Introduction: Currently there are 3 generations in the nursing workforce: Millennials (ages 19-39), Gen Xers (ages 40-54), Baby Boomers (ages 55 and over). Retaining nurses within the healthcare system is a challenge for hospital administrators. Understanding factors important to nurse retention is essential.

Identification of the problem: This study was prompted by a noticeable increase in nurse turnover in the main Operating Room, Day of Surgery Unit, and Post Anesthesia Unit of a 435 bed not-for-profit, general and acute care facility.

Purpose of the Study: The purpose of this study was to investigate the correlation between generational differences and employee longevity and satisfaction.

Methodology: The investigators conducted a Descriptive Correlation Design Study. Perianesthesia nurses were given the opportunity to participate in an anonymous Talent Quest survey concerning current job satisfaction, career outlook, attitudes toward nursing, positive influence of electronic medical record use, the quality of nursing care and demographics.

Results: We analyzed the responses of 34 nurses to a series of 12 questions. The scores for 9 of the questions were similar between all 3 age groups. In contrast, there were statistically significant differences in the responses between the 3 age groups for the 3 questions related to electronic medical records. ($p < 0.05$)

Discussion: Responses from each of the generational groups were similar for many of the questions. The questions specific to the use of an electronic medical record identified a generational group by the data set of responses provided by the individuals. This study doesn't attempt to answer why a specific generational group provided the responses which were given.

Conclusion: We found that the only questions on which there are statistically significant differences between the 3 age groups deal with electronic medical records. We can conclude that Millennials are more likely than Gen Xers to report that electronic medical records positively influence the following outcomes: their job satisfaction, productivity and time management and quality of patient care.

Implications for perianesthesia nurses and future research: This data may indicate how Millennials who have been born and raised into an electronic, digital world may be very proper resources for other generations of the nursing workforce.

THE CLINICAL APPLICATION OF NONINVASIVE MINUTE VENTILATION MONITOR IN THE PERIOPERATIVE SETTING: PRELIMINARY RESULTS FROM 4 SITES WITHIN KAISER PERMANENTE MEDICAL SYSTEM

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Introduction/Indentification of problem: Non-invasive respiratory volume monitoring (RVM) has implications for managing the respiratory status of perioperative patients by measuring and reporting minute ventilation (MV) tidal volume, and respiratory rate. We evaluated the effectiveness of the RVM in providing information, reducing the incidence of alarms, alarm fatigue.

Purpose of the Study: Combined effects of medication on respiratory function can be devastating. Avoidable respiratory depression is highlighted in the Anesthesia Closed Claim Project, detailing malpractice claims. Patient monitoring lacks useful warning of impending respiratory compromise, with both SpO2 and EtCO2 being late indicators, fraught with alarms from patient motion or probe malposition.

Methodology: An RVM (ExSpiron1Xi, Waltham, MA) was used for perioperative care in the post-anesthesia-care-unit (PACU) and on the general hospital floor (GHF). RVM alarms and response to alarms were recorded and analyzed. Alarms were divided into four categories: 1) actionable and addressed, 2) actionable and not addressed, 3) self-corrected, and 4) technical. The action taken to resolve each alarm was recorded and further categorized. Self-corrected alarms resolved without staff intervention, usually by the patient being stimulated by the RVM alarm. Technical alarms were considered a nuisance.

Result: 247 patients (age: 60.9 ± 13.9 yrs., 143 females) were enrolled and monitored in the PACU and GHF for a total of 2321 hours. We noted 605 RVM alarms, ~ 1 alarm every 4 patient-hours. Of these alarms, 64% were actionable and addressed. 16% were actionable and "not-addressed" and 13% were self-resolved. Only 6% of RVM alarms were technical (nuisance) and didn't require intervention. The most common intervention was direct patient stimulation, accounting for $\sim 2/3$ of all interventions in the PACU and $\sim 80\%$ of all interventions on the GHF. With a focus on early warning, none of the patients with MV alarms had respiratory related negative events.

Conclusion: Inadequate respiratory monitoring has led to drug-related respiratory compromise to become the leading cause of preventable perioperative death. Using SpO_2 and $EtCO_2$ to curtail these deaths led to an increase of nuisance alarms and overburdening of RN staff without clear improvement in mortality. We found the RVM-generated alarms to be mostly actionable, with a high intervention-to-false-alarm ratio, which can improve patient.

CLINICAL IMPLICATIONS OF MONITOR ALARMS: A COMPARATIVE STUDY ON SPO_2, $ETCO_2$ AND RESPIRATORY VOLUME MONITORING IN PERIOPERATIVE SETTINGS

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Introduction/Indentification of problem: Physiologic monitors are to improve patient safety, but can also produce excessive nuisance alarms, leading to alarm fatigue. Our goal was to identify the respiratory status monitors that contribute most to alarm fatigue and provide alternatives while maintaining patient safety. We compared the alarm rate of three continuous respiratory status monitors: capnography ($EtCO_2$), pulse oximetry (SpO_2) and respiratory volume monitoring (RVM).

Purpose of the Study: Nuisance alarms is the leading cause of alarm fatigue, which decreases awareness of patient safety.

