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<th><strong>PowerPoint Slides</strong></th>
<th><strong>English Text</strong></th>
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<tr>
<td><strong>Introduction to Nursing Management of the Breast Cancer Patient Video Transcript</strong></td>
<td>Hello and welcome to Introduction to the Nursing Management of the Breast Cancer Patient. My name is Jennifer McKenzie. I am one of the Senior Nursing Instructors at M. D. Anderson Cancer Center. This lecture will primarily focus on symptom management in the breast cancer population since that is really what we do as nurses.</td>
<td>مقدمة في إدارة تمرير مريضة سرطان الثدي ما هي وELCOME إلى تعليم مهناء متخصصة في مجال علم الأورام مقدمة في إدارة تمرير مريضات سرطان الثدي حفل وELCOME إلى تعليم مهناء متخصصة في مجال علم الأورام مقدمة في إدارة تمرير مريضات سرطان الثدي الوقت: 23:59 ماليز ماكلنزي كبير معالي التمريض تنمية العمالة التمريضية مركز إم دي أندرونسر للسرطان التابع لجامعة تكساس</td>
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**Introduction to Nursing Management of the Breast Cancer Patient**

**Objectives**

- Identify common symptoms experienced by patients with breast cancer
- Describe the management and nursing implications of common symptoms

So, our objectives for this presentation will be to identify common symptoms experienced in the breast cancer patient and then to discuss the management and nursing implications of those symptoms.

**Symptom Management in Breast Cancer**

- Pain
- Lymphedema
- Chemotherapy-induced Nausea and Vomiting
- Fatigue
- Cognitive Dysfunction
- Hot Flashes
- Osteoporosis

The topics that we are going to cover will be: pain, lymphedema, chemotherapy-induced nausea and vomiting, fatigue, cognitive dysfunction, hot flashes, and osteoporosis.
Pain

Post-mastectomy Pain
- Tightness, tenderness, nerve pain
- Increased risk with mastectomy vs lumpectomy

Cancer Pain
- Bone pain

Neuropathic Pain
- Associated with taxanes

For the postmastectomy pain, several interventions may be recommended. NSAIDs may be helpful as well as COX-2 inhibitors. For the nerve pain, you may see tricyclic antidepressants used, as well as some of the anticonvulsants. There is some information that limiting movement may help some of the pain in the mastectomy area, but we need to be a little bit careful about that because decreased movement may set them up for immobility problems later on and maybe a little bit more lymphedema. So that issue is maybe a little bit controversial. Heat or ice may be helpful at the incision site, but, if the patient is at risk for lymphedema, that can worsen the lymphedema. So we need to be a little careful with that one as well.
### Introduction to Nursing Management of the Breast Cancer Patient

#### Pain

**Cancer Pain**
- **Omeproducts**
  - **Interventions**
    - **Opioids**
      - Long acting around the clock
      - Breakthrough immediate release opioids
    - Methadone
    - NSAIDS, Acetaminophen
    - Bisphosphonates

For the bone pain, the primary interventions that you will see are opioids. With most pain management, you will see long-acting opioids as well as breakthrough pain management. So usually you will see some immediate release opioids in combination with your long-acting opioids. Methadone may also be a good treatment for cancer pain, also, NSAIDs and acetaminophen. You will also see bisphosphonates used for bone metastasis and that may help the cancer pain as well.

**Neuropathic Pain**
- **Interventions**
  - Tricyclic antidepressants,
  - SSRIs
  - SNRIs
  - Anticonvulsants
  - Gabapentin, pregabalin
  - Tramadol
  - Opioids

For the neuropathic pain, it is essentially the same if it is nerve pain from the mastectomy or nerve pain from taxanes. You will see tricyclic antidepressants used, as well as your serotonin reuptake inhibitors, also, your serotonin and norepinephrine reuptake inhibitors, anticonvulsants. You may see gabapentin or pregabalin, tramadol or opioids. So, most of the interventions for neuropathic pain will be primarily pharmacologic.
The next topic we will talk about is lymphedema. Lymphedema can be very disruptive to the patient's life. Approximately 15% to 28% of breast cancer patients will experience some degree of lymphedema. The lymphedema you will see with breast cancer is really secondary lymphedema, secondary, really to axillary node dissection. When we remove the lymph nodes, then that sets the patient up for having difficulty with drainage of the lymph so you have an increased likelihood for that. Radiation therapy following mastectomy may also increase the risk for lymphedema. Trauma to the area, trauma to the extremity where the axillary node dissection will also put them at risk. Metastasis to the lymph nodes can increase the likelihood of lymphedema and then infection in the area where the lymph nodes have been removed.

