



Pain Management in Patients with Subarachnoid Hemorrhage

Maura DeLong, RN, BSN and Sarah Thompson, RN, BSN
Neuroscience Critical Care Unit (NCCU)



Introduction

Subarachnoid hemorrhage (SAH) is a condition frequently associated with intense and persistent headache pain. Due to distinctive aspects in assessment, medication selection, and patient education for this population, SAH pain presents a unique challenge for patients, nurses, and the entire healthcare team.

Therefore, the following question was posed: Can patient education about pain management and expectations associated with SAH by nursing staff positively influence patient perceptions of pain control?

Methods

A literature search was performed using CINAHL, EbscoHost, and PubMed databases.

Keywords: *acute pain, patient education, pain management, subarachnoid hemorrhage*

Inclusion Criteria: Articles addressing SAH pain, education and pain perception, and nurses’ role in pain management were included. Initial searches yielded 1,754 articles; 9 met inclusion criteria, and 5 were chosen for this project.

Findings

Literature shows that pain management in SAH patients is difficult, under-studied, and inadequate (Mahon et al., 2012).

Research demonstrates the correlation between nurse-led education on pain management, increased perceptions of pain control, and decreased pain severity (Pellino & Ward, 1998).

A questionnaire sent to 93 NCCU nurses revealed that 89% (n=37) believed SAH patients do not receive adequate pain relief and that patient education is inconsistent.

According to the HCAHPS (Hospital Consumer Assessment of Healthcare Providers and Systems) survey question asking “how often was your pain well controlled?” only 58.7% of NCCU patients responded positively, compared to an average score of 60.9% among University HealthSystems Consortium academic hospitals. This data reveals a need for intervention.

Intervention

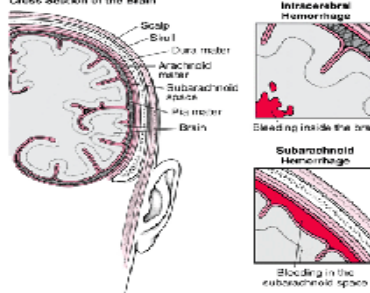
A brochure entitled “Help my Headache” was created to assist SAH patients and their families to better understand the cause of their headaches and how their pain will be managed. Staff were educated on how to implement the new initiative. Additionally, an informative poster was placed in the NCCU waiting room to encourage family involvement in pain management.

"Help my Headache"

A guide to pain management for subarachnoid hemorrhage patients and their families

What is a Subarachnoid Hemorrhage?

A subarachnoid hemorrhage is defined as bleeding between the brain and its thin lining. It is most often caused by a ruptured aneurysm in the brain. Trauma and high blood pressure are other possible causes



The hallmark symptom of patients experiencing a subarachnoid hemorrhage is having the "worst headache of their life"



Why is it so painful?

IRRITATION
Blood can be irritating to the brain's lining. Surgery or other interventions can add to pain

VASOSPASM
Blood also irritates the blood vessels around the brain, which may cause them to spasm and restrict blood flow

PRESSURE
Blood can interfere with the flow of fluid around the brain, leading to increased pressure and pain

What to expect:

- Nursing staff will assess pain upon admission
- Pain will be assessed at the minimum of every four hours and after any intervention
- Please share what pain management techniques have worked in the past



- Pain measurement tools are chosen specifically for each patient; pain is most often rated on a scale of 0 to 10
- Nursing staff will help to set a pain goal to aim for and work towards during hospitalization

HEAT AND COLD

- Heat and ice packs may help to lessen pain and provide distraction from the headache



RELAXATION

- Decreasing noise and light, repositioning for comfort, relaxation techniques, and music therapy may help to reduce pain



MEDICATIONS

- Commonly prescribed pain medications include Tylenol, Fioricet, Percocet, and Tramadol
- Other medications such as Nimodipine, Decadron, and Magnesium sulfate may help target causes of pain



PLEASE REMEMBER

Pain may not be completely eliminated with these interventions, but we will do our best to help. Please let the nursing staff know if you have questions regarding pain management.

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Conclusions

Pain associated with SAH is often severe and can lead to poor patient, family, and nurse satisfaction. The NCCU’s SAH pain management practices were determined to be insufficient and warranted change.

Following the implementation of pain management education in January 2016, the NCCU’s HCAHPS scores are being followed to assess the initiative’s effects.

Through increased pain management education by nursing staff, it is anticipated that the SAH pain experience and overall quality of care for all patients experiencing pain will be improved.

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Special recognition to Emily Dettinburn, RN, BSN who contributed to this project.