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ENGLISH ABSTRACTS

ADVANCES IN CRITICAL CARE NURSING (THE PAST, PRESENT AND FUTURE)

Maria Isabelita C. Rogado

Philippines

This scientific session will provide perspectives on the advances on critical care nursing influenced by the development of evidenced-based practice. Critical care as a specialty evolved from an historical recognition that the needs of patients with acute, life-threatening illness or injury could be better treated if they were grouped into specific areas of the hospital. The practice is identical to what is called "High Tech – High Touch" care. Though this specialty practice is relatively young, its progress and advances has gone high-speed. The development abounds from evidence-based practice, research and quality improvement each playing an important, and complementary, role in improving patient outcomes. The development over the years is seen as a succession of small steps rather than dramatic leaps.

SEPSIS IS A MEDICAL EMERGENCY

Sara McMannus, Ron Daniels, James O'Brien

United States of America

Suspicion and immediate treatment of sepsis is essential to reducing mortality and morbidity of a disease that kills more people than breast, lung and prostate cancer combined. Data suggest that by providing rapid care to patients with sepsis with immediate antibiotics and fluids as part of an organized approach to care has the potential to save thousands of lives a year. The Global Sepsis Alliance and The Sepsis Alliance are nonprofit organizations that raise awareness about session sepsis so it can be detected and treated early enough that no harm is done. It is critical to educate patients, families, and healthcare professionals to treat sepsis as a medical emergency so that more survive.

DELIRIUM AMONG SUGICAL INTENSIVE CARE UNIT PATIENTS

Chen Yiling, Shou-Chuan Sun, Tsai-Wei Huang

Taiwan

Delirium is one of the most serious problems in the intensive care unit (ICU), which might complicated with serious problem like prolong hospital stay, increased medical expense and mortality. We plan to analysis the incidence and risk factors related to delirium in ICU. This is a descriptive, related, and prospective study. For the convenient sampling,30 patients were collected the surgical intensive care unit in one medical center from 1th October,2011 to 6th Norvenber ,2011.The CAM-ICU and RASS score was used to assessed and diagnose Delirium . The data was analyzed by Chi-square, t-test. According to our study, the incidence of acute delirium in SICU is 46.7%. There is no significant statistic difference in disease type, gender and age. Solitary and alcoholism (P=.05), restriction, fever and indwelling catheters(P< .02), high TISS score and low GCS score (P < .03) is statistic difference significantly. For ICU patient, nursing staff should be cautious to prevent the delirium risk factors, including the necessity for indwelling catheters and physical restriction on patients, and the treatment of fever episode. Pay attention to high TISS score and low GCS score patients, in order to reduce the incidence of delirium.

ICU NURSE'S MOOD INDUCED BY RECALLING THE FAMILY'S END-OF-LIFE DECISION IN INTENSIVE CARE UNIT

Hiroko Ito, Yuko Ikematsu

Japan

Nurses working in intensive care units (ICUs) are expected to provide appropriate end-of-life care such as helping families stay close to their loved one and review the life story of the patient. However, some ICU nurses are reluctant to provide such care. Negative mood is considered one of the factors of unprofessional behavior such as disregarding those families. The aim of this study was to compare nurses' mood administering Scenarios which whether family accepts or refuses withdrawal of life sustaining therapy. A self-reporting anonymous questionnaire was distributed to 252 nurses with experience of three or more years in ICUs from sixteen intensive care units in a large urban area located in central Japan from August

to October 2009. The questionnaire included demographic data, mood inventory and a scenario that described a case whose family accepted or refused to withdraw life sustaining therapy. Participants were asked to read either scenario of acceptance case (A group) or refusal case (R group) and recall the similar cases. T test was used to compare mood between A group and R group. Data from 66 nurses in A group and 49 nurses in R group were analyzed. T test showed significant differences between mood scores of A group and R group. R group nurses were found higher scores than A group for negative mood sub scales such as depressive mood, anxious mood, fatigue, and tension and excitement.(Depressive mood, anxious mood and fatigue $p<0.05$,tension and excitement $p<0.01$). The results of this study indicate a possibility that continuing life sustaining therapy increases ICU nurse' negative mood.

THE PROCESS OF DEVELOPING AND IMPLEMENTING A COMPLEX NURSING INTERVENTION STUDY IN AN ICU

Berit Lindahl, Ingegerd Bergbom

Sweden

Present ICUs are primarily developed from a medical and technological view and not attuned to present insights about what environmental factors may have on the ICU patients' recovery processes. Present ICU environments can per se lead to development ICU delirium/ syndrome, which leads to a longer ICU-stay, hospitalization and in some cases deaths. We therefore questioning existing ICU design practices and pose an overall research question; if a specially designed patient room in an ICU affects the people who stay there, i.e. patients, next of kin and staff compared to an ordinary ICU patient room. This presentation will describe the process of the planning, implement and the testing of a research design of an intervention study performed in an ICU. The project has an experimental design. The intervention consists of the construction of one patient room in an ICU. The planning took place during the years 2008-2010 and started with a review of literature describing physical environments in hospitals. The intervention study involves co-operation among scholars from architecture, environmental medicine and experts from companies within the health care area as well as ICU care practitioners. The intervention room was refurbished according to principles of evidence-based design regard to sound, light, shape and access to nature. New and innovative products, e.g. bed linen in ecological textile materials, cyclic lightning and sound absorbents were installed. Examples of the interior shaping of the intervention room will be presented as well as the planning and implementation process. There is a great challenge in developing research programs that create healing environments that are more conductive to patients' recovery processes, next of kin and staff.

A CONSENSUS GUIDELINE FOR PHYSICAL RESTRAINT IN THE ICU BASED ON A NATION-WIDE SURVEY IN JAPAN

Tomoe Yoshimochi

Japan

Physical restraint was, in principle, prohibited in a nursing-care setting by the Nursing Care Insurance Law on April, 2000 in Japan, which had partly been in response to some sensational mass media reports on restraint cases and the public mood at that time. Since then, there has been a growing trend, even in a hospital setting, to avoid any physical restraint. However in critical care, minimal physical restraint is inevitable to avoid self-extubation of the tubes for life-support. To provide a clear implementation guideline for this dilemma, the task force conducted a nation-wide survey in Japan and presented a guideline based on the survey data. A questionnaire regarding physical restraint was sent to nursing directors of all the hospitals with ICU facilities in 2007. Four hundred and ninety three replies out of 1,188 hospitals surveyed (41.5%) were obtained. The percentages of the hospital employing / not employing physical restraint were 94.7 / 1.4 %, respectively. In total, 84.2 % of the hospitals surveyed had handling guidelines in any form for physical restraint, which mostly included 'starting criteria' and 'methods to obtain informed consent'. Fifty percent had 'criteria to discontinue physical restraint' and 24.3 % had 'methods to avoid unnecessary physical restraint' as well. An ethically-acceptable consensus has been built in Japan to draft a guideline for physical restraint in the ICU setting. The followings are the contents of the guideline currently posted at the web site of the society: 1. Basic concept of physical restraint, 2. Criteria to place, 3. Methods to place, 4. Practical tube management including removal. The guideline should be further evaluated for the utilization in hospital care.

EFFECT OF ENDOTRACHEAL SUCTION WITH AND WITHOUT INSTILLATION OF NORMAL SALINE ON OXYGENATION, HEMODYNAMIC AND ARTERIAL BLOOD GASES IN ADULT MECHANICALLY VENTILATED PATIENTS

Zainab Alawamia, Mervat Ghaleb, Hatem Qutub

Saudi Arabia

Endotracheal suction is a corner procedure in the management of secretions in mechanically ventilated patients. Normal saline instillation is used by nurses during treatment of intubated patients within the intensive care unit, usually to enhance sputum yield. Its use is controversial; detrimental effects have been documented and evidence of any benefit is limited. Some studies have suggested routine use be discontinued. This study investigates the effect of endotracheal suction with and without instillation of normal saline on oxygen saturation, heart rate, blood pressure and arterial blood gases in mechanically ventilated patients. An experimental cross over design was adopted. The study was carried out at medical and surgical Intensive Care Units of King Fahad University Hospital. The study sample consists of 25 adult male and female patients. They were randomly assigned to two techniques of suction (with and without instillation of normal saline) participants are randomly assigned to different orderings of treatment. An Observational checklist was developed by the researcher to collect the needed data that covers patients' demographic data, heart rate, blood pressure, SPO2, and arterial blood gases before & after suction for 5 minutes. The study reveals that there was statistical significant difference between mean heart rate, PCo2, PaO2 and PaO2/FiO2 over time after suction with instillation of normal saline while there was no significant difference between mean heart rate, blood pressure and arterial blood gases among the two techniques of suction. The researcher strongly recommended that saline instillation should not be used as a routine clinical practice and the nurses should consider other interventions to promote secretion clearance include providing adequate systemic hydration, humidification, chest percussion and vibration.

A PROSPECTIVE VIDEO RECORDED STUDY ABOUT CONSCIOUS PATIENT'S COMMUNICATION PATTERNS WHILE RECEIVING MECHANICAL VENTILATION IN INTENSIVE CARE UNIT

Veronika Karlsson, Berith Lindahl, Ingegerd Bergbom

Sweden

Light or no sedation has been more common while receiving mechanical ventilation treatment and it is preferable from a medical perspective. Patients who are mechanical ventilated treatment are unable to speak verbally. To communicate was perceived as difficult and evoked feelings of helplessness. When patients are conscious communication becomes a major problem compared to the situation

when patients are deeply sedated. Not being able to communicate created feelings of losing power and control. The aim was to describe patients' communication during a video - recorded interview while undergoing mechanical ventilation treatment. Fourteen patients treated with no or light sedation while receiving ventilator treatment was interviewed and video recorded. A quantitative content analysis was used focusing on how the patients communicated. Each type of communicative strategy the patients used during the recording was registered and counted. The patients developed individual styles of communication while on the ventilator, but there were common characteristics. All the patients nodded and shook their head; except two who blinked. Most of the patients used aids such as pen and paper, although some were unable to write due to injuries caused by trauma, disease or shaky hands. The patients gesticulated and used facial expressions to varying extent. Some frowned and raised their eyebrows but some had the same facial expression during the interview. Only one of the four patients with oral endotracheal tube mouthed and three nasally intubated mouthed their answers during the interview. Patients developed their own individual communication patterns, which takes time to establish and understood by carer and relatives. Some techniques could easily be taught so that communication can be facilitated. As ability to communicate seems vital for patients' feelings of security it is important to establish a continuing caring and well- functioning relationship between patients and their carers.

FACTUAL AND DELUSIONAL MEMORIES OF INTENSIVE CARE AND A SPECIALIZED WEANING CENTRE REPORTED BY SURVIVORS OF PROLONGED MECHANICAL VENTILATION

Louise Rose, Mika Nonoyama, Shaghayegh Rezaie

Canada

Psychological distress of intensive care unit (ICU) survivors is a significant problem and is associated with delusional memories. Psychological morbidity may persist over time impacting health-related quality of life and ability to regain premorbid function including return to work. To compare memories and recall of stressful experiences of ICU and a specialized weaning centre (SWC) as described by survivors of prolonged mechanical ventilation (≥ 21 days). We recruited participants following hospitalization that included ICU admission and subsequent weaning in a SWC (Toronto, Canada). Using a prospective cross-sectional design, we determined memories and recall of stressful experiences of ICU and SWC stay using the ICU Memory Tool and ICU Experience Questionnaire administered via mail or in-person. Of the 45 eligible participants, 13 did not respond to recruitment strategies, 6 refused, 1 was incompetent, and 1 didn't return questionnaires (24 participants). Mean time since SWC discharge was 1.9±1.2 years, age 67±16.8; 50% were female. 17% (ICU) and 8% (SWC) of participants had no recall of admission; 29% (ICU) and 75% (SWC) remembered all of their stay. Participants had similar mean numbers of factual (6.6 vs 6.6) and feeling (3.5 vs 3.1) memories of ICU and SWC. More delusional memories were reported for ICU than SWC (1.6 vs 0.6, P<0.001). Thirst (67%), no control (67%), noise (63%), and inability to sleep (58%) were events recalled most frequently from ICU: procedures (75%), night awakening (67%), inability to sleep (67%), and no control (63%) from SWC. Thirst and trouble speaking were rated most distressing. Since discharge, unexplained feelings of panic were experienced by 50% and intrusive memories by 46% of participants. Despite moderate prevalence of psychological disturbance, few delusional memories were recalled. Difficulty sleeping, thirst, and lack of control were common experiences suggesting interventions focused in these areas are needed.

A SURVEY OF EMERGENCY DEPARTMENT NURSE RESPONSIBILITIES FOR MECHANICAL VENTILATION

Louise Rose, Sharon Ramagnano

Canada

Little data describes the role of emergency department (ED) nurses in caring for ventilated patients yet these patients may remain in ED for prolonged durations due to unavailability of intensive care beds. To examine: exposure of ED nurses to patients requiring invasive ventilation; responsibilities for ventilated patients; and education on ventilation received. Cross sectional mailed survey sent to members of the National Emergency Nursing Association in Canada. Domains and items were refined from a survey of ventilation roles and responsibilities in intensive care. Pilot testing comprised ED nurse and respiratory therapist (RT) expert feedback on face and content validity and test-retest reliability. Response rate was 247/526 (47%); 39% provided care to ≤ 10 ventilated patients every 2 weeks, 32% ≤ 5 patients monthly and 27% ≤ 5 patients every 6 months. A 1:1 nurse: patient ratio for ventilated patients in ED was reported by 38% of respondents; 45% managed 1 or 2 additional patients; 15% ≥ 3 additional patients. Most respondents (54%) reported RTs remained in ED until patients stabilized; 28% RT was available on call, 11% RT remained until patient transfer, and 7% reported no RT available. Few nurses reported being primarily responsible for initial ventilator setting selection (7%), and titration of ventilation (6%); nurse responsibility for these tasks was influenced by RT availability (P<0.001). Primary responsibility for monitoring patient response to ventilation, alarm troubleshooting, and management of oxygenation was reported by 44%, 36%, and 30% respectively. Education was received by 51% of respondents prior to caring for ventilated patients; most (57%) indicated competency in caring for ventilated patients was never assessed. Institutional guidelines for ventilation were reported available by 39% of respondents. ED nurses have variable exposure to ventilated patients and responsibility for management of ventilation is influenced by RT availability.

NURSES' ATTITUDES TO THE CONDUCT OF ICU RESEARCH: PRELIMINARY RESULTS OF A MULTI-CENTRE SURVEY

Louise Rose, Orla Smith, Craig Dale

Canada

Despite the important role of bedside nurses in clinical research in the intensive care unit (ICU), little is known about how ICU nurses feel about research conduct or their contribution to the research process. Self-administered, cross-sectional, paper-based survey to characterize nurses' experiences and beliefs about ICU research in 5 academic ICUs affiliated with the Canadian Critical Care Trials Group. Prior to administration we assessed the survey for face and content validity, discriminability, utility, clarity, and test-retest reliability. Response rate was 67% (n=297/446). On average, ICUs were engaged in 16 studies and employed 2 full-time research coordinators. Most respondents were female (79%) with over 6 years of ICU experience (70%). Most had an undergraduate nursing degree (56%); 44% had completed an ICU certificate. While the majority reported completing a statistics course (55%), most had minimal to no experiential knowledge of research processes (67%). Few (20%) reported ever participating in research protocol development, data analysis, publication, or research committees. The majority (62%) had cared for a patient requiring study procedures ≥ 6 times but never or infrequently (< 6 times) completed data collection forms (61%). Most (75%) agreed or strongly agreed research facilitates improved care and that eligible ICU patients should be approached for research (61%), but only for minimal risk studies (76%). Most disagreed or strongly disagreed (76%) that ICU patients were

too sick to participate in research. Few (22%) agreed or strongly agreed researchers consider practicalities of nursing care when designing studies and 40% agreed or strongly agreed that caring for study patients substantially increased nursing workload. Nurses support ICU research and are actively involved in the care of research participants. Paradoxically, nurses remain peripheral to important research processes. Greater inclusion of nurses in study conceptualization and design and investigation of research-related nursing workload is warranted.

DELIRIUM AMONG SUGICAL INTENSIVE CARE UNIT PATIENTS

Yi-Ling Chen, Shou-Chuan Sun, Tsai-Wei Huang

Taiwan

Delirium is one of the most serious problems in the intensive care unit (ICU), which might complicated with serious problem like prolong hospital stay, increased medical expense and mortality. We plan to analysis the incidence and risk factors related to delirium in ICU. This is a descriptive, related and prospective study. For the convenient sampling, 30 patients were collected the surgical intensive care unit in one medical center from 1st October, 2011 to 6th November, 2011.The CAM-ICU and RASS score was used to assessed and diagnose Delirium. The data was analyzed by Chi-square and t-test. According to our study, the incidence of acute delirium in SICU is 46.7%. There is no significant statistic difference in disease type, gender and age. Solitary and alcoholism ($P=.05$), physical restriction ($P< .01$), fever ($P< .02$) and indwelling catheters ($P< .003$), high TISS score ($P< .002$) and low GCS score ($P< .03$) is statistic difference significantly. For ICU patients, nursing staff should be cautious to prevent the delirium risk factors, including the necessity for indwelling catheters and physical restriction on patients, and the treatment of fever episode. Pay attention to high TISS score and low GCS score patients, in order to reduce the incidence of delirium.

WHETHER USE SINGLE DOSES OF DEXAMETHASONE TO PREVENT POSTEXTUBATION AIRWAY OBSTRUCTION IN CRITICALLY ILL

Shih Kao, Su-Ching Hung, Jui-Ping Lin

Taiwan

Stridor and laryngeal edema are two main problems for removal of endotracheal tube of intensive care unit patients. Re-intubation causes further complications such as prolong days of hospitalization, increase infections rates etc. According to some research papers, removal of endotracheal tube of those patients who had been intubated for more than 24 hours will easily cause laryngeal edema. Medical physicians would give steroid either 30 minutes prior removal of endotracheal tube or one day of steroid then remove next day in attempt to prevent laryngeal edema. But it is still controversial to use prophylactic steroid therapy to reduce the occurrence of postextubation laryngeal edema cause by removal of endotracheal tube. The purpose of this study was to ascertain whether administration of single doses of dexamethasone to critically ill, intubated patients reduces or prevents the occurrence of postextubation airway obstruction. We use the five steps of EBN to Appraisal the literature. Find the single dose of Hydrocortisone before extubation cannot improve postextubation laryngeal edema and prevent the occurrence of stridor, cuff-leak test should alert the clinician of a high risk of upper airway obstruction. Cohorts of 108 translaryngeal intubated patients in the medical intensive care unit (ICU) were enrolled. A cuff leak test was conducted before extubation. If positive cuff-leak test were intravenously given 100mgs of Hydrocortisone every 6 hours for one day. The clinical response and cuff-leak volume before and after steroid treatment were gathered for analysis. The incidence of postextubation stridor was 7.41% (8/108). No one with stridor needed reintubation. Overall, 100% of patients (8/8) with postextubation stridor improved with steroid treatment. A cuff-leak test should alert a high risk of upper airway obstruction and Prophylactic administration of multiple-dose dexamethasone is effective in reducing the incidence of postextubation stridor for postextubation laryngeal edema.

THE EFFECTS OF PROBIOTICS ON PREVENTION OF ANTIBIOTIC-ASSOCIATED DIARRHEA

Yi-Ju Chen, Chun-Fei Lai, Shih-Chia Chen

Taiwan

Frequent antibiotic use in the ICU patients usually suffers from antibiotic-associated diarrhea (AAD) and consequently having severe complications such as sepsis and leading to unnecessary increase of health care costs. Therefore, the aim of the present study is to evaluate the effects of probiotics to prevent AAD by improving intestinal function. A patient / problem intervention comparison of intervention clinical outcome (PICO) problem was formed by the five Evidence-Based Nursing (EBN) steps in this study. AAD and probiotics were regarded as two main key words to search the relevant articles by using a range of medical search sites, including Cochrane library, BMJ Clinical Evidence , PubMed, etc. With the exclusion of literature of non- Clostridium difficile-associated diarrhea, there were three articles selected regarding Lactobacillus and Bifidobacterium. The first article on the Meta-Analysis showed that the ADD risk of patients with receiving probiotic treatment was 0.35 times lower than others, especially in the adult group (RR: 0.44, 95% CI 0.18 ~ 1.08). The other two articles of randomised controlled trials showed the beneficial effects of using probiotics in preventing AAD. The Absolute Risk Reduction (ARR) of the patients with or without probiotics were 22% and 3.3%, and the Number needed to treat (NNT) 5 and 30 respectively. According to the evidence in the above literature, researchers at Mackay Memorial Hospital developed a selection criteria, educational programs of medical staff and patient instructions, and so forth.With patients' informed consents, within 48 hours after antibiotics were used, Infloran of 250mg twice daily was prescribed for the enrolled patients for 14 days.During the 2-week period, assessments and records of defecation characteristics were performed. The Study Results: From March to May 2011, five patients were selected in the project.Three of them were diarrhea-free with defecation frequency of 1~2 times per day, while the other two had suffered from diarrhea since the date that antibiotics were prescribed.The initial results showed that defecation frequency of the latter two patients was reduced to 1~3 times after using probiotics with the stool shape from watery to formed.The use of probiotics may be helpful in patients with AAD regarding defecation frequency and related characteristics. The project will be carried out in the other intensive care units if there will be more beneficial evidence noted by using probiotics in this regard.

PERCEPTION OF CLINICAL PRACTICE IN THE INTENSIVE CARE UNIT

Cachón Pérez José Miguel, Palacios Ceña Domingo, Alvarez Lopez Cristina

Spain

Students of nursing assistants in intensive care unit (ICU) may feel anxiety and fear for their practice. They are required to be on alert and respond quickly to changes in the patient. Aim: To describe the experience of the students (nursing assistants) during their practice at ICU of Fuenlabrada University Hospital. Methods: qualitative study with a phenomenological approach, sampling by purpose. Inclusion

criteria: students who have made their practices in the ICU. Data collection: unstructured interviews. Use of an open question: How have you lived your rotation practice? Data analysis: Implementation of the Giorgi´s proposal. Individual meaning units were sorted and resorted as categories, and the patterns, began to emerge. We developed "Conceptual maps" to identify the topics. Results: The study was conducted from September 2010 until December 2010. 12 interviews were done, 19 hours of tape recording. The mean age was 21.3 years. The themes identified were: Learning process. With 3 subtopics: Figure of tutor, previous experience with illness and professional. The ICU as a learning context. The role of students. With 1 subtopic: Initiative. Relationship with the patient, family and other professionals. With 1 subtopic: teamwork. Conclusions: Students focus their learning in technical and material aspects ,ignoring the patient. They assume a professional rol rather than the students rol. They require a tutor figure, as well as their integration into the professional team. They point the ICU as a different context to learn from all units

EVALUATION OF STANDARD OF BURNS CARE AND PRACTICE IN NIGERIA: A MULTI-CENTER STUDY

Halima Kabara Salisu M., Isa Lawal

Nigeria

Burn Injuries continue to be a major source of mortality and morbidity in low- and middle- income countries of the world of which Nigeria is a part. We conducted a multi- center survey to evaluate the existence of specific guidelines used in the management of burn injuries in selected tertiary health institutions using a structured questionaire. The outcome of which indicated that while most centers have trained staff (68.4%) with adequate knowledge of burn care, 63.2% do not have standard guideline for burn management, which reflected in the low survival rate (63.2%) in the centers surveyed. Infection was found to be the leading cause of death (31.6%), which equally supports the absence of burn protocols. We concluded that despite the advancement in the management of burns in the developed societoes, low and moderate income countries are still backward in this critical issue of burns.

CENTRAL VENOUS CATHETERS - CARE AND MAINTENANCE

Synnove Hvidevold Moe, Ingrid Scudder Jahren

Norway

Central venous catheters (CVC) – Care and maintenance of tunneled and non-tunneled catheters in adult patients. Background: CVC play an important role in the treatment of critically ill patients. Unfortunately complications such as intravascular catheter related bloodstream infections (CRBSI) often occur. Infections are a major problem in hospitals all over the world, and CRBSI is a serious complication with high mortality rate. There was a need in our hospital to create a new and standardized procedure based on the evidence based knowledge related to prevention of CRBSI in patients with CVCs. Aim: Develop a procedure for care and maintenance of CVC in patients at Oslo University Hospital to reduce the number of infections. The procedure aims to include hygienically aspects, care and maintenance. Methods: A systematic study of literature, were all available evidence based knowledge relevant to our aim is critically summarized. AGREE has been used to evaluate both the available and relevant research and the procedure. An interdisciplinary group representing different specialities collaborated in the process. Results: Use a non-touch technique or aseptic non-touch technique when handling the CVC. Never touch key parts. The CVC must be secured with sutures and transparent sterile dressing. CVC placement in centimeters should daily be documented in the patient record. The transparent sterile CVC dressing should not be changed more often than every 7th day, unless it is contaminated or loose. Control insertion site daily for signs of infections. Connectors and infusion lines should be changed every 3rd day, but daily be bathed in Chlorhexidine 5 mg/ml. When flushing the CVC, use press-pause technique. Lock the catheter with a positive pressure technique. Use heparin lock if the CVC is not daily in use. Conclusion: This procedure aims to reduce the number of infections related to CVC. Based on available research, we developed a procedure which summaries the best care and management of CVC`s. To avoid CRBSI in CVC`s, updated evidence based guidelines must be implemented.

