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*Angela Collins-Yoder and Rachel E. Collins*

In this article, the current guidelines for use of anticoagulants with atrial fibrillation, the relevant pharmacology, and the use of standardized tools to quantify the risks of thrombus or bleeding in the procedures are discussed. In addition, resources for examining the optimal practice for these case types will be provided. Perianesthesia health care providers are pivotal to lead relevant stakeholders in the perianesthesia setting work together to create protocols and individual plans of care for this patient population.

- Perioperative Considerations for Patients Diagnosed With Pulmonary  
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*Todd Tartavouille, Laura S. Bonanno, and Stanley Hall*

Through increased knowledge of pulmonary hypertension pathophysiological changes and anesthesia medications' effect on pulmonary hypertension, perioperative health care teams can conduct a detailed preoperative evaluation to determine appropriate therapies to administer. This will assist the perioperative health care team in reducing the pulmonary vascular resistance, optimizing the matching of right ventricle and pulmonary circulations, and reduce the incidence of intraoperative and postoperative complications.

- Acute Postobstructive Pulmonary Edema Following Laryngospasm in  
Elderly Patients: A Case Report..... 250  
*Yan Chen and Xu Zhang*

This is a report about an unusual case of a 67-year-old man with ischemic cerebrovascular disease, who underwent carotid angioplasty and stenting and experienced severe pulmonary edema and hemorrhage secondary to laryngospasm after general anesthesia with laryngeal mask airway. The patient required positive-pressure ventilation, supportive treatment, and active cerebroprotection in the intensive care setting for 3 days before the edema resolved, and subsequently made a complete recovery without new onset of neurologic sequelae. The possible pathophysiological mechanisms, precaution, and preventative strategy of postobstructive pulmonary edema in older patients are discussed.



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## Original Articles

- Aromatherapy for Preoperative Anxiety: A Pilot Study ..... 259  
*Candace B. Jaruzel, Mathew Gregoski, Martina Mueller,  
Amanda Faircloth, and Teresa Kelechi*

The aim of this observational pilot study was to evaluate the use of a lavender aromatherapy skin patch on anxiety and vital sign variability during the preoperative period in female patients scheduled for breast surgery. There was a statistically significant decrease in the anxiety visual analog scale measurements from baseline to final scores. Findings from this study suggest the use of aromatherapy is beneficial in reducing anxiety experienced by females undergoing breast surgery.

- The Effect of Education on the Anxiety Level of Patients Before  
Thyroidectomy ..... 265  
*Derya Gezer and Sevban Arslan*

This present quasi-experimental study aims to evaluate the effect of preoperative education on the level of anxiety provided to patients scheduled for thyroidectomy using education brochures on the level of anxiety. No significant differences were found in the mean scores of the pretest and final test Anxiety Specific to Surgery Questionnaire scores for the test and control groups. Our study results showed that education provided to the patients scheduled for thyroid surgery using written materials did not affect anxiety.

- Effect of Preoperative Visitation by Operating Room Staff on  
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*Hossein Bagheri, Hossein Ebrahimimi, Ali Abbasi, Giti Atashsokhan,  
Zabara Salmani, and Masoumeh Zamani*

The purpose of this quasi-experimental study was to evaluate the effect of preoperative visitation on preoperative anxiety in patients receiving elective hernia surgery. There was a significant reduction in anxiety after intervention compared with before intervention and between the two groups after intervention. Using an anxiety evaluation approach in preoperative training programs to manage anxiety in surgical patients is recommended.

- Possible Effect of Video and Written Education on Anxiety of Patients  
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*Esma Gökçe and Sevban Arslan*

The aim of this quasi-experimental study was to investigate possible effects of video and written education on anxiety of patients undergoing coronary angiography. There was a statistically significant difference in the mean scores of state anxiety, satisfaction, and physiological variables after education, compared with baseline, in both patient and control groups. Our study results suggest that education given by the nurse before the procedure reduces level of anxiety and affects physiological variables positively.

- Randomized Clinical Trial Comparison of the Effect of Verbal Education  
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*Kourosb Amini, Zaynab Alibossaini, and Zaynab Ghabremani*

This randomized controlled trial compared the effect of verbal education and education booklet on preoperative anxiety. After intervention, there was a significant difference between the mean scores of state anxiety scale among the intervention groups (booklet and verbal) with the control group. The mean difference between the two intervention groups (booklet and verbal) was not significant. Well-designed education booklets can be used to reduce the preoperative anxiety.

