

illiteracy rates of 16.7% compared to 5.2% in the echo free cases. Increasing age, increasing number of children sleeping in one room and poor dietary habits and tendency to underweight increased the prevalence of valvular disorders detected indicating the need for screening populations at risk. We conclude that mitral valve is the most commonly affected valve. RHD is the commonest etiological factor and appears to be on the rise especially in underprivileged populations. Differentiating between rheumatic and non-rheumatic etiology for valve disease still poses a problem. We recommend that every child with suspicious RHD should be followed up carefully and the decision for prophylaxis should be based on multiple factors taking the family history, living conditions and general condition of the child into consideration. Portable echocardiography machines are the state of the art in early detection of RHD and should be recommended as the standard for diagnosis of RHD.

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18. Effect of standardized catheterization lab order forms on peri-procedural prescription errors, patient care and staff satisfaction

T. Kashour^a, F. Al-Ayoubi^b, H. AlFaleh^c, K. Alhabib^c

^aKing Saud University, Riyadh, Saudi Arabia; ^bKing Khalid University Hospital, Pharmacy, Riyadh 11472, Saudi Arabia; ^cKing Saud University, Cardiology, Riyadh, Saudi Arabia

Medication errors are the most common cause of iatrogenic adverse events. They can lead to severe complications, including prolonged hospitalization, unnecessary diagnostic tests and treatments, and even death. **Objective:** We set to explore the impact of introducing standardized cath lab order forms on medication errors, quality of patient care and staff satisfaction. This was a single center observational study conducted in a tertiary cardiac center in Saudi Arabia. We enrolled a total of 100 consecutive patients who underwent diagnostic or interventional cardiac catheterization before or after the introduction of standardized order forms. The cohort was divided into two equal groups. We compared medication prescription errors (as defined by hospital formulary) between the two groups. We also studied the impact of the standardized order forms on peri-procedural care including laboratory tests order completion, peri-procedural fluid and diabetes management, anticoagulant, diuretic and analgesia management. We have also employed a structured questionnaire to assess staff satisfaction with the use of these forms. Implementation of standardized order forms resulted in significant reduction of prescription errors from 32.0% to 0.0% ($p = 0.025$). There was also a significant improvement in patient care as indicated by improvement in the rates of completion of laboratory orders that improved from 76.0% to 96.0% after the implementation

of order forms ($p = 0.004$), proper fluid management (100% vs. 86.0%, $p = 0.023$) and better peri-procedural diabetic management (see attached table). There was also improvement in the monitoring of the vascular access site (80% vs. 100%, $p = 0.004$) that resulted in reduction in access site related complications (6% vs. 0%). We administered a satisfaction questionnaire to 61 participants (nurses, physicians and pharmacists). The mean total satisfaction score was 62.8 for pharmacists, 50.4 for nurses and 48.6 for physicians indicating that the pharmacists were most satisfied with the implementation of these order forms and the physicians were the least satisfied ($p = 0.052$). Our study shows that standardized order forms have the potential to decrease medication-prescribing errors and improve quality of patient care among patients undergoing diagnostic and interventional cardiac procedures.

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19. Radial artery ultrasound predicts the success of transradial coronary angiography

R. Abazid^a, O. Smettei^b, M. Moahammed^b, A. Suresh^b, Y. Bashir^c, H. Saker^d

^aPSCCQ, Burydah, Saudi Arabia; ^bPSCCQ, Non invasive, Buridha, Saudi Arabia; ^cPSCCQ, Invasive, Burydah, Saudi Arabia; ^dPSCCQ, Interventional, Burydah, Saudi Arabia

Smaller radial artery diameter, CSA, and perimeter is associated with higher vascular access complications during coronary angiography. The transradial approach has become the preferred vascular access during conventional coronary angiography (CCA). A small mean radial artery diameter (RAD), however, may lead to higher rates of vascular access complications (VAC). To date, there are no data regarding the effect of the radial artery cross-sectional area (CSA) and perimeter. We evaluated the impact of preprocedure radial artery diameters, the CSA, and the perimeter on vascular complications. We conducted a single-center prospective analysis of 513 patients who underwent CCA. Radial artery ultrasonography was performed before and after CCA to measure the RAD, CSA, and perimeter. The average RAD, CSA, and perimeter were 2.60 ± 0.48 mm, 6.2 ± 3.0 mm², and 8.9 ± 1.7 mm, respectively. The same measurements were significantly larger in men than in women: 2.8 ± 0.5 vs. 2.4 ± 0.4 mm ($P < 0.0001$), 6.6 ± 3.4 vs. 5.3 ± 1.5 mm² ($P < 0.0001$), and 9.3 ± 1.7 vs. 8.2 ± 1.5 mm ($P < 0.0001$), respectively. In all, 56 patients (11%) had VACs. The RAD, CSA, and perimeter were significantly smaller in patients whose procedures had VACs than in those with no complications: 2.3 ± 0.5 vs. 2.70 ± 0.54 mm ($P = 0.0001$), 4.9 ± 2.1 vs. 6.4 ± 3 mm² ($P = 0.001$), and 7.6 ± 2.1 vs. 9.2 ± 1.6 mm ($P = 0.0001$), respectively. Univariate logistic regression showed that radial ultrasonographic parameters can independently predict VACs as follows: odds