FACTORS ATTRIBUTED TO PRESSURE ULCER IN ECMO-SUPPORTED PATIENTS IN PEDIATRIC INTENSIVE CARE UNIT

Yu-Ching Chuang, Chi Min Tang

Taiwan

New technology improves the survival rate; however, it takes new challenges on clinical care issue. Purpose: To identify factors lead to pressure ulcer in ECMO-supported children in pediatric intensive care unit. Method: A retrospective medical chart review was used to collect 26 children supported by ECMO in PICU from June 1ST 2010 to June 31nd 2011. The characteristics of patients with ECMO-supported developed pressure ulcer were compared with those did not. Results: Of the 26 children supported by ECMO, the incidence rate of pressure ulcer was 34.6%. Children were developed ulcers in average 15 days after ECMO implantation. Occipital of the head and neck site fixed by ECMO circuit were the most frequent areas for ulcer. Age, gender did not affect to pressure ulcer. TISS score on admission day, the nutrition status and infusion of inotropic agents were not significant to pressure ulcer. However, patients with longer ECMO implantation (32.7days vs. 5.6days, p=0.004), dermatitis (p= 0.004) and sternum open (p=0.034) during ECMO support period were risk factors to pressure ulcer development in children. Conclusion: Identification of characteristics and risk factors associated with pressure ulcers in children were different from adult patients in intensive care unit. Children with longer ECMO-supported days, dermatitis were more easily tend to pressure ulcer. The result contributes for nurses in PICU to early recognize risk factors and take aggressive prevention.

INNOVATIONS IN NURSE CONTROLLED GLUCOSE MEASUREMENT

Mona-Britt Divander, Eva Joelsson Alm, Christer Svensen

Sweden

Tight glucose control has been put aside in many critical care settings. It has been suggested that future interventional trials should not be performed without the means to control and measure glycaemia in three areas central tendency, variability and minimum value. A recent innovation in central venous catheters which allow continuous glucose sampling may allow critical care nurses to easily gather information in these three domains. Two patients undergoing planned general surgery procedure with were monitored using a 7Fr triple lumen central venous catheter (Eirus TLC, Dipylon Medical AB, Solna, Sweden) with an integrated microdialysis membrane located proximal to all infusion ports. The catheter was percutaneously placed and connected to the Eirus monitoring system. Equilibrium of glucose is achieved across the membrane and glucose concentration is measured by the sensor and displayed on the monitor. The system was calibrated after 1 hour and then every 8 hours, using arterial blood gas as the reference. The patients were monitored for 19 hours in the post anesthesia care unit. The Eirus system allows one to download minute glucose data. Central tendency was measured

by average glucose; Variability as measured by Standard deviation. For Patient 1: Total up-time: 19 h 51 min (1191 min); Average: 7.80 mmol/L; Stdev: 0.76 mmol/L; and Min: 6.29 mmol/L. For Patient 2: Total up-time: 18 h 52 min (1132 min); Average: 9.75 mmol/L; Stdev: 3.89 mmol/L and Min: 4.02 mmol/L. Central venous microdialysis is an innovative technology that is managed by the critical nurses responsible for glucose control protocols. It provides relevant CGM data in all important domains. With such a tool it may be possible to re-investigate and perhaps carry out TGC protocols.

EXPERIENCES OF PATIENTS IN INTENSIVE CARE UNITS: LITERATURE REVIEW

Neriman Zengin, Besey Ören, Hülya Üstündağ

Turkey

Intensive care units provide services for critical patients. These are highly complex and active units involving special treatment methods through multidisciplinary team approach and hosting many biomedical devices. This complex and active environment causes patients to experience a number of emotional and physical problems. In this regard, this study was carried out to review the researches investigating the problems experienced by patients in intensive care units. Methods: We conducted a systematic literature review of studies published between January 1995 and November 2011. Relevant journals and databases were searched, i.e. Medline and CINAHL. The search terms included 'intensive care", "mechanical ventilation", "distress experience", "patients experience", and "nursing care". Researches implemented on 18 years and older patients were included in the review. A total of 559 researches were screened. Consequently, there were 15 researches directly related to the subject, of which 6 researches contained unstructured questions, and 4 researches contained structured questions, while the rest of them consisted of 3 phenomenological, 1 quantitative and 2 prospective observational descriptive researches. Findings: Patient experiences were classified as emotional and physical. The most common emotional experiences included fear, anxiety, hallucination/ nightmare and depression (15 researches). On the other hand, the most common physical experiences included pain (15 researches), thirstiness (6 researches), insomnia (7 researches), inability to communicate (10 researches) and endotracheal tube problems (15 researches). Among the factors behind these problematic experiences, there are nursing applications, endotracheal aspiration, and noise caused by technological equipment and staff. Conclusion: Nurses should be aware of these factors that could cause problematic experiences in critical patients, and they should make plans for nursing applications to prevent or reduce their occurrences.

STRESS IN CRITICAL CARE PATIENTS: A SYSTEMATIC REVIEW OF THE LITERATURE

Besey Ören

Turkey

Hospitalized patients in the intensive care unit may develop anxiety, depression, and stress. Stress and negative emotions may have both immediate and long-term effects on critical care patients' psychological and physical well-being, and they are linked to delayed physical recovery. The aim of the study was to review the international and national publications about the causes of stress in intensive care patients. A literature review was performed from January 2000 to November 2011. Databases searched included Medline, CINAHL, Pubmed, Cochrane Library. In order to search for Turkish publications, the Google search engine was used. Databases were selected for searching papers related to stress in critical care patients. "Critical care unit", "Patient" and "Stress" were the key words used in this research. Clinical studies which included adult patients of 19 and older were examined. Papers were also obtained through cross- checking of reference lists. The search was limited to articles published in English and Turkish. A total of 201 international and national articles were identified and 45 of them, which were relevant to critical care patients and stress, were included in the scope of the study. It was observed that 5%-63% of critical care patients had Post-traumatic Stress Syndrome. The most important sources of stress among these patients were the high number of interventions, usage of complicated tools and the noise they generated, being unable to communicate with others, sleep deprivation, pain, loneliness and sensory deprivation. It has been reported that music therapy decreased anxiety in patients using mechanical ventilatory support. In conclusion, it can be suggested that nurses should minimize environmental factors which contribute to Post-traumatic Stress Syndrome, inform patients about every intervention, touch patients even if they are unconscious, and make patients listen to music.

OPINIONS OF NURSING STUDENTS ON INTENSIVE CARE NURSING

Besey Ören, Ece Uzun, Sinem Türkışık, Zengin Neriman

Turkey

Intensive care nursing is an area which requires specific training. If nursing students have specific information about the topic, they would make more accurate decisions regarding specialization in the area of intensive care nursing. This prospective and descriptive study aimed to determine opinions of nursing students on intensive care nursing. The universe of the study consisted of sophomore and senior students studying nursing at three state universities in Istanbul and one in Trabzon. The sample consisted of 369 students who agreed to participate in the study. Written permissions were obtained from the relevant departments of all universities. A 26 item questionnaire developed by the researchers which included questions on demographic variables and intensive care was administered to the participants. Data was analyzed using the SPSS program. Statistical procedures included percentiles, minimum and maximum, standard deviation, and linear regression. The mean age of the participants was 21±2.94. Among the students, 58.5% reported that they have information on the functions of intensive care nurses and 46.3% stated that they want to work in the intensive care unit when they graduate. Information on intensive care was significantly related to enrolling in the nursing program willingly, nursing experience, attending a course on intensive care nursing, and wanting to work in the intensive care unit ($p<0.01$). In addition, wanting to work in the intensive care unit was significantly related to the importance given to intensive care nurses and wages ($p<0,01$). It was concluded that students perceive intensive care nursing as a special branch and information on intensive care would be effective in choosing to specialize in this area. It can recommended that courses on intensive care nursing should be included in the curriculum and graduate programs on intensive care nursing should be available for advanced training in the area.

ARE WE AWARE OF THE ENVIRONMENTAL PATHOGENS IN THE INTENSIVE CARE UNIT?

Asiye Gül

Turkey

The rate of development of health care associated infections (HCAIs) is high in the intensive care units (ICUs). Health care workers (HCWs)' hands and environments for the patients are the main source of pathogen transmission. It is possible to prevent HCAIs by knowing sources and ways of spread of infection. Reduction of environmental contamination should reduce patient colonization

by reducing the number of contaminated hand or surface contacts. To identify the microorganisms represented in the environmental surfaces in ICUs. Bures et al isolated from environmental surfaces that Methicillin-resistant Staphylococcus aureus 49%; Enterococcus 18%; Enterobacter 12%; and all other gram-negative rods 21%. Yildirim et al. found that the nurses wearing rings had more Gram-positive, Gram-negative microorganisms. Dwivedi et al. isolated from nurses' hand cultures 28.3%, sink 75%, floors 21.9%, tap water 31.3% wall 13.3% Pseudomonas aeruginosa. Hartmann et al. found that the highest rate of contamination in patients' rooms was found on keyboards with 5.4% Enterococcus spp. and mice with a contamination with Staphylococcus aureus (S.aureus) of 5.9%. In the central workstation the highest contamination rate was found for the mouse (12.5%). Ulger et al. found that the rate of bacterial contamination of mobile phones is 94.5%. The isolated micro-organisms from mobile phones and hands were similar. Those S.aureus strains isolated from mobile phones of 52.0% and those strains isolated from hands of 37.7% were methicillin resistant. Panhotra et al. determined that the multidrug-resistant Pseudomonas aeruginosa, Acinetobacter baumannii, Klebsiella pneumoniae, and Serratia marcescens isolated from the patient's files. Findik et al. determined that the number of colonies of the microorganisms in the hand flora of the nurses increased postshift. HCWs should be aware that the microorganisms. According to these results, preventing pathogens colonization should be a goal in ICUs and should be given more attention to hand hygiene.

COMPLIANCE WITH HAND HYGIENE GUIDELINES IN INTENSIVE CARE UNITS INTRODUCTION

Asiye Gül, Hülya Üstündağ

Turkey

Hand hygiene (HH) is the most effective method for preventing healthcare-associated infections (HCAIs). However, HH compliance among health care workers (HCWs) has remained poor worldwide, especially in the intensive care units (ICUs). Patients in the ICUs are more likely to be colonized or infected by harmful and antimicrobial resistance microorganisms. The most common cause of HCAIs is person-to-person transmission of pathogens via the hands of HCWs. HH compliance rates have been reported in previous reviews, but compliance across studies has not yet been quantified for specific settings such as ICUs. To assess the HCWs' hand hygiene compliance rates in the ICUs. We conducted a systematic literature review of observed and self-reported compliance with HH guidelines in ICUs. We addressed the following research questions: (1) Which methods have been used to measure HH compliance rates in hospital care? (2) What HH compliance rates have been reported in ICUs? Searches for eligible studies were conducted using the Medline (PubMed) and Web of Science databases. All articles published between 2005-2011 years were included in the searches. The search terms used were "hand hygiene," "hand washing," "adherence," "compliance". The search was limited to articles published in English and Turkish. We assessed the methodological characteristics of 670 studies on compliance with HH in ICUs, resulting in final inclusion of 20 articles. Compliance with HH was measured using direct observation. We found an overall median compliance rate of 15.4%-94%. Compliance with HH was higher the nurses than physicians. Most of the studies reported that the overall compliance improved significantly following the intervention. Compliance rates were lower in the ICUs. Many factors appear to play a role in affecting compliance. Noncompliance with HH guidelines is a global problem. Improvements in HH practices reduce HCAIs.

A STUDY ON THE CLINICAL APPLICATION OF BRIGHT LIGHT CARE IN ACUTE CARE NURSING: ACHIEVEMENTS OVER THE PAST TEN YEARS

Toyoe Taguchi

Japan

Bright light care aims to create what we perceive as the difference between day and night, and adjust the circadian rhythm of patients by duplicating natural light using artificial light sources. The purpose of this study was to review the effects of bright light care, which have been examined in clinical practice over the past ten years, and identify future challenges. Subjects were 63 patients in the perioperative phase, scheduled to undergo gastrointestinal, cardiovascular, or orthopedic surgery. Bright light care was implemented in the ICU and surgical wards, in which 2,500 to 5,000 lx of light was provided for approximately two hours in the morning. Using the Japanese version of the NEECHAM Confusion Scale, we determined the incidence of delirium. To assess the effects of adjustment of the circadian rhythm, we examined serum hormone concentrations of melatonin, serotonin, and cortisol. Bright light care was implemented for about three days in the ICU, and one week in the surgical ward. The incidence of delirium was slightly lower in the bright light care intervention group, and the circadian rhythm was adjusted in some patients. Bright light care provided when patients got up out of bed was effective to prevent the occurrence of delirium. However, it was difficult to assess delirium in severe dementia patients using the NEECHAM Scale, and it is necessary to develop a new method for its assessment. We plan to conduct further studies to establish more credible evidence and increase awareness of bright light care. We also encourage hospital staff to develop an appropriate light environment when establishing or renovating an ICU, CCU, and patient room, and provide light as one of the nursing techniques in the field of acute care nursing.

EFFECT OF INTENSIVE CARE EXPERIENCE OF A NURSE WHO WAS DEPENDENT ON MECHANICAL VENTILATOR UPON HER EXPERIENCES AND NURSING CARE: SAMPLE CASE STUDY

Sibel Kiper, Beylü Dikeçligil

Turkey

This research was related to what a nurse who was dependent on mechanical ventilation for 23 days due to a traffic accident experienced as an intensive care patient and to how this experience changed her professional understanding and her life. The aim of the research was to present a new point of view for intensive care treatments. While there was not any hope for the nurse's life, the changes in her feelings and opinions about patient-nurse relation following the intensive care treatment given and the effect of these changes upon her behaviors were presented using qualitative method. Life story technique was used in this sample case study and three in depth interviews were performed at different times. Our case came to the hospital with the symptoms of pneumothorax, hemothorax, rupture of the spleen, left mediastinal shift, rib fracture, clavicle fracture, left shoulder fracture and dislocation, two fractures on the right harm (radius, ulna), one fracture on the left harm (ulna) and flail chest and survived after long struggles despite no hopes for her. She was resuscitated three times during her stay at the intensive care unit. Our case suffered not only from physical pains but also from the negative psychological effects coming from the people around. She underwent severe physical pains due to shaking of urinary catheter, poor feeding with nasogastric catheter and carelessness during aspiration and hair-washing and experienced deep psychological pains due to the negative talks of the health care team members about herself because they considered her as if she had been a non living object. All these painful experiences made

her change her opinions about the care given to the patients. It may be recommended that health care team members should behave more carefully while giving care to the patients at the intensive care unit, should provide the necessary explanations about the medical procedures beforehand, should select the sentences more carefully and should show kindness.

EVALUATION OF EMPATHIC TENDENCY LEVELS OF THE INTENSIVE CARE UNIT NURSES IN TERMS OF SOME VARIABLES: EXAMPLE OF TURKEY

Sibel Kiper, Ayşe Uçak, Melahat Aktaş

Turkey

The aim of the research was to evaluate empathic tendency levels of the nurses who worked at the intensive care units in terms of some variables. 138 nurses who worked at the intensive care units and accepted to participate in the research were included in the research which was a descriptive research. The research was carried out using a Nurse Descriptive Form designed by the researchers after literature screening and Empathic Tendency Scale in order to evaluate the emphatic tendencies. Official written approvals of the institutions and nurses' oral consents were obtained. Percentage distributions, student t test, Kruskall Wallis and One way ANOVA were used for data evaluation. It was found out that 80.4 % of the participant nurses were females, mean age was 32.05 + 5.39, mean working time at the intensive care unit was 3.46 + 3.09, 38.4 % had graduate degree, 79.3 % were married and 86.2 % worked in shifts. Mean score of Emphatic Tendency Scale of the nurses was 72.77 + 8.48. Nurses at the cardiac intensive care unit had the highest emphatic tendency scores. A statistically significant difference was found between mean scores obtained from empathic tendency scale and nurses' considering the profession appropriate for themselves, considering changing the profession, getting trainings about empathy and empathizing with the patients ($p < 0.05$). It was found out that nurses' empathic tendency scores were good. It may be recommended that empathy and communication topics should be dealt with more in the on-job trainings because empathic approach is an effective factor for increasing the quality of nursing care.

THE INCIDENCE OF POTENTIAL PATHOGENS MICROORGANISM IN CORONARY CARE UNIT PATIENTS

Alketa-Theodora Spyrou, John Trikilis, Chrysa Panagiotou

Greece

Cardiac Care Unit (CCU) patients differ in risk for nosocomial infection compared with other ICU patients, due to that patients usually are admitted directly to the unit without prior antibiotic use or exposure to other hospital pathogens. The aim of the present study was 1) to determine the incidence of potential pathogens microorganism (PPM) of patients who were admitted in our CCU 2) to identify the risk factors for colonization with PPM. We studied electronic medical records of all patients who were hospitalized from January 1, 2010, through December 31, 2010, in our institution and without previous infection. Baseline demographic data and previous location of care or residence were recorded for each patient on admission, hospital length of stay was determined. Specimens for culture were taken from the nasopharynx, blood, urine and, if applicable, from the central or peripherals catheter. 49 patients were included in the study with mean age 63,73yrs (SD=15.45). 64% of the participants were colonized with PPM. The most common isolated pathogens were Staph.Epidermidis (36.7%), Klebsiella Pneumoniae (32.6%), Pseudomonas Aeruginosa (10.2%), Candida Albicans (8.2%) και MRSA (4.1%). Risk factor for colonization with PPM was found the duration of stay in CCU (Anova test, F= 5.008, p=.004) and increase value of urea and creat (Anova test, F= 4.502, p=.039). The rates of PPM were significant high and particular attention will give in the risk factors with which it found to be correlated.

RISK FACTORS FOR COLONIZATION WITH POTENTIALLY PATHOGEN MICROORGANISM IN MECHANICALLY VENTILATED PATIENTS OF CARDIAC CARE UNIT

Alketa-Theodora Spyrou, John Trikilis, Chrysa Panagiotou

Greece

Most oral bacteria are considered to be part of patients' normal flora. These organisms may colonize different surfaces in the mouth and tracheobronchial tree. Tracheobronchial tree colonization is considered an important risk factor for the development of ventilator-associated pneumonia (VAP). The aim of the present study was 1) to identify the risk factors for colonization with potentially pathogen microorganism (PPM). 2) to determine the incidence of PPM of patients who were admitted in our Cardiac Care Unit (CCU). The study was conducted in the CCU in a tertiary care hospital from January 2009 to December 2010. All patients were intubated and lacked clinical evidence of pneumonia at the time of enrollment of the study. Cultures of bronchial excretions using tracheal aspirates were taken the first 24h of intubation and before extubation, in a total of 39 CCU patients (mean age 68.7±11.9yrs, 79,6% men). Risk factors for colonization, including APACHE II score, Clinical Pulmonary Infection Score (CPIS), placement of an invasive device as well as the duration of mechanical ventilation (MV), were recorded. Predictors of colonization were examined with univariate and multivariate analysis. A total of 39 patients were evaluated (mean age, 67.8 ±11.9 years). Thirty patients (76.9%) were men. The average duration of MV was 7 (5-11) days. The mean APACHE II score of the entire study population was 19.3±2.3, and the mean CPIS was 3.7±1,3. The patients had been admitted to the CCU because of Heart failure (n=18), AMI (n=13) and Arrhythmia (n=9).Table 1. Seven (17.9%) of the patients were colonized by potential pathogens in their lower airways during the first 24h of intubation. 14 patients (35.9%) did not have tracheal colonization before extubation, and the rest 18(46.2%) were colonized by potential pathogens microorganism before the day of extubation. In our study, two of 18 patients with tracheal colonization had VAP, compared to none of 14 patients who did not have tracheal colonization. These data support those of other authors who have found that tracheal colonization precedes pulmonary infection. On the other hand, the presence of tracheal colonization by itself does not appear to be a unique condition for VAP to occur, in as much as only a minority of patients with colonization has VAP diagnosed. The knowledge of risk factors for colonization of lower airways in cardiologic patients is necessary in order to develop strategies for prevention or interrupting colonization by potential pathogens.

NURSING APPROACHES TO THE COMMON INFECTIOUS COMPLICATIONS IN THE SURGICAL INTENSIVE CARE UNIT

Hülya Üstündağ, Asiye Gül

Turkey

Patients who are followed in surgical intensive care unit have a risk of facing many infectious complications. These complications increase morbidity, mortality, and hospital length of stay. The goal of this article is to discuss specific infectious complications and nurses approaches in the surgical intensive care units (SICUs). A safe and high-quality patient care environment is necessary in the SICUs. Most of healthcare-associated infections (HCAIs) can be prevented and controlled by doing the basic things well. These include handhygiene, timely use and cessation of antibiotic therapy, timely change or removal of indwelling 'lines', early extubation and

physiotherapy. Specific HCAIs complications and Nursing Approach (NA) are: Ventilator-Associated Pneumonia (VAP); It defined as an inflammatory condition of the lung parenchyma caused by infectious agents. VAP occurs in 9% to 27% of all intubated patients. NA: Hospital staff education of the problem, proper surveillance for multidrug-resistant pathogens, appropriate isolation of patients, hand hygiene, and environmental and equipment cleaning can decrease the risk of VAP. Catheter-Related Bloodstream Infections (CRBIs); Central venous catheters (CVC) in patients contribute to serious infectious complications. Use of CVC is important to the care of many SICUs patients. The presence of more than one catheter, use of a catheter with more than one lumen or use of total parenteral nutrition is risk factors for CRBIs. NA: Standardize care of CVC may lead to decreased rates of infection. Specific precautions during catheter insertion are recommended, such as the use of sterile drapes, masks, caps, sterile gowns, and sterile gloves have been performed. Urinary Tract Infections; It is a common infection. NA: Urinary catheter should have it removed as early as possible. It should be done under aseptic conditions and maintained in a closed drainage system.

THE NEW ONLINE LEARNING SYSTEM FOR CONTINUOUS HEMODIALYSIS

Ninni Kjellberg, Mona Kjelaas

Norway

In our ICU we have many patients who are in need of continuous hemodialysis. In previous years, the nurses in the dialysis resource group have spent a lot of time training and certifying colleagues in use of the hemodialysis machine. Despite this training, many nurses expressed uncertainty in handling our new dialysis machine Fresenius multiFiltrate. Based on this feedback, one of the nurses in the dialysis resource group in 2008 wrote a paper about different learning strategies. As a result of this paper the group decided to create an online-learning system to improve and to make the tutoring more effective. We used our previously developed protocol for the dialysis machine to decide which parts to use in the online learning system. Ullevål Hospital had a photographer who helped us with the filming. The Mohive system was used to create the online learning system. The doctor in the dialyses resource group read through the online learning system to control the facts, and to give feedback on the work. The online learning system consists of two parts; one with a film and a theory part and one with a test. The film has been divided into different sections, to make it easy to find certain information. The theory part consists of facts and information about pathophysiology and treatment. The test is to examine the nurses' knowledge in the certification process. The paper-protocol is still in use bedside, and is an attachment to the online learning system together with other useful information about dialysis. We can already see that we are saving time when training colleagues. Further individual coaching will be provided for any nurses who express or show a need of more training. Further investigation in how good the learning system is working will be needed.

FACTORS ASSOCIATED WITH PATIENT'S KNOWLEDGE AFTER AN ACUTE MYOCARDIAL INFARCTION

Alketa-Theodora Spyrou, John Trikilis, Maria Kalafati

Greece

The patients' outcome after an Acute Myocardial Infarction (AMI) has been associated with various demographic and socioeconomic factors such as the educational level, income and profession which is the most significant ones. The aim of this study was the investigation of patients' knowledge after an AMI about the clinical signs and symptoms as well as the risk factors of Coronary Heart Disease (CHD). The study population comprised of 104 patients (80 males and 24 females) who were admitted through the emergency department and hospitalized for AMI to a Specialized Cardiac Hospital of Athens from 2007 to 2009. Data were collected through a telephone interview with the patients, using a questionnaire which included 46 questions. 15 of them referred to patients' demographic characteristics and the 20 referred to their knowledge on AMI signs and symptoms and 11 referred to the change of lifestyle. Answers were categorized as "right" or "false". The questionnaire's Cronbach's alpha was 0.688. There were statistically significant correlations between some of the demographic factors and the patients' knowledge in some of the questions. A statistically significant correlation was found between patients' educational level ($p<0.000$), age ($p<0.000$) and knowledge about opioids, thrombolysis, contraindications of aspirin, anticoagulation therapy, β-blockers, and some of the risk factors predisposing to Acute Myocardial Infarction. Furthermore, there was statistically significant correlation between patients' sex ($p<0.001$) and their knowledge about the side effects of analgesics, anticoagulation therapy, nicotine substitutes and the time required to answer which was their physician's telephone number. Either the policy of the Hospital is the training of patients individually before their discharge; the results of the study suggest the necessity of individualized training interventions related to patient's sex, age, and educational level. It is very important for the medical/nursing staff to provide a follow up feedback to the patients' knowledge before discharge and at least two months post-discharge.

