

associated with post-op stroke ($p < 0.001$) and post-op NYHA classes III and IV ($p = 0.002$). Post-op NYHA class was significantly associated with age ($p = 0.003$), pulmonary disease ($p = 0.02$), mitral valve implant type ($p = 0.01$), and post-op stroke ($p = 0.02$); 14 patients had strokes in the MMV (9) and in the BMV (5) groups. NYHA classes were significantly better after the replacement surgeries ($p < 0.001$). Bioprosthetic valves were significantly associated with worse survival ($p = 0.03$), worse NYHA post-op ($p = 0.01$), and more re-operations ($p = 0.006$). Survival was significantly better with mechanical valves ($p = 0.03$). When the two groups were matched for age and mitral regurgitation, the analysis revealed that bioprosthetic valves were significantly associated with re-operations ($p = 0.02$) but not significantly associated with worse survival ($p = 0.4$) or worse NYHA ($p = 0.4$). Mechanical mitral valve replacement in mitral stenosis patients is associated with lower re-operation rate, but no difference in survival as compared to bioprosthetic mitral valve replacement. Furthermore, post-operative stroke occurrence (14%) is associated with late mortality and worse NYHA classes.

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6. Oral care competency and practices among critical care nurses for mechanically ventilated patients

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Introduction: Oral care has an important role in maintaining the health and well-being of critically ill patients. Effective oral care improves patient comfort and prevents oral infection. Oral care also is an important component of the ventilator bundle. Evidence shows that comprehensive oral care is a prevention strategy to reduce the risk of ventilator-associated pneumonia in patients under mechanical ventilation.

Purpose: This study was conducted to assess the critical care nurses' competency pre, intra and post Endotracheal Tube and Oral Care Practices for Mechanically Ventilated Patients Methodology: A cross-sectional study was conducted on 150 intensive care nurses working in CCU, CSICU, and ICU of a specialized governmental hospital. A questionnaire was distributed and three weeks was given for papers collection. Three parts questionnaires were developed based on literature and an existing hospital policy and procedure. The first part contained questions about demographics including gender, age, years of working in critical care unit, qualification, and marital status. Second part contained a 12 items to test the nurses attitude toward mouth care practices for intubated patients by using 5-point Likert scale ranging from strongly agree (5) to strongly disagree (1). Part three contained a checklist to assess oral care competency by

using a 5-point Likert scale ranging from strongly agree (5) to strongly disagree (1). All nurses participated voluntarily and were assured of confidentiality. Statistical Package for the Social Scientists (SPSS, version 17) software was used for analysis.

Result: A total of 131 nurses out of 150 completed the questioners, 100% were females, 86% of nurses are Baccalaureate degree, 93% with 7–9 years' experience in critical care units, 80% of nurses have adequate time to provide oral care at least once a day, 20.4% only of the nurses are using a toothbrush with 2% Chlorhexidine Solution every 2–4 h for oral care at least Once a Day, 75.8% of nurses prefer to use oral swab with 2% Chlorhexidine Solution q 2–4 h, 98% has positive attitude toward mouth care practice. **Conclusions** The survey provided useful information on the oral care knowledge and practices of nurses caring for Mechanically Ventilated Patients. Almost all the nurses perceived oral care to be a high priority. Very low number of nurses are using the toothbrush with 2% Chlorhexidine Solution every 2–4 h, this figure must be studied for further action. The majority of nurses had some formal training in oral care, but would appreciate an opportunity to improve their knowledge and skills.

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7. Long term results of quadrangular autologous pericardial patch reconstruction of the pulmonary artery during arterial switch operation on post-

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The aim of this retrospective study is to evaluate the technique of Quadrangular Fresh Autologous Pericardial Patch for the reconstruction of the pulmonary artery in Arterial Switch Operation (ASO) to prevent the post-operative pulmonary artery stenosis (PAS). A total of 287 consecutive infants with transposition of great arteries were treated with ASO in our center between January 2000 and September 2014. The mean age was (7.76 days) and mean weight was (3.67 kg). The new pulmonary arterial root was reconstructed with a fresh quadrangular autologous patch. The technique includes extensive mobilization of both pulmonary artery branches and direct suturing of the patch to 2/3 of the annulus of the new pulmonary artery trunk first, and then reconstruction finish by the re-suspension of the posterior commissure of the new pulmonary valve inside

