 24 hour period, the patient needs to be NPO. That leaves only 12 hours in the day for the patient to receive nutrition. Now, going back to the amount the patient needs. Before they started on phenytoin, they were getting tube feeds with a rate of 65 ml/hr or a total daily volume of 1560 ml in a 24 hour period. So you're going to take the total volume of 1560 ml and divide it by 12 because there's only 12 hours in a day that the patient can get nutrition, giving you an hourly tube feeding rate of 130 ml/hr. So this means the patient should get tube feeding at 130 ml/hr with feeds held for 4 hours, 3 times a day for medication. I hope that helps.

Another medication that comes to mind is levothyroxine. Several foods can interfere with the absorption of levothyroxine. Levothyroxine is a medication for people with hypothyroidism.

Ok, the next type of medication I want to talk about are diuretics. Diuretics are given to people to remove excess fluid. For example, patients with heart disease. Diuretics can cause increased excretion of potassium, sodium, chloride, magnesium, and calcium. So these need to be monitored. Often times, if someone needs a diuretic, they might also need a fluid restriction. So you need to make sure you pay attention to the diet order and if you have any doubts, ask. I can't say that enough. You do much better patient care when you understand the patient and what's going on with them. On top of electrolytes being an issue, patients can have abdominal cramps, diarrhea, and constipation. And one of the big complaints is dry mouth. So let's put this all together. Diuretics help the body get rid of excess water. When you lose water, you also lose electrolytes. Think about electrolyte replacement drinks for athletes. When people lose fluid, common complaints are dehydration such as dry mouth. And mostly, these patients really feel thirsty. They want to drink and need to drink but are often placed on a fluid restriction.

Moving on to antipsychotic medications. A lot of these medications affect appetite. Actually most of them do. Whenever I covered the psychiatric units, most of the patients were ordered regular, double portion or large diets because their medications made them extremely hungry. And almost every time I'd speak to the patients, they'd ask for more food or tell me how hungry they are. So this is something to keep in mind and to be aware of. Antidepressants can also affect people's appetite. Some people might lose weight while others can gain weight. In general, it's good to be aware that antidepressants can interfere with someone's appetite and their weight. Ok so another class of medications that are commonly prescribed in patients are antibiotics. Antibiotics in general can cause GI distress. You have to read the drug facts and recommendations. Some medications require them to be taken with food while others recommend you take them on an empty stomach. As a dietitian, if you're seeing someone who's taking an antibiotic and they have abdominal pain, cramping, diarrhea, nausea, and vomiting, it could be because of the antibiotic. In these cases, you can't stop the antibiotic because it's important the patients take the whole prescription ordered by the doctor but you can work with the patient to find foods they would want to eat. I find foods like broth and soup and lighter foods will help improve intake. It's a case by case situation but that's a big role you can take as the dietitian. So here's a list of some common antibiotics. Ciprofloxacin, amoxicillin, ampicillin, erythromycin, penicillin, and tetracycline. There's more but these are some common ones. And some of them may require the patient to hold the dairy products while they're on the antibiotic.

A medication you might be familiar is an anticoagulant called Coumadin or warfarin. This medication prevents blood clots. The big drug-nutrient interaction is Vitamin K. I've had a lot of patients tell me they can't have anything green to eat because they're on Coumadin. The recommendation is actually to follow a consistent Vitamin K diet. The medication is typically dosed according to someone's diet. So the recommendation is not to make a ton of changes to the diet when taking Coumadin. If the patient typically eats a side salad every day, they can continue as long as they were transparent when being dosed the medication. So not being able to eat any Vitamin K is typically not the case. They just have to follow a consistent Vitamin K diet.

Moving on to motility agents which can be needed after the body experiences a traumatic event. If there's signs that the gut is slow or not moving such as abdominal distention, decreased bowel movements or high residuals, a promotility medication can be helpful. Some patients aren't able to move. And we know as dietitians that movement, walking, exercising and getting active can help move things along and is one of the recommendations when someone has constipation. So if this isn't an option - if the patient can't walk around the hospital - then things are gonna feel extra sluggish. Some common medications that can help move things along are erythromycin and reglan. Remember I mentioned erythromycin when I was talking about antibiotics? Well, it's also a gut motility medication. It stimulates the gut to move. They do help in my experience. So if a patient needs help with getting their gut to wake up, they may be ordered a gut motility medication.

So let's move on to blood pressure medications. Controlling blood pressure is really important. Generally speaking, high blood pressure or hypertension is silent. A lot of people have no clue their blood pressure is high. They don't feel different. So they don't feel they need to go to the doctor. And that can be very dangerous. Sometimes, in my experience, the first symptom of high blood pressure is kidney failure. And unfortunately, kidney failure can't be reversed. Once the nephrons die which are the kidney cells, they can't come back to life. They don't regenerate. And it's not just hard on the kidneys, high blood pressure isn't good for the heart. So let's go over a few medications that are used to control blood pressure. Atenolol and Propranolol are some of the blood pressure medications. Side effects that have been reported are diarrhea, nausea, cramping and vomiting. Some other ones are ACE inhibitors, calcium channel blockers, and diuretics. Remember, diuretics remove excess fluid which helps decrease the pressure on the blood vessels.

It feels like blood pressure and high cholesterol go hand in hand - at least to me so let's talk a little about medications for high cholesterol. As we know very well, dietary and lifestyle changes are the best to improve someone's cholesterol levels but for some people, it's just not enough. The body makes cholesterol because we need cholesterol for many body functions. Remember that cholesterol is used in the cell membranes as well as hormones and bile. So we need some cholesterol for normal body function but too much cholesterol especially

what we call the “bad” cholesterol can cause the arteries to clog which can lead to heart attacks. So let’s go over the types of cholesterol quickly. The two commonly checked and talked about cholesterol are the LDL’s and the HDL’s. The LDL’s or Low Density Lipoprotein are considered the bad cholesterol and can cause artery clogging. The HDL or High Density Lipoprotein are good cholesterol because they remove cholesterol and take it back to the liver for it to be excreted. So it’s protective. Some common medications that help lower cholesterol are Statins but they can cause diarrhea, stomach pain and constipation like so many other medications. Feels like a trend right. And remember, everyone responds differently.