REASON FOR ICU CARE - IS IT ALWAYS EASILY TO SETTLE

Monica Magnusson, Lotti Orwelius, Folke Sjöberg

Sweden

The ICU admission diagnosis is important when studying patient outcomes (1), yet this information may be gleaned from multiple sources. The extent to which these sources are consistent in the Swedish setting is not known, yet the choice of which source to use has the potential to influence critical care research. To examine similarities/differences in: reason for admittance as measured by 1) APACHE II reason for admission, 2) main ICU diagnosis documented by the intensivist, and 3) the summary hospital diagnosis documented by the ward physician. This methodological study involved a retrospective analysis of prospectively gathered data during 2000-2005 from three ICU´s in Sweden. Out of 1,663 patients alive at 6 months 980 (59%) participated. The diagnoses were obtained from: the ICU database (APACHE II reason for admittance; main ICU diagnosis) and the Swedish national inpatient registry (main hospital diagnosis). APACHE II reason for admission and main hospital diagnosis were identical in 566 cases (57.8%). The main hospital diagnosis was the same as the summary hospital diagnosis in 579 cases (59.1%). Finally, APACHE II reason for ICU admittance and the summary hospital diagnosis were identical in 611 cases (62.3%). No differences in these comparisons between hospitals were identified. For ICU outcome studies it is important to be aware of that diagnoses assigned at admittance, for the ICU stay and for the whole hospital stay to a large extent may be different. Careful consideration of the appropriate measure to use in research is required.

EVIDENCED-BASED SUSTAINABLE DESIGN IN HIGH TECH HOSPITAL ENVIRONMENTS - A CHALLENGE FOR THE FUTURE

Marie Engwall, Lotta Johansson, Sepideh Olausson, Berit Lindahl, Ingegerd Bergbom

Sweden

The ICU is a potentially hostile environment to the critically ill patient, and previous body of research has identified risk factors

such as; high noise levels, lack of circadian rhythm and restoring design. Many hospitals are old and many rebuildings are planned during the following years. The challenge is to build or rebuild new modern sustainable and well functioning high-tech hospitals for the future. The results from this project will be very valuable, both from an ICU context, but also in other health care areas. The aim is to study the effects of sound, light and sustainable design in patients' outcomes in a general ICU. A patient-room (study room) in an ICU is rebuilt according to principles of evidenced- based design. This means the sound levels are reduced, the light in the room follows diurnal rhythm and the technical equipment has been gathered and placed out of the patients' field of vision. Several studies are planned; both interventional, comparative and hypothesis testing studies and both quantitative and qualitative methods will be used. One of our pre-studies showed sound pressure levels > 50 dB(A) above the patients' head, a level comparable to a busy road. Another pre-studie showed that small and crowded patient rooms affect the next of kin's' satisfaction.

POST TRAUMATIC STRESS SYMPTOMS AND MEMORY AFTER TRAUMA AND ICU STAY

Kirsti Tøien, Hilde Myhren, Inger Schou Bredal

Norway

Trauma intensive care patients have experienced a traumatic event with injury and an intensive care unit (ICU) stay, which often is experienced as stressful. Many patients suffer from posttraumatic stress (PTS) symptoms after discharge. The aim of the study was to investigate the level and predictors of posttraumatic stress (PTS) symptoms the first year after trauma, and memories from the ICU stay. Prospective one-year follow up study of 150 injured ICU patients in a Norwegian trauma referral centre. Forty eight days (median) after the injury, and three and 12 months later, the patients completed a questionnaire consisting of Impact of Event Scale (IES) and the ICU memory tool. Mean age was 40 years (95% CI 37.4 – 42.6) and 70% were male. Mean Injury Severity Score (ISS) was 23.1 (95% CI 21.0 – 25.1). Fifty-nine percent of the patients had mechanical ventilation. Forty-six percent of the patients had an IES score ³ 20 at baseline, decreasing to 42% at 12 months. A subgroup of 22 patients (24%) increased 10 points or more on IES during the year. Significant predictors of an IES score ≥ 20 at twelve months were female gender (OR 2.95, 95% CI 1.04 – 8.34, p = 0.042), factual memories from the ICU (OR 6.6, 95% CI 2.0 – 21.5, p = 0.002). Protective factor were high education (OR 0.2995% CI 0.10 – 0.86, p = 0.025) and having care of children (OR 0.14, 95% CI 0.04 – 0.47, p = 0.002). Seventy percent of the patients had factual and 31% had delusional memories from the ICU stay. A large proportion of patients suffer from PTS symptoms after trauma and ICU stay and about 24% have delayed symptom development. PTS symptoms are predicted mainly by female gender, low education and factual memories from the ICU stay.

INDUCED HYPOTHERMIA – THE NURSING ROLE

Suzana Rozman, Drago Satošek

Slovenia

The most common cause of sudden cardiac arrest is coronary artery disease. More than 50% of the patients die before reaching the hospital and at discharge survival rates remain as low as 5%. Hypothermia has been demonstrated to decrease post resuscitation brain injury and improve the survival in comatose patients. The era of mild induced hypothermia in the University Medical Center Ljubljana began in 2003. The aim is to develop nursing profession and standards for induced hypothermia, ensuring quality holistic nursing care and best teams. Between the years 2003 – 2008, 466 (until 2010, 701) consecutive patients were admitted after resuscitated sudden cardiac arrest including 359 (until 2010, 541) comatose survivors (77%). Hypothermia was induced in 68%. 57% of patients survived and majority survived with good neurological outcome (cerebral performance category 1, 2). The nursing practice has improved through those years, especially the time management and efficiency of reaching the target body temperature. The results showed that good strategy and nursing care may improve survival with good neurological recovery. The nursing role in process of lowering patient's body temperature is very important. The target body temperature of 32°C – 34°C should be reached as soon as possible, and should be maintained for 24 hours. Nurse should be aware of all side effects, complications and physiological signs and promptly react in case of adverse events. Education and training of critical care nurses play an important role.

EXPERIENCES FROM FACIAL MASK IN ICU PATIENTS WITH NIV SUPPORT

Christel Westerlund, Kirsti Leitold

Sweden

It is well-known that ICU patients have few or fragmentary memories, from their stay at the ICU. They describe their memories as disillusioned, nightmares and sometimes even hallucinations. Some of the ICU patients even develop ICU-delirium and critical illness poly neuropathy, which later could cause PTSD, post traumatic stress disorder. Following up discharged ICU patients with a stay at ICU > 96 hours is a quality indicator at SIR (Swedish Intensive Care registry). In Sweden many hospitals have established a ICU follow-up clinic during the last decade The follow-up clinic at Danderyds Hospital started 2004, and during this time nearly 300 discharged ICU patients have visit the Following up clinic. During the follow up service they meet an anesthetist, a physiotherapist, and a critical care nurse, with whom they discuss their experience in ICU. They fill in three questionnaires, ICU-Memory Tool, SF 36 and questions who could render future changes and improvements in daily care. Quality Improvement in treatment and nursing care are continuously going on at the ICU. Tendency in Sweden today is a decrease in sedation, a strategy to keep patients more awake. A combination of less sedated and spontaneously breathing patients with support from the ventilator makes the patient able to start an earlier mobilization. Significant factors reducing length of stay at the ICU. Increasing number of patients has NIV (non-invasive ventilation) support with different shapes of facemasks. During the last one and a half year we have interviewed the patients about their experience of wearing a facemask. We found from the results from the questionnaires and from the interview that after changing sedation strategies patients more often have memories of their stay at the ICU. They also experienced discomfort when treated with NIV. The discomfort was related to the facemask. A conceptual and future challenge is to meet the benefits with the new treatments in relation to patient comfort.

HEMODYNAMIC MONITORING AND NURSING CARE WITH INSERTED TEMPORARY PACEMAKER

Bernarda Djekić, Tjasa Stimulak, Drago Satošek

Slovenia

Currently, many types of heart rhythm disorders are known, which can be more or less dangerous to the patients. If not treated properly, those rhythms could cause severe hemodynamic disorders or even life threatening situation for the patient. The purpose to do the review is to present the reasons and indications for temporary pacemaker implantation from theoretical point of view, describe different types of electrical stimulation of the heart, new methods and functions of implantable pacemakers and highlight the importance of nursing

care and hemodynamic monitoring of patients with rhythm disorder. The descriptive method was used along with review of the available professional and scientific literature. Temporary pacemakers as one of the many types of electrical stimulations of the heart are used more frequently in intensive care units as well as in emergency medicine. This type of heart stimulation allows us to save the lives of many patients, particularly those with bradycardic heart rhythm, which may impair the hemodynamics and, if not treated properly, may lead to life threatening rhythm disorders. Knowledge of different theories and theoretical models of nursing care is prerequisite for individual, systematic and holistic approach to patient. Based on the life activities according to Virginia Henderson theoretical model nursing care after the insertion temporary pacemaker is described in this article. Most common standard nursing diagnoses are carried out. Therefore, education of nurses is of essential importance in allowing them to help the patients and provide high-quality nursing care. Only knowledge and experience enables us to be professional in our work and gain the patient's trust, which is the key of importance for a successful outcome of treatment and quality care.

HEMODYNAMIC MONITORING AND NURSING CARE IN CARDIAC CATHETERIZATION LABORATORY

Drago Satošek, Sabina Podlesnik

Slovenia

Nurses in the cath lab as well as in the intensive care units need an understanding of hemodynamics to provide quality nursing care to their critically ill patients. To provide good nursing care as well as to assist physicians, the nurses need to have good knowledge and understanding of hemodynamics. Nowadays in the cath lab numerous different procedures are carried out, and the hemodynamic monitoring is always important. The purpose of this review is to focus on understanding and interpretation of hemodynamics, reporting of situations where the physician needs immediate notification. Nurse's role is important in the cardiac catheterization laboratory and especially in hemodynamic monitoring. Implication for practice: Hemodynamic monitoring is used to assess cardiac function and determine the effectiveness of therapy. It is important to know normal values and then study disorders. The standard pressure waves are measured in all diagnostics and in some interventions, only specific pressure waves are recorded. Standard pressure waves are: Aortic pressure (AO), left ventricle (LV), right ventricle (RV), pulmonary artery (PA), left and right atrium (LA, RA), pulmonary capillary wedge pressure (PCWP). For different invasive procedures, different measurement or pressure waves are needed (right heart catheterization, left heart catheterization, coronary angiography, percutaneus interventions, implanting ICD and CRT-D, balloon aortic valve dilatation, TAVI, cardiac stem cell transplantation…). There are some situations where the cath lab nurse must identify risk of serious complications. If any of these occur during the procedure, the physician needs to be notified immediately in order to correct or prevent further deterioration in the patient's condition. Therefore the nursing role in hemodynamic monitoring is very important for quality nursing care and patient's safety.

INTENSIVE CARE UNITS "WITHOUT WALLS" - CONCEPT "OUTREACH"

Gordana Dragošev, Sofija Alijević, Petar Mirković

Serbia

The advances in technology and demands for intensive care beds, means that many critically ill patients are increasingly being treated general wards. However, Intensive Care Nurses have well developed knowledge, expertise and clinical competencies in caring for critically ill patients. This depth of knowledge and skills is maintained through on-going educational activities. Although the mortality of critically ill patients significantly reduced, many patients experiencing cardiac arrest tend to occur outside the intensive care environments. This situation might be avoided, if ward nurses were able to rapidly and accurately recognize patients most at risk for cardiac arrest. Promote the concept of Intensive Care Unit "Without Walls", which aims are to transfer knowledge's and skills from ICU Nurses to departments Nurses. Data from the literature, interviews with ICU and departments Nurses of Serbia, the questionnaire. Creating and accepting the concept of intensive care "without walls", ICU Nurses become educators, consultants and, as members of the team for rapid resolution of problematic situations, they are directly involved in the treatment of critically ill / injured patients at the departments. Knowledge and skills that apply in the ICU become available to everyone, not just in the premises of the ICU.

PEDIATRIC NURSES TASKS IN THE APPLICATION OF PAIN THERAPY

Sofija Alijević, Gordana Dragošev

Serbia

The nature of pain, especially in children, is complex and is the result of Interaction of biological, psychological, social and spiritual factors that affect not only the child but also tohis family. Physical, mental and cognitive development of children is important when we examine his experience with the pain. Children do not develop in these three spheres at the same time, it also will not develop the same pace. These factors make the assessment of pain in a child especially a complex process that requires a multidisciplinary approach. Methods: literature analysis, descriptive methods. The requirement to work in teams to apply the treatment of pain: Higher or university education, experience in working with severely ill children, prominent communication skills - good contact with the young patients and their parents, continuous further education. Considering the lack of spread of application of pain therapy in our country, especially in children, a nurse, together with a team needs to work to overcome the lack of knowledge about: pain, pain assessment, pain treatment. From her/his point of view, an experienced Nurse can contribute to an improved application of treatment of pain in our country: health educational work with patients who have a deficit of knowledge about pain therapy, organizing seminars for Nurses on pain therapy within the institution and the whole country, collaboration with Nurses in Europe and the world, development and establishment of standards for the treatment of pain and regular revision, research in the field of pain therapy (on the level of knowledge of Nurses and the need for additional education, effectiveness of treatment, the level of the cooperation with parents and their information, the need for modernization and many other issues). Development of information brochures for parents, customized and understanding education for all social categories, establishing good interpersonal relationships in professional pain management team, organizing the flow of feedback between primary, secondary and tertiary care centers for better evaluation of pain therapy. Some of strategies for improvement of pain management are: 1. Development of organizational systems to ensure successful implementation, 2. Standardization guidelines in the work, 3.Standardization of pain therapy documentation, 4. To formulate the role of each team member, 5. Determination of expert resources that will be always available, 6. Education- multidisciplinary education for nurses.

SUCCESSFUL ALS PROGRAM IN THE INTENSIVE CARE UNIT DANDERYD HOSPITAL SWEDEN

Pernilla Karlsson, Ann-Katrin Lindell

Sweden

There are about 100 employees at the anesthesia department and in the ICU in Danderyd Hospital, Stockholm. Nurses and assistant nurses are working together either at the ICU or at the post anesthesia department. In both these wards unexpected cardiac arrest and life threatening arrhythmia can occur. The policy of the hospital is that all personal working in the hospital must undergo ALS (Advanced Life Support)/BLS (Basic Life Support)-education once a year to prevent or to start CPR when necessary, a target which has been impossible to reach through the years. Since many years, the department have had nurses working as educators related to issues related to CPR and ALS but it has been difficult to meet the target to give education to all nurses an assistant nurses. Several instructors left the hospital in the autumn of 2010 and the remaining instructors in the CPR group had to develop a new approach to become successful and meet the goal. Project aims: Our aim was to structure the CPR activity in the clinic, train all staff in intensive care in ALS/BLS 2011 and maintain a high competence of CPR at ICU. The intended learning outcome was that all staff had gone through a training program in ALS/BLS and would feel comfortable to start CPR if cardiac arrest should occur in one of the admitted patients. The educators met at regular meetings, minutes were written, a target plan was made. A total of ten training sessions were organized during 2011. Nurses, assistant nurses and doctors were trained together in inter-professional learning sessions. Communication is important when to find the perfect balance between different professional competences and skills. After each training session, participants were asked to fill in an evaluation form. The result was reported to the head nurse and the clinical teacher at the Intensive Care Department. Support from these persons became an important aspect for success with the program. 92% of the staff went through the BLS and ALS until May, and almost 100% had been trained through the end of the year 2011. Evaluations after the training sessions were compiled with several suggestions for improvement as we started working with them. The participants were very satisfied with the education and all felt that their skills improved. The cooperation in the CPR group worked very well with many happy memories and laughter. To make a team work properly and contribute to effectiveness is it important that the team participants devolves in a supporting environment, and that individual performance is observed. Situations where individuals make less effort are avoided, when motivation is high.

IMPLEMENTATION OF A MEDICAL EMERGENCY TEAM

Andreas Schäfer, Patrick Müller-Nolte

Germany

80% of the inner clinical rescucitations are avoidable and are associated with a bad outcome to patients and wastage of crucial ressources like ICU-beds ore high costs for further treatment. Therefore, we´re started a project to implement a medical emergency team in the ASKLEPIOS General Hospital in Schwalmstadt, Germany, with the goals: lesser unplanned inter-clinical admissions to the ICU, a better basic life support by nurses and now lesser inter-clinical emergency situations. The medical emergency team should work as an early and preventive working emergency team. So, it´s very important to find a strategy for good education and acceptance by all different clinical specialists to get the best teamwork. This paper shows how to implement this project successfully and points the cornerstones in change management. But the first results after one year implementation period shows a reduction of inter-clinical emergency situations and more safe feeling nurses in managing emergency situations.

NURSING STRATEGIES TO PREVENT CRITICAL ILLNESS POLYNEUROPATHY

Andreas Schäfer

Germany

Critical illness polyneuropathy (CIP) is a wide problem by patients who are needed specific drugs, like kathecholamine ore muscle relaxations, who are needed long time mechanical ventilation and are being immobilized. Patients who are suffering under CIP have a definite longer stay on ICU and hospital, got more often difficult weaning situations and got over a long time period after hospital discharge muscle problems like early muscle fatigue and lesser exercise capacity. Despite the intensive care medicine it´s possible for nurses to use some effective strategies to prevent CIP, especially using protocols for ventilator therapy, early mobilisation and early nutrition.

VITAL SIGNS MONITORING ON BASE OF E-DOCUMENTATION IN PEDIATRIC INTENSIVE CARE UNIT IN PEDIATRIC INTENSIVE CARE UNIT

Danilo Mencingar, Biljana Prinčič

Slovenia

Monitoring of the patient's vital functions by help of information technology became increasingly sophisticated. Vital signs monitors, which are capable of displaying any number of parameters (ECG, pulse, respiratory rate, pulse oximetry, invasive blood pressure, central venous pressure, and others), are no longer sufficient for the needs of modern intensive therapy. In nowadays patient treatment is very complex therefore more and more data must be recorded. Clinical information system (Think!Med) of the Pediatric clinic in Ljubljana is developing under foundation by the Ministry of Health of the Republic of Slovenia. New, first clinical information system includes several modules: administration module, nursing module, physician module, e-temperature sheet, medical device integration, integration of laboratory information system, food procurement module, integration of radiological information system and other modern solutions. Due to the new approach, work and communication at the Pediatric Intensive Care Unit which is part of the Department for Pediatric Surgery and Intensive Care were completely changed. Modern approach to vital signs monitoring leads to improvement of patient documentation, enhancing the quality and effectiveness of health care, increasing patient safety and time saving.

UPDATES IN SEPSIS MANAGEMENT: NEW INTERNATIONAL GUIDELINES FOR SEPSIS CARE

Ruth Kleinpell

United States

Sepsis is a complex consition that occures as a result of the systemic manifestation of infection. The early detection and management of sepsis are important components in preventing multiple organ dysfunction syndrome. Nurses play a key role in promoting best outcomes for patients with sepsis by promoting early detection and instituting treatment measures. Revised evidence based guidelines for the management of sepsis, the Surviving Sepsis Campaign Guidelines, will be published in 2012. This session will review updates in the management of patients with sepsis, highlighting key features of the new guidelines and implications for sepsis care.

EARLY MOBILIZATION IN THE ICU

Ruth Kleinpell

United States

Early mobility for critically ill patients has evolved to become a new standard of care for the intensive care unit (ICU). Traditionally, ICU patients were maintained on bedrest, because it was believed that the conservation of energy would be beneficial for recovery. The adverse effects of bedrest are now well known and activity is being advocated for all patients in the ICU, especially for patients receiving mechanical ventilation. Critical illness polyneuromyopathy is recognized as a complication of serious illness and has been associated with difficulty weaning from mechanical ventilation, increased length of ICU stay, and increased mortality. To combat the effects of bedrest and prolonged immobility in the ICU, early mobilization (also called progressive mobility) -- defined as initiating activities within 24-48 hours after ICU admission -- is being used as a strategy to promote activity. This session will review strategies that can be used to promote early mobilization in the ICU.

A WORLD WIDE OVERVIEW OF CRITICAL CARE NURSING ORGANISATIONS AND THEIR ACTIVITIES

Ged Williams

Australia

In 1999 a study was undertaken to identify as many critical care nurse organisations around the world as possible (1). Representatives from these countries were contacted to participate in a survey to describe the characteristics and issues faced by their critical care nurses. 24 countries participated in the survey. Common issues for critical care nurses included staffing levels, working conditions, educational program standards and wages. The survey results were used to identify whether there was interest in the formation of an international society of critical care nursing organisations. Critical Care Nursing associations were generally favourable towards the establishment of a worldwide network of critical care nursing organisations and in October 2001 the World Federation of Critical Care Nurses was formed. The WFCCN has around 35 member countries primarily in Europe, Asia and South America with a growing interest now emerging in Africa. In 2005, a second survey involving 51 responding countries world-wide was conducted (2). The most common issues identified by critical care nurses were staffing levels and teamwork. Other important issues included wages, working conditions and access to quality educational programs. The respondents perceived national conferences, professional representation, standards for educational courses, provision of a website, and educational workshops and forums as the five most important activities that should be provided for critical care nurses by national CCNOs. National, regional and a world federation of critical care nurses appears to be an effective structure to help strengthen the professional development of critical care nurses globally. Finally in 2009, a third survey was conducted engaging respondents from 64 countries worldwide. New themes are emerging. Multi-disciplinary teamwork is the most important issue to respondents and there has been considerable interest in the issue of relationships with other nursing groups. The development of clinical and professional standards of practice remain the 2 most important expectations of WFCCN from member organisations and respondents to the survey. WFCCN remains an influential and important international nursing organisation for critical care nurses and has many aspirational goals to fulfil on behalf of its members, further studies will continue to inform WFCCN of what is needed to better support and guide critical care nursing organisations and nurses throughout the world.

THE DETERIORATING PATIENT - RAPID RESPONSE SYSTEMS AND THEIR EFFECTIVENESS

Ged Williams

Australia

Literature suggests antecedent indictors to identify a deteriorating patient in the hospital ward can be measured, responded to early and treated appropriately. If clinical staff are informed and educated to identify these antecedent measures it is possible that they can raise the alarm for help early, and before further deterioration occurs. In many hospitals Rapid Response Systems (RRS) are being formulated to ensure a systematic response mechanism is in place to respond rapidly to the deteriorating patient. Medical Emergency teams (MET) or Rapid Response Teams (RRT) are small teams of health professionals (usually doctors and nurses from critical care backgrounds) that can be called as soon as an antecedent measure is detected as being reached. Commonly used antecedent measures are pulse, blood pressure, respiratory rate, oxygen saturation, temperature, neurological state and others signs of deterioration in the patients overall wellbeing. This presentation will provide a case study of the development of a RRS and MET team in a teaching hospital that was able to demonstrate immediate benefits from this approach to deteriorating patients. Variations to the RRS and MET structure are possible to suit the particular context and environment of each hospital, however some common principles remain standard in all.

THE SIGNIFICANCE OF CONTROL SWABS IN THE PREVENTION OF HOSPITAL-ACQUIRED INFECTIONS EXPANSIONS CAUSED BY MULTIRESISTANT BACTERIA

Asja Jaklič

Slovenia

Most of the patients in the intensive therapy unit receive antibiotics. The resistance of bacteria isolated in the intensive therapy unit is higher that in ordinary hospital units. Nowadays we encounter gram-negative bacteria with increasing frequency in the intensive therapy units in addition to gram-positive bacteria. The most common and also most important causes of infection and colonisation with mutliresistant bacteria are methicillin-resistant Staphylococcus aureus (MRSA), vancomycin-resistant enterococci (VRE) and extended spectrum betalactamases (ESBL). The measures for reducing the occurrence for hospital-acquired infections caused by mutliresistant bacteria are complex; therefore they have to be interconnected and must be implemented consistently. The collection of control swabs in patients upon admission to the intensive therapy unit and the subsequent tracking and repetition of the collection of control swabs during hospitalization in the intensive therapy unit, the implementation of isolation measures in patients, who are colonized or infected with multiresistant bacteria, the correct and consistent hand hygiene, disinfecting equipment and accessories in contact with a colonized/infected patient, and rational use of antibiotics are arguably the most important measures for prevention of the spread of hospital-acquired infections caused by multiresistant bacteria in intensive therapy units as well as in other hospital units. The most important control swabs for detecting the MRSA carriers are nose swabs, skin fold swabs of undamaged skin, wounds or skin lesion swabs, throat swabs or tracheal aspirations in artificial ventilated patients, and rectum swabs. Rectum and perineum swabs are the most suitable for detecting the VRE carrier. And rectum swabs and stool tests are the most appropriate for detecting the ESBL carrier. Other control swabs can also be taken such as a wound swab, if a wound is present, the tracheal aspiration in intubated patients, a throat swab and a skin fold swab. In patients with an inserted urinary

catheter the appropriate control swab is urine. Measures, which reduce the occurrence of multiresistant bacteria and prevent their spread, are of the utmost importance in avoiding hospital-acquired infection expansions caused by multiresistant bacteria. Clearly, active detection of colonized patients is one of the most important measures for preventing hospital-acquired infection expansions.

