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Early Identification of Anxiety in Patients Undergoing an MRI Scan

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BACKGROUND

• 2 million scans worldwide cannot be performed either due to premature termination or refusal (Munn, Moola, Lisy, Ritano, & Murphy, 2015).

• Approximately 25-37% of patients experience moderate to severe anxiety during scanning, preventing 2% of scans to be completed (Dewey, Schunk, & Dewey, 2007).

• Missed scans impact the ability to accurately diagnose a patient and represent a significant resource cost to health systems.

IMPLEMENTATION

• Prior to implementation an interview was conducted with the MRI department in LVH-Cedar Crest campus seeking how often anxiety affects testing completion.

• Approximately 3-5 patients are affected per week that attempt the MRI and are unable to complete their exam.

• Nurses are called for medication about 12-15 times per week, causing a delay with testing and having the primary nurse off the unit to administer the medication (Fowler-Blunt, Lyren, personal communication, November 20, 2015).

• A pre survey was conducted with all RNs on SB-SCP.

• SB and SCP RNs were provided an MRI fact sheet that had a detailed description of MRI information, directions on how to participate in the pilot, and an insert of an exemplar on how to approach the patient prior to the exam. There were clear instructions listed for nurses to first ask patients the questions listed on LVH’s current MRI checklist and then to provide education using the MRI fact sheet provided and the descriptive example.

• Education included asking descriptive/comparative questions like how does a patient react to vacuum cleaner noise, being alone, loud noises like thunder, storms, sudden noises, being in an elevator, enclosed spaces, and journeys on an airplane (Van Minde, Klumin, & Wolfe, 2004).

• RNs were asked to fill a post survey which asked if the patient stated they were anxious, did the patient’s answer change after receiving education, did education help assist the nurse in recognizing patient needs, and was the patient able to complete the full MRI study.

OUTCOMES

• Pre-Survey results, a total of 13 nurses provided input.

• Based on the gathered results there were common results when it came to how often patients go for MRI testing, 23% in all 3 categories of 1-2 times a month, 2-4 times a month and greater than 4 times a week; 31% of nurses stated patients left the unit for testing 1-3 times a week.

• A great majority of nurses, 85%, stated they asked only the MRI checklist.

• Approximately 38% of nurses stated 23% of their patients were identified as being highly claustrophobic/anxious, and 50-75% was tied with 23% of RN votes.

• 68% of RNs stated that about 25% of the time they had to leave the floor to administer medication.

• Post survey results, a total of 12 nurses provided input.

• 58% of RNs answered “no” when asked if the patient stated they were anxious or claustrophobic when prompted prior to receiving MRI.

• 16% of RNs stated the patients answer changed when asked about claustrophobia after receiving education about MRI.

• 58% of RNs stated that educating the patient assisted in recognizing patient need for medication pre-MRI.

• 100% of RNs stated that the patient was able to complete the full MRI exam.

DISSEMINATION

• A greater emphasis needs to be placed to prepare patients for testing including:

  • Education on what to expect (e.g. noise level, small space)

  • Assessing anxiety levels to ensure proper interventions are met (can they follow instructions, are they able to sit still for at least 2 hours, the use of descriptive comparisons like vacuum cleaner noise, being in an elevator or airplane)

• Re-education and reinforcement to enhance patient understanding of MRI testing at an 8th grade level.

• Communication is key to ensure that the proper education is provided and that questions are answered. Therefore creating a smoother process by enabling the patient to recognize any problems that may occur and to ensure the right interventions are met prior to scanning. It hopes that the patient will be able to complete the scan and if not, the physician is made aware of the situation.

REFERENCES


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