SOLUTION GUIDE

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Managing nausea in pregnancy and chemotherapy

Improving quality of life in pregnant women and chemo patients

Overview

For a cancer patient, it's critical for them to complete each therapy session to fight cancer cells effectively. Treatments where cancer drugs travel through the body, such as chemotherapy, can easily cause nausea and vomiting more than treatments that target specific body parts, such as radiation therapy. Other influencing factors include dosage, duration, frequency, and individual tolerance of specific drugs. Additionally, the drug delivery method such as intravenous infusion can trigger nausea faster than oral drugs because the drugs given through vein are absorbed more quickly. That is why cancer patients are often treated with anti-nausea drugs at the time of chemotherapy administration.

It's also well-known that nausea and vomiting are common during pregnancy. Hyperemesis gravidarum (HG) is a severe form of pregnancy-related nausea and vomiting. This condition affects up to 0.3% to 2.3% of all pregnancies and results in over 192,000 hospital visits and admissions in the US annually. [1] The most severe conditions are treated with an infused medication and these patients can be treated at home with ambulatory infusion pumps. While pregnancy does not preclude oneself from working and other activities of daily living, HG does.

Preventing nausea is an important step in treating patients as it's

Up to 85%

of women suffer from nausea and vomiting during their pregnancy. [2]

1. Fejzo, M. S., Poursharif, B., Korst, L. M., Munch, S., MacGibbon, K. W., Romero, R., & Goodwin, T. M. (2009). Symptoms and pregnancy outcomes associated with extreme weight loss among women with hyperemesis gravidarum. Journal of Women's Health, 18(12), 1981–1987. https://doi.org/10.1089/jwh.2009.1431
2. American Pregnancy Association . (2021, December 9). Hyperemesis gravidarum. American Pregnancy Association. Retrieved from https://americanpregnancy.org/healthy-pregnancy/pregnancy-complications/hyperemesis-gravidarum/

easier to prevent the symptoms than to stop them once they start. Once nausea begins, patients may suffer from loss of appetite, fatigue, poor concentration, dehydration, and poor nutrient absorption (citation). If untreated, nausea and vomiting can become a serious problem and can affect the overall health of the patient.

Treating nausea and vomiting

Nausea and vomiting can be triggered by one of many different pathways and depending on the type of nausea, the treatment will look different for each patient. One of the nausea types is called acute nausea. It occurs within minutes to a few hours after treatment or due to change in hormone levels in pregnant women. Delayed nausea and vomiting is when it occurs after 24 hours after treatment was completed. Anticipatory nausea and vomiting is when previous experiences, such as sight, smell, taste, trigger the reaction.

Anti-nausea (also known as anti-emetics) drugs target and block specific pathways. There are anti-emetics drugs that provide additional relief to patients, such as steroids, cannabinoids, and olanzapine. Depending on the type of nausea, they are used to supplement the effectiveness of overall anti-nausea treatment.

Anti-nausea Infusion Treatments

Most cases of nausea and vomiting from chemotherapy and HG are treated intravenously. These patients are often more vulnerable because loss of appetite and energy from nausea and loss of fluids and nutrients from vomiting can critically harm their overall health. For a pregnant woman, this causes malnutrition and can impact the maternal and fetal outcomes.

The infusion treatment for anti-nausea is not just anti-emetics drugs but also includes electrolytes, vitamins, and nutrients to restore hydration.

Managing nausea at a clinical facility

With access to clinicians, medications, and infusion systems, managing nausea in the clinical setting is much easier for the patient. Treating nausea in a clinical setting is more likely for chemo patients who are scheduled to get their treatment within a specific time slot. Once the treatment is over and out of their system, managing nausea is no longer necessary and the patient can resume their daily activities.

For clinicians, it's important to implement an easy-to-use and versatile infusion system in their facility.

Managing nausea at home

There isn't an exact cause on why Hyperemesis Gravidarum (HG) occurs, other than rapid changes in hormone levels. Nausea is persistent for an HG patient. Due to its nature, they are left to manage nausea at home. And with it, the provision of infusion

Types of anti-nausea drugs

Serotonin (5-HT3) antagonists
Serotonin can often trigger nausea. These antagonists block the effects of it, effectively controlling acute nausea and vomiting.

NK-1 receptor antagonists
NK-1 receptor is a part of the vomiting reflex. They are often used for delayed nausea, more than acute nausea and vomiting. They're usually paired with other anti-nausea drugs as well.

Dopamine antagonists
They prevent dopamine from binding to areas in the brain that trigger nausea and vomiting. They are often given when other anti-emetics drugs don't work as well.

Benzodiazepines
They are used to help patient feel more calm and relaxed and are for those who experience anticipatory nausea. This drug is usually used with other anti-emetic drugs.

pumps to a patient's home presents many challenges.

These challenges include comprehensive patient education on how to use their infusion device to administer the drugs as needed, the cost of delivering and retrieving the device, the risk of damage by dropping, shipping, and getting wet. There's also a risk of losing the pump. These patients often desire to continue work and daily activities too, so it's important to provide a reliable and portable infusion pump. Since patients are placed in the position of learning how to operate a medical device, it must be user-friendly in all aspects.

Selecting the right infusion system for both clinical and home settings

For most outpatient clinic settings, chemotherapy itself requires a very slow infusion, so it's important to create an environment that allows patients to relax and feel safe with the overall process. Clinicians will look for ease of use and pump safety features to foster that environment.

Home infusion requires an ambulatory infusion pump that is small, portable, and easy to use. This device will be handled by patient so it's important to have patient-focused safety features, such as pre-programmed protocols, and lockout features. This device should also have a boost dose feature that can be pressed for breakthrough nausea and vomiting occurrences. Breakthrough nausea is when vomiting occurs even after the anti-nausea drug is administered ahead of time or doesn't work as intended. For an home infusion provider, the cost and logistics of nationwide central distribution presents a challenge of fleet management and the overall cost-effectiveness of providing individual pump system for each patient.

Intuvie addresses these unique challenges of treating anti-nausea by providing infusion systems and accessories that are easy to use and reliable for both clinicians and patients.

Intuvie products are used in many therapy settings, including oncology infusion centers, ambulatory infusion centers, and patients' home.

Intuvie is a leading distributor of infusion systems and accessories in alternate care settings. We provide products that are designed with a single objective in mind—to simplify the infusion experience for both patients and clinicians. Our product portfolio addresses many facets of infusion therapy delivered at clinics and at home.

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