THE EFFECT OF FEEDBACK ON COMPLIANCE WITH THE VENTILATOR CARE BUNDLE

Petra Lawrence, Paul Fulbrook

Australia

The ventilator care bundle (VCB) is a group of four evidence-based procedures (head of bed elevation, daily interruption of sedation and assessment of readiness to wean, gastric ulcer prevention, and deep vein thrombosis prophylaxis), which when clustered together and implemented as an 'all or nothing' strategy may result in substantial clinical outcome improvement. The aim of this study was measure the effect of feedback on intensive care nurses' compliance with the VCB. The objectives were: To measure baseline VCB 'all or nothing' and overall compliance, and individual compliance with each VCB element on a once-per-week basis for six months, in two general intensive care units (ICU); To measure the above variables on a once-per-week basis, in the same ICUsts, for the following six months, to compare compliance rates when monthly feedback was given. This study followed a before-after design. The primary measure was compliance of the VCB (main effect). In the second phase of the study, feedback about VCB compliance rates were provided to both ICUs (interaction effect) and its effect on VCB compliance rates was measured. De-identified data, relating to ventilated patients only, were collected from adult general intensive care beds in each ICU, on a weekly basis, on a randomly allocated day. The compliance of each ventilated patient with each of the four VCB elements was recorded simply, as 'yes' or 'no'. If an element of the VCB was not complied with for a legitimate reason, e.g. head of bed elevation contra-indicated for a spinal cord injured patient; the compliance status was entered as 'yes'. Compliance of each individual element of the VCB, overall compliance, and 'all or nothing' compliance of the VCB were calculated. For the first six months of data collection no feedback was given to the ICUs about their compliance rates. During the second six months, overall VCB and VCB element compliance rates were fed back to each ICU, using a graphical presentation of both ICUs' compliance rates. Both ICUs' VCB compliance rates were very good, and although compliance improved overall during the second 6 months, the statistical significance supporting the effect of feedback was negligible. Further research is required to establish the benefit of feedback on compliance rates.

THE INCIDENCE OF MENTAL HEALTH DISORDERS AND ALCOHOL RISK COMORBIDITY IN AN AUSTRALIAN EMERGENCY DEPARTMENT

Paul Fulbrook, Petra Lawrence, Jane Fischer, Kerrianne Watt, Sandra Hyde

Australia

Mental illness in Australia is responsible for 13% of the total burden of disease and causes great suffering, disability, and premature mortality. Of particular concern is the co-relationship between mental health and risky alcohol consumption. If mental illness or risky alcohol consumption is detected early, then preventative measures and support may be provided by healthcare professionals that can result in prevention of further deterioration and promote wellness. The aim of this study was to identify the incidence of mental health disorders and risky alcohol use in an emergency department (ED). Objectives: To describe the incidence of i) mental health problems, ii) risky alcohol consumption and iii) their co-relation, in Australian ED attendees; To validate the Paddington Alcohol Test (PAT) with an Australian ED population. This study utilised a cross-sectional survey, using a randomly allocated cluster sample of all ED attendees. Data were collected in 6-hour periods (5 per week) over a 12-week period. Each week, five 6-hour data collection periods were randomly selected. 708 participants were recruited (mean age 50.2 years). 40% arrived by ambulance and 50% had presented to ED at least one other time in the previous 12 months. A third reported moderate to very high non-specific psychological distress (K10), with larger numbers reporting depression, anxiety, and stress specifically (DASS21). 32% of attendees were PAT positive and, using AUDIT, just over 20% were identified as either risky or dependant drinkers. Co-morbidity was apparent, with significant positive correlations between measures of mental health and measures of alcohol consumption. The proportion of ED attendees with mental health disorders and/or alcohol risk is significant. Early detection of mental illness and/or risky alcohol consumption may prevent further deterioration and promote wellness. This group may be amenable to brief interventions.

THE NURSES FLOAT TO ENGAGE AND EMPOWER NURSES WORLD-WIDE

Sara McMannus

United States

The theme of the American Association of Critical-Care Nurses (AACN) this year is Together, Stronger, and Bolder. It is very important to engage nurses and encourage expert knowledge, excellence and professional practice. Equally important is communicating what nurses do for patients and families in their various roles throughout the community. The Nurses Float provides an opportunity to join together with nurses around the world to celebrate and honor nurses with the Nurses Float in the 2013 Tournament of Roses Parade®. This is a once in a lifetime occasion to showcase nursing when Sally Bixby, RN, MSN, CNOR is the Tournament of Roses President from 2012-2013, providing a stage to honor nurses and promote the nursing profession. Frequently nurses feel frustrated and powerless leading to dissatisfaction. In community, together stronger and bolder we can engage and empower all nurses. Nurses have expressed satisfaction with their involvement in this project and are proud to be part of this local, national, and world-wide presentation to showcase the nursing profession during this year and culminating at the Rose Parade on January 1, 2013. The Nurse's Float is an opportunity to have a rewarding team building event from the beginning and each step of the project.

ARDS/ALI: BUNDLING CARE TO IMPACT OUTCOMES

Kathleen Vollman

United States

We can make a difference in short and long term outcomes of ALI/ARDS patients by incorporating the latest evidence-based care into our bedside practice. The goal is not just patient survival but returning to a meaningful life quickly. Results of large multi-centered trails on conventional and alternative ventilator strategies, type and amount of fluids, progressive mobility strategies and pharmacological treatment have provided the critical care nurse with targeted care interventions to positively impact patient functional outcomes, morbidity and mortality. This session begins with an exploration of the pathophysiologic processes seen in ARDS/ALI. A discussion of assessment cues for early diagnosis and progression of acute lung injury and the systemic response will be explored. An critical analysis of the multidisciplinary approach to supportive modalities key to improved survival rates in ARDS/ALI will be detailed. Focus

will be placed on new ventilator strategies to minimize lung injury and evidence based interventions such as mobilization, nutrition and sedation practices to optimize patient outcomes.

BUGS BE GONE: STRATEGIES FOR SOURCE CONTROL IN THE ICU

Kathleen Vollman

United States

We can make a difference in preventing the invasion or halting the spread of microorganisms by implementing care strategies that control or reduce the source of the infection. This session will explore modes of transmission in order to outline a strategy for source control. The question of whether to perform routine surveillance for resistant organisms will be debated. Habitual care practices including bathing, oral hygiene, line insertion, surgical prep and hand washing will be examine closely as potential sources. An in-depth focus on development of evidence-based care practices and protocols and the examination of resources and systems that support source control and reduce transmission will be discussed. Several case examples will be used to outline strategies for reducing the bacterial burden and infection rates within your own units. We need to take ownership of one of the major roles of a professional registered nurse: prevent the spread of resistant microorganisms and the development of health care acquired infections.

ASSESSING PAIN AND SEDATION IN CRITICALLY ILL INFANTS AND CHILDREN

Martha Curley

United States

Ensuring an optimal level of comfort and safety for critically ill infants or children is integral to the practice of pediatric critical care. Humane care of intubated mechanically ventilated patients includes the concomitant use of comfort medications; specifically, various combinations of analgesics and sedatives. This session will discuss the validity and reliability of several pain and sedation assessment tools used in critically ill infants and children.

GENDER DIFFERENCES IN PSYCHOLOGICAL MORBIDITY AND TREATMENT IN INTENSIVE CARE SURVIVORS – A COHORT STUDY

Anna Schandl, Matteo Bottai, Elisabeth Hellgren

Sweden

Many hospitals have initiated follow-up to facilitate rehabilitation after critical illness and intensive care, although the efficacy of such an intervention is uncertain. Studies in trauma research indicate significant differences in psychological reactions to traumatic events between men and women. Our aim was, in a quasi-experimental design, to compare psychological morbidity and treatment effects between men and women enrolled in a multidisciplinary ICU follow-up programme (follow-up group) and intensive care unit (ICU) patients not offered such follow-up (control group). Men and women treated > 4 days in the ICU in 2006, before ICU follow-up started, were compared with men and women treated in 2007 and 2008, when all patients with ICU stay > 4 days were offered ICU follow-up at 3, 6 and 12 months post-ICU. Fourteen months after ICU discharge, psychological problems were measured with Impact of Event Scale (IES) for posttraumatic stress and Hospital Anxiety and Depression Scale (HADS) for anxiety and depression. Women with no follow-up reported significantly higher IES scores than men. Women in the follow-up group reported significantly lower IES scores compared to women in the control group, both in crude analysis and after adjusting for significant confounders/predictors (age, ICU length of stay and previous psychological problems). Furthermore, the 75th percentile for IES and HADS-Depression scores (high scores and degree of symptoms of psychological problems) in women in the follow-up group was lower than in those without follow-up (IES: -17.4 p, $p<.01$, HADS-depression: -4.9 p, $p<.05$). For men, no significant differences were found between the no follow-up and the follow-up group. Psychological problems after critical illness and intensive care appear to be more common in women than in men. A multidisciplinary ICU follow-up may reduce the incidence of long-term symptoms of posttraumatic stress and depression for women.

CHALLENGES TO CONDUCTING MULTICENTER CLINICAL RESEARCH: TEN POINTS TO CONSIDER

Martha Curley

United States

Nursing care provided to patients and their families should be based on strong scientific evidence. In the quantitative research paradigm, the highest level of evidence is derived from conclusive randomized controlled clinical trials. Multicenter clinical research allows the accrual of sufficient numbers of diverse participants in a shorter period of time and improves the generalizability of the study findings. Clinical research is inherently complex; the complexity exponentially increases when conducting multicenter clinical trials. Investigators are challenged to maintain the internal validity of the study and the sustained commitment and collaboration of numerous disciplines over the study period. This session will present 10 essential points to consider when conducting multicenter clinical research.

IMPORTANCE OF SUPPORTING THE CONSUMER EHEALTH PROGRAM

Aleksandar Radenović, Anastazija Šantić

Croatia

The Alliance for Nursing Informatics (ANI) advances NI leadership, practice, education, policy and research through a unified voice of nursing informatics organizations. We transform health and health care through nursing informatics and innovation. ANI is a collaboration of organizations that represents more than 7,000 nurse informaticists of which 1,300 are from Croatian Nursing Informatics Association (CroNIA) and brings together 28 distinct nursing informatics groups globally. ANI crosses academia, practice, industry, and nursing specialty boundaries and works in collaboration with the nearly 3 million nurses in practice today. Nurses touch the lives of patients in every setting, everywhere. In order to effectively achieve health outcome improvements, patients and families will need to become an integral part of the care team, with access to their health information in order to participate in decision making about their wellness and illness care. Nurses serve as patient advocates for encouraging adoption of these collaborative practices. Patients and families also need health education services delivered in a patient-appropriate learning environment and format. Nurses have an extensive knowledge base in patient education methods and tools. A key recommendation of the IOM Future of Nursing report states that interoperable EHRs linked with personal health records and shared support systems will influence how collaborative care teams work and share clinical activities. Personal health information is a valuable resource to individuals, their families, and the doctors, nurses, and other health care professionals who provide treatment and care. The ultimate goal is to help clinicians offer a wider range of considerations and options for patients, while also providing patients with resources that encourage proactive behavior and empowering them to be active partners in their health plan. The ANI and CroNIA pledges to support the Consumer eHealth Program worldwide, first

ONC eHealth Program beginning November 2011: Coordinating a campaign with national nursing organizations to promote consumer use of PHRs and other Health IT resources; Sharing resources through the ANI and CroNIA websites about the value of consumer engagement through health IT to partner with health providers to improve health outcomes; Increase consumer access to PHRs to 15% with 12 months and 25% within 24 months; Encouraging health employers to prioritize use of PHRs and consumer portals for improving access to health care and engaging consumers in managing their health.

CHALLENGES FACED BY HONG KONG CRITICAL CARE NURSES

Esther Wong

Hong Kong

Different healthcare systems may post different challenges for critical care nurses. Interviews with Hong Kong critical care nurses were conducted in 2009 and 2010 to confirm challenges that they faced. The study was part of the work on “Competencies and Educational Preparation for Advanced Practice Nurses of Critical Care Specialty”. The result of the study was used to shape the competency Framework of advanced practice nurses (APN) in Critical Care and the contents of the master’s program for them. The results could be described in two phases. Phase 1 -Exploratory interviews of 12 critical care nurses at the advanced practice level from March 2009 to May 2009. A semi-structured interview form was used. Roles and functions of critical care nurses and APN (CC) were examined and perceived challenges were collected and listed below:1 – There was a shortage of nurses, recruitment, and retention of nurses. 2 - Changing pattern of diseases coupled with medical and pharmaceutical advances led to new models of care. To face these challenges, nurses were required to be competent.3 – There existed a rapid rate of knowledge explosion and high customer expectation in nursing care.4 - Demand driven by demographics due to rapidly growing ageing population. Co-morbidities of the aged are contributing factors for patients’ complex health conditions. Nurses needed to be knowledgeable and adept in clinical assessment skills.5 – With technology eliminating many natural endpoints of life, critical care nurses were expected to guide decisions on pain management, hospice, and end-of-life care almost on a daily basis.6 – Poor staff morale existed.7 - Being a nurse leader in critical care was not easy at all. Nursing leadership would be essential in maintaining standards of care. Results of the interviews provided the author with an idea of how APNs could be shaped to meet the challenges. Subsequent to consulting 10 clinical and two academic experts, the preliminary or initial draft of competency framework was formulated. Phase 2 - Subsequent interviews of 30 critical care nurses were conducted from February 2010 to May 2010. Interviews conducted in 2010 affirmed and supplemented the views expressed by 10 nurses at the commencement of exercise. Semi-structured questions in three parts were prepared in the full study, Only Part 1 focused on challenges and highlights on the perceived challenges of critical care nurses and APNs in Hong Kong were captured. They were complex and dynamic. There were a total of eight factors. They were Shortage of nurses, Competency of nurses, nursing leadership, poor staff morale, related hospital’s rules and regulations, demanding clients due to high expectations, potential risks of contracting infectious diseases, creating a collaborative relationship between doctors and nurses. All challenges are considered as hindrance to the provision of quality service and bedside care to patients.

PATIENT SAFETY IN ICU AND NUMBER OF CRITICAL CARE NURSES - THE IDEAL VERSUS REALITY. WHAT IS TODAYS SITUATION IN EUROPEAN ICUS?

Rósa Thorsteinsdóttir

Iceland

When EfCCNa representatives do the Round Table report at council meetings , there are three topics that seem to be of a common concern, patient safety, staffing levels and education. With a difficult economic situation and covernments around Europe cutting costs, it tends to affect staffing levels the most. We all know the consequences of those descions, with increased workload and less staff there is also a greater risk of making errors. A healthy work environment is essential to meet todays demand for care delivery and promote patient safety. It has been reported that higher nurse staffing levels in intensive care units are associated with better survival rate, yet it seems to be the first thing to be affected when it comes to cutting costs. In a healthy work environment, the focus must also be on education, skill mix and practise standards. It must be an environment that attracts and retains nurses and gives high jobsatisfaction. We, nurses must take the responibilty despite difficult economic times, to build or create such an environment that promotes patient safety at all times. It is like a chain, it only takes one broken link to have serious consequences for our patients.

EXTRACORPOREAL MEMBRANE OXYGENATION

Žiga Vrhovnik, Zoran Topić

Slovenia

Extracorporeal membrane oxygenation (ECMO) support as one of the newer forms of treatment of adult patients in Slovenia is presented in the paper. It is a mechanical heart and/or lung support, which was first used in 2010 in Department of intensive internal medicine in University Medical Center Ljubljana.

CROATIAN ABSTRACTS

PRIMJENA CENTRALNOG VENSKOG KATETERA U PROVOĐENJU TERAPIJE OBOLJELIH OD AKUTNE LEUKEMIJE

Melez Adisa

Bosna i Hercegovina

Akutna leukemija je sindrom klonalnih zloćudnih bolesti matičnih hematopoetskih stanica. Ako se ne liječi, bolest završava smrtno zbog nedostatne funkcije normalne hematopoeze unutar 3-6 mjeseci. Krvožilni pristup je od velikog značaja za liječenje oboljelih od akutne leukemije. Najčešće se primjenjuje periferni venski put, ali zbog specifičnosti hemoterapije i nadražaja koji hemoterapijska sredstva izazivaju u perifernim venama sve više je u primjeni centralni venski kateter. Cilj ovog rada je analizirati primjenu CVK u toku provođenja terapije, vrstu terapije i dužinu primjene terapije, utvrditi pojavu infekcije kao i drugih komplikacija koje se javljaju pri primjeni centralnog venskog katetera. Studija je provedena na Klinici za Hematologiju KCU u Sarajevu u periodu od 1.1.2005 – 31.8. 2010 godine. U studiju su uključeni oboljeli od akutne leukemije kojima je

bio plasiran centralni venski kateter ,sa potpunom dokumentacijom i potvrdom da su oboljeli od akutne leukemije, te da su terapiju primali preko centralnog venskog katetera. Podaci za analizu uzeti su iz medicinske dokumentacije ovih pacijenata. Pacijenti oboljeli od akutne leukemije spadaju u rizičnu skupinu (infekcija, krvarenje), kod kojih je četiri puta povećana mogućnost nastanka infekcije ,a najvažniji faktor rizika je neutropenija. U literaturi se navodi korištenje centralnog venskog katetera do 6 nedelja ,te da duža upotrebljivost nije moguća zbog neprihvatljivo visokog procenta komplikacija. Ova studija je pokazala da CVK mogu znatno duže trajati bez komplikacija, jer je dužina trajanja ovog katetera bila kod pacijenata i do 60 dana. Za neometano provođenje terapije kod pacijenata oboljelih od akutne leukemije, neophodno je uvesti kao rutinski postupak aplikaciju centralnog venskog katetera što iziskuje edukaciju tima koji se time bavi. S pažnjom na detalje i provjerene smjernice većina se komplikacija može izbjeći, pa čak i kod pacijenata koji spadaju u rizičnu skupinu.

UPRAVLJANJE NESUKLADNOSTIMA NA ODJELU ZA TRANSFUZIJSKU MEDICINU KAO PREDUVJET ZA SIGURNOST TIJEKA TRANSFUZIJSKOG LIJEČENJA

Damir Poljak

Hrvatska

Uvođenjem sustava kvalitete ISO 9001:2008 i opredjeljenjem za kvalitetu na Odjelu za transfuzijsku medicinu Opće bolnice Varaždin uspostavili smo procese i nadzor nad procesima , ustanovili smo kritične točke u procesu u kojima mjerimo proces. Svi otkloni od zadanih zahtjeva za kvalitetom smatraju se nesukladnošću. Uveli smo sustavno otkrivanje nesukladnosti unutar procesa, otkrivanje uzroka nesukladnosti, te za sve ponavljajuće nesukladnosti i veće nesukladnosti pokreću se korektivne radnje čiji uspjeh evaluiramo. Cilja rada je prikazati tipove nesukladnosti prema temeljnim radnim procesima (Uzimanje krvi, prerada krvi, skladištenje i distribucija krvnih pripravaka, serološka i imunohematološka dijagnostika, kliničko – ambulantna djelatnost) tijekom šest mjeseci, te prikaz trenda smanjenja nesukladnosti nakon poduzetih korektivnih radnji. U radu su korišteni podaci o nesukladnostima prijavljeni na obrascima za nesukladnosti, na obrascima reklamacijama, posttransfuzijskim reakcijama, te o vraćenim krvnim pripravcima. Prijave su učinjene od strane djelatnika u procesu rada, tijekom internih prosudbi, te od strane korisnika proizvoda / usluga. U analizi podataka koristili smo se paretto i trend analizom. U razdoblju od ožujka 2010 do ožujka 2011 u procesu uzimanja krvi zabilježeno je 1,29 % nesukladnosti. U procesu prerade krvi zabilježeno je 1,16 % nesukladnosti od kojih izdvajamo najučestalije, lipemije u krvnim pripravcima (33,2 %), te prisutnost eritrocita u plazmi (29,2 %). Za ova dva pokazatelja poduzete su korektivne i preventivne mjere. Darivateljima sa evidentiranom lipemijom u plazmi šalju se obavijesti o povišenim masnoćama, te preporuke o pravilnoj prehrani, a kao razlog ulaska eritrocita u plazmu utvrđena je potreba češćeg održavanja aparata za separaciju krvnih pripravaka. U procesu skladištenja i distribucije krvnih pripravaka zabilježeno je 0,83 % nesukladnosti. Na temelju analize dobivenih podataka poduzete su edukativne mjere vezane uz uvjete čuvanja krvnih pripravaka (80%), u procesu laboratorijske dijagnostike zabilježeno je ukupno 1,00 % nesukladnosti, od čega 90 % čine neadekvatni uzorci. Poduzete se edukativne mjere o izgledu, vrsti i važnosti adekvatnog uzorka. U kliničko – ambulantna djelatnosti zabilježeno je 1,35 % od čega 95 % čine administrativne greške dokumentacije. Poduzete su korektivne mjere u smislu promjene izgleda zahtjevnica i uputnica, provedena je edukacija djelatnika na odjelima. Nakon poduzetih korektivnih i preventivnih radnji bilježi se tendencija pada nesukladnosti u svim procesima. Prepoznavanje nesukladnosti, ispitivanje uzroka nesukladnosti, te pokretanje korektivnih radnji i njihova analiza učinkovitosti izuzetno je važan alat u nadzoru nad kvalitetom kao i u kontinuiranom poboljšanju kvalitete u dijagnostici liječenju pacijenata krvnim pripravcima. Svjesni nedostataka u kvalitetnom provođenju i uspostavi željenih razina kvalitete nužne su i neophodne promjene na svim razinama sustava, uključujući svakako sustav obrazovanja, rada i zdravstva.

UČESTALOSTI LIJEČENJA KRVNIM DERIVATIMA NA KLINICI ZA HEMATOLOGIJU KCUS TOKOM 2010.GODINE

Ivić Olja, Karavdić Elvira, Kapo Dženana

Bosna i Hercegovina

U liječenju hematoloških bolesti koriste se razni sintetički pripravci lijekova.Pored njih značajan aspekt u procesu izliječenja i oporavka predstavljaju krvni derivati dobrovoljnih davalaca.Oni se mogu davati jednokratno ili tokom dužeg vremenskog parioda (dana, mjeseci). Liječenje bolesnika sa leukemijom i drugim zloćudnim bolestima krvi i ostalih organa vrlo je uspješno,ali traje mjesecima i zahtijeva velike količine koncentrata krvnih derivata. 70% leukemija u djece i više od 50% leukemija u mlađih odraslih osoba može se potpuno izliječiti primjenom kemoterapije i / ili transplatacijom koštane srži uz redovito transfuzijsko liječenje krvnim pripravcima. Cilj rada: Prikazati količinu i vrste krvnih derivata koji su ordinirani tokom 2010. god. na Klinici za hematologiju KCUS u sklopu koje je i Hematološko savjetovalište sa dnevnom bolnicom. Materijal i metode: Klinika za hematologiju raspolaže sa 56 kreveta raspoređenih na tri odjela.U sklopu Savjetovališta nalaze se četiri kreveta za apliciranje terapije. Svi odjeli imaju protokole za evidentiranje osnovnih podataka o promaocu krvi,vrsti ordiniranih krvnih derivata,premedikaciji,transfu zijskim reakcijama,ljekaru i sestri koji su učestvovali u aplikaciji.Za svaki derivat krvi postoje podaci o KG/Rh,fenotipu,interreakciji,testu na transmisione bolesti,datumu uzete krvi od davaoca,vijek trajnosti i registracijskom broju. Rezultati: Analitičkim dijelom tabelarno i grafički prikazani su parametri: potrošnja krvnih derivata,potrošnja po bolesniku, dijagnozi, pripravaku, posttransfuzijske reakcije. Zaključak:Tokom 2010.g. na Klinici za Hematologiju je ordinirano 5368 derivata krvi.U Savjetovalištu se,pored kemo-terapija,daju i druge I.V. terapije.Od njih 700, transfuzija krvi je bilo 202.U ovoj godini na Kliniku su primljena 1263 pacijenta od kojih je 286 više puta tretirano sa derivatima krvi.Svaki od čak 67 pacijenata,tokom ležanja je primio više od 15 doza krvnih pripravaka.Svi su liječeni od zloćudnih bolesti krvi sa kemo-terapijom.Kao posljedica toga dolazi do pada vrijednosti parametara krvne slike koje se moraju tretirati derivatima krvi.

