

# The Right Call at the Right Time: Continuity of Care in Sickle Cell Disease Management

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## Introduction

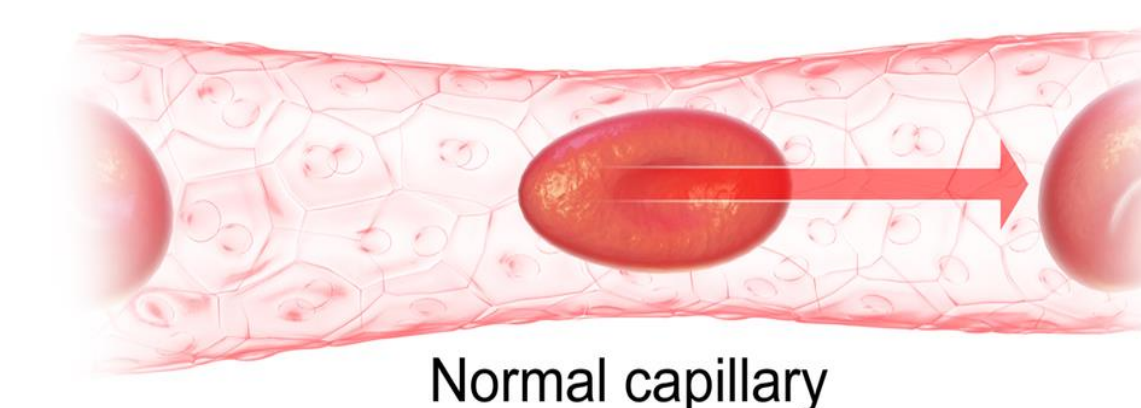
- Sickle cell disease (SCD), an autosomal recessive mutation in the  $\beta$ b globin gene
- Affects more than 100,000 people in the United States and over 3 million worldwide.<sup>1</sup>
- Contributes to significant morbidity and lifespan reduction.<sup>2</sup>
- Among the most challenging conditions to treat while limiting opioids.<sup>3</sup>
- Dependency, opioid tolerance and hyperalgesia can hinder management.<sup>4</sup>

## Case Description

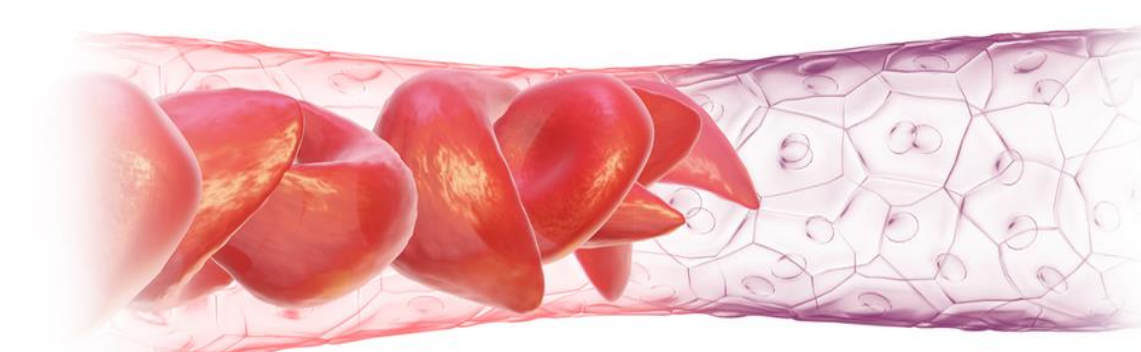
- 43-year-old woman with monthly admissions approximately one week before she was due to refill her opioid medications
- Outpatient regimen: transdermal fentanyl, oxycodone (MED=150)
- Per guidelines, an individualized treatment plan was followed at each admission.
- Treatment was complicated by opioid tolerance, chronic low hemoglobin, non-compliance, lack of communication between medical teams, and severe hyperalgesia.
- At least 60 days of the previous year in hospitals on IV fentanyl

## Table & Figures

| Date opioid Rx filled | Admission - next fill date | Dates of admission | Length of admission |
|-----------------------|----------------------------|--------------------|---------------------|
| 4-13-21               | 11                         | 4-2→4-7            | 5                   |
| 3-13-21               | 11                         | 3-2→3-9            | 7                   |
| 2-12-21               | 5                          | 2-7→2-12           | 5                   |
| 1-13-21               | 7                          | 1-6→1-10           | 4                   |
| 12-12-20              | 8                          | 12-4→12-8          | 4                   |
| 11-13-20              | 8                          | 11-5→11-14         | 9                   |
| 9-13-20               | 10                         | 9-10→9-13          | 3                   |
| 8-14-20               | 7                          | 8-7→8-13           | 5                   |
| 6-11-20               | 3                          | 6-8→6-11           | 3                   |
| 5-11-20               |                            | 5-11               | 0                   |
| 4-11-20               | 1                          | 4-10→4-17          | 7                   |
| ANALYSIS              | 7 days avg                 | 11 admissions      | 52+ days total      |



Normal capillary



Sickle Cell Anemia

Fig 1. Vaso-occlusive crisis in SCD: ischemia and reperfusion generate pain

Table 1. Admissions over 1 year with dates of opioid refills and days inpatient

## Resolution

- We contacted the patient's hematologist/opioid prescriber.
- They were not aware of her frequent admissions and immediately scheduled a discussion with the patient.
- Outpatient opioids were titrated.
- Only one more admission occurred, in which she reported little pain and greater satisfaction with less time in the hospital.

## Discussion

- ✓ Despite adherence to treatment guidelines, this patient's chronic opioid use, non-compliance with hydroxyurea, and hyperalgesia contributed to a cycle of unneeded hospitalizations.
- ✓ Rather than a change in medical treatment, a phone call was the crucial intervention in this case because it closed a gap in continuity of care.
- ✓ Complicated cases may require a multidisciplinary approach when medical interventions fail.

## References

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