Effect of Preemptive Acetaminophen Administered Within 1 Hour of  
General Anesthesia on Gastric Residual Volume and pH in Children . . . 297

*Constance N. Burke, Rebecca D'Agostino, Alan R. Tait, Shobha Malviya,  
and Terri Voepel-Lewis*

The purpose of this prospective, randomized was to determine whether preoperative oral acetaminophen increases gastric residual volume and lowers gastric pH. Thirty-seven children completed the study (16 treatment, 21 control). Gastric residual volume between groups was not significantly different. Findings suggest administering oral acetaminophen prior to induction of anesthesia is not associated with increased gastric residual volume and increases the gastric pH. Further study is needed to examine outcomes such as aspiration pneumonitis risk.

Implementation of a Standardized Preoperative Diabetes Medication  
Guideline and its Effect on Day of Procedure Blood Glucose Levels . . . 303

*Danielle K. Cuevas, Michael T. Rucker, Douglas T. Johnson,  
Christopher Crerar, Kenneth Wofford, and Raymond Bonds*

The purpose of this pre- and postimplementation process improvement project was to determine the effect of implementation of a preoperative diabetes medication management guideline on day of procedure blood glucose (BG) levels. Provider knowledge scores increased 4.5 points and confidence improved 31.3 percentage points. Mean BG level was 132.3 before implementation and 130.4 after implementation. The project resulted in significant gains in provider knowledge and confidence, but no significant difference in preoperative BG levels following implementation of the guideline.

Elective Surgical Cancellations in a Tertiary Hospital in the Middle East:  
Quality Improvement Process . . . 310

*Narmeen Al Talalwah, Kimberly H. McIltrout, and Abdulaziz Al Ghamdi*

The purpose of this quality improvement project was to analyze the cancellation of elective surgeries and identify the best evidence-based interventions to address cancellations in a tertiary hospital in the Middle East. In both phases of the audit, patient-related reasons were the leading cause of cancellations. Conducting a preoperative call 2 days before surgery and doing a weekly review of the surgery schedule reduced cancellations from 3.8% to 3.5%. Cancellations because of patient-related reasons reduced from 81% to 79.7% whereas cancellations because of hospital-related reasons reduced from 17.5% to 15.9%. Cancellation of surgeries is a worldwide health care issue and without understanding the causes of cancellations, it is difficult to devise an effective intervention to address this issue.

The Use of Complementary and Alternative Medicines Among Surgical  
Patients: A Survey Study . . . 322

*Gulay Yazici, Zubal Erdogan, Hulya Bulut, Ali Ay, Nevra Kalkan,  
Semra Atasayar, and Sevilay Erden Yuksekkaya*

This descriptive study evaluates complementary alternative medicine (CAM) use in surgery patients. In this cross-sectional and descriptive study, 65.9% of the patients used CAMs, 87.4% of the patients used herbal methods, and 63.7% of the patients used cognitive behavioral methods. Health care providers, and nursing staff, in particular, should have adequate knowledge of societal approaches to CAMs, as well as the possible benefits and harms CAM may cause.

Accuracy of Temporal Artery Thermometry as an Indicator of Core Body  
Temperature in Patients Receiving General Anesthesia . . . 330

*Grace J. Paik, Hiroko Henker, Susan Sereika, Sheila Alexander,  
Kathleen A. Piotrowski, Nicole Appel, Li Meng, Nicholas Bircher, and  
Richard Henker*

The purpose of this prospective repeated measures study was to evaluate the agreement of temporal artery temperature (Tat) with esophageal temperature (Tes) and oral temperature (Tor), and explore potential factors associated with the level of agreement between the thermometry methods in different clinical settings. Tat was significantly higher compared with Tes and Tor ( $P < .05$ ) and was poor at detecting hypothermia. Tat is more convenient, but less accurate, than other thermometry methods. These inaccuracies are exacerbated by common anesthetic medications.

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Risk Factors for Perioperative Hypothermia: A Literature Review . . . . 338

*Sbawn Collins, Marisa Budds, Caitlin Raines, and Vallire Hooper*

The purpose of this comprehensive literature review was to identify risk factors for the development of unplanned perioperative hypothermia and to evaluate the strength of the evidence for each risk factor. There is currently no strong evidence to implicate risk factors that do or do not cause a patient to develop unplanned perioperative hypothermia. It is crucial to prevention that health care providers are able to identify risk factors and implement interventions. More research is needed to identify risk factors of unplanned perioperative hypothermia and effectively maintain normothermia throughout the perioperative period.

Bach to the Basics: Implementation and Impact of a Postoperative, Inpatient Personalized Music Program for Older Adults . . . . . 347

*Neema Sharda, Emily Mattoon, Loretta Matters, Judy Prewitt, Shelley McDonald, Richard Sloane, Christy Cassas, and Heidi White*

We present a quality improvement report describing implementation and evaluation of a postoperative, inpatient personalized music program for older adults undergoing elective surgeries. Rapid cycle improvement was an effective method to monitor quality improvement measures. Participants in our program perceived improved mood and pain control, were satisfied with their experience, and had lower rates of incident delirium.