OSTEOPOROZA - ULOGA DIPL. MED. SESTRE U REHABILITACIONOM TIMU

Advija Jašarević

Bosna i Hercegovina

Osteoporoza je progresivna metabolička bolest kostiju, koja se karakteriše smanjenjem mineralne gustine (mase) kosti (gubitak kalcijuma iz kosti). To je “nijema” bolest, počinje podmuklo, bez simptoma i najčešće se otkriva tek kada se desi prelom neke kosti. Zdrave kosti nastaju u djetinjstvu i do 20. godine. Devedeset posto koštanog rasta se dešava između 10.-20. godine, pa je djetinjstvo i mladost kritičan period za izgradnju kostiju. Prevencija osteoporoze ima za cilj da spriječi gubitak koštane mase kako ne bi nastala fraktura a počinje još u djetinjstvu i adolescenciji da se dostigne maksimalna gustina koštane mase. Cilj rada je istražiti ulogu diplomirane medicinske sestre u tretmanu osteoporoze (prevenciji i tretmanu) i analizirati riziko faktore za nastanak osteoporoze kod žena. Metoda istraživanja je retrospektivna analiza ,provedena putem već postojeće medicinske dokumentacije koja sadržava elemente potrebne za analizu i statističku obradu podataka. Odabrano je 50 pacijentica

koje su se liječile u CBR-u ,Doma zdravlja Novi Grad Sarajevo. U istraživanje su uključene žene koje su dolazile zbog različitih zdravstvenih problema vezanih za bolove i fizikalni tretman koštanog sistema. Podaci su uzeti iz medicinske dokumentacije,tj.skrininga za osteoporozu u navedenoj službi. Rana dijagnoza osteoporoze je značajna zbog masovnosti obolijevanja,i radi sprečavanja ozbiljnih posljedica i komplikacija , posebno kod osoba koji imaju jedan ili više faktora rizika za obolijevanje od osteoporoze.Prevencija mora početi još u ranom djetinjstvu kroz redovnui i pravilnu ishranu, pravilan rast i razvoj i fizičku aktivnost Povećan rizik ranog razvoja i brzog napredovanja osteoporoze, imaju žene koje se tokom života ne hrane na odgovarajući način, ne unose hranom dovoljne količine kalcija i vitamina D, nisu dovoljno fizički aktivne, puše i konzumiraju prekomjerne količine alkoholnih pića.

SIGURNOST PACIJENTA U JIL- U

Marija Kadović, Mara Tomac, Miroslav Đureš, Tomislav Brajnić

Hrvatska

Svaka bolnička zdravstvena ustanova treba razvijati, primjenjivati i neprekidno održavati učinkovit sustav osiguranja i poboljšanja kvalitete zdravstvene zaštite. Sustavom se promiču i prate sve aktivnosti za poboljšanje kvalitete zdravstvene zaštite sukladno zahtjevima međunarodno priznatih standarda. Sustav se usredotočuje na kliničke pokazatelje koji su povezani s poboljšanjem ishoda liječenja, kao i na prevenciju i smanjenje neželjenih događaja. Klinički pokazatelji su sredstva mjerenja zdravstvenih postupaka. Postupak takvog procjenjivanja kvalitete rada zove se akreditacijski postupak zdravstvene ustanove. U Republici Hrvatskoj to je dobrovoljan postupak koji se provodi na zahtjev bolničke ustanove. Postoje akreditacijski standardi koji se pri tom trebaju zadovoljiti, a određeni su Pravilnikom o akreditacijskim standardima za bolničke zdravstvene ustanove. Praćenje i provođenje standarda obuhvaća cijelu bolničku ustanovu pa tako i Jedinice za intenzivno liječenje. Sigurnost pacijenta (patient safety) prožima se kroz sve standarde jer upravo njenim zadovoljenjem možemo doći do pozitivnog ishoda liječenja. Tu će se prvenstveno naći neočekivani neželjeni događaji koji se događaju u JIL-u. Razvijen je sustav kojim se smanjuje učestalost neželjenih događaja i osigurava kvaliteta rada u Jedinicama intenzivne skrbi je Rapid Response System (RRS). Baziran je na monitoringu pacijenta u JIL-u te na kontinuiranom dokumentiranju vitalnih znakova na standardiziranom obrascu za praćenje (MEWS – modified early warning system) te sustavu brzog reagiranja od strane Rapid Response Team-a u slučaju pogoršanja stanja bolesnika. Boje na obrascu daju vizualni znak kada se izračuna vrijednost parametara. Istraživanja su pokazala da RRS smanjuje smrtnost od kardijalnog aresta. U organiziranju RRS-a treba si postaviti pitanja koja pojašnjavaju razumijevanje implementacije samog sustava. Jednaki RRS model ne može zadovoljiti svaku Jedinicu intenzivne skrbi. Potrebno je pažljivo promatranje kliničkih pokazatelja u JIL-u prije implementiranja RRS-a da se dobiju optimalni individualni rezultati. Propusti u organizaciji, obrazovanju, superviziji i greške u prepoznavanju kliničke hitnosti, rezultiraju smanjenom kvalitetom od optimalne skrbi za bolesnika za vrijeme liječenja u JIL-u i povećavanju smrtnost bolesnika. Edukacija je ključ u osiguranju pacijentove sigurnosti i treba poticati treniranje pružanja i osiguranja sigurnosti da bi se zadovoljili akreditacijski standardi rada u bolničkoj ustanovi.

ULOGA MEDICINSKE SESTRE KOD MIKRODIJALIZE U JIL-U

Ljiljana Rogić, Andrijana Prebisalić

Hrvatska

Mikrodijaliza je minimalno invazivna tehnika u JIL-u koja neposredno uz krevet bolesnika s teškim kraniocerebralnim ozljedama i SAH-om, omogućava sakupljanje i analizu kemijskim dijelova izvanstaničnih tekućina, a u svrhu identifikacije staničnih oštećenja i propadanja prije nego se dogode promjene u perifernoj krvi.

RJEŠAVANJE PROBLEMA MEDICINSKOG TEHNIČARA/ LABORANTA NASTALOG KOD ODREĐIVANJA, AB0 RH D KRVNE GRUPE

Dženana Begić, Fahra Lojo

Bosna i Hercegovina

Osnovni zadaci medicinskog tehničara u imunohematološkoj laboratoriji OTM-u (Odsjeka za transfuzijsku medicinu) su: tačno odrediti krvnu grupu primaoca i davaoca krvi, kao i obezbjediti sigurno transfuzijsko liječenje testiranjem jedinica krvi na podudarnost (ispitivanjem plazme pacijenta na prisustvo auto/alo/antitijela). Krvno grupno ispitivanje treba ponoviti kada se uoče bilo kakva neslaganja rezultata ispitivanja u epruvetama, gel karticama, sadašnjeg ili ranijeg rezultata ispitivanja. Prije rješavanja problema nastalih pri određivanju krvne grupe korisno je posjedovati osnovne podatke o bolesniku: dijagnoza bolesti, primljeni lijekovi, krvna grupa koja je ranije određena, starosna dob pacijenta, prethodne trudnoće i pobačaji, autoimune bolesti, prethodne transfuzije krvi i sastojaka krvi, identificirana antitijela u plazmi/serumu/eritrocitima ili ranije transfuzijske reakcije. Pokušati rješiti problem u skladu sa pisanim SOP-om za pojedine slučajeve neslaganja u krvno-grupnom tipiziranju. Ukoliko se ne uspije riješiti problem treba konsultirati rukovodioca OTM-u ili osobu koja ga zamjenjuje (u slučaju odsustva). U slučaju potrebe za hitnom transfuzijom krvi, prije razrješenja problema određivanja krvne grupe, izdati na odjeljenje eritrocite 0 krvne grupe (Rh D status u skladu sa "Procedurom transfuzije krvi").

ZDRAVSTVENA NJEGA CENTRALNOG VENSKOG KATETERA

Edo Karavdić, Elma Kapetanović

Bosna i Hercegovina

Primjena centralnog venskog katetera zbog lakšeg pristupa krvno žilnom sistemu i hemodinamskog monitoriranja bolesnika postala je centralni dio savremene medicine. Centralni venski kateter od iznimne je važnosti za pacijente kojima je potrebno dugotrajno liječenje. Za razliku od perifernog, centralni venski pristup podrazumijeva postavljanje katetera u veliku venu, najčešće na vratu ili u grudnom košu. Ovakav pristup omogućuje često uzimanje uzoraka krvi za dijagnostičke pretrage, kao i primjenu citostatika, krvnih pripravaka, velikih količina tekućine, hranjivih tvari, antibiotika i drugih lijekova. U radu će biti prikazane procedure i tehike rukovanja sa centralnim venskim kateterom.

TOALETA USNE ŠUPLJINE KOD INTUBIRANIH I TRAHEOTOMIRANIH PACIJENATA

Edo Karavdić

Bosna i Hercegovina

Razumijevanje važnosti oralne njege počinje sa poznavanjem mikrobiološke flore usta i promjena do kojih dolazi kod pacijenata koji su na mehaničkoj ventilaciji za vrijeme njihovog boravka u bolnici. Različiti organizmi imaju tendenciju da se koloniziraju na različitim površinama u ustima. U roku od 48 sata od prijema, sastav orofaringealne flore kritično bolesnih pacijenata prolazi kroz promjene, od uobičajene prevlast gram-pozitivnih streptokoka i stomatološki nisko-virulentnih uzročnika do pretežno gram-negativnih organizama, koji čine visoko virulentnu floru. U radu će biti prikazan protokol za evaluaciju stanja usne šupljine kao i procedura njege, te značaj same njege za pacijenta.

ZDRAVSTVENANJEGANEDONOŠĆETASANEKROTIZIRAJUĆIM ENTEROKOLITISOM

Veronika Miljanović Vrđuka, Mirjana Kakša

Hrvatska

Nekrotizirajući enterokolitis (NEC) teška je i po život opasna gastrointestinalna bolest novorođenačke dobi koja se najčešće javlja u nedonoščadi, posebno one nedonoščadi ispod 1500gr porodne težine. Od svih hitnih stanja vezanih uz gastrointestinalni trakt u novorođenačkoj dobi, NEC je najčešći i najvažniji. Etiologija nastanka nije u potpunosti razjašnjena a smatra se da je multifaktorijalna. Klinički simptomi, naročito u početku, nisu specifični a bolest pokazuje kontinuirano napredovanje od blage abdominalne distenzije sa benignim ishodom do peritonitisa, šoka i fulminantne bolesti sa fatalnim ishodom. Klinički se bolest može podijeliti u tri stadija. Liječenje bolesti se provodi konzervativno i kirurški. Konzervativno liječenje je kompleksno i ovisi o stadiju bolesti, obuhvaća antibiotsku terapiju, totalnu parenteralnu prehranu te intenzivno liječenje hemodinamske i elektrolitske nestabilnosti. Kirurško liječenje je indicirano kod perforacije crijeva ili gangrene crijeva. Liječenje ovako teških pacijenata provodi se u jedinicama intenzivnog liječenja djece te zahtijeva posebnu skrb i pažnju medicinskih sestara. Takvo dijete je vitalno ugroženo, smješteno u inkubatoru, na mehaničkoj ventilaciji, a zbog svoje nedonešenosti je podložno rizicima nastanka brojnih komplikacija. Operativni zahvat dodatni je veliki stresor za dijete te je postoperativni opravak kompliciran i težak.

VISOK RIZIK ZA DEHIDRACIJU

Stela Levak, Suzana Hasan-Palaković

Hrvatska

Visok rizik za dehidraciju je sestrinska dijagnoza koja se često susreće u kliničkom radu od hitnih prijemnih, zaraznih, do klasičnih kliničkih odjela (otorinolaringoloških i maksilofacijalnih) čak i psihijatrijskih. Također, učestalost ove dijagnoze je velika bilo da se radi o skrbi za bolesnike dječije dobi, pa sve do njege starijih i umirućih bolesnika. Kako dakle dehidracija može pratiti mnoge bolesti i često se susreće u praksi, neophodno je da medicinske sestre u svom radu kontinuirano usvajaju nove teorijske odrednice, ali i praktične vještine kako bi se otklonio rizik za nastanak dehidracije, odnosno provele pravodobne i ispravne intervencije ukoliko nastupi dehidracija.

HEMOFAGOCITNA LIMFOHISTIOCITOZA

Ivana Blažević, Mirjana Kakša, Veronika Miljanović Vrđuka

Hrvatska

HLH je sindrom koji spada u grupu bolesti histiocita ,koji se često javlja u dječjoj dobi, a karakterizira ga aktivacija ili proliferacija monocitno-makrofagnog sustava. Infiltracija histiocitima može biti ograničena na kosti i kožu ili se može manifestirati kao teška multisustavna bolest. U radu je prikazan slučaj djevojčice I.A koja se u dobi od 5 godina zaprima u JiL zbog općeg pogoršanja. Bolest se manifestirala prvotno visokim febrilitetom, bolovima u gležnju, te promjenama na koži koje kasnije progrediraju u jaki kofluirajući vaskulitičan osip .Stanje pacjentice svakodnevno se pogoršavalo iz sekunde u sekundu .Provedenom opsežnom dijagnostičkom obradom dođe se do dijagnoze, te se odmah uvodi imunosupresivna, imunomodulatorna te citostatska terapija .Napredovanjem bolesti dolazi do brojnih komplikacija od totalne aplazije koštane srži, pogoršanja neurološkog statusa, opsežne hematurije, otežane derivacije urina i kompletnog multiorganskog zatajenja. Uloga medicinske sestre je od velike važnosti. Medicinska sestra mora biti dobro educirana kako bi znala pravovremeno reagirati na svaku pa i minimalnu promjenu stanja bolesnika. Medicinska sestra je osoba koja je najviše u kontaktu sa bolesnikom, koja primjenjuje sva pravila asepse i poštuje pravila obrnute izolacije. Kod ovih pacijenata velika se pozornost posvećuje prevenciji infekcija zbog njihovog izuzetno narušenog imunološkog sustava. Provođenjem kvalitetne skrbi i njege ona doprinosi bržem oporavku i izlječenju djeteta.

ŠTO ZNAMO O OZLJEDAMA VRATNE KRALJEŽNICE I NJEZINIM POSLJEDICAMA ?

Cecilija Grgas-Bile, Irma Jalušić

Hrvatska

Ozljede kralježnice obuhvaćaju širok raspon različitih ozljedbenih struktura kralježnice pri čemu nastaju brojne komplikacije koje su po život opasne za samog ozljeđenika. Prijelomi, luksacije, subluksacije, dislokacije i protuzije vratnih kralježaka i njegovih dijelova spadaju u vodeće javno zdravstvene probleme današnjice s visokim brojem smrtnosti u svijetu. Tijekom 2011. godine u KBc Sestre milosrdnice, Zavoda za anesteziju, reanimaciju i intenzivno liječenje Klinike za traumatologiju boravilo je 703 ozljeđenika, koje je obuhvaćalo 126 ozljeđenika s ozljedom kralježnice, od čega njih 44 s prijelomom vratnog kralješka. Cilj rada je predočiti pravilnu hitnu obradu ozljeđenika s prijelomom vratne kralježnice, terapijske metode, te moguće komplikacije tijekom liječenja. Prijelom vratnog kralješka najčešće nastaje tijekom prometnih nezgoda, sportskih aktivnosti i padova s visine. Pravilna i pravodobna dijagnostika omogućuje nam uvid u samu ozljedu kojom dobivamo mogućnost odabira pravilne metode liječenja (konzervativno liječenje,operativni zahvat, Chrutchfield ekstenzija i kortikosteroidi). Daljnje liječenje i rehabilitacija bolesnika svodi se na metode sprječavanja komplikacije same ozljede (spinalni šok, infekcija operativne rane, komplikacije dugotrajnog ležanja, depresija, anksioznost...). Medicinska sestra/ tehničar kao član multidisciplinarnog tima ima vrlo važnu ulogu u samom procesu dijagnostike, liječenja i rehabilitacije bolesnika kod prijeloma vratnog kralješka. Stanje spinalnog šoka kao jedno od najtežeg, ali i najčešćeg stanja komplikacije ove povrede zahtjeva 24 - satni monitoring, te punu stručnost, vještinu i znanje medicinske sestre. Stalnim promatranjem i bilježenjem vitalnih funkcija, neurološkog statusa i integriteta kože dobiva uvid u stanje bolesnika, ali i učinkovitost svog rada.

PROTOKOLI NA ANESTEZIJI

Agneza Glavočić, Nikolina Humeljak

Hrvatska

Protokoli su preporuke kojih se treba držati u radu , stručna pravila rada koja su proizašla iz dobre medicinske prakse.Za provođenje zadanih standarda na anesteziji je zaslužan anesteziološki tim koji čine anesteziolog i anestezijski tehničar.Da bi ih pravilno provodili trebaju biti upoznati sa standardima.Nepridržavanje standarda dovodi do kršenja protokola rada.Anesteziolog radi plan anesteziološke skrbi,u suradnji sa anestezijskim tehničarom,sa kojim treba biti upoznat pacijent.Pacijent prije anestezije treba dati suglasnost u pismenom obliku koji je sastavni dio medicinske dokumentacije i bez kojeg se ne može pristupiti anesteziji.Kvalificirano anesteziološko osoblje stalno je prisutno na mjestu gdje se je potrebna anesteziološka skrb.Prije anestezijska priprema pacijenta se radi u anesteziološkoj ambulanti i na odjelu gdje se određuje premedikacija za pacijenta. Od preuzimanja pacijenta od odjelnih sestara anestezijski tehničar je dužan provoditi postupke prema zadanim standardima , te je odgovoran za sigurnost pacijenta.Priprema za anesteziju se radi u sobi u sobi za pripremu koja se nalazi u operacijskom traktu gdje se pacijentu postavlja venski put.Anestezijski postupci se provode u operacijskoj sali za ispravnost anesteziološke opreme je zadužen

anesteziolog i anestezijski tehničar, za ispravnost anesteziološkog aparata , lijekova i infuzijskih otopina.Poslijeoperacijska skrb za pacijenta se odvija u sobi za buđenje gdje njegovo stanje prati tehničar uz anesteziologa.. Do izmjene protokola može doći u hitnim stanjima

ZDRAVSTVENA NJEGA DJETETA S ATREZIJOM JEDNJAKA

Gordana Car

Hrvatska

Atrezija jednjaka je anomalija kod novorođenčadi koja se karakterizira time što jednjak sačinjavaju dva slijepo zatvorena dijela, odvojena jedan od drugoga. U većini slučajeva donji dio jednjaka je povezan s trahejom (ezofagotrahealna fistula). Jedan od najupadljivijih simptoma atrezije je jako slinjenje koje se javlja odmah poslije rođenja. Usljed aspiracije sline kod novorođenčeta se javlja dispneja, podražajni kašalj i cijanoza. Pri pokušaju hranjenja cijela se slika naglo pogoršava, jer dolazi i do aspiracije mlijeka. Prirođenu atreziju jednjaka liječimo operativno, što prije, najbolje u toku prvog dana nakon rođenja. Novorođenče je vitalno ugroženo te se smješta u Jedinicu intenzivnog liječenja gdje o njemu skrbi tim koji se sastoji od kirurga, anesteziologa, neonatologa-intenzivista, medicinskih sestara i tehničara. Uloga medicinske sestre, osim provođenja intenzivne njege i intenzivne terapije je da u zbrinjavanje djeteta uključi roditelje. Roditelje treba potaknuti i ojačati u njihovoj roditeljskoj ulozi, pomoći im da razumiju stanje djeteta, te im pružiti podršku i smanjiti razinu stresa.

OBRAZOVANJE U INTENZIVNOJ SKRBI

Donald Peran, Tomislav Hunić

Hrvatska

ŠTO JE EDUKACIJA? Edukacija je akt ili proces davanja ili stjecanja određenog znanja ili vještina vezanih za određenu profesiju. Viši rodni pojam za obrazovanje i odgoj. TKO KOGA EDUCIRA? Medicinska sestra-tehničar s dovoljno specifičnih znanja, iskustva i kompetencija. Mora imati sposobnost davanja prednosti bitnijem, te spretnost i brze reakcije u hitnim stanjima (nema mjesta niti potrebe za panikom). EVALUACIJA EDUKACIJE. Zadovoljstvo izvoditeljem edukacije. Korisnost edukacije za praktični rad. Sadržaj edukacije. Vremenski okvir i trajanje edukacije. Jasna tumačenja. Radionica. ZAKLJUČAK. Međusobna edukacija osoblja u JIL-u je dio svakodnevnice jer stalno učimo jedni od drugih, a samo timskim radom možemo postići najbolje rezultate kako za sebe tako i za pacijente.

PREZENTACIJA I MANAGEMENT CENTRA ZA TRANSFUZIJSKU MEDICINU MARIBOR

David Felser

Slovenija

Centar za transfuzijsku medicinu (u daljnjem tekstu CTM) djeluje kao samostalna organizacijska jedinica Univerzitetnog kliničkog centra Maribor (UKC) od 1949. U okviru UKC Maribor CTM je djelatnost unutar drugih zdravstvene djelatnosti. CTM je u procesu reorganizacije transfuzijske medicine u 2003 je postao regionalno središte za SI Sloveniji. Odjeli za transfuzijsku medicinu, koji rade u bolnicama Ptuj i Murska Sobota, šalju prikupljenu krv na testiranje i preradu. Istovremeno jih CTM opskrbljuje sa potrebnim krvnim pripravcima. Za djelotvorno i učinkovito pružanje zdravstvenih usluga vrlu važnu ulogu igra dobar management. Glavni zadatak je precizna kontrolira i održavanje kvalitetnih usluga koje su isto važne za javne zdravstene ustanove i za koristnike tih usluga tj. pacijente. Vrlo važnu ulogu u razvoju nose ljudi odnosno osoblje, koje je stalno u procesu edukacije i osposobljanja, da može postići dobre i učinkovite rezultate. Učinkovitost i djelotvornost zdravstvenih ustanova u velikoj mjeri ovisi od ključnih voditelja organizacije (managementa) jer je njihov posao, da se brinu za razvoj same organizacije. U tom kontekstu možemo spomenuti operativni management i operativno osoblje, koji su ključno osoblje u organizaciji, jer moraju imati širok raspon vještina i posjeduju dovoljno informacija, da su u svom poslu uspješni. U sudjelovanje u procesu managementa CTM, potrebno je uključiti osoblje u skladu sa njihovim sposobnostima i interesima. To je zadatak managementa na razini centra kao cjeline in pojedinih procesa unutar toga. Posebnu pažnju treba posvetiti informiranju i motiviranju zaposlenika, da predano slijede ciljeve centra i da jih istodobno i izvode. Iskustvo kaže, da je za sinergističke efekte teorije i prakse, nužno privuči osoblje, koje se uglavnom bavi teorijskim izazovima struke - na razini cijelog centra i na razini pojedinih procesa. Prijenos inovacija u praksi izvode kolege koji su sudjelovali u razvoju, jer su oni više motivirani i imaju osobni interes, da bi prijenos uspio. Uz to neophodna je podrška managementa, koji mora sustavno pratiti evoluciju procesa.

SETRINSKI POSTUPCI U SPRIJEČAVANJU INFEKCIJA UZROKOVANIH UPOTREBOM CENTRALNOG VENSKOG KATETERA. TEGADERM CHG - NAŠA ISKUSTVA

Anita Razum, Danijela Greganić

Hrvatska

Postavljanje centralnog venskog katetera mora se shvatiti kao operativni zahvat jer se ovim postupkom krvožilni sustav spaja s vanjskim svijetom jednom vezom koja ne može biti sterilna. Vrlo velik postotak infekcija povezanih s upotrebom katetera naglašava važnost pravilnog pristupa i njege katetera, za što je iznimno važna edukacija zdravstvenog osoblja. Uvažavanjem protokola i načela rada te vođenjem dokumentacije, medicinska sestra kao član zdravstvenog tima pridonosi prevenciji infekcija kao i drugih neželjenih komplikacija. Najveća briga u prevenciji infekcija jest kako smanjiti rizik od infekcija povezanih s upotrebom intravaskularnih katetera. Tegaderm CHG proziran je povoj, posebno kreiran s ciljem smanjenja kožne flore koja je najčešći izvor infekcije krvotoka kod upotrebe centralnih venskih katetera. Koža je najveći epitelno vezivni organ ljudskog tijela te sadrži različite mikroorganizme. Bakterijsku floru kože dijelimo na trajnu (s. epidermidis, corynebacterium) i prolaznu (s. aureus, pseudomonas spp, enterobakterije). Tegaderm CHG pruža antimikrobno djelovanje direktno na ubodno mjesto, kako bi se suzbila kožna flora. Proziran je te dozvoljava kontinuirano vizualno promatranje ubodnog mjesta. Može ostati na ubodnom mjestu do sedam dana, što je potreba za promjenom povoja manja, to je niža vjerojatnost rizika od infekcije. Cilj ovog predavanja nam je da pokažemo kako smo upotrebom Tegaderm CHG-a smanjili broj infekcija uzrokovanih korištenjem centralnih venskih katetera, a samim time i smanjili korištenje rezervnih antibiotika i skratili dužinu hospitalizacije.

ELEKTROKONVERZIJA

Amira Karić, Hanka Redžić, Tomka Mišanović

Bosna i Hercegovina

Elektrokonverzija je postupak koji se koristi za ispravljanje određenih vrsta abnormalnih srčanih ritmova (aritmija). Ona može biti izvršena u hitnim situacijama ili kao ne-hitna procedura za liječenje postojećih aritmija. Elektrokonverzija takođe može biti izvedena pomoću lijekova. Većina elektivnih ili ne-hitnih kardioverzija se izvodi za liječenje atrijalne fibrilacije ili atrijalnog flatera, benignih poremećaja srčanog ritma. U hitnim situacijama se koristi da ispravi nepravilan brz ritam srca vezan uz slabost, nizak krvni pritisak, bolove u grudnom košu, teško disanje i gubitak svijesti. Neki abnormalni

ritmovi kao sto su tahikardija i ventrikularna fibrilacija mogu biti po život opasne. Ventrikularna fibrilacija može dovesti do iznenadne srčane smrti ako se napadaj ne liječi u roku od nekoliko minuta. Kardioverzija ima ograničen uspjeh u liječenju ljudi sa dugogodišnjom atrijalnom fibrilacijom (godinu i duže) ili nekih drugim drugim srčanim problemima. Ova tehnika je posebno korisna za osobe sa atrijalnom fibrilacijom u trajnju duže od 30. dana. Za izvođenje elektrokonverzije koristimo uređaj koji se naziva defibrilator,a tim se sastoji od ljekara specijaliste kardiologa i medicinske sestre/tehničara. Kardioverzija je siguran i učinkovit postupak za vraćanje srčanog ritma u normalu.

