

required admission and resulted in a total length of stay of 1474 hospital days and 49 ICU days. Attendance at a hematology outpatient clinic within 30 days from discharge significantly reduced the hazard of an ED visit due to a painful crisis compared with no follow-up (hazard ratio 0.70, 95% CI 0.52–0.94,  $p=0.02$ ).

**Conclusion** Appropriate outpatient referral at discharge may be associated with decreased ED visits. These benchmark results invite further investigation into the effects of outpatient management on preventing painful crises in patients with SCD.

**13** **IMPACT OF IMPLEMENTATION OF 'SICKLE CELL DISEASE ACUTE PAINFUL CRISIS CLINICAL PATHWAY' AT KFAFH ON REDUCING THE NUMBER OF ER VISITS, ADMISSION, READMISSION RATES, OPIOID CONSUMPTION, AND COST**

Aseel Jambi, Ahmed Alhartani, Ali Al-Blowi. *Pharmacy, King Fahad Armed Forces Hospital*

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**Background** Vaso-occlusive crisis is the most common complication of sickle cell disease (SCD) in adults, which is the primary reason why these patients seek medical care in emergency departments (EDs). We noticed increasing numbers of ED visits with a painful crisis together with increasing consumption of opioids. Therefore, a clinical pathway for the management of SCD acute painful crisis has been initiated at KFAFH in Jeddah. The main objectives of this clinical pathway management were to unify practice, standardize care, and promote judicious use of opioids at KFAFH. The aims of this study were:

- To reduce the rate of ER visits per patient by more than 50% within 1 year.
- To decrease the rate of admissions per patient and readmission rates by more than 30% and 40%, respectively, within 1 year.
- To reduce the consumption of meperidine and tramadol by more than 25% and 40%, respectively, within 1 year as a secondary outcome.

**Methods** A clinical pathway for the management of SCD acute painful crisis has been initiated at KFAFH in Jeddah. A total of 374 patients with SCD (aged 12 years or older with isolated painful crisis) was identified by KFAFH Emergency Department registration data. The primary source of patient information was the patient file, ED registration, and chart review for 1 year before (May 2016 to April 2017) implementation of the clinical pathway and 1 year after (May 2017 to April 2018) implementation of the clinical pathway.

**Results** ED visits:

- The annual rate of ED visits per patient dropped by 75.55% (45 versus 11.5).
- There was a progressive reduction in the frequency of ED visits over the year.

Admission rate:

- The rate of admissions per patient dropped by 41.87%.
- Readmission rate:
- The readmission rate declined by 54.51%.

Opioid consumption:

- Consumption of opioids decreased by 33% for meperidine 100 mg and by 41.6% for meperidine 50 mg. Consumption significantly decreased by 54% for tramadol capsules and by 33% for tramadol injection.

Cost saving:

- The cost saved after implementation of the clinical pathway is more than 410,709 SR.

**Conclusion** Proper pain management for patients with SCD leads to a significant decrease in ED visits, and reduces hospital admissions and readmission rates. Consequently, more than 400,000 SR was saved after the implementation of the pathway. We believe that physicians, nurses, and patient education sessions played a critical role in the success of the clinical pathway.

**14** **QUALITY OF LIFE OF PATIENTS POST OPEN CARDIAC SURGERY AT TERTIARY CARE CENTER (2-YEAR RETROSPECTIVE STUDY)**

Danya Adeib Aljafari, Ayman Kurdi, Nizar Althubaiti, Abdulrahman Ayoub. *College of Medicine, King Saud University for Health Sciences*

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**Background** Every minute a patient dies because of acute coronary heart disease in the USA. To prevent death, multiple cardiac procedures are done; however, these procedures do not guarantee a better quality of life. No research has been conducted in Saudi Arabia and the Gulf region regarding quality of life of patients post cardiac surgery. The aim of this study was to explore the quality of life of patients who underwent open cardiac surgeries in King Faisal Cardiac Center-King Abdulaziz Medical City-Western Region of Saudi Arabia during 2015–2017. The study assessed the quality of life of surviving patients and identified the association between demographic characteristics and quality of life domains.

**Methods** A cross-sectional retrospective study was done at King Faisal Cardiac Center. A convenience sample was used by identifying all patients who underwent open cardiac surgery between June 2015 and May 2017. 163 patients were eligible for our study, of whom 94 were valid for analysis. These patients were sent the SF-36 questionnaire, which is proven to evaluate quality of life. The survey is divided into eight major domains, which were reported as mean scores. Correlation was done using the Mann–Whitney U test, using a cutoff  $p$  value of 0.05.

**Results** The study reported that subscales of role limitations due to emotional problems and physical health were the lowest of the eight domains. However, the emotional well-being and the pain subscales were the highest of them all. We found that cardiovascular diseases, compared with other comorbidities, had the biggest effect on lowering quality of life.

**Conclusion** The results of the present study indicate that quality of life of patients who underwent cardiac surgery is affected negatively. The immediate post-operative duration is a vital factor that impacts long-term quality of life; therefore, hospital services need to increase their efforts regarding this critical period. Further studies should be done to explore the reasons behind these findings.