When we are assessing for lymphedema, when you think about lymphedema treatment and management, the primary thing you should think about is early detection. The earlier we can detect it, the better we can treat it. One of the most common tools for diagnosing lymphedema is looking at arm circumference. Stage 1: When there is less than 3 cm difference between the extremities, that is considered stage 1. Stage 2 is considered 3 to 5 cm difference between the extremities and then stage 3 is greater than 5 cm between the extremities. This is the most common, it’s not necessarily the best, but it is the most common tool to determine whether or not lymphedema is starting. Bioelectrical impedance is another way of determining whether the patients have lymphedema. Water displacement is actually one of the best methods, but not very well utilized. And then a perometer is another way to measure for lymphedema.

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### Introduction to Nursing Management of the Breast Cancer Patient

#### Lymphedema

**Risk factors**
- Obesity
- Constriction
- Injury/trauma
- Lack of exercise
- Air travel
- Diabetes

The risk factors for development of lymphedema include obesity; the patients that are more overweight will have a higher risk of developing lymphedema. Any constriction in the area, if the patient has a mastectomy, if they are wearing tight fitting clothes, that can help precipitate the development of lymphedema. Injury or trauma to the area, as I said before, if you have a patient that has needle-sticks on that area, blood pressure is taken on that side, that can increase the likelihood that they may develop lymphedema. Lack of exercise also may increase the likelihood that they are going to develop lymphedema, but on the other hand, overuse of the extremity may also contribute to it. Air travel, we know, is a predisposing factor. Usually if patients are going to travel and they are at risk for developing lymphedema or have a history of lymphedema, we suggest they use a compression sleeve and, if they have diabetes, they are going to be at higher risk as well.

#### Treatment
- Complete Decongestive Therapy
- Compression Bandaging
- Maintaining optimal weight
- Manual lymph drainage
- Skin care

The treatment for lymphedema is involved in several different areas. Complete decongestive therapy is the primary and best treatment for lymphedema. That is going to include manual lymphatic drainage, use of compression devices, arm exercises and skin care. Complete decongestive therapy really should be done by a licensed provider, either an occupational therapist or a physical therapist or a nurse that has specialty training in the management of lymphedema. Compression bandaging is another option. Maintaining weight. One thing that you are going to hear me say throughout this presentation is exercise, exercise, weight, nutrition. Really with all symptom management, we know that exercise is one of the best ways to deal with it. We talked about manual lymph drainage - and then meticulous skin care, trying to make sure that the skin does not become dry or chapped.
Next, we will talk about chemotherapy-induced nausea and vomiting. One of the primary treatments for breast cancer, as you may have seen in one of the previous videos, are the combination of either doxorubicin and Cytoxan or epirubicin and Cytoxan. That combination is considered highly emetogenic, meaning that greater than 90% of patients are going to experience nausea and vomiting with those. So, we would like to be very aggressive with our antiemetic regimens. The NCCN Guidelines, that is the National Comprehensive Cancer Network. Their recommendations are that we really kind of throw everything that we have at them to prevent nausea and vomiting. Aprepitant is one of the antinausea medications that is really kind of first line for prevention of nausea. Dexamethasone and one of your serotonin antagonists really should be used in combination with those patients that are receiving this combination of chemotherapy. Your physician may choose to add in lorazepam or one of the proton pump inhibitors. That may also help with the nausea and vomiting.
Another combination that is commonly used with your breast cancer patients, another treatment anyway, is either Taxotere or docetaxel or paclitaxel. Those are considered pretty low risk of emetogenesis, so low risk of nausea and vomiting. About 10 to 30% of patients experience nausea and vomiting with those. And usually, it is recommended just p.r.n. antiemetic therapy. Capecitabine is another treatment that is pretty common in your metastatic patients. That is an oral chemotherapy that has a very minimal risk as well, so once again p.r.n. medication is advised.