PULSNA OKSIMETRIJA

Ameldina Terzić, Hanka Redžić, Edin Džafić

Bosna i Hercegovina

Pulsna oksimetrija je potpuno bezbolna metoda, kojoj se na prst ruke stavi aparat pulsni oksimetar koji može da izmjeri frekvencu rada srca i zasićenost periferne krvi kiseonikom. U pulsnoj oksimetriji, saturacija arterijske krvi se kiseonikom se označava sa SpO2,dok se invazivno mjerena arterijska oksigenacija obilježava simbolom SaO2.Mjerenje se izražava u procentima. Pulsna oksimetrija ima veoma široku primjenu u više oblasti medicine, a najviše se koristi za kontinuirani monitoring pacijenta i ima veoma široku primjenu u svim jedinicama intenzivne njege. Cilj izvođenja ove neinvazivne procedure je dokazivanje brze dijagnostičke sumnje na poremećaje u radu respiratornog sistema, snadbijevanja organizma kiseonikom,kao i pravilno savladavanje tehnike izvođenja ove neinvazivne i veoma jednostavne metode. U toku izvođenja ove procedure neophodna nam je sledeća oprema: oksimetar, sonda za prst ili uvo,alkoholni tupferi,odstranjivač laka za nokte. U toku izvođenja procedure na prstu zadaci medicinske sestre/tehničara su sledeći:Izabrati prst za izvođenje testa(najčešće se koristi kažiprst,a li može se izabrati i manji ako su prsti pacijenta preveliki za opremu), provjeriti da li pacijent ima vještačke nokte i odstraniti lak za nokte sa izabranog prsta .Postaviti fotodetektor na prst tako da su izvor svjetlosti i senzori na suprotnim stranama ,ako pacijent ima dugačke noktefotodetektor se postavlja vertikalno na prst ako je moguće isiječe se nokat. Ruka pacijenta uvjek se postavlja u visini srca da bi se izbjegle venske pulsacije i dobila tačna očitavanja. Ukjučiti prekidač (ako aparat radi čut će se zvuk, displej će odmah raditi i svjetlost za puls će svijetliti). Na displeju za puls za puls i SpO2 bit će stacionirane nule. Nakon četiri do šest otkucaja srca,displej za SpO2 i puls će pokazati vrijednosti za svaki otkucaj,a vrijednost pulsa će biti napisane na displeju na pulsu. Kod izvođenja procedure na uhu zadaci med.sestre/tehničara su sledeći:Masirati resicu uva alkoholnim tupferom 10-20 sekundi, zakačiti sondu na resicu uva i uvjeriti se da je kontakt sa uvom dobar(nestabilna sonda može da poremeti alarm niske perfuzije). Na osnovu gore navedenog se nameće zaključak da pulsna oksimetrija je jednostavna za primjenu, pouzdana i jeftina metoda. Monitori trajno nadziru sve bolesnikove vitalne funkcije, uključuju alarm kod poremećaja,ali sestra mora biti stalno nazočna uz bolesnika,promatrati ga jer još nije izmišljen tako dobar stroj koji bi potpuno mogao zamijeniti znanje i rad jedne dobre medicinske sestre/tehničara jer medicinska sestra/tehničar je monitor svih monitora .

KATEGORIZACIJA BOLESNIKA U JEDINICAMA INTENZIVNOG LIJEČENJA KAO INDIKATOR POTREBA ZA ZDRAVSTVENOM NJEGOM

Sonja Kalauz, Aida Krkić Drobić

Hrvatska

Ubrzani razvoj biomedicinskih znanosti, tehnike i tehnologije značajno je utjecao na produžetak i kvalitetu ljudskog života. Sve složeniji oblici liječenja zahtijevali su specifičan i sveobuhvatan nadzor nad bolesnicima, posebne sustave podrške u očuvanja životnih procesa, intenzivnu medikaciju i zdravstvenu njegu. Ocjenjeno je da bi bilo važno na jednom mjestu centralizirati veći broj dobro obučenih medicinskih sestara i liječnika, vrlo skupu i sofisticiranu medicinsku opremu, pa su zbog toga već polovicom prošlog stoljeća organizirane prve jedinice za intenzivno liječenje. Vrlo brzo se pokazala potreba za ujednačenim pristupom bolesnicima u jedinicama intenzivnog liječenja, objektivnom praćenju njihovog stanja, mogućnostima procjene i usporedbe rezultata rada, te utvrđivanja dinamike kretanja ljudskih i materijalnih resursa. Izrađeni su i primijenjeni u praksi algoritmi, različite vrste protokola, jednadžbe i ocjenske skala, te posebne skale pomoću kojih se putem bodovanja različitih parametara prati i procjenjuje stanje bolesnika i ishod liječenja. Osim navedenog, ove skale omogućavaju jednostavniji jezik za komunikaciju svih članova tima, prikupljanje informacija za bazu podataka i znanstveno-istraživački rad, te omogućavaju usporedbu izvrsnosti rada s drugim jedinicama intenzivnog liječenja. Ovisno o varijablama skale se dijele na: općenite, specifične, anatomske ili fiziološke. Anatomski sustavi bodovanja služe za procjenu i opseg ozljede, dok fiziološki sustavi bodovanja procjenjuju utjecaj ozljede na funkciju organa i/ili organizma. Skale za takvu vrstu bodovanja u jedinici intenzivnog liječenja jesu: GCS (Glasgow Coma Scor), SOFA (Sequential Organ Failure Assessment), MODS (Multiple Organ Dysfunction Score) i dr. Često su u primjeni i APACHE skale (Acute Physiology and Chronic Health Evaluation) koje služe za procjenu stanja politraumatiziranog bolesnika, te SAPS skale (Simplified Acute Physiology Score), koja se zasniva na subjektivnoj metodi odabira varijabli i procjene težine stanja bolesnika. Noviji sustavi bodovanja (Mortalitet Probability Model, MPM) koriste statističke tehnike za izbor i mjerenje varijabli, a rizik od smrti se procjenjuje kroz korištenje više modela podrške. Jedan od vrlo važnih podataka koji se dobiju skalom praćenja kretanja stanja bolesnika jest kretanje potreba za zdravstvenom njegom ((količinom i vrstom) tijekom dvadeset i četiri sata. Posljedično se na osnovu tako prikupljenih podataka može dobiti i podatak potrebnog broja medicinskih sestara. Istraživanje koje je napravljeno u KBC Zagreb, na Klinici za anesteziologiju, reanimatologiju i intenzivno liječenje (Odjel za anesteziologiju, reanimatologiju i intenzivno liječenje kirurških bolesnika) pokazalo je veliku dinamiku kretanja potreba za zdravstvenom njegom, što je dovelo do zaključka da primjena skala (u ovom slučaju SAPS skala i TISS/Therapeutic Intervention Scoring System) može objektivizirati potreban broj medicinskih sestara, ako se prilikom provođenja aktivnosti/intervencija koriste standardne operativne procedure.

PREVENCIJA PLUĆNA EMBOLIJE

Jasmina Huremović, Emrisela Ombašić, Hanka Redžić

Bosna i Hercegovina

Plućna embolija je naglo začepljenje arterije pluća (plućne arterije) embolusom. Embolus je obično krvni ugrušak (tromb), ali to može biti i mast, amnionska tekućina, koštana srž, djelić tumora ili zračni mjehurić koji putuje krvnom strujom dok ne začepi krvnu žilu. Potrebna je klasifikacija „VISOKO RIZIČNE“ i „NE-VISOKO RIZIČNE“ pacijente kod svih kod kojih postoji sumnja na PE. PE „VISOKOG RIZIKA“ je po život opasno stanje koje zahtijeva specifičnu dijagnostičku i terapeutsku strategiju. UZROCI NASTANKA PE. Uzrok zgrušavanja u venama ne mora biti primjetan, ali su mnogo puta stanja koja dovode do sklonosti zgrušavanju očita. To su slijedeća stanja: hirurški zahvat, produženi boravak u krevetu ili slabija pokretljivost (npr. sjedenje za vrijeme dugog pulovanja automobilom ili avionom), moždani udar, srčani udar (infarkt miokarda), pretilost (debljina), prelom kuka ili noge, povišena sklonost zgrušavanju krvi (npr. kod nekih oblika raka, zbog uzimanja oralnih kontraceptiva, uslijed prirođenog manjka inhibitora zgrušavanja krvi). Liječnik posumnja na plućnu emboliju na temelju bolesnikovih simptoma i činioca koji joj stvaraju sklonost.

Međutim, za potvrdu dijagnoze često su potrebni određeni postupci. Rtg grudnog koša ,EKG može pokazivati abnormalnosti, ali su one često prolazne pa može samo podržati mogućnost plućne embolije. Često se radi perfuzijska gamascintigrafija pluća. Vjerojatnost smrti od plućne embolije ovisi o veličini embolusa, veličini i broju začepljenih plućnih arterija i općem zdravstvenom stanju bolesnika. Svako sa ozbiljnom bolešću srca ili pluća je u većoj opasnosti od embolije. Osoba sa normalnom funkcijom srca i pluća obično preživi ukoliko embolus ne blokira polovicu ili više plućnih žila. Fatalna plućna embolija obično dovede do smrti unutar 1-2 sata. Kod ljudi sa rizikom od nastanka plućne embolije pokušava se spriječiti stvaranje ugrušaka u venama. Rizik nastajanja ugrušaka u bolesnika nakon operacije, naročito onih starije dobi, smanjuje se nošenjem elastičnih čarapa, vježbanjem nogu, ustajanjem iz kreveta i postizanjem aktivnosti što je prije moguće. Čarape koje pritišću noge napravljene sa svrhom da zadrže kretanje krvi, smanjuju stvaranje ugrušaka u potkoljenici i na taj način smanjuju učestalost plućne embolije.

PSIHIČKA PODRŠKA PACIJENTIMA U JEDINICI INTENZIVNOG LIJEČENJA

Ivana Čehulić

Hrvatska

Sam boravak u bolnici za većinu bolesnika predstavlja veliki stres. Često puta susrećemo se sa pacjentima koji zbog pogoršanja općeg stanja bivaju premješteni u jedinicu intenzivnog liječenja.Kod većine takvih pacijenata budi se osjećaj nesigurnosti za vlastito zdravlje kao i strah zbog razlike u načinu funkcioniranja JIL-a i odjela.Sve veći napredak medicinske tehnologije,povećanj opsega posla medicinskih sestara i tehničara ostavlja često puta jako malo vremena za „pravo" upoznavanje pacijenta s načinom boravka u JIL-u.To kod pacjenata budi osjećaj straha i anksioznositi.Svi smo upoznati s time da se fizičko i psihičko zdravlje međusobno upotpunjuju i time doprinose bržem ozdravljenju.Kad pacjent dođe u JIL ,važno je ako to njegovo stanje dopušta,upoznati ga s nekim u početku osnovnim načinom funkcioniranja, a tu najvažniju ulogu imaju medicinske sestre i tehničari.Da bi im se umanjio strah,pacjentima je često puta dovoljno objasniti što će im se sve pratiti od vitalnih funkcija,opseg njihovih aktivnosi vezanih uz fizikalnu terapiju i promjenu položaja u krevetu ,obavljanje nužde i prehranu.Kako bi pacjentu pružili što kvalitetniju psihičku podršku treba uvijek imati na umu sve faze procesa zdravstvene njege koji je osnova našeg rada,jer svojim znanjem pomažemo bolesnicima da vrate osmijeh na svoja lica.

EMOCIONALNA KOMPETENCIJA U SESTRINSTVU

Martina Dušak, Želimira Masle, Milica Lončar

Hrvatska

Emocionalna inteligencija ima veliku ulogu u životu svakog čovjeka. Ona doprinosi zadovoljstvu u životu, daje mogućost lakšeg i uspješnijeg ophođenja s drugim ljudima i stvaranja bogatih i kvalitetnih socijalnih mreža. Emocionalna inteligencija omogućava uvažavanje potreba drugih ljudi, a ujedno omogućava nama samima da se lakše nosimo s konfliktnim situacijama bez prevelikog stresa. Pravila na poslu se mjenjaju. Ocjenjivanje se obavlja prema novim mjerilima; nije bitna samo inteligencija, ni naobrazba i stručnost, već i umješnost kojom se nosimo s vlastitom osobom, kao i s drugima.Ta se nova mjerila sve više primjenjuju prilikom odlučivanja tko će biti zaposlen a tko ne, tko će biti otpušten a tko zadržan, tko zaobiđen a tko unaprijeđen. Emocionalne sposobnosti naučena su umijeća koja se tamelje na emocionalnoj inteligenciji,a na poslu omogućuju izvanrednu uspješnost. Visoka emocionalna inteligencija ne jamči da je osoba i naučila emocionalne sposobnosti koje su važne za posao, to samo znači da osoba ima sjajan potencijal za njihovo učenje. Svjesnost o postojanju emocija i emocionalnog odlučivanja važna je u profesijama gdje se većina rada odvija u timovima, u odnosima s ljudima. Sestrinstvo je profesija koja je usko vezana sa odnosima među ljudima; bilo da se radi o bolesnicima kojima se pruža zdravstvena njega, obitelji bolesnika koji dolaze zabrinute za svog člana ili odnosima sa suradnicima i nadređenima. Medicinska sestra, danas, osim posjedovanja stručnog znanja i vještina mora biti emocionalno zrela i stabilna osoba kako bi mogla razumjeti i nositi se s ljudskim patnjama, hitnim stanjima, zdravstvenim problemima i etičkim dvojbama. Ona treba biti kadra razumjeti pacijentove osjećaje i ponašanja u određenoj situaciji, biti spremna prihvatiti odgovornost, raditi samostalno ali i timski. Emocionalna inteligencija značajna je i u interakciji medicinska sestra-pacijent. Ova interakcija ne temelji se samo na razgovoru.To je složen proces koji uključuje percepciju medicinskih sestara, razumijevanje pacijentovih emocija s ciljem postizanja što učinkovitije skrbi. Anketirane medicinske sestre/tehničari prema odgovorima na tvrdnje u upitniku emocionalne kompetencije UEK-45 (N = 40) smatra da zna puno o svom emocionalnom stanju (60%),da mogu dobro izraziti svoje emocije i opisati kako se osjećaju. 50% može zapaziti kad se netko osjeća bespomoćno i prema izrazu lica mogu prepoznati nečije osjećaje. Rezultati istraživanja emocionalne kompetencije pokazali su da je kod medicinskih sestara/tehničara prisutna srednja razina emocionalne kompetencije.

BOLNICKE INFEKCIJE INDIKATOR KVALITETE

Jasminka Horvatić, Marija Medved

Hrvatska

Osiguranje djelotvornog programa kontrole infekcija ključno je za kvalitetu i refelektira opći standard zdravstvene skrbi koju pruža dotična zdravstvena ustanova. Premda organizacija programa kontrole infekcija varira od bolnice do bolnice ovisno o dostupnim sredstvima u RH je na snazi „Pravilnik o uvjetima i načinu obavljanja mjera za sprečavanje i suzbijanje bolničkih infekcija" N.N. br.93/2002. Pravilnikom su definirani osnovne definicije i pojmovi u kontroli bolničkih infekcija. «Bolnička infekcija je svaka infekcija bolesnika koja se javlja nezavisno od primarnog oboljenja ili svaka infekcija zdrave osobe (zaposlenog osoblja), za koju se utvrdi da je do nje došlo u bolničkoj sredini, ordinaciji privatne prakse ili u stacionarima ustanova za stare i nemoćne osobe kao posljedica pregleda, liječenja ili skrbi, a razvije se tijekom liječenja ili nakon otpusta iz bolnice u određenom vremenskom periodu.» Definirane su i mjere za sprečavanje bolničkih infekcija te osoblje koje sudjeluje aktivno u sprečavanju i nadzoru bolničkih infekcija kao i način organiziranja službe na razini zdravstvenih ustanova u RH. Dobro definiranim standardnim operativnim procedurama/operativnim postupcima/ radnim uputama i sl. cilj je prevencija nastanka bolničke infekcije na način da se pisanim postupkom uvede pravilo najbolje prakse primjenjivo na svim razinama bolnice a u cilju prevencije infekcija povezanih sa zdravstvenom skrbi. Dobrim ustrojem i dobrom kordinacijom između članova Tima za kontrolu bolničkih infekcija i zdravstvenih djelatnika na razini odjela/klinika/bolnice moguće je prevenirati infekcije povezane sa zdravstvenom skrbi. Praćenje, prevencija i kontrola rizika od nastanka bolničke infekcija izvrstan je opći indikator kontrole kvalitete pružene skrbi zato što: utječu na morbiditet i mortalitet, česte su, izražavaju se kvantitativno, označavaju komplikaciju bolničkog liječenja. Kontrola infekcija je odgovornost svake osobe u zdravstvenoj ustanovi. Međutim, uprava bolnice i tim za kontrolu bolničkih infekcija mogu pružiti stručnost, edukaciju i podršku koja pomaže osoblju da održava prikladne standarde i svede na minimum rizik od infekcije.

KARDIOPULMONALNA REANIMACIJA - PREPORUKE I PRAKSA

Snježana Dragičević, Jasminka Radman

Hrvatska

U Hrvatskoj godišnje umire više od 50 000 osoba. Vodeći su uzrok smrti kardiovaskularne bolesti, s više od 26 000 umrlih. Godišnja incidencija izvanbolničkog kardiopulmonalnog aresta iznosi 38 na 100 000 stanovnika, s preživljavanjem do otpusta iz bolnice oko 10%. Studija je osmišljena kao retrospektivni trogodišnji prikaz bolesnika različite životne dobi, koji su doživjeli iznenadni zastoj srca izvan bolnice i/ili u hitnoj službi Klinike za unutarnje bolesti KB Dubrava. Uključivala je one u kojih je primjenjen postupak kardiopulmonalnog oživljavanja (očevidac, laik, liječnik hitne pomoći) u periodu od 1. siječnja 2008. do 31. prosinca 2010. Cilj rada je prikazati čimbenike koji utječu na postupke provođenja KPR (mjesto izvanbolničkog zastoja srca, akutni zastoj srca u nazočnosti svjedoka (očevidac, laik, reanimator), akutni zastoj srca bez svjedoka, akutni zastoj srca nastao pred timom Hitne medicinske pomoći ili u Hitnoj službi bolnice.Također su prikazani precipitirajući događaji za nastanak srčanog zastoja: akutno srčano oboljenje, trauma, intrakranijsko oštećenje, hipoksija, intoksikacija lijekovima ili plinovima, sepsa, utapanje,metabolički poremećaji i drugo. U radu su korištene osnovne statističke metode utvrđivanja udjela pojedinih obilježja podataka u odnosu na ukupan broj podataka za hospitalizirane pacijente što je i grafički prikazano odgovarajućim dijagramima.

KOMUNIKACIJA SA INTUBIRANIM BOLESNIKOM

Lucija Starčević, Silvija Petković

Hrvatska

Komunikacija u jedinici intenzivnog liječenja poseban izazov. Mehanička ventilacija, uporaba relaksansa i sedativa oslabljuju komunikaciju između bolesnika i ostalih. Fizička ograničenja za sprečavanje poremećaja medicinskih uređaja dodatno je ograničavanje pacijenata u mogućnosti korištenja gesti ili korištenja uobičajene komunikacijske tehnike. Smanjena je sposobnost učenja novih informacija, oslabljena je memorija, poremećaji vida, smanjena pažnja i koncentracija. Za neke bolesnike ovo je privremeno stanje, no neki bolesnici provode posljednje dane i sate u jedinici intenzivnog liječenja, umiru bez mogućnosti da u potpunosti izraze svoje potrebe, želje o kraju života skrbi, ili konačne poruke voljenima. Prostorno ograničenje također može neizravno ometati komunikaciju. Studije iskustva i stresnih događaja kod bolesnika u JIL-u ukazuju na vezu između nemogućnosti bolesnika da razgovaraju i osjećaja panike i nesigurnosti [2] poremećaji spavanja[2] , i razinu stresa [3]. Fowler [4] u razgovoru sa 10 bolesnika u jilu nakon ekstubacije opisuje komunikacijsko iskustvo i poruke tijekom kratkotrajne intubacije. Bolesnici opisuju osjećaj da ne mogu govoriti za vrijeme intubacije kao "zastrašujuće", "frustrirajuće" i "strašno". Javljaju se osjećaji ljutnje, brige i straha. Spriječenost komunikacije prepreka je za točne procjene i optimalno upravljanje boli, i drugim znakovima i simptomima u JIL. No, sve navedenone mora nužno isključivati komunikaciju između bolesnika i drugih, nego naprotiv. Najveća predrasuda je da intubirani bolesnici ne mogu komunicirati. Ovi bolesnici NE MOGU GOVORITI, ali MOGU komunicirati. Izuzetno je bitno osigurati prijenos informacija- umiriti bolesnika i pružiti sigurnost, te dobiti vrijedne informacije o tome kako se bolesnik osjeća i što želi. Utjecaj obitelji na komunikaciju sa intubiranim bolesnikom izuzetno je važan, jer najčešće članovi obitelji postaju glasnogovornici, prevoditelji i donositelji odluka za ove bolesnike.

PROFESIONALNI STRES I SINDROM SAGORIJEVANJA

Martina Mutavčić Vujić, Ljiljana Zaplatić, Adrijana Pavlić

Hrvatska

Cilj istraživanja bio je ispitati zadovoljstvo medicinskih sestara i tehničara organizacijom rada i međuljudskim odnosima na svom radilištu, utvrditi prisutnost stresa te razinu profesionalnog sagorijevanja kod medicinskih sestara i tehničara.Istraživanje je provedeno u O.B. „Dr. Ivo Pedišić" u Sisku na odjelima JIL-a, centralne operacije te očnom odjelu. U istraživanju je sudjelovalo 60 medicinskih sestara, po 20 na svakom navedenom odjelu. Za potrebe ovog istraživanja sastavljen je anketni upitnik koji zahtijeva zaokruživanje odabranog odgovora, a sastoji se od općeg upitnika koji se odnosi na sociodemografska obilježja, upitnika za samoprocjenu razine stresa te za ispitivanje sagorijevanja korišten je prijevod instrumenta Maslach burnout inventory.Rezultati dobiveni u ovom istraživanju pokazuju da na sva tri odjela obuhvaćena istraživanjem prevladavaju medicinske sestre koje su nezadovoljne ili djelomično zadovoljne organizacijom rada te nezadovoljne ili djelomično zadovoljne međuljudskim odnosima na svom radilištu. Pod utjecajem stresa na radnom mjestu prevladavaju medicinske sestre u JIL-u (63%) od toga 28% njih ima sindrom sagorijevanja, zatim centralna operacija (49%) od toga 19% njih ima sindrom sagorijevanja te očni odjel (29%) od toga njih 5% ima sindrom sagorijevanja. Možemo zaključiti da medicinska sestra/tehničar, na kojem god odjelu radili zbog same prirode svoga posla izloženi su stresu, a koliko će taj stres prevladati ovisi o jačini prisutnosti stresogenih faktora na tom odjelu.

ULOGA GRUPNE PSIHOTERAPIJE U PERCEPCIJI BOLI

Anđa Letić

Hrvatska

Cilj brojnih istraživanja do sada bio je ispitati u kakvom su odnosu procesi pažnje s percepcijom boli. U ovom istraživanju cilj je bio ispitati da li grupna psihoterapija može djelovati na smanjenje percepcije boli. Ispitivanje je provedeno na uzorku šest pacijenata liječenih u ambulanti za bol, Kliničkog bolničkog centra Rijeka, uključenih u dinamski orijentiran, suportivni grupno psihoterapijski tretman-eksperimentalna grupa i šest pacijenata koji nisu obuhvaćeni psihoterapijskim tretmanom- kontrolna grupa. Mjerenje intenziteta boli (kvantitativno) izvršeno je Upitnikom za procjenu boli (pain detekt) na numeričkim i verbalnim skalama. Rezultati dobiveni u ovom istraživanju pokazuju da pacijenti koji su tijekom godine dana svoje zdravstveno stanje liječili i grupnom psihoterapijom doživljajni intenzitet boli bio je slabiji. Možemo reći da je kombinacija liječenja boli s grupnom psihoterapijom imala pozitivan učinak, budući da su pacijenti pod njenim učinkom nakon godinu dana djelovanja isti ili slični intenzitet boli percipirali kao slabiju bol.

