

Quality Improvement Activity- Beta Blocker Therapy

A 90yr old Spanish speaking female presents to the ED with complaint of chest pain, dizziness, left arm pain with numbness and some shortness of breath. The patient has been experiencing these symptoms for a couple of weeks but states the symptoms are getting worse. The patient has a history of CHF, Hypertension and Hypothyroidism. She states she has been taking Metoprolol 50mg for several years but does forget to take it sometimes. The patient has had several ER visits over the past couple of weeks due to shortness of breath mainly at night with left arm soreness. She has also noticed her blood pressure has been running high and complains of chest pain that radiates to her left arm. She continues to say that she is always discharged from the ER and is told her bloodwork looks good and she needs to follow up with her Cardiologist. At her Cardiologist appointment accompanied by her granddaughter, she is given a new prescription for Losartan/HCTZ to start. The physician asks the patient if she is having any chest pain now, the patient who is mainly Spanish speaking and has a hearing deficit shakes her head no. The granddaughter who is with her states she understands Spanish better and begins to translate as best as she can. The Cardiologist keeps talking directly to the patient that he is not to concerned since her bloodwork looks good. He tells the patient he sent her prescription to the pharmacy on file and to follow up in six months. After several days of taking the new blood pressure medication the patient notices an increase in fatigue and low blood pressure. The patient starts to skip doses of her Metoprolol since she was just given a new blood pressure medication, she felt she could stop the old one. The patient starts experiencing heart palpitations and increasing shortness of breath. The patient has no energy and is starting to notice a change in her mental status. The patient family members notice she is repeating herself in daily conversations. The patient ended back up in the ER for Hypotensive episodes, daily headaches, and confusion.

Describe the scenario. In what way did the patient care or environment lack? Is this a common occurrence?

In the scenario above the patient was put on new blood pressure medications with no proper education. The patient was also Spanish speaking so did not understand what was going on. The patient did not know if she was supposed to stop taking her old blood pressure medication or to take both. The patient was not educated on if she can take both blood pressure medications at the same time or if she needs to take them apart. The new blood pressure medication contains a diuretic which is best if taken early in the day and not late at night. If taken late in the evening the patient could be up all night due to urinary frequency. The patient was also not educated about signs and symptoms to watch out for Hypotension. Taking tow blood pressure medications could possibly increase the risk for Hypotension and the patient should have been informed of the symptoms to look out for and to also check her blood pressure and heart rate before taking her medications. The patient was not given safe ranges of blood pressure readings so she would know when to not take the blood pressure pill. Due to lack of education and a language barrier the patient was nit checking her blood pressure before taking her pills and her blood pressure began to drop. The patient was feeling weak and tired but did not understand why.

What circumstances led to the occurrence?

What led to this was the patient not getting a medical translator along with medication education. With a language barrier the patient did not understand what questions she should be asking. There was also no education provided about the new blood pressure medication. The patient not being aware of signs and symptoms of possible side effects of the medication. The patient was taking too much blood pressure medication causing her to feel tired and her blood pressure to drop. The patient did not have the correct education on what to do in this scenario.

In what way could you measure the frequency of the occurrence?

You could measure the frequency with patient surveys and observations. By providing patient surveys in the correct language the patient can give an insight of what happened along with feedback. In the survey the patient can be asked if a translator was offered, and if they feel if one was offered their experience would have been better. I feel with observations we could observe in places like the ED and see how many patients with language barriers are offered a translator. In the survey it can ask about medication education if it was provided and if the patient understood the information, if any questions they might have had about the medication was answered in manner they understood.

What evidence-based ideas do you have for implementing interventions to address the problem?

Having medication education, a mandatory sign off on the patient's charts before discharge where the patient initials beside stating she received and understands the patient education provided. With Beta Blockers it is imperative to assess blood pressure and heart rate before administration of the medication. These vitals signs should be monitored, and the patient should be educated correctly on how to take it. Any patient who is put on a new beta-blocker should have a mandatory one to two month follow up where the brings in a blood pressure diary to review. This way the patient can bring up any side effects or symptoms and the physician can physically see how the patient has responded to the treatment and if any changes need to be made. Also noting those patients who were recently started on the new beta-blocker do not receive an excessive number of refills that allows the patient to miss appointments since they have enough medication to get them by.

How will you measure the efficacy of the interventions?

I would have the patients who are on beta-blockers charts flagged that way if they call for refills it would be a protocol to check when their last visit was and if they have followed up according to the protocol. If the patient has not been in for a quite sometime have the patient come in and make the appointment easily accessible for the patient. Auditing the patient's charts to verify at each visit the patient's blood pressure and heart rate are being accurately documented.