Note: All abstracts are printed as received from the authors.

Alarm fatigue was identified as a major safety issue, and the goal is to minimize nuisance alarms.

Methodology: This study was conducted in four Kaiser-Permanente hospitals. Standard data for RVM (ExSpiron 1Xi, Waltham, MA), oximetry (Philips IntelliVue MP 50), capnography and oximetry (Philips SureSigns VM8) were collected post-operatively, either in post anesthesia care unite (PACU) or general hospital floor (GHF). Device-specific alarms were recorded electronically and later categorized into physiological (actionable) and technical (nuisance) alarms. Alarm rates were calculated and compared across devices. A total of 247 patients were monitored by RVM from a broad population (104 males)

Result: In one site, bedside monitor reported continuous $EtCO_2$ and SpO_2 for 7 patients with an average of 12.9 alarm/hr, 72.8% of which were technical alarms. The RVM only had 0.25 alarm/hr (4% technical) for the same group. Furthermore, simultaneous $EtCO_2$/SpO_2 monitoring were conducted for only 51 of 127 available hours due to fear of nuisance alarms, whereas RVM completed all 127 hours. Among 7 patients that received only SpO_2 and RVM monitoring, RVM had lower alarm rates (1.5 vs 0.36 alarm/hr, 67% vs 8% technical). At another site 15 patients were monitored with SpO_2 telemetry, with an average of 3.31 alarm/hr (19% technical), compared to 0.25 alarm/hr for RVM.

Conclusion: Alarm fatigue due to nuisance alarms is a challenge in perioperative settings regardless of the potential clinical value of monitoring. Among the three respiratory monitoring technologies, RVM had the highest rate of compliance (100%) and the lowest rate of technical alarms. In contrast, $EtCO_2$/SpO_2 combination monitoring was not used for >50% of available time, raising questions on overall patient safety.

I AM LISTENING: IMPROVING DISCHARGE INSTRUCTIONS AMONG SAME DAY SURGERY PATIENTS IN UCLA SANTA MONICA PTU/PACU

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Introduction: Research has shown that insufficient discharge instructions affect patients' adherence to treatment plans, delays postoperative recovery, causes inadequate pain control, and is related to an increase in hospital readmissions and emergency room visits (Horstman et al., 2017).

Identification of the problem: Anecdotal reports and complaints obtained from routine post-operative phone calls done by PACU nurses revealed that some patients did not receive adequate discharge instructions, or in some instances received no discharge instructions at all.

QI question/Purpose of the study: The purpose of the study is to achieve the following goals: 1. Ensure that UCLA Santa Monica PTU/PACU's ranking on the Press Ganey Ambulatory Surgery Report, Written Discharge Instructions category will consistently be in the 50th percentile and above by January 2019. 2. Ensure that written discharge instructions are provided by PACU nurses 100% of the time by January 2019. 3. Ensure that Discharge instructions (written and verbal) are provided by PACU nurses 95% of the time or greater by January 2019.

Methods: PTU/PACU UPC introduced a yellow discharge envelope to keep the discharge instructions organized. PTU/PCU UPC supplemented the yellow discharge folder by developing the "Partnering with U" flyer. PTU/ PACU UPC conducted a post-intervention phone calls and collected data from a sample of 50 patients.

Outcomes/Results: Press Ganey Ambulatory Surgery Report results showed an increase in the percentile ranking of UCLA Santa Monica PTU/PACU in the Written Discharge Instructions category from Results from the post intervention phone calls conducted revealed that 68% of patients received the yellow discharge folder and 92% of patients received verbal discharge instructions.

Discussion: The results provide initial evidence that use of the yellow discharge folder has significantly affected UCLA Santa Monica's Press Ganey Standing and increased the frequency that patients receive verbal discharge instructions from their health care providers.

Conclusion: The current study demonstrates that the use of researched discharge techniques that has the ability to improve patients' experiences and ensure proper recovery.

Implications for perianesthesia nurses and future research: PTU/ PACU UPC recommends further monitoring of the Press Ganey percentile rank. Moreover, it is recommended that staff education regarding the new discharge process continue.

PROTOCOL FOR USE OF RESPIRATORY VOLUME MONITORING IN THE PACU OF A TERTIARY CARE MEDICAL CENTER

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Introduction: The Joint Commission recognizes opioid-induced respiratory depression as a safety target and recommends additional monitoring for patients receiving opioids. Respiratory volume monitors (RVM) provide objective measurements of respiratory status and help detect respiratory compromise.

Identification of the problem: The most vulnerable time for patients is the first 24 hours post-operatively when the effects of general anesthesia, opioids, antiemetics, and sleep deprivation compound together. While the RVM accurately monitors patients' respiratory status, no PACU protocol for RVM use exists in our facility.

QI question/Purpose of the study: We describe previously reported results of our study that identified patients at risk for respiratory compromise in the PACU and on the general hospital floor (GHF). Our goal was to develop a nursing protocol for RVM use in the PACU to confirm clinical assessments and triage patients.

Methods: 119 patients were monitored using a RVM in both the PACU and GHF. The monitor reported minute ventilation, which was used to identify patients with low minute ventilation events (LMVe). Patients were separated into two groups: those

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