JIL PSIHOZE

Ante Maric

Hrvatska

Psihoza u Jedinici intenzivnog liječenja priznat je fenomen. JIL psihoza, koju neki još nazivaju i JIL sindrom, oblik je delirija odnosno akutnog zatajenja mozga. Trenutne procjene govore da jedan od 3 pacijenta koji provedu više od 5 dana u JIL imaju neki oblik iskustva s psihotičnom reakcijom. Kako iz dana u dan broj JIL i pacijenata u njima rastu, JIL psihoza postaje sve veći i učestaliji problem na koji svakako treba početi obraćati pažnju.

REVIZIJA SESTRINSKE PRIMOPREDAJE SLUŽBE

Ivana Družinec, Milena Fiket, Maja Karažinec

Hrvatska

Sestrinska primopredaja službe je komunikacija koja se odvija između dvije smjene sestara, a čija je specifična svrha izmjena informacija o pacijentima pod sestrinskom skrbi. Sestrinska primopredaja službe smatra se ključnim dijelom u pružanju kvalitetne skrbi u modernoj zdravstvenoj njezi. Sestrinska primopredaja službe tradicionalno se održava u privatnosti naspram pacijenta, može biti vremenski predugačka, irelevantna i neprofesionalna. Alternativna metoda sestrinske primopredaje službe uz krevet pacijenta nosi sa sobom brojne prednosti i povećava kvalitetu sestrinske prakse: podaci temeljeni na promatranju su precizniji (vizualiziranje intravenske terapije, kanila, drenažnih sistema, procjena disanja, boje kože); primopredaja uz krevet povećava odgovornost za točnim informacijama; primopredaja uz krevet poboljšava komunikaciju-osoblje ima tendenciju da se drži relevantnih informacija ispred pacijenta; pacijenti osjećaju partnerski odnos u procesu zdravstvene njege; kontinuitet zdravstvene njege je poboljšan, njega je više holistična; klinička znanja sestara su dosljedna i transparentna te pružaju osnovu za nastavu pripravnika i studenata sestrinstva; bolja priprema za primopredaju - osoblje nastoji biti pripremljeno i učinkovito, što ujedno poboljšava povjerenje pacijenata u medicinske sestre.

INTENZIVNA SKRB ZA BOLESNIKA SA TEŠKOM POVREDOM GLAVE SA POSTAVLJENOM LICOX ELEKTRODOM

Dragica Karadžić, Andrej Trobec

Slovenija

Kontinuiran nadzor nad događanjima u centralnom nervnom sistemu, je kod liječenja bolesnika sa teškom povredom glave, ključan za sprečavanje razvoja sekundarnih inzulta kao što su ishemija ili moždani edem. Neuromonitoring je uglavnom usmjeren na praćenje moždane hemodinamike – kao što je nadgledavanje intrakranialnog tlaka ili moždane električne aktivnosti različitim metodama, kao što su EEG, BIS. Nijedna od navedenih metoda ne obezbeđuje dovoljno informacija o adekvatnoj oksigenaciji moždanog tkiva. Sa najnovijom oblikom neuromonitoringa – LICOX elektrodom - imamo mogućnost nadzora lokalne moždane oksigenacije. U članku će biti prikazana upotreba i sam značaj LICOX elektrode kod liječenje bolesnika sa teškom povredom glave i uloga medicinske sestre kod intenzivne skrbi za takvog bolesnika. Namjena članka je istaknuti značaj aparature i njen doprinos kvalitetu intenzivne skrbi i liječenju bolesnika sa teškom povredom glave.

SPECIFIČNOSTI REANIMACIJE TRAUMATIZIRANOG BOLESNIKA - PRIKAZ SLUČAJA

Igor Pelaić, Karlo Jurčec Gnus

Hrvatska

Trauma predstavlja pojam za sebe. Zbrinjavanje traumatiziranog bolesnika u sebe uključuje veliki broj stručnog kadra, a istovremeno pored takvog timskog rada zahtijeva i „utrku sa vremenom“ za očuvanje potpune funkcionalnosti cijelog organizma, posebno središnjeg živčanog sustava. Kardiopulmonalnu reanimaciju (KPR) najjednostavnije možemo definirati kao skup mjera i postupaka koji se provode kod bolesnika kod kojeg je došlo do zastoja rada srca i disanja sa ciljem ponovne uspostave krvotoka i respiracije. KPR kirurških bolesnika bitno se razlikuje od KPR-a npr. internističkih bolesnika zbog prisutnosti raznih ozljeda (naročito kod politraume i neurotraume) i nužnosti provođenja dodatnih terapijskih tretmana u isto vrijeme dok se provodi sama masaža i ventilacija (torakalna drenaža, uvođenje pleuralnih drenova, uvođenje centralnog venskog katetera, uvođenje arterijske kanile, imobilizacija itd.). Kada je riječ o traumatiziranim bolesnicima oni uglavnom u bolnicu dolaze u pratnji tima HMP, pa sama reanimacija počinje ili bi trebala početi već prehospitalno. Dolaskom u bolnicu KPR se nastavlja u reanimacijskoj sali Centra za hitnu medicinu, a tek po stabilizaciji stanja bolesnika kreće se u transport prema Jedinici intenzivnog liječenja. U Centru za hitnu medicinu započinje bolničko zbrinjavanje traumatiziranog bolesnika mjerama i postupcima hitnog zbrinjavanja i intenzivnog liječenja, stoga je edukacija djelatnika, te manualna spretnost i dobra opremljenost Centra za hitnu medicinu od presudne važnosti kada je riječ o skrbi za bolesnika. Drugim riječima, prvi susret sa bolesnikom i ispravnost, te opravdanost primijenjenih postupaka uvelike doprinosi bržem oporavku traumatiziranog bolesnika.

PRIMJENA AKREDITACIJSKIH STANDARDA

Rifija Omerćajić, Azra Hasanović

Bosna i Hercegovina

Kvaliteta je postala dio profesionalne etike zdravstvenih radnika, ali je još uvijek ostala pojam, nešto što se može shvatiti i cijeniti, ali se teško definira i mjeri”.Uvođenjem akreditacijskih standarda Klinika za interne bolesti je prepoznala put poboljšavanja kvalitete.

- održati korak sa razvojem kliničke prakse
- pacijenti imaju pravo na najbolje standarde njege
- kvaliteta njege mora se rutinski mjeriti
- rezultatima mjerenja mora se izvještavati te se kvaliteta njege mora stalno poboljšavati.

POBOLJŠANJE KVALITETA je trajan proces, koji ne daje rezultate u kratkom roku. To je proces u kojem je neophodno obezbijediti učešće svih zaposlenika, kreirati kulturu u kojoj je rad na poslovima kvaliteta svakodnevna aktivnost i u kojoj zaposlenici vrše samoocjenu svog rada. Koja su to poboljšanja kvalitete sestrinske njege u Klinici za interne bolesti provedena od uvođenja akreditacijskih standarda?

MATERIJAL I METODE:

- plan i program uspostave i održavanja sistema kvaliteta i sigurnosti
- plan i program provjere kvaliteta (unutrašnjeg nadzora)
- izvještaj o realizaciji obaveza iz akreditacijskih standarda za bolnice za 2010. godinu

ZAKLJUČAK:

- Osavrementiti sestrinstvo
- Uvesti kontinuiranu edukaciju
- Osavrementiti vještine i kompetencije
- Uvesti kliničke smjernice
- Razviti praksu koja se temelji na medicinskim dokazima
- Razviti mjerenje kvalitete
- Razviti integrirane, multidisciplinrarne timove
- Motivirano sestrinstvo

MIKROBIOLOŠKA ANALIZA POSTOPERACIJSKE AUTOTRANSFUZIJE

Zdravka Mihaljević, Ana Mikšić

Hrvatska

Postoperacijska autotransfuzija je standardna metoda transfuzijskog liječenja ortopedskih bolesnika. Ovom metodom smanjuje se potrošnja homologne krvi te sprječavaju moguće komplikacije

homologne krvi kao prijenos virusnih bolesti, hemolitičke reakcije, imunomodulacija, alergijske reakcije i dr. . Ipak, opisuju se i komplikacije pri primjeni autologne postoperacijske krvi, a jedna od mogućih komplikacija je kontaminacija krvi pri postupcima skupljanja i vraćanja krvi. Cilj rada je mikrobiološkom analizom uzoraka autologne krvi prije vraćanja utvrditi da li kod ove metode transfuzijskog liječenja postoji opasnost od kontaminacije pri postupcima s krvi te analizirati moguće znakove infekcije kod bolesnika. Provedeno je prospektivno ispitivanje kod bolesnika nakon ugradnje totalne endoproteze kuka. Na kraju operacijskog zahvata se postavlja sistem za postoperacijsku autotransfuziju te se skuplja drenirana krv do šest sati postoperacijski. Nakon procesa skupljanja iz sistema se uzimao uzorak krvi za mikrobiološku analizu, krv se zatim vraća bolesniku i promatraju se moguće transfuzijske reakcije kod bolesnika. Mikrobiološka analiza je provedena kod 100 bolesnika. Ukupno su tri hemokulture autologne krvi bile pozitivne (3 %). Uzročnici su bili: Staphylococcus epidermidis kod dva bolesnika i Propionibacterium spp. kod jednog bolesnika. Ovi uzročnici predstavljaju normalnu floru kože, ali u određenim okolnostima mogu prodorom u krv postati uzrokom sepse. Kod bolesnika su se pratile i transfuzijske reakcije, te su dva bolesnika imala porast temperature nakon transfuzije, ali kod obadva bolesnika su uzorci krvi bili sterilni, te se povišenje temperature ne može povezati s mikrobiološkim nalazima. Kod primjene postoperacijske autotransfuzije moguća je kontaminacija krvi pri postupcima sa sistemima za autolognu krvi te je metodu potrebno provoditi prema svim pravilima asepse. Uz pravilno postupanje postoperacijska autotransfuzija je sigurna metoda koja smanjuje potrošnju homologne krvi.

PRIPRAVA TESTNIH ERITROCITA ZA IMUNOHEMATOLOŠKA ISPITIVANJA-PREDUVJETI KVALITETE

Katarina Hranj, Nada Krešo, Ana Hećimović

Hrvatska

Testni eritrociti (TE) se koriste u imunohematološkim ispitivanjima u eritrotestu kod određivanja ABO krvne grupe, za kontrolu test seruma kod određivanje fenotipa, kontrolu antiglobulinskog testa (AT) i u pretraživanju i identifikaciji iregularnih protutijela. U našoj ustanovi pripravljaju se TE za eritrotest tehnikama u epruveti (EP) i mikrometodi (MM),TE za dnevnu kontrolu testnih seruma kod određivanja fenotipa tehnikama u EP i MM te TE za kontrolu AT (Coombs kontrola; CK). Svrha rada je naznačiti važne korake u pripravi TE kao preduvjet za njihovu kvalitetu. TE za eritrotest su eritrociti krvnih grupa A1,A2,B i O, Rh D i Kell neg., kojima su postupkom pranja uklonjene ABH krvnogrupne supstance. TE za kontrolu testnih seruma služe kao „run“ kontrole kod određivanja C,D,E,e,c fenotipa u EP i MM. Koriste se TE O krvne grupe, slijedećih fenotipova; R1r, R1R1, R2r,R2R2, rr. CK služi za provjeru valjanosti izvođenja AT. Njome potvrđujemo prisutnost aktivne anti-IgG komponente u sistemu testiranja kod negativnog ishoda testa. CK čine humani eritrociti krvne grupe 0 poz, R1r fenotipa, in vitro obloženi sa IgG protutijelima anti-D specifičnosti. Titar anti-D protutijela određuje se prema UKBTS/ NIBSCstandardu kojim se optimizira dilucija važna za pripravu slabe CK. Jaka CK može dati poz. reakciju i kada je dio AHG-a vezan i tada nećemo detektirati niske koncentracije protutijela. Stoga u završnom ispitivanju obavezno radimo test neutralizacije kojim potvrđujemo pripravu slabe CK. Svi navedeni TE se čuvaju u neutralno protektivnom mediju na temperaturi od +2 do +10 0C. Dugogodišnja primjena „home made“ TE pokazala se uspješnom i opravdanom zbog kvalitete i ekonomičnosti. Ispunjavanjem svih zahtjeva u pripravi i kontroli moguće je pripraviti vrlo stabilne i pouzdane TE.

REAKCIJE I KOMPLIKACIJE U DOBROVOLJNIH DARIVATELJA KRVI (DDK)

Ružica Štimac, Dorotea Šarlija, Irena Jukić

Hrvatska

Ustanove koje prikupljaju krv obvezne su osigurati dostatne količine krvi prema potrebama i istovremeno voditi računa o dobrobiti DDK. Reakcije i komplikacije kod darivatelja krvi su rijetke, a te povremene nuspojave različite težine se mogu javiti tijekom ili na kraju darivanja krvi. Najčešće reakcije u DDK, mali hematomi i blage vazovagalne reakcije, iako neugodne nisu medicinski opasne. Te manje reakcije, međutim, mogu utjecati na vjerojatnost ponovnog dolaska DDK na darivanje krvi. U Hrvatskoj reakcije klasificiramo prema Standardima za prikupljanje i prikaz podataka o reakcijama vezanim za darivanje krvi (European Haemovigilance Network i International Society of Blood Transfusion, 2008.g.). Prema tim standardima, reakcije su razvrstane u kategorije prema vrsti simptoma sa sličnom etiologijom i patogenezom i prema ozbiljnosti reakcija koja se ocjenjuje trajanjem simptoma i potrebom za liječenjem. Darivatelji moraju biti informirani o rizicima i mogućim komplikacijama povezanim s darivanjem krvi te ih treba nadzirati tijekom i nakon darivanja krvi. Prilikom darivanja krvi, potrebno je darivatelju pružiti ugodnu atmosferu i posebnu pažnju. Naša je obveza stalno pratiti rizike darivanja krvi i ulagati u neprekidnu izobrazbu djelatnika kako bi se postigla najmanja moguća učestalost reakcija kao i njihovih komplikacija. Iskusno, profesionalno, vješto i ljubazno osoblje je glavni čimbenik u smanjenju stope reakcija ili komplikacija povezanih s darivanjem krvi.

MOTIVACIJA, INFORMIRANOST I ZADOVOLJSTVO DOBROVOLJNIH DARIVATELJA KRVI

Julijana Ljubičić, Ivan Neretljak

Hrvatska

Cilj studije bio je istražiti motive radi kojih dobrovoljni davatelji krvi (DDK) pristupaju darivanju krvi, utvrditi stupanj informiranosti o temeljnim aspektima darivanja krvi i njezinog testiranja, te dobiti povratnu informaciju o zadovoljstvu pruženim uslugama i subjektivnom osjećaju tijekom i nakon darivanja krvi. Podaci su prikupljeni od 1460 DDK primjenom anketnog upitnika koji se uz temeljne opće podatke o davateljima (dob, spol, stručna sprema), sastoji od tri cjeline: motivacija, informiranost i zadovoljstvo. Od ukupno 1460 ispitanika, njih 82,4% bili su muškarci, a 17,3% žene. Najveći broj ispitanih DDK bio je srednje stručne spreme (56,6%) i u dobi od 20 - 49 godina života (74,9%). Najčešći razlog pristupanju darivanju krvi bio je altruizam (42,6%). Najvećom nagradom za darivanje krvi davatelji smatraju činjenicu da su pomogli drugoj osobi (njih 36,4%). 14,9% ispitanika smatra da je neinformiranost vodeći razlog zbog kojeg ljudi ne daruju krv. Iz dijela ankete kojim je ispitivana informiranost davatelja treba istaknuti slabo poznavanje o krvlju prenosivim bolestima (da je moguća rijetka zaraza hepatitisom i HIV-om tijekom venepunkcije misli 32,7 %, a njih 1,8 % mišljenja je da postoji velika mogućnost zaraze). Ispitivanjem zadovoljstva DDK tijekom liječničkog pregleda doznaje se da njih 1 % nije dobilo tražene informacije. Sam tijek venepunkcije 77,4 % ispitanika ocijenilo je gotovo bezbolnim. Čak 45,9% davatelja osjećalo se odlično nakon davanja krvi, a njih 34,9% dobro. Rad djelatnika ocijenilo je ljubaznim 98,6 % ispitanika, a njih 97,5% sigurno bi ponovno darovalo krv. Prema rezultatima ankete može se zaljučiti da su DDK motivirani za pristupanje darivanju krvi. S obzirom na nedostatnu informiranost o krvnim grupama, mogućnostima prijenosa zaraznih bolesti putem krvi, kao i kriterija za odabir DDK potrebno je sustavno provoditi

edukaciju davatelja putem predavanja , brošura i sl. Isto tako možemo zaključiti da su DDK zadovoljni skrbi za vrijeme boravka u HZTM.

IZVANTJELESNA MEMBRANSKA OKSIGENACIJA U KARDIOKIRURŠKOJ JEDINICI INTENZIVNOG LIJEČENJA

Mihaela Stanec, Ružica Meglaj, Adriano Friganović

Hrvatska

Izvantjelesna membranska oksigenacija (ECMO -Extracorporal membrane oxygenation) je oblik izvantjelesnog održavanja života u kojem umjetna vanjska cirkulacija nosi vensku krv od pacijenta u uređaj za izmjenu plinova (oksigenator), gdje se krv obogaćuje kisikom, a ugljični dioksid se uklanja. Krv se potom vraća u cirkulaciju pacijenta. ECMO se koristi kada konvencionalne metode ne pomažu. Vrsta ECMO postupka ovisi o srčanoj funkciji i stanju pacijenta. Veno-venska (V-V) funkcija ECMO-a se obično provodi kod izoliranog respiratornog zatajenja, dok se veno-arterijski postupak (V-A) koristi za kombinirano kardijalno i respiratorno zatajenje. Pacijenti na ECMO-u zahtijevaju 24-satni nadzor, a pošto je intenzivno liječenje najviši oblik zdravstvene skrbi i liječenja, medicinska sestra tijekom zbrinjavanja pacijenta sve aktivnosti i pozornost treba usmjeriti ka spriječavanju mogućih komplikacija koje mogu rezultirati smrtnim ishodom. U tom procesu značajnu ulogu ima zdravstvena njega koju pruža medicinska sestra koja je zadužena za tog bolesnika, koja, kako bi obavljala svoje zadatke treba sadvladati praktične vještine, imati teorijska znanja , kritična te imati stav. Cilj timskog rada je dobrobit pacijenta stoga glavna je uloga medicinske sestre da primjeni provodi hemodinamski nadzor, primjenjuje ordiniranu terapiju i sudjeluje u postupcima liječenja, te da upozori liječnika - anesteziologa na eventualne aktualne probleme kako bi se spriječile možebitne komplikacije te definirao daljnji tijek liječenja.

SIGURNOST TRANSFUZIJSKOG LIJEČENJA KRVNIM PRIPRAVCIMA DOBIVENIM OD DOBROVOLJNIH DARIVATELJA KRVI

Vesna Grozdanovski, Vladimir Cipek, Čedomir Maglov

Hrvatska

Krv je lijek biološkog podrijetla i ne može se proizvesti umjetnim putem, stoga kao takav nosi niz opasnosti za onoga tko ga prima. Da bi se rizici sveli na najmanju moguću mjeru važno je postići što prihvatljiviji standard u prikupljanju krvi i krvnih sastojaka, testiranju i izradi krvnih pripravaka. Sigurnost transfuzijskog liječenja započinje već dobrim informiranjem davatelja krvi. Nastavlja se identifikacijom i upisom u kompjutorski sustav, slijedi određivanje Hgb i liječnički pregled. Svaka se izvađena doza krvi ili krvnog sastojka proizvedena na staničnom separatoru ili dobivena darivanjem pune krvi obilježava kao i popratne epruvete (za kontrolu krvne grupe,i serološka testiranja – HIV, sifilis, HBV, HCV). Nakon dezinfekcije ubodnog mjesta i vađenja krvi izvađene doze se pod kontrolom transportiraju, prerađuju u krvne sastojke i skladište do izdavanja. Svaki od ovih koraka u lancu vrlo je važan i u konačnici može utjecati na kvalitetu krvnog pripravka a time i na efikasnost liječenja. Iz godine u godinu HZTM prikuplja sve više krvi od dobrovoljnih darivatelja, 2011. godine izvađena je krv od 96 141 darivatelja pune krvi i na staničnom separatoru 2187 krvnih pripravaka dobivenih aferezom. Prikupljanje krvi je organizirano u suradnji sa Crvenim križem kao i u samoj organizaciji od strane HZTM-a. Cijeli postupak prikupljanja krvi, samo vađenje krvi te njezina prerada i testiranje provodi se na način da maksimalno štiti bolesnika ali i davatelja krvi kao i svakog djelatnika koji sudjeluje u tom procesu. Da bi se zaštitio bolesnik (primatelj krvi i krvnih pripravaka) potrebna kvaliteta krvi može se postići samo osiguranjem kvalitete rada, opreme, prostora, reagensa, vođenje evidencije osposobljenosti, edukacije i stručnosti djelatnika. HZTM od 2001. godine radi prema ISO standardima kvalitete. Svakodnevnim unapređenjem u radu nastojimo osigurati što sigurnije i efikasnije liječenje bolesnika.

KRONIČNA OPSTRUKTIVNA BOLEST PLUĆA

Ivana Komljenović, Dragana Andrić, Sanja Zmaić

Hrvatska

Kronična opstruktivna bolest pluća je šesti uzrok smrti u svijetu, a predviđa se da će do 2020 godine dospjeti na treće mjesto. Najvažniji problem ovim bolesnicima predstavlja jaki podražaj na kašalj, koji često i ostaje samo na tom podražaju jer ne mogu kvalitetno iskašljavati. Tada dolazi do nakupljanja sekreta i hipoksemije, te dispneje i takvi bolesnici završavaju, kao hitni slučajevi, u bolnici na terapiji kisikom, izmoreni, neispavani, bez apetita i volje.Kronična opstruktivna bolest pluća predstavlja veliki problem u svijetu. Milijunima ljudi kojima je ta bolest dijagnosticirana predstavlja veliki problem i ometa im svakodnevno životno funkcioniranje. Bolesnici prije svega imaju pomanjkanje znanja u vezi sa svojom boleśću. Ne znaju što učiniti kada nastupi teško disanje, kako i na koji način disati i kako si olakšati, te koji su čimbenici rizika i koji čimbenici mogu pridonijeti pogoršanju simptoma bolesti. Mnogi bolesnici ne znaju da imaju pravo na mobilni aparat za primjenu kisika i da on uopće postoji, mnogi se ustručavaju ili ne žele biti dosadni sa svojim pitanjima o bolesti pa tako na kraju ostaju bez informacija. Uloga medicinske sestre tehničara je jedinstvena i nezamjenjiva u tom procesu dijagnostike, prevencije, edukacije i liječenja kronične opstruktivne bolesti pluća. Kroz proces zdravstvene njege, kao metode individualnog pristupa bolesniku definirane su najčešće sestrinske dijagnoze u kroničnoj opstruktivnoj bolesti pluća, te u skladu s tim osmišljene su intervencije koje bi trebalo provoditi kod ovakvih bolesnika.

PRIMJENA NEINVAZIVNE RESPIRACIJSKE POTPORE U JIL-U

Vesna Grubješić, Marijana Maljković, Hana Tunaj

Hrvatska

Neinvazivna respiracijska potpora (prema engl. Noninvasive Ventilation, NIV) primjenjuje se u liječenju akutnog i kroničnog respiratornog zatajenja. Prednosti NIV-a u odnosu na invazivnu respiracijsku potporu su brojne: izbjegavanje komplikacija endotrahealne intubacije, smanjenje učestalosti upala pluća uzrokovanih strojnom ventilacijom (VAP), izbjegavanje primjene analgosedacije izbjegavamo nazočnost stranog tijela u donjem dijelu ždrijela, povoljan utjecaj NIV-a na hemodinamiski status bolesnika, jednostavnost primjene NIV-a. Primjena NIV-a pruža nam mogućnost: aktivnog sudjelovanja bolesnika u fizikalnoj terapiji, fiziološki unos hrane i pića, omogućena nam je komunikacija s bolesnikom, a također se može primjenjivati na svim odjelima. Spontanim disanjem s pozitivnim tlakom u dišnim putovima pomoću NIV-a izbjegava se niz specifičnih respiracijskih komplikacija povezanih sa strojnom ventilacijom. Cilj rada je prikazati primjenu NIV-a u liječenju akutnog respiracijskog zatajenja u bolesnika nakon izmještaja iz koronarne jedinice. Razrada: Bolesnik je zaprimljen iz zbog neophodnosti mehaničke ventilacije. U acidobaznom statusu prati se porast pCo2 i niži pH. Na rentgenološkom nalazu vidi se obostrano pleuralni izljev. Nakon 4 dana stekli su se povoljni uvjeti za odvajanje od strojne potpore disanju. Bolesniku se stavlja maska s O2 ali se nakon 1h razvija respiratorna insuficijenciju uz izraziti porast pCo2 13.1 kPa i pad pO2 6.8 kPa. Indicira se terapija NIV-om (kaciga, helmet). Jedan sat po postavljanju kacige (helmeta) pCo2 12.5, pO2 21.6. Nakon 2 dana provedenih na NIV-u i aktivnoj respiratornoj fizioterapiji bolesnik se sveukupno respiracijski poboljšava, te se prestaje s primjenom NIV-a. Slijedeći dan otpušta se na odjel s potporom kisika i obveznu respiratornu fizioterapiju. Rano započeta ventilacijska

potpora NIV-om osigurava bolji ishod liječenja, bolje preživljavanje, kraće liječenje u JIL-u i bolnici te manje troškove. Smanjuje se sveukupno vrijeme provedeno na strojnoj ventilaciji. Za razliku od strojne ventilacije NIV omogućuje istovremenu provodnju punog obima aktivne respiracijske i sveukupne fizioterapije. Primjena je lagana, s brzo vidljivim oporavkom respiracijskog statusa.