The Impact of Music Therapy in the Postoperative Setting on Overall Patient Satisfaction Using Validated Outcome Scores . . . . . 354

*Christopher P. Chiodo, Cornelia Keyser, David Palms, Christopher Malone, Eric M. Bluman, and Jeremy T. Smith*

This randomized control trial examined the use of music therapy on patient satisfaction in the postanesthesia care unit. The results showed no statistically significant differences between the music therapy and control group on the Patient Judgment of Hospital Quality survey and the visual analog satisfaction scale. Music therapy given in the postoperative setting has no impact on overall patient satisfaction.

Nurses' Knowledge, Attitudes, and Barriers Toward Pain Management Among Postoperative Patients in Jordan . . . . . 359

*Noordeen Shogirat, Deema Mabasneh, Omar Al-Khawaldeh, and Lourance Al Hadid*

The purpose of this descriptive survey study was to measure nurses' knowledge, attitudes, and barriers regarding pain management of postoperative patients in Jordan. Surgical nurses in this study had low knowledge levels and poor attitudes regarding pain management in postoperative patients. Unless identified barriers to pain management are seriously addressed, this vital aspect of holistic care will continue to be marginalized.

Tumescence Anesthesia Solution-Assisted Laser Ablation Treatment of Lower Limb Varicose Veins: The Effect of Temperature of the Tumescence Anesthesia Solution on Intraoperative and Postoperative Pain, Clinical Observations, and Comprehensive Nursing Care . . . . . 368

*Li-Hua Luo, Zhu Chen, Li-Nan Hu, Cong Ma, and En-Hua Xiao*

The purpose of this study was to investigate the effect of cold and room temperature tumescence anesthesia solution (TAS) on the treatment of lower limb varicose veins via endovenous laser ablation. Percentages of patients who felt pain in groups A (room temperature TAS) and Group B (cold TAS, 4°C) were 69.2% and 36.0%. Cold TAS reduces intraoperative and postoperative pain more effectively than room temperature.

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Health Care Professionals' Perceptions of the Arthroplasty Patient Experience: Planning Phase in the Development of a Patient-Reported Outcome Measure .....	376
<i>Louise H. Strickland, Laura Kelly, Thomas W. Hamilton, David W. Murray, Hemant G. Pandit, and Crispin Jenkinson</i>	

The aim of this qualitative study was to explore health care professionals' perceptions and perspectives of surgery and early recovery for patients undergoing lower limb arthroplasty. Three main themes evolved from the interviews: immediate patient recovery issues, discharge criteria, and priorities during hospitalization from health care providers' perspectives. Identifying key areas of importance during early postoperative recovery can provide insight and guide focus in clinical practice, thus improving patient recovery.

Are Postoperative Clinical Outcomes Influenced by Length of Stay in the Postanesthesia Care Unit? .....	386
<i>Jamie Mann-Farrar, Elizabeth Egan, Andrew Higgins, Leigh Wysocki, Amanda Vaux, Elise Arndell, and Elizabeth A. Burmeister</i>	

The purpose of this single center, retrospective audit was to compare clinical outcomes of patients who required a prolonged length of stay in the postanesthesia care unit (PACU) with a control group. A total of 1,867 patients were included in the analysis. Prolonged stay in PACU was higher among patients who were older, had a higher American Society of Anesthesiologist score, and were discharged to wards during the afternoon or late nursing shift. Prolonged stay in the PACU for 2 or more hours because of clinical reasons appears to be associated with a higher incidence of clinical deterioration in the ward setting requiring rapid response team intervention within 24 hours after discharge from PACU.

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<i>Tammy S. Spencer, Mary Beth Flynn Makic, and Kathy Shaw</i>	

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<i>Monica W. Rose, Susan Newman, and Courtney Brown</i>	

The purpose of this integrative review was to synthesize and critique the literature related to protocols, checklists, and tools designed to facilitate information transfers, that is, handovers, from the operating room to postanesthesia care unit clinicians and to provide guidance for selecting an appropriate instrument. Developing an instrument to improve postoperative handover should integrate recommendations from key stakeholders, include evidence-based practices, and reference information from existing instruments.

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<i>Mengbang Wu, Lei Yang, Xiaoqi Zeng, Ting Wang, Anna Jia, Yunxia Zuo, and Xiaorong Yin</i>	

The purpose of this prospective, randomized controlled trial was to assess the safety and feasibility of early oral hydration (EOH) in the postanesthesia care unit (PACU) after laparoscopic cholecystectomy. Compared with the conventional oral hydration group, the EOH group had lower incidence of nausea before and after the first drink in the ward, lower incidence of vomiting before and after the first drink in the ward, lower thirst scale when patients were transferred out of the PACU and at 6 hours postoperatively, and greater patient satisfaction on postoperative day 1.

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