The best way to manage nausea is really to have patients take things around the clock, take their antiemetics around the clock and then have medications for breakthrough. There are a wide variety of breakthrough medications. The main principle behind the breakthrough medicine is to give something from a different class than we have given before for breakthrough medicine.
The nonpharmacologic interventions are really what you can help your patients with. Acupressure is something that has been tried by patients. Acupressure wristbands may be effective for some patients; may not. It is not really a risky intervention to try. Acupuncture: there is more and more data that acupuncture is actually becoming successful for the treatment of nausea and vomiting. Guided imagery may also be helpful. Relaxation techniques, progressive muscle relaxation, deep breathing exercises, music therapy, dietary interventions are going to be probably one of the best things to help patients. Your patients may not feel like eating for the first day or two. That is okay as long as they are keeping pretty of fluids. Patients will usually do a lot better if we separate their meals from their fluids, trying to take fluids throughout the day and not fill up on fluids whenever it is time to eat. When it comes to dietary interventions, we also recommend that patients do not eat their favorite foods during that time of nausea and vomiting because they may end up with an aversion to that food. Other dietary interventions may be that sour foods tend to taste a little bit better. Cold foods, not extreme temperatures, either hot or cold, kind of moderate temperature foods. Some patients have said that they feel a little bit better with ginger. Those kinds of interventions may be helpful as well. Carbonated beverages.
The next thing that we are going to talk about is cognitive dysfunction. Several of–many of your patients may complain of what we call “chemo brain.” This is the thing that patients complain of as being the most disruptive to their lives, the most difficult thing to deal with. And that is really cognitive dysfunction that they experience during chemotherapy, during breast cancer treatment. “Chemo brain” is usually characterized by memory changes. Patients will also complain of difficulty with processing information quickly. It takes them longer to think about things, to answer questions, to kind of just think through their daily activities and then they may have difficulty with multi-tasking. It is very hard to stay focused on different things. So, the recommendations for “chemo brain” are really to try to avoid distraction as much as possible. When you really need to focus, try to minimize distractions around you. Practicing activities that kind of keep the mind sharp, like crossword puzzles, those kinds of things that really kind of keep your brain active.

Patients may need to use organizers to kind of plan out their activities so they do not forget about appointments and things that they need to do. Stress can also really impact your cognitive function. If patients are under a lot of stress, they may have more difficulty paying attention to tasks. So, anyway that we can manage stress. Exercise: there’s that word again. Exercise may also help with the cognitive function as well. And then sleep hygiene: what sleep hygiene is, is really trying to create activities that help with sleep, meaning that patients should try to minimize naps. If you take a nap, take a short nap. Try to sleep at the same time every night, wake up at the same time every day, create a routine that creates the most stability.

Don’t drink caffeine near bedtime. Don’t exercise...
Fatigue

**Risk Factors**

- Anemia
- Chemotherapy
- Radiation
- Insomnia/ sleep disturbance
- Stress
- Dehydration
- Inactivity
- Infection
- Pain
- Hypoxia
- Depression
- Poor nutrition

And that leads into fatigue. Fatigue is another experience that patients complain about quite a bit during treatment, not only breast cancer patients, but almost all patients going through cancer treatment. It is actually the number one symptom experienced by all cancer patients. Risk factors: pretty much everything that the patient is going through is going to contribute to their fatigue. Anemia, either chemotherapy-induced anemia, anemia related to the disease. Chemotherapy, in general, may cause fatigue. The majority of patients getting radiation therapy will also complain of fatigue. Of course, if they have insomnia or sleep disturbance, they’ll have more fatigue. Stress will increase the fatigue. Dehydration, inactivity, infection. If you’ve ever had the flu, you know how fatiguing infection can be. If the patient has persistent pain, they will have more fatigue. Hypoxia, depression, and poor nutrition all can contribute to fatigue.

And this will be the result of the treatment. Fatigue is another experience that patients complain about quite a bit during treatment, not only breast cancer patients, but almost all patients going through cancer treatment. It is actually the number one symptom experienced by all cancer patients. Risk factors: pretty much everything that the patient is going through is going to contribute to their fatigue. Anemia, either chemotherapy-induced anemia, anemia related to the disease. Chemotherapy, in general, may cause fatigue. The majority of patients getting radiation therapy will also complain of fatigue. Of course, if they have insomnia or sleep disturbance, they’ll have more fatigue. Stress will increase the fatigue. Dehydration, inactivity, infection. If you’ve ever had the flu, you know how fatiguing infection can be. If the patient has persistent pain, they will have more fatigue. Hypoxia, depression, and poor nutrition all can contribute to fatigue.
Fatigue

Interventions
- Treat the underlying cause
  - ESA's, iron supplements, antidepressants
- Exercise
- Relaxation
- Sleep hygiene
- Massage, healing touch
- Dietary Interventions

So the major interventions will be to treat the underlying problem. If they are anemic, then we'll try to treat the anemia. If they are--if this is related to depression, then we may put them on antidepressants. Other interventions that will be helpful for you to teach the patient will be to, here it is again, exercise. The more activity they can do, the more energy they are going to have. Relaxation techniques, the sleep hygiene that I mentioned before, massage, healing touch, may also be interventions that will help fatigue. And then dietary interventions, making sure that they are eating a nutritious diet, getting enough protein, getting enough calories, so that they are not feeling fatigued and making sure that they are hydrated well enough.