UTJECAJ KATEGORIZACIJE BOLESNIKA NA SESTRINSKI MENADŽMENT I KONTROLU KVALITETE

Vedrana Iveta, Suzana Kamber

Hrvatska

Upravljanje ljudskim resursima u zdravstvenoj njezi je sveobuhvatan zadatak koji zahtijeva specifična znanja i vještine. Znanje i razumijevanje procesa i postupaka koji se danas postavljaju u zdravstvenim ustanovama , temelj su za uspješno planiranje i provedbu kroz sestrinski menadžment. Promjene koje će proizaći iz provedenih postupaka treba predvidjeti i prezentirani medicinskim sestrama kao pozitivan razvoj, a ne kao dodatno opterećenje u svom svakodnevnom procesu rada. Medicinske sestre menadžeri su svojim djelovanjem uključene u planiranje resursa i programa rada, utvrđivanje struktura i postavljanju standarda. Upravljajući resursima, osiguravajući informacije na svim razinama , osposobljavanje i educiranje medicinskih sestara, te praćenje, vrednovanje i koordiniranje aktivnosti na svim razinama djelovanja. Sestra menadžer treba kontinuirano težiti što optimalnijem broju medicinskih sestara obzirom na potrebe bolesnika, potrebe zadanih standarda da bi bolesnik dobio što kvalitetniju i sigurniju zdravstvenu njegu. Danas se javlja sve više zahtjeva za procjenom kvalitete zdravstvene zaštite i praćenje indikatora kvalitete rada. Osnovni principi nadzora kvalitete zdravstvene njege na svim razinama kao i u JIL-u su trajno bilježenje indikatora. Kategorizacija bolesnika kao bazični instrument za izračun odgovarajućeg broja medicinskih sestara u bolničkoj skrbi, koji se određuje na osnovu kategorizacije bolesnika s obzirom na količinu potrebne njege/24 sata, pri čemu se utvrđuje težina stanja bolesnika, odgovarajuća zdravstvena njega koju je potrebno pružiti i potrebe medicinskih sestara. Kod provođenja medicinsko-tehničkih terapijskih zahvata medicinska sestra treba osim znanja imati i razvijenu vještinu, što zajedno čini određenu kompetenciju za obavljanje visoko stručne skrbi za bolesnike.

DELIRIJ U JIL-U

Marijana Žaja

Hrvatska

Delirij u jedinicama intenzivnog liječenja pozanat kao i „ICU delirium“ učestala je i često neprepoznata pojava.Po svojoj definiciji to je poremećaj svijesti, po vrsti hiperaktivan, hipoaktivan ili miješani što zahtijeva drugačiji pristup i liječenje.Zdravstvena njega takvih bolesnika iznimno je teška radi opasnosti po vlastitu sigurnost i život (kako pacijenta tako i osoblja koje o njemu skrbi). Procjena i prepoznavanje delirija najvažniji su trenutak skrbi. Instrumenti za mjerenje i prepoznavanje delirija su RASS skala i ICU CAM za čiju je upotrebu potrebna edukacija. Inervencije kojima smanjujemo utjecaj rizičnih faktora (kojih je u JIL-u i do deset puta više) u velikoj mjeri su u domeni medicinske sestre.Pacijent s delirijem ima velike šanse postati trajno kognitivo oštećen, ima veću šansu umrijeti kao i produžiti svoj boravak u bolnici. Za razliku od pacijenata koji delirij nisu doživjeli Edukacija med. sestara o procjeni statusa, delirantnog pacijenta faktorima rizika i načinu njihova umanjivanja (uklanjanja) trebala bi uključivati, osim osnovnih znanja, i kompetencije medicinske sestre.

NARUČIVANJE I POTROŠNJA KRVNIH PRIPRAVAKA U TRANSPLATACIJI JETRE

Martina Lugarić, Nikolina Fatuta, Sandra Jagnjić

Hrvatska

Ortotopična transplatacija jetre (OLT) je postupak koji se provodi kod završnog stadija akutne ili kronične bolesti jetre, neoperabilnih tumora jetre kao i kod različitih metaboličkih poremećaja. Unatoč sve boljim kirurškim tehnikama i anestezijološkim postupcima još su uvijek prisutni veliki intraoperativni gubitci krvi i transfuzije velikog broja krvnih pripravaka (KP). U KB Merkuru naručivanje krvnih pripravaka za transplataciju jetre se najčešće odvija prema shemi (maximal surgical blood ordering system, MSBOS): 20 koncentrata eritrocita (KE), 16 doza svježe smrznute plazme (SSP), 16 doza koncentrata trombocita (KT) te 2 doze krioprecipitata (KRIO). Cilj je pokazati ukupnu i prosječnu potršnju pojedinih krvnih pripravaka kao i odnos između naručivanja KP i njihovog stvarnog utoška prilikom OLT-a. U razdoblju od dvije godine (2008.-2009.) praćeno je naručivanje i potrošnja krvnih pripravaka u KB Merkuru prilikom 59 OLT-a. Zatraženo je 1105 doza KE, 784 doze KT, 1007 doza SSP te 106 doza KRIO. Od toga je izdano 767 doza KE, 531 doza KT, 965 doza SSP i 100 doza KRIO. Utrošeno je 570 doza KE, 531 doza KT, 883 doza SSP i 100 doza KRIO. Omjer traženih i izdanih doza: kod KE je 1,4, kod KT 1,5, kod SSP 1,0 te kod KRIO je 1,1. Zaključak: U transplataciji jetre transfuzija krvnih pripravaka zauzima važno mjesto.U prosjeku se po jednom OLT-u potroši 12,8 doza KE, 8,8 doza KT,14,7 doza SSP te 1,7 doza KRIO.U KB Merkuru shema (MSBOS) po kojoj se naručuju krvni pripravci je odgovarajuća.

POSTUPAK REANIMACIJE

Igor Kljajić

Hrvatska

Kardiopulmonalna reanimacija kombinacija je mjera oživljavanja koje se poduzimaju kako bi se bolesniku, koji je doživio zastoj disanja i/ili rada srca, tj. kardiorespiratorni arest, ponovno uspostavila funkcija srca i disanja. Glavni cilj izvođenja mjera reanimacije je osigurati dostatnu količinu kisika mozgu, srcu i drugim vitalnim organima, sve dok se složenijim postupcima kardiopulmonalne reanimacije ne uspostavi adekvatna srčana akcija i spontano disanje. Intervencije koje pridonose uspješnom ishodu nakon srčanog zastoja mogu se prikazati kao lanac “ lanac preživljavanja “ . Lanac preživljavanja sastoji se od 4 karike: rano prepoznavanje i pozivanje pomoći, rana kardiopulmonalna reanimacija, rana defibrilacija i postreanimacijska skrb. Nakon srčanog zastoja u bolnici, podjela osnovnog i napradnog održavanja života je proizvoljna; u praksi, reanimacija mora biti kontinuiran proces. Javnost očekuje od medicinskih djelatnika da poznaju mjere kardiopulmonalne reanimacije (KPR). Algoritam naprednog održavanja života univerzalni je algoritam za kardiopulmonalnu reanimaciju, bez obzira na uzrok srčanog zastoja. Važno je prepoznati kritičnog bolesnika i na vrijeme odreagirati. Kritičnog bolesnika ili bolesnika koji je izreanimiran moramo procjeniti i to po ABCDE pristupu.

INFORMIRANOST I STAVOVI O DONIRANJU ORGANA

Ksenija Kukec, Nevenka Ivek, Željka Gajski

Hrvatska

Danas smo svjedoci činjenice da je sve veći broj bolesnika u terminalnom stadiju bolesti kojima je transplantacija organa od umrle osobe jedina mogućnost liječenja. Terapijske mogućnost presađivanja organa su velike što rezultira povećanjem broja bolesnika kojima ovakav način liječenja može pomoći. Povećanje

uspješnosti presađivanja organa rezultiralo je dramatičnim porastom lista čekanja. Broj organa dostupnih za presađivanje ni približno ne prati stvarne potrebe, te pomanjkanje organa predstavlja globalni problem. Jedan od razloga je to što je prikupljanje organa s umrlih osoba uglavnom bazirano na donorstvu nakon smrti mozga, pri čemu treba naglasiti da tek oko 1% umrlih, te ne više od 3% umrlih u bolnici, podliježu toj situaciji. Također postoji dokaz da pomanjkanje organa za presađivanje nije primarno vezano uz pomanjkanje donora, nego češće uz propuste u njihovom prepoznavanju, dobivanju pristanka te lošom realizacijom eksplantacije. Kao razlog može se navesti i neinformirana i nezainteresirana javnost. Razvijanje svijesti o ovom problemu u javnosti, kao i pozitivnog stava o doniranju organa pridonose poboljšanju rezultata. Cilj ovog rada bio je ispitati stavove i informiranost zdravstvenih i nezdravstvenih djelatnika Opće bolnice Varaždin o doniranju organa.

MEDICINSKA SESTRA I PRAVA PACIJENATA U JIL-U

Nevenka Ivek, Željka Gajski, Ksenija Kukec

Hrvatska

Zadatak profesionalne sestrinske etike nije ni najmanje jednostavan, naročito ako s jedne strane suprotstavimo stav tradicionalne medicine i njege bolesnika u kojima je pacijent objekt skrbi i suvremenog načina djelovanja medicinskih sestara koje su svojim obrazovanjem utemeljile novi pristup zdravstvenoj njezi. Posebice taj pristup svakodnevno dolazi do izražaja u jedinicama intenzivnog liječenja, u kojem se sukobljavaju tradicionalan način obrazovanja svih zdravstvenih profesionalaca po kojem se pacijentu pokušava uvijek i pod svaku cijenu produžiti život, te prava pacijenata po kojima on ima pravo unaprijed izreći svoje zahtjeve, pa tako i odbiti neke postupke. Bitna uloga medicinske sestre u procesu stacionarnog zbrinjavanja, je uloga u zaštiti ljudskih prava i dostojanstva pacijenta. Povećanjem razine obrazovanja sestrinstvo iz zanimanja postaje profesija, što dovodi do veće autonomnosti medicinskih sestara u svakodnevnom radu. S aspekta laika, sestra je neupitan autoritet za područje zdravstvene njege, osoba kojoj se s povjerenjem obraća i koja njegovo povjerenje ne smije iznevjeriti. Zakon o Zaštiti prava pacijenata iz 2004. godine obvezuje sve zdravstvene profesionalce da u skrb uključe pacijenta i njegovu obitelj, što u odnosu na tradicionalan način zbrinjavanja predstavlja bitan zaokret. Bliskost medicinske sestre i pacijenta, a koja proizlazi iz same definicije zdravstvene njege po kojoj medicinska sestra pomaže bolesniku u zadovoljavanju njegovih osnovnih ljudskih potreba, dovela je medicinske sestre u situaciju da su upravo one članovi tima koji znatno utječu na razinu ostvarivanja prava pacijenata. Cilj ovog rada je utvrditi koje etičke norme medicinska sestra u JIL-u mora zadovoljiti, te kako postupati u slučajevima kad se kod sestara jave etičke dileme vezane uz provođenje invazivnih postupaka, pa i same reanimacije.

VIŠESTRUKO REZISTENTNI UZROČNICI BOLNIČKIH INFEKCIJA

Željka Gajski, Nevenka Ivek, Ksenija Kukec

Hrvatska

Svake godine oko 10% hospitaliziranih bolesnika razvije bolničku infekciju. U zemljama u razvoju taj postotak je mnogo veći oko 25%. Infekcija se smatra bolničkom ako nastane 48 – 72 sata po prijemu ili unutar deset dana od otpusta iz bolnice. Naravno da ova vremenska razdoblja nisu uvijek primjenjiva te se neke infekcije mogu javiti i prije 48 sati. Najveći rizik i najveća učestalost postoje na odjelima intenzivne skrbi. Uzročnici bolničkih infekcija u našoj sredini jesu višestruko rezistentne bakterije: Pseudomonas aeruginosa, MRSA, Klebsiella spp-ESBL soj, Escherichia coli-ESBL soj, Acinetobacter, Enterobacter, Proteus i Seratia. Podaci o rezistenciji bakterija na antibiotike jasno ukazuju na veličinu problema i obvezuju nas da učinimo maksimalne napore u provođenju mjera prevencije razvoja rezistencije i sprječavanju širenja rezistentnih mikroorganizama. Stoga je veliki naglasak na mjere hospitalne higijene i racionalnu upotrebu antibiotika.

ZDRAVSTVENA NJEGA BOLESNIKA S KRANIOCEREBRALNIM OZLJEDAMA

Snježana Šobak

Hrvatska

Kraniocerebralne ozljede su sve ozljede mozga i lubanje koje nastaju djelovanjem izravne i neizravne sile. Najvažnija klasifikacija težine ozljede je skoriranje prema Glasgowskoj ljestvici kome (GSC). Bolesnici s kraniocerebralnim ozljedama kod kojih je GCS 8 ili manji pripadaju skupini bolesnika sa teškim ozljedama i zahtjevaju smještaj u JIL-u te adekvatnu intenzivnu i visokostručnu njegu. U JIL-a odjela za anesteziologiju, reanimatologiju i intenzivno liječenje OB Varaždin u razdoblju od 01.01-31.12.2011. zbrinuto je 76 bolesnika s kraniocerebralnim ozljedama. Glavni cilj liječenja i njege neurokirurških bolesnika je spriječiti sekundarnu ozljedu mozga održavanjem tlaka moždane perfuzije na oko 70 mmHg. Stupanj izlječenja neurokirurških bolesnika pokazuje Glasgow outcome ljestvica.

ZDRAVSTVENA NJEGA UTEMELJENA NA DOKAZIMA

Vesna Bratić, Štefica Jurjak, Ines Potočnjak

Hrvatska

Zdravstvena njega utemeljena na dokazima je primjena relevantnih istraživačkih podataka u donošenju odluka medicinske sestre u provođenju zdravstvene njege. Ciljevi sestrinstva utemeljenog na dokazima su osigurati kvalitetnu zdravstvenu njegu, razviti baze istraživanja za integraciju dobivenih rezultata u praksu. U nastojanjima da se poboljša zdravstvena njega istraživanje treba dati odgovore da li je zdravstvena njega utemeljena na dokazima učinkovita koliko smo očekivali, težina implementacije u praksu, te troškovi primjene. Zdravstvena njega utemeljena na dokazima nužan je preduvjet za pružanje kvalitetne skrbi za bolesnika.

ZDRAVSTVENA NJEGA BOLESNIKA S UROSTOMOM

Alojzije Berić, Matija Jošić, Ružica Pandžić

Hrvatska

Za tisuće ljudi koji pate od bolesti mokraćnog mjehura kirurški zahvat može učiniti njihov život boljim odnosno kvalitetnijim. Izvođenje urostome ima za cilj unapređenje bolesnikova postojećeg stanja, smanjenje boli i patnje, uklanjanje bolesti ili unapređenja bolesnikova općeg zdravstvenog stanja. Urostoma se izvodi samo onda kada je mokraćni sustav toliko oštećen bolešću da se ne može oporaviti. Urostoma je otvor na prednjoj trbušnoj stijenci koji osigurava derivaciju-odvod urina. Riječ urostoma je izvedena iz grčkih riječi Uros (urin) i Stoma (otvor ili usta). Najčešći uzrok izvođenja urostome je karcinom mokraćnog mjehura, nešto rjeđi uzroci su karcinom uretera, kongenitalne abnormalnosti mokraćnog mjehura, radikalna kirurgija zdjelice te kongenitalna i stečena neurološka oboljena koja dovode do urinarne inkontinencije (Paraplegija, Spina bifida,itd.). Ileum conduit – Bricker- (Urostoma) je najčešća i najjednostavnija conduit derivacija mokraće. Za ovu metodu koristi se 10-15 cm terminalnog ileuma. Baza konduita fiksira se u donjem desnom kvadrantu, potom se na kožni otvor izvuče aboralni dio ileuma i učini se stoma na preoperativno odabrano mjesto. Ovom metodom ne može se kontrolirati mokrenje te bolesnik mora nositi spremnik (vrećicu) pričvršćen na prednju stijenku abdomena svo vrijeme. Bolesnici sa urostomom nemaju osjećaj potrebe za mokrenjem.

Tanko crijevo fiziološki proizvodi sluz te tako segment tankog crijeva koji čini ileum conduit nastavlja secernirati sluz. Urin koji se skuplja u vrećicu sadržavat će sluzavi sadržaj što je normalno te ne predstavlja znak infekcije. Kontraindikacije – sindrom kratkog crijeva, upalne crijevne bolesti, prethodna ekstenzivna radijacija zdjelice, nesposobnost bolesnika za opću anesteziju. Rane komplikacije- urinarni leak, crijevni leak, sepsa, infekcija rane, dehiscencija rane, prolongirani ileus, intestinalna opstrukcija, gastrointestinalno krvarenje. Kasne komplikacije- akutni pijelonefritis, krvarenje iz konduita, ureteralna opstrukcija, infekcija konduita, metabolička acidoza, stenoza konduita, volvulus,urolitijaza.

OSOBITOSTI ZDRAVSTVENE NJEGE BOLESNIKA NAKON OPERACIJE MOZGOVNE ANEURIZME U NEUROKIRURŠKOJ JEDINICI INTENZIVNOG LIJEČENJA - PRIKAZ SLUČAJA

Mirjana Meštrović, Boris Budimir, Jelena Mijić-Anđelić

Hrvatska

Bolesnica stara 31 godinu zaprimljena je na liječenje iz opće bolnice u KBC Zagreb nakon dokazanog opsežnog subarahnoidalnog krvarenja. Nakon učinjene MSCT angiografije dijagnosticirana je aneurizma arterije cerebri medije te je indicirano operacijsko liječenje. Po završetku operacije bolesnica je smještena u jedinicu intenzivnog liječenja neurokirurških bolesnika. Obzirom na hemodinamsku nestabilnost i pogoršanje neurološkog statusa indiciran je kontrolni MSCT mozga i reoperacija. U operacijskoj sali postavljen je LICOX kateter. Tijekom daljnjeg liječenja kontinuirano se prate vrijednosti arterijskih tlakova, intrakranijskog tlaka, perfuzijskog tlaka mozga, temperature i oksigenacije mozga,EtCO2, SpO2. Bolesnica se 10-og dana liječenja premješta na odjel klinike za neurokirurgiju zadovoljavajućih kliničkih i laboratorijskih parametara, te se 21 dan otpušta na rehabilitaciju u toplice.

SINDROM SUSTAVNOG UPALNOG ODGOVORA

Dora Borić, Jasmina Merory, Adriano Friganović

Hrvatska

Sindrom sistemskog upalnog odgovora (Systemic Inflamatory Reaction Syndrome ,SIRS) je klinički naziv za djelovanje složenih unutarnjih medijatora akutne faze reakcije, bez dokazanog izvora infekcije. SIRS može biti izazvan događajima kao što su infekcija, trauma, pankreatitis i operativni zahvat. SIRS može ugroziti funkciju različitih organskih sustava što dovodi do nastanka sindroma višeorganske disfunkcije (Multiple Organe Dysfunction Syndrome, MODS-a). SIRS i MODS prihvaćeni su kao nazivi za infekcije povezane sa akutnim bolestima. Blagi oblici česti su na općim odjelima, ali bolesnici sa težim oblicima zahtjevaju intenzivnu njegu. Važno je prepoznavanje SIRS-a u ranoj fazi kako bi se odredio osnovni uzrok i liječenje prije nego što SIRS napreduje u teži oblik. Liječenje često započinje prije konačne dijagnoze. Cilj je sprečavanje daljnjeg pogoršanja i stabilizacija stanja. Važna je akutna procjena i početno liječenje sa neposrednim istraživanjem i potporom. To uključuje procjenu razine svijesti, disanja, prohodnosti dišnih puteva, cirkulacije, temperature. Potreban je kontinuiran nadzor (monitoring) u stvarnom vremenu kako bi se omogućila česta reevaluacija pacijentovog stanja. Trebalo bi odmah uspostaviti neinvazivni monitoring kao što je EKG, pulsna oksimetrija i mjerenje krvnog tlaka. Kako bi se osigurala učinkovita i sigurna njega akutno bolesnog pacijenta procjena težine njegove bolest nam omogučuje da napravimo ključne odluke. Sestrinska skrb uključuje planiranje zdravstvene njege kroz procjenu i fizički pregled bolesnika. Većina pacijenata sa SIRS-om je već preboljela neku infekciju, ozljedu tkiva ili smanjenje perfuzije nekog organa ili dijela tijela. Često te bolesti ne ugrožavaju život, ali izlažu osobu bakterijskoj kontaminaciji. Trebalo bi provjeriti ima li postojećih bolesti kao što su bolesti pluća, kongestivno zatajenje srca i diabetes mellitus. Važno je utrvditi pacijentove prehrambene navike i procijeniti nutricijski status. Fizički pregled uključuje procjenu i očekivanje znakova koji upučuju na pojavu MODS-a. Nakon procjene formiraju se sestrinske dijagnoze : visok rizik za infekciju u vezi s invazijom mikroorganizama, imunosupresija, malnutricija, prisutnost invazivnog monitoringa. Planiranje intervencija i plana liječenja započinje prepoznavanjem pacijenata kod kojih je povećan rizik za pojavu sindroma. Provodi se njega u svrhu sprečavanja infekcije i adekvatne oksigeneacije tkiva svih dijelova tijela. Liječenje uključje primjenu antimikrobne terapije, održavanje perfuzije i oksigeneacije tkiva, nutricijsku potoru i imunomodulaciju. Važna je eliminacija svakog potencijalnog izvora infekcije. Moramo se uvjeriti da bolesnik razumije značenje postoperativne njege i važnost odmaranja i izbjegavanja napora. Provest ćemo edukaciju o znakovima i simptomima infekcije.

UNAPREĐENJE KVALITETE KLINIČKE PRAKSE U CILJU SIGURNOSTI PACIJENATA

Mirković Petar

Srbija

Kvalitet, prisutan u svim životnim situacijama - definiše se kao određena vrednost. U 21. veku može se reći da se kvalitetom umišljajno upravlja u cilju postizanja što boljih rezultata. U zdravstvenom sistemu, zdravstveni radnici pružanjem svojih usluga teže postići što bolje rezultate, uz istovremeno poštovanje sigurnosti pacijenata. Govoreći o zdravstvenom sistemu i zdravstvenim ustanovama, konstatuju se tri grupe koje zanima kvalitet pruženih medicinskih usluga : - predstavnici državnih organa koji zahtevaju određen kvalitet nasuprot uloženom novcu; - korisnici medicinskih usluga koji zahtevaju zdravstvenu zaštitu vrhunskog kvaliteta; - zdravstveni radnici koji žele pružiti dobru uslugu jer je to svrha njihovog obrazovanja, edukacije i temelj moralnih i etičkih načela. Kvalitet lečenja i nege bolesnika kroz istoriju značajno se menjao, razvijali su se različiti principi upravljanja kvalitetom, koji su prilagođeni određenim specifičnostima lečenja i zdravstvene nege. Polazeći od savremenog shvatanja vrednosti, dolazimo do zaključka potrebe planiranja i izvođenja kvaliteta. Odgovornost i obaveza svih zaposlenih u zdravstvenom sistemu je briga o sigurnosti i bezbednosti korisnika zdravstvenih usluga. Medicinska sestra – tehničar je stub za kvalitet i bezbednost u zdravstvenom sistemu. Kako je područje rada medicinske sestre zdravstvena nega, tako je i zadatak sestara upravljanje kvalitetom zdravstvene nege, što podrazumeva i postupanje na što bezbedniji način po pacijenta. U centrima za reanimaciju, anesteziju i intenzivno lečenje pacijent je zbog brojnih faktora izložen mnogim rizicima, takođe povećana upotreba savremenih tehnologija u radu, predstavlja dodatni rizik po bezbednost pacijenta. Zahtevi koji se stavljaju medicinskim sestrama su veliki i od nje se očekuje da pruži klinički sigurnu i odrovarajuću bezbednu negu, da evaluira svoja znanja, kritički razmišlja i prihvati sve novine koje su pred njom. Kako bi osigurali kvalitet u zdravstvenoj nezi, medicinske sestre i tehničari koji rade na odeljenjima anestezije, reanimacije i intenzivne nege, sve intervencije koje preduzimaju moraju zasnovati na znanju, najnovijim istraživanjima, kliničkim smernicama i standardima profesije. Primena standarda kliničke prakse osigurava sistem od grešaka u cilju povećanja bezbednosti pacijenta.