Let’s talk a little about appetite stimulants which are helpful for people who don’t feel hungry. You’ll see this sometimes in patients with cancer. Also, sometimes other medications or the inactivity from being in the hospital can decrease appetite. This is why getting people up and moving is so important - if it’s safe to do so. Moving their body will help increase their appetite. And if you work outside the hospital, you should still always ask patients what type of medications AND supplements they’re taking which includes herbs. Because herbs can interfere with medication. So speaking of appetite stimulants, Marinol and Megestrol acetate are two common medications. And I wanted to circle back on being aware of herbs. Something to keep in mind. A lot of medications interact with grapefruit. In my experience, grapefruit is never on the menu in hospitals due to all the drug-nutrient interactions that can happen.

Some medications suppress appetite. You’ll see this more often in children with ADD or ADHD. And you can tell because they can lose weight when they’re on their medication and once they’re off, their appetite comes back and they gain weight gain. Ritalin and Adderall are two commonly known medications that help with concentration.

Now I’m gonna move on to a medication that was approved for weight loss. Years ago when I had just become a dietitian, I remember a drug I’d been hearing about was approved and available on the market. The drug is called Orlistat which blocks fat from being absorbed. I started seeing more and more patients who were prescribed the medication for weight loss. This was a good lesson for me because it was a reminder, as a dietitian, that I need to be aware of new research and medications available to patients. Because people will ask and you might even see patients on these medications so having an awareness and baseline knowledge is important.

This next medication is something you’ll see a lot in patients in the ICU. Propofol is a sedative and it also provides calories because it’s in a lipid emulsion. There’s 1.1 kcal/ml and it looks like a milky white substance. And let me tell you, the calories can really add up. I’ve had many patients who are getting up to 1500 calories just

from propofol which can make feeding the patient challenging because so many calories are being given just from the medication. When patients are on this medication, checking the triglycerides is important to make sure their levels are within normal limits.

And the last type of medications we commonly deal with as dietitians are medications that help promote bowel movements. Stool softeners such as colace are often ordered as needed. A quick note. If a medication is an “as needed” medication, it’s referred to as p.r.n. in the medical record. So if you work in clinical or you hear someone use the medical term p.r.n. you now know that it means “as needed”. Some other common medications are Milk of Magnesia can be given. And sometimes, patients may need an enema. If you notice someone hasn’t had a bowel movement, you can document to consider starting bowel regimen in the nutrition intervention and recommendations and escalate to the physician so they can either place an order or at the very least, it puts them on notice that the patient hasn’t had a bowel regimen. As I’m talking a story comes to mind when I was still fairly new in the ICU. I saw a patient who was intubated and sedated. They were in the corner bed and it was back when we had paper charting so the flowsheets for nursing were on the bedside table.

So after I gathered the information from the computer - the stuff you could see on the computer like the labs and meds - I went up to the unit to see the patient and noticed they hadn’t had a bowel movement that day. Ok no problem. Some people don’t poop everyday. So I went to the previous days flowsheet, and again, no bowel movement. Now this patient was getting tube feeds so they weren’t NPO. If they weren’t eating or getting tube feeds, I wouldn’t expect them to poop. You kinda need to eat in order to poop. But this patient was getting tube feeds so they should be pooping. I ended up going back 7 days and no bowel movements had been documented. So I thought, “Well, maybe someone just forgot to document it”. I went to the nurses and asked them if the patient had a bowel movement when they had the patient because nurses often don’t have the same patient everyday. Everyone I asked said no. The patient hadn’t had a bowel movement and the flowsheet was correct. Now I love working in critical care for many reasons but one of the big benefits of critical care is there’s usually a doctor readily available in the unit to talk to. So that’s what I did. I found the doctor, told them that the patient hadn’t had a bowel movement in 7 days and the doctor right away said, “Well, we better take care of that” and ordered the patient milk of magnesia. The plan was to give the patient 24 hours to have a bowel movement and if they didn’t, well, they’d need an enema. This patient was able to have a bowel movement and go out of needing an enema. I share this story because everyone focuses on their field of expertise. As dietitians, we need to pay attention to what goes into someones body and what comes out. So as part of my job, I was focused on bowel movements even though others didn’t realize it had been that many days. This is why the interdisciplinary team works and why we all have a vital role and specialize in different areas that all benefit the patient.

We covered a lot of information. Medications can be overwhelming and trust me, I have to look them up all the time. I know you'll do great. It's an entry-level exam. You need to know the basics.

Here's my little words of wisdom for the day. Remember you're important and you matter. Speak up for your patients. And keep in mind that medications should always be reviewed. They don't all need to be addressed but they should be reviewed. And look to see if the patient is having any side effects possibly related to the medication. As you learned in this episode, a lot of medications have GI tract side effects. And if the gut is impacted, so is nutrition. Side effects that affect the patients taste and smell have a huge impact on eating. But they can also affect weight status by either causing weight loss or weight gain. And they can affect nutrient absorption too. And if you aren't sure about a medication, look it up. Be curious. Ask questions. You got this. Keep doing you. Keep studying and remember, your mindset is huge. The words you tell yourself matter. Stay positive. Stay focused. And remember to stay on top of your study game. There's not limits to achieving the success you so deeply desire. Until next time.

[Music]

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