Opioid Sedation Comparison Study
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BACKGROUND

- Respiratory depression is a serious side effect from the use of opioids.
- Nurses play a key in recognizing respiratory depression in their patients.
- According to Pasero (2009), patients become sedated prior to clinically significant opioid-induced respiratory depression.
- The literature is stressing the need to monitor sedation for all narcotic administration to prevent untoward events.
- Patients receiving Patient Controlled Analgesia (PCA) and Epidural analgesia at St. Peter’s Hospital (SPH) presently have their sedation levels assessed.

PURPOSE AND HYPOTHESIS

- This survey-based study is a replication of the study originally done by Alison Nisbet MSN, and Florence Mooney-Cotter and Phelps Memorial Hospital. The study was designed to test the validity and reliability of three sedation scales. The scales are the Richmond Agitation and Sedation Scale (RASS), Inova Sedation Scale (ISS) and Pasero Opioid-Induced Sedation Scale (POSS).
- The New York State Peri-anesthesia Nurses Association (NYSHPAN) chose to replicate the study as a statewide project. In collaboration with NYSHPAN, permission was obtained to survey the Med Surg nurses at SPH. The results will be shared with NYSHPAN and used to determine which sedation scale nurses prefer at SPH.
- The purpose of the study was to determine which sedation scale the nurses at SPH preferred and could the nurses determine that sedation precedes respiratory depression.

MATERIALS AND METHODS

- Methodology
  - The Phelps study was re-written to reflect SPH’s nursing units. Question content remained intact. The SPH Informatics Technology Department downloaded the questions to the SPH web site and for three weeks nurses could participate in the survey. Weekly reports were forwarded to the researchers. Nurse Managers on the Med Surg Units were contacted with the results in an attempt to garner more participation. The researchers went to the units and left information to encourage participation.
  - Data Analysis
    - The data revealed 42 completed surveys or 3% of the targeted population. In Nesbit’s original study, the POSS and RASS scales were preferred. SPH and Phelps nurses both preferred the POSS scale. The Phelps’ data supported the validity and reliability of the scales.

RESULTS

The PHN nursing staff determined that POSS was the scale that was easiest to use and provided useful information to make accurate clinical decisions. In Nesbit’s study all scales were valid, with Med Surg nurses preferring the POSS and RASS scales. Phelps’ and PHN nurses preferred the POSS scale. The Phelps statistics supported the validity of the scales. In Nesbit’s study 85.3% of the staff identified that sedation precedes respiratory depression compared to 90% at SPH.

CONCLUSIONS / IMPLICATIONS

The implications of this research project for SPH are that a sedation scale would be a useful tool to measure a patient’s sedation, currently only the Critical Care unit’s use a Sedation Scale. Pasero (2009) recommends the use of a simple readily understood sedation scale as a cost effective way for an institution to speak the same language regarding patient’s sedation. The results of this survey are being shared with the SPH Pain Management committee. If a Sedation Scale were to be implemented, the survey would need to be repeated to include all nursing staff at SPH. Education programs linking sedation levels with pain medication administration would be beneficial.

BIBLIOGRAPHY

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- Barbara U. Ochampaugh RN, BSN, CPAN Level 4
- Sandra Lowery RN, CPAN Level 3
- Deborah J. Marra RN, BS, CPAN Level 3
- Nancy Salerno RN, MSN
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Question: Which sedation scale was “Easy to Use?”

- Inova (Scale A): 83%
- RASS (Scale B): 90%
- POSS (Scale C): 95%

Ease of Use
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Question: Which sedation scale “provides useful information?”

- Inova (Scale A): 88%
- RASS (Scale B): 93%
- POSS (Scale C): 98%

Provides useful information
HYPOTHESIS

• This survey-based study is a replication of the study originally done by Alison Nisbet MSN, and Florence Mooney-Cotter and Phelps Memorial Hospital. The study was designed to test the validity and reliability of three sedation scales. The scales are the Richmond Agitation and Sedation Scale (RASS), Inova Sedation Scale (ISS) and Pasero Opioid-Induced Sedation Scale (POSS).

• The New York State Peri-anesthesia Nurses Association (NYSPANA) chose to replicate the study as a statewide project. In collaboration with NYSPANA, permission was obtained to survey the non-critical care nurses at SPH. The results will be shared with NYSPANA and used to determine which sedation scale nurses prefer at SPH.
Study Design

• The Phelps study was re-written to reflect SPH’s nursing units. Question content was not changed. The SPH Informatics Technology department downloaded the questions to the SPH web site and for one month nurses could participate in the survey. Weekly reports were forwarded to the researchers. Nurse Managers on the Non-critical Care Units were contacted with the results in an attempt to garner more participation. The researchers went to the units and left information to encourage participation.
BACKGROUND

• Respiratory depression is a serious side effect from the use of opioids. Nurses play a key in recognizing respiratory depression in their patients. According to Pasero (2009), patients become sedated prior to clinically significant opioid-induced respiratory depression. The literature is stressing the need to monitor sedation for all narcotic administration to prevent untoward events. A sedation scale is a useful tool to help nurses assess respiratory depression. Patients receiving Patient Controlled Analgesia (PCA) and Epidural analgesia at St. Peter’s Hospital (SPH) presently have their sedation levels assessed.
Results

• The data revealed 95 visits with 42 completed surveys. In Nisbet’s original study, the POSS and RASS scales were preferred. Unfortunately, data was not received from Phelps Memorial Hospital for comparison. The SPH nursing staff determined that POSS was the scale that was easiest to use and provided useful information to make accurate clinical decisions about patient care and safety, and would improve clinical outcomes. The survey results showed that 90% of the participants correctly identified that sedation precedes respiratory depression when administering pain medications.
IMPLICATIONS

• The implications of this research project for SPH are that a sedation scale would be a useful tool to measure a patient’s sedation, currently only the Critical Care unit’s use a Sedation Scale. Pasero (2009) recommends the use of a simple readily understood sedation scale as a cost effective way for an institution to speak the same language regarding patient’s sedation. The results of this survey are being shared with the SPH Pain Management committee. If a Sedation Scale were to be implemented, the survey would need to be repeated to include all nursing staff at SPH. Education programs linking sedation levels with pain medication administration would be beneficial.9

• A sedation scale is a useful tool to help nurses assess respiratory depression.
Bibliography

