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Experiences of the perioperative care in patients' undergoing cardiac surgery

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Background:

It is important to investigate the patient's experiences of health care to pay attention to the patient's position and strengthen the patient's integrity, self-determination, and participation. How patients experience the perioperative care, i.e. the time from when the patient arrives to the surgical ward until the patient leaves the intensive care unit, is sparsely studied. Therefore there is a need to increase our knowledge of the patient's experiences, to be able to develop, improve and ensure the quality of the perioperative care related to cardiac surgery.

Motivation:

No previous Swedish study has investigated the patients' experiences of perioperative care related to cardiac surgery.

Aim:

To examine patients' experiences of the perioperative care related to cardiac surgery.

Method:

A quantitative, non-experimental observational study. Data is collected from 100 patients who receive paper questionnaires by mail, two weeks after cardiac surgery. The questionnaire is a customized version of the validated National Patient Survey. The 33 questions, based on a five-grade Likert scale, are divided into seven dimensions: Overall impression, Emotional support, Participation and involvement, Respect and treatment, Continuity and coordination, Information and knowledge, and Accessibility. The dimensions represent different aspects of the patient's experience of the capacity of the perioperative care to adapt to the individual's conditions and needs.

Results:

Data collection and statistical analysis are in progress.

Keywords: Experience, perioperative care, quality, patient, cardiac surgery.

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Systematic screening for stroke following cardiac surgery

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Background

Perioperative and postoperative stroke is an infrequent but serious complication associated with cardiac surgery. The time from diagnosis to treatment is imperative in limiting the extent of neuronal damage. The aim was to improve the early discovery and treatment of stroke following cardiac surgery at our cardiothoracic intensive care unit.

Methods

We implemented standardized screening for stroke with the Pre Ambulance Stroke (PreHAST) test, and a clear protocol for diagnosis, treatment and neurological controls. PreHAST is a simple bedside clinical examination tool used for screening for the most common stroke syndromes. We applied this tool routinely on all patients following cardiac surgery and transcatheter aortic valve implantation. The same tool was used to carry out neurological controls. All personnel at the intensive care unit were trained in using PreHAST. We evaluated how many patients underwent emergency CT diagnostics and thrombolysis or thrombectomy from January 1st through May 31st, 2019.

Results

During the study period, a total of 10 patients had neurological abnormalities that resulted in emergency neurological evaluation and 9 underwent CT and CT angiography. One patient recovered spontaneously and did not require further evaluation. CT/CT angiography revealed ischemic lesions in one patient but was not a candidate for thrombolysis nor thrombectomy.

Conclusion

The introduction of PreHAST as a screening tool following cardiac surgery has been successful at our department. The use of a systematic screening allows for earlier diagnosis and the possibility to salvage more brain tissue with prompt intervention.

Depressive and/or anxiety scoring instruments used as screening tools for predicting postoperative delirium after cardiac surgery - A pilot Study

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Background

Depression is common in patients with cardiac disease(1). Depression is a risk factor for developing postoperative delirium, a common and serious complication to cardiac surgery(2).

Objectives

The aim of this study was to evaluate if screening tools for anxiety and/or depression can be used to predict postoperative delirium after cardiac surgery.

Methods

This was a prospective population-based pilot study including 26 patients between 23 and 80 years of age undergoing elective or semi-urgent cardiac surgery in Sweden in November 2018. The day before surgery the participants filled out the depression screening instruments HADS and PHQ-9. After discharge the patient charts were examined for documentation of symptoms of delirium.

Results

Five (20%) patients screened positive for HADS-D and seven patients (27%) screened positive for PHQ-9. Four (22%) patients showed symptoms of postoperative delirium, none of them screened positive for depression prior to surgery.

Conclusion

In the full study the PHQ-9 questionnaire will be sent to patients prior to surgery. This pilot study showed a need of implementation of screening tools for delirium at the surgical ward to detect and measure post-operative delirium. The pilot study also showed a need of education about the necessity of using screening tools for delirium at the ICU.

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Assessing frailty in the population referred for Transcatheter Aortic Valve Implantation

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Background: Frailty assessment is becoming an important determinant of treatment outcomes following Transcatheter Aortic Valve Implantation (TAVI). This study assessed frailty and the influence of frailty on postoperative outcomes in a population referred for TAVI.

Methods: In a three months period, we evaluated walked distance (6 minutes-walk test), 4m-gait speed, leg and handgrip strength, cognitive function (Mini-Mental State Evaluation), fatigue and weight loss in patients assessed for TAVI. We used the Essential Frailty Toolset (EFC) to define frailty (1 out of 4 items) and the Salzburg physical frailty criteria (SPAC), frail \geq 3 physical frailty items, prefrail 1-2 items.

Results: Thirteen patients were assessed. All underwent transfemoral TAVI; median age: 84 years (range: 72-91) and median length of hospital stay was 2 (2-5) days. Frailty according to EFC was found in n=9 (70%) patients (0 items (n=4), 1 item (n=3), 2 items (n=5), 3 items (n=1)). For the SPAC, n=5 (38%) of patients were found to be frail and n=5 (38%) prefrail. Four patients were readmitted to the hospital within 30 days. Of these, all were considered frail according to the EFC, while physical frailty ranged from 2-5 items in the SPAC.