Hot Flashes

Risk Factors
- Age
- Obesity
- African American
- Lack of exercise
- Ovarian failure secondary to chemotherapy
- Hormone Therapy
- Smoking

The next thing that we will talk about is hot flashes. Many, many of your patients with breast cancer will be experiencing hot flashes. Of course, the main risk factor may be age. The closer we are to menopause, the more hot flashes. Obesity is a risk factor. African-American patients tend to have more hot flashes than other races. Lack of exercise, ovarian failure due to chemotherapy treatment. Cytoscan is one of the agents that is commonly given for breast cancer that can cause sterility. So, they may have decreased ovarian function due to chemotherapy. The majority of your hormone therapies will cause hot flashes. Tamoxifen tends to be one of the agents that causes more hot flashes. And then smoking will increase the risk for hot flashes.
**Hot Flashes**

**Triggers**
- Extreme temperatures of foods/drinks
- Minor changes in room temperature
- Emotions
- Drugs and alcohol
- Spicy foods
- Caffeine

Triggers for hot flashes will include extreme temperatures, either hot or cold in food or beverages. Minor changes in room temperature may really create a response in a patient that is prone to hot flashes. Emotions, if you have ever been upset, you know how you can kind of get a little well of heat. So, that will also trigger hot flashes. Drugs and alcohol, if you think about having a glass of wine, that may cause a hot flash. Spicy foods and caffeine may also be triggers.

**Interventions**
- SNRI's
  - Venlafaxine
  - Paroxetine, fluoxetine, sertraline
- SSRI
  - Should NOT be used with patients on tamoxifen
- Gabapentin
- Herbal supplements are NOT recommended
- Avoid triggers
- Dress in layers
- Decrease BMI

Interventions, your SNRIs, your serotonin norepinephrine reuptake inhibitors really are one of the frontline drugs for treatment of hot flashes. Venlafaxine or Effexor is one of the common drugs used for hot flashes. They have no drug interactions with some of our hormone therapy, like tamoxifen, so that is a good choice. Your SSRIs have been used for hot flashes and tend to be very effective for hot flashes; however, there is a major drug interaction with tamoxifen and your SSRIs. So, if your patient is receiving tamoxifen, they should not really be using SSRIs to treat hot flashes. Gabapentin is another drug that may be helpful for hot flashes. Herbal supplements tend to be a little controversial. We are not real sure about the effect of some of the herbs on the development or the progression of cancer. Some of your herbal supplements, such as black cohosh, may actually promote cancer growth, so we just don’t recommend herbal supplements at all for treatment of hot flashes. Other interventions you want to help
patients to identify their triggers, and help them to
know to try to avoid those triggers. Patients are
advised to dress in layers. If they have any
changes in body temperature, they can easily deal
with that. And then, here it is again, try to decrease
BMI. The less weight they have, if they are not
obese, then they're going to be less prone to having
hot flashes.

Okay, the last one we will talk about is osteoporosis.
Risk factors for osteoporosis include age; females
are more prone to osteoporosis than males.
Patients with a small body frame are at higher risk.
Smoking is another risk factor. Family history, if you
have a strong family history of osteoporosis, we
need to be aware that patients are going to be at
high risk for that. Decreased physical activity, there
it is again. Use of aromatase inhibitors, patients on
exemestane, anastrozole or letrozole will be at
higher risk for development of osteoporosis. And
use of tamoxifen in premenopausal women is a risk
factor.

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<td>Female</td>
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<tr>
<td>Small body frame</td>
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<tr>
<td>Smoking</td>
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<tr>
<td>Family history</td>
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<td>Decreased physical activity</td>
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<td>Use of tamoxifen in premenopausal women</td>
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Interventions: Calcium, vitamin D, weight bearing exercise, as well as aerobic exercise will help to increase bone mineral density. Decrease alcohol intake and avoid smoking. Bisphosphates are another common intervention for osteoporosis. We have oral bisphosphates as well as IV bisphosphates. Raloxifene and calcitonin also may be used.

So, to wrap up, if you want to learn more, there are certainly many resources available to you. The Oncology Nurses Society at www.ons.org has many resources available to the oncology nurse. There is an international branch of the Oncology Nurses Society, where there are multiple resources on oncology and treatment of oncology patients. The National Comprehensive Cancer Network at www.nccn.org. This is where we get all of our guidelines for cancer treatment, our antiemesis guidelines, our neutropenic fever guidelines, treatment of cancer guidelines; this is where we get all of these. And then American Cancer Society at www.cancer.org really is a great place to show your patients as well as to educate yourself about treatment of the disease, stage of the disease, symptom management, and those other issues that patients may deal with. That is it for this presentation. Thank you very much.