



Subject ID

## Sickle Cell Disease Implementation Consortium Needs Assessment: Provider Survey

**Before we get started with the survey, please tell us whether you primarily provide care through an Emergency Department (ED), and how this survey is being administered.**

1. How is this survey being administered?
  - Electronically
  - In-person interview
  - By phone
2. Do you primarily provide care through an ED?
  - Yes
  - No

### **A. Experiences providing care to patients with Sickle Cell Disease (SCD)**

1. Have you ever provided primary care for patients with SCD?
  - Yes
  - No
  - Prefer not to respond
2. How many patients with SCD (includes SS, SC, sickle beta thalassemia) would you estimate that you provided primary care to in the past year?
  - 0
  - 1
  - 2-3
  - 4-9
  - 10-30
  - 31-100
  - >100
  - Don't know
  - Not applicable - It was not my role to provide primary care to patients with SCD over the past year
  - Prefer not to respond
3. How many patients with SCD (includes SS, SC, sickle beta thalassemia) would you estimate are in your panel and currently receiving regular care from you?
  - 0
  - 1
  - 2-3
  - 4-9
  - 10-30
  - 31-100
  - >100
  - Don't know

Prefer not to respond

4. What resources do you currently use if you have questions about the management of patients with SCD? (*Please check all that apply.*)

- What I learned in residency
- What I learned from CME
- Textbook
- Internet
- Colleague
- Specialist
- National Heart Lung and Blood Institute Management Guide
- I do not know where to find resources
- Other
- Prefer not to respond

If "Other" please specify: \_\_\_\_\_

5. How often do you typically see your patients with SCD for preventive care?

- Every month
- Every 3 months
- Every 6 months
- Once a year
- As needed
- Not applicable
- Prefer not to respond

6. Do you routinely screen your SCD patients, when appropriate, for the following? (*Please check all that apply.*)

- Renal Disease
- Pulmonary Hypertension
- Hepatitis
- HIV
- Iron Overload
- Cancer
- Elevated Cholesterol
- Diabetes
- Tobacco use
- Substance Use Issues
- Retinopathy
- Depression
- Health related quality of life
- Not applicable
- Prefer not to respond

7. Do the other physicians of your patients with SCD communicate about their medical issues with you?

- Yes
- No
- Don't know
- Not applicable

Prefer not to respond

8. Do you feel that the medical needs of your patients with SCD are being met?

- Yes
- No
- Don't know
- Not applicable
- Prefer not to respond

9. Do you feel that the behavioral health or mental health needs of your patients with SCD are being met?

- Yes
- No
- Don't know
- Not applicable
- Prefer not to respond

10. How comfortable are you with your ability to provide preventive ambulatory care to a patient with SCD?

- Very Uncomfortable
- Somewhat Uncomfortable
- Neither Comfortable or Uncomfortable
- Somewhat Comfortable
- Very Comfortable
- Don't know
- Not applicable
- Prefer not to respond

11. How comfortable are you with your ability to manage co-morbidities (e.g. pulmonary hypertension, diabetes, renal disease) experienced by individuals with SCD?

- Very Uncomfortable
- Somewhat Uncomfortable
- Neither Comfortable or Uncomfortable
- Somewhat Comfortable
- Very Comfortable
- Don't know
- Not applicable
- Prefer not to respond

12. Comorbidities I am least comfortable managing are: \_\_\_\_\_

13. Comorbidities I am most comfortable managing are: \_\_\_\_\_

14. How comfortable are you with your ability to manage acute pain episodes experienced by patients with SCD?

- Very Uncomfortable
- Somewhat Uncomfortable
- Neither Comfortable or Uncomfortable
- Somewhat Comfortable
- Very Comfortable
- Don't know
- Not applicable

Prefer not to respond