Conclusion: Frailty was detected in at least 70 % of patients referred for TAVI and was associated with hospital readmission within 30 days. Further research is needed to address the influence of frailty on patient related outcomes and their functional independence postoperatively.

Awaiting Transcatheter Aortic Valve Implantation – Patient perspectives

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Background

Aortic valve stenosis (AS) affects approximately 3% of people aged ≥ 75 years. Untreated, AS leads to dizziness, fainting, dyspnoea, chest pain, heart failure, reduced quality of life and eventually cardiac death. Transcatheter Aortic Valve Implantation (TAVI) has become the first choice for patients of old age or at high surgical risk. However, little is known about patient's experiences of being diagnosed, referred to and waiting for TAVI.

Method

Qualitative interviews of patients referred for TAVI. Interviews were recorded, transcribed verbatim and analysed using qualitative content analyses.

Results

Eleven patients (five women) were included. The mean age was 84 years (Range: 77-92 years); the mean waiting period was 160 days. Three themes emerged from the interviews: "Death and illness as a part of old age", "hope, fear and motivation for TAVI" and "frustration while waiting". The patients' considered old age and AS as important reasons for limitation in everyday life and considerations regarding death. They relied on TAVI to increase their quality of life and to reduce their symptoms. Still they feared the intervention and being left on their own after discharge. They experienced frustration while waiting and considered the waiting period as a waste of time.

Conclusion

AS patients awaiting TAVI experience increased emotional stress and fear, but at the same time hope for improved quality of life.

Sitting position increases pulmonary function early after cardiac surgery compared to supine position.

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Introduction: A decline in pulmonary function often follows cardiac surgery. Early mobilization is a part of a postoperative fast-track management following cardiac surgery aiming at reducing postoperative complications, but the influence of change of body position on pulmonary function following cardiac surgery has scarcely been investigated. Thus, the aim of this study was to describe changes in pulmonary function from the supine to the sitting position following cardiac surgery.

Methods: In a descriptive before-after design, we assessed alveolar ventilation (VA), tidal volume (Vt), inspiratory capacity (IC) and peripheral oxygen saturation (SpO₂) 2 to 3 days postoperatively in elective cardiac surgery patients. Assessments were performed with patients in the supine position and again with patients sitting in a chair.

Results: 15 patients with uncomplicated aortic valve, coronary artery bypass grafting or combined surgery were included. Compared to the supine position, sitting in the chair significantly improved VA ($20 \pm 17\%$, $p < 0.000$); Vt ($25 \pm 43\%$, $p = 0.015$); IC ($21 \pm 43\%$, $p = 0.036$) and SpO₂ ($0.89 \pm 1.3\%$, $p = 0.018$).

Conclusion: Lung function including alveolar ventilation was improved in the sitting compared to the supine position and was accompanied by improved oxygenation after uncomplicated cardiac surgery. Further research is warranted to describe the impact of changes in positions in patients who do not follow a standardized clinical pathway and in patients during physical activity.

Different professions experience of team communication in the operating room

Background: Communicating in teams is the foundation of a patient-safe healthcare. It is based on taking responsibility within the team, daring to take place, listening and being responsive. Prestige and hierarchical leadership can limit the team and its ability to communicate while the sense of trust and security is the foundation of successful team communication.

Motivation: There are few Swedish studies describing team communication in connection with thoracic surgery or In connection with cardiac intervention, therefore, the motive was to do this.

Aim: To explore different health care professionals' experiences of team communication in the operating room.

Method: Data was collected from 112 employees, thoracic surgeons/cardiologists, thoracic anesthesiologists, anesthetic nurses, operating nurses, perfusionists, assistant nurses, and nurses working in intervention. A non-validated questionnaire with ten statements and the possibility of comments in writing was used.

Result: All professions stated that team communication was important. Integration into team turned out to be significant and communication in teams can be linked to who is part of the team. Communication was perceived to work worse when too many people were involved at the same time. Communication in teams was important and was perceived to be developed through feedback, attendance and own responsibility.

Conclusion: Team communication is based on one's own responsibility, being clear and ensuring each other's different work duties.

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Experiences of team communication among different professions in an intensive care unit

Background: Communicating in teams is the foundation of a patient-safe healthcare. It is based on taking responsibility within the team, daring to take place, listening and being responsive.

Aim: To explore different health care professionals' experiences of team communication in intensive care.

Method: A mixed method with both a quantitative part and a qualitative part was used in order to create a broad analysis of data. Data was collected from 76 employees in an intensive care unit. Four different type of professions were represented and participated; general nurses, assistant nurses, intensive care physicians / anesthetists and intensive care nurses. A non-validated questionnaire with ten statements was used, and the possibility of comments in writing.

Result: It was shown that integration into the team is important and that communication in teams can be linked to who is part of the team. Attendance and own responsibility for functioning communication were perceived as important. Evaluation and feedback were important for the development of the team.

Discussion: Building teams take time, job satisfaction, patient safety and healthcare development benefit from a well-functioning team with well-functioning team communication.

Conclusion: Communication in teams was considered to be important, although different professionals experienced differently. Team communication is related to experience, time and attendance, team communication was strengthened by good personal chemistry and recurring feedback.

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