the patch. Patients were examined using trans-thoracic echocardiography consecutively at discharge from the hospital, and at 3–6 months and yearly after discharge. The mean follow up time was 78 months. The early mortality was 5.19% (17 patients), and there were no late mortality. The highest mortality was reported during the beginning of the pediatric surgical program. The mortality for the last 100 patients was 1%. The pressure gradient across the pulmonary valve in 249 patients (87%, was less than 20 mmHg. Mild pulmonary stenosis (pressure gradient of 20–40 mmHg) was present in 32 patients (11.14%) and moderate pulmonary stenosis with gradient 40–60 mmHg was manifested in 4 patients (1.39%). Reconstruction of the new Pulmonary artery during the ASO, using the quadrangular autologous fresh pericardial patch, is effective and reproducible in reducing the incidence of post-operative pulmonary stenosis.

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8. Are nurse-led prosthetic valve anticoagulation clinics effective?

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Valvular heart disease is a major and serious health-care issue. There is an increasing evidence that Nurse-led anticoagulation clinics may improve patients' management and care. This is a retrospective comparison study that included the first 94 patients enrolled in the Nurse Led Prosthetic Valve Anticoagulation Clinic (PVATC) in King Abdul-Aziz Cardiac Centre between April and June 2013, and received Warfarin by General Cardiology Clinics for one year pre enrollment in PVATC, and one year after. Time in Therapeutic Range (TTR) of the International Normalized Ratio (INR) was calculated and compared between pre and post PVATC enrolment. Other data including demographics and comorbidities were collected and analyzed. Mean age of patients was 53 ± 12.5 years and males were 56%. Atrial fibrillation was found in 37%, Diabetes Mellitus in 28% and Hypertension in 34%. Mean TTR was 72% pre enrollment in PVATC as compared to 78.9% after ($P < 0.006$). Median TTR was 75% pre, and 81.5% after attending the PVATC ($P < 0.0001$). 56% of patients pre enrollment had TTR values above 70% threshold, compared to 75% after enrollment. Nurse-Led PVATC has significant impact on the care provided to patients receiving anticoagulation treatment.

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Abstract Session 2

9. Incidence of tricuspid valve regurgitation following pacemaker/defibrillator lead extraction

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Despite advanced sterile techniques in cardiac device implantations, long-term complications such as wound infections and/or lead-induced endocarditis can develop mandating lead and device extraction. It has been suggested that lead extraction carries a risk of new-onset Tricuspid Regurgitation (TR), or a deterioration of a formerly known regurgitant valve. Yet, there is no enough scientific evidence to our knowledge to back this claim. In this study we aim to explore the risk of TR following lead extraction. We conducted a retrospective chart review in 113 patients whom underwent lead extraction at Prince Sultan Cardiac Center in Saudi Arabia during the period of Jan, 2002 to Jul, 2015. Six patients underwent lead extraction twice, making the total number of extractions to be 119. Of this study cohort, we include 52 cases who had Tricuspid valve function evaluation via Transthoracic Echocardiography (TTE) prior to and after device and lead extraction. TR severity was assessed using a grading system as the following; normal, mild, mild-to-moderate, moderate-to-severe, and severe. Worsening or improvement by more than 1 grade was considered clinically significant. TR following lead extraction was examined over a median of 5 months. Of the 52 cases included in this study, 37 (71.2%) were males and 15 (28.8%) were females, with a mean age of 46 (SD = 18) years. Eleven patients (21.2%) experienced worsening of TR (3 had normal functioning valves before extraction, and 8 were known to have TR prior to extraction), 2 (3.8%) had improvement, and the majority (75.0%) did not experience any significant changes. Compared with those who had no change, average lead duration was higher in the worsening TR group (67.2 vs. 27.9 months). A lead-attached vegetation was detected in 4 out of the 11 patients with TR. Lead type (High-voltage vs. Pacing) was not predictive of TR, 5 (45.5%) of the patients in the worsening group had high-voltage leads, while the remaining (54.5%) had pacing leads across the valve. Our study being a simple descriptive study could not find overwhelming evidence to support the claim that there is an elevated risk of new onset TR or deterioration of a regurgitant valve following pacemaker/defibrillator lead extraction. However, our study being a simple observational study with a considerably small sample size may influence the findings. Lack of appropriate control group in this study is a limitation in appraising the hypothesis. As there is scarcity of data in this important area of cardiac research, our findings should