

# MISUNDERSTANDING OF PAIN IN SICKLE CELL DISEASE BY OUTPATIENT INFUSION NURSE

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## INTRODUCTION

Management of chronic pain poses unique challenges. It is known that patients with Sickle cell disease suffer from pain crisis, which can be acute or chronic. Over the past year, our infusion center, which is in a large urban hospital, has seen an increase in the number of adult sickle cell patients treated with IV opioids for their chronic pain. Although SCD is a rare congenital disease, it is more prevalent in large urban areas. There is an assumption that nurses working in urban settings have an understanding of the pathophysiology of SCD and management of its pain.

## PURPOSE

We observed that the infusion center nurses were not comfortable treating these patients. We wanted to identify any knowledge gaps regarding the management of chronic pain in patients with sickle cell disease (SCD).

## METHODS

To assess what if any knowledge gaps existed, the infusion center nurses participated in an in-service on SCD and chronic pain management. This was done during their regularly scheduled in-service time before their shift starts. The infusion center nurses completed the validated "Knowledge of Sickle Cell Disease questionnaire" before and after the in-service. 14 of the 20 questions on the questionnaire were used, 9 were items assessing knowledge of pain assessment and treatment or definitions of terms commonly misunderstood (addiction and tolerance) and the remaining 5 pertained to SCD complications in adults.

Questions	T1 Pre % Correct (n = 16)	T2 Post % Correct (n = 12)
Which of the following pathophysiologic mechanisms are associated with SCD?	100	83
Iron overload is common in all adults with SCD.	56	18
Patients with a hgb <5 g/dL should always be transfused.	100	100
Acute chest syndrome may be associated with which of the following presentations?	100	92
Many patients with SCD experience both acute and chronic pain.	100	100
Which of the following pain syndromes should warrant further investigation for the cause?	100	83
Which of the following approaches to analgesic management is the gold standard?	100	100
List the most common contradiction to NSAIDs for patients with SCD.	0	33
Long and short acting opioids have a role in the management of SCD for patients with chronic pain.	100	100
Methadone may be indicated for which of the following patients?	88	75
Addiction is a state of adaptation in which exposure to a drug induces changes that result in a diminution of one or more of the drug's effects over time.	38	67
Using opioids to treat insomnia, anxiety, or for some other purpose than treating pain defines:	69	50
Which of the following social issues may influence patients with SCD?	100	100
Which of the following psychological issues are NOT common among patients with SCD?	13	17

## RESULTS

16 outpatient infusion nurses participated. Both pre- and post test scores ranged from 79% - 93% with different questions answered incorrectly. Scores for the questions pertaining to adult complications of SCD did not change. There was good understanding of the difference between acute and chronic pain, the need for individualized treatment plans on pre- and post testing. However, the subtleties of the definition of addiction and understanding that opioid addiction is not common among SCD patients did not change.

## DISCUSSION

These results validated our observation. However, a major limitation of this intervention was that not all the nurses completed the post test. Our finding that post test scores were lower is possibility due to the time the in-services are offered and not necessarily to the content or staff's perceptions of SCD patients (which was not assessed); but rather to the divided attention of the staff as they prepare for their clinical day.

## CONCLUSION

It is evident that a practice change needs to be considered regarding re-evaluating in-service scheduling times and providing more disease specific in-services. Also, as assessing staff attitudes was not an initial intent, it should be assessed as it is anticipated they will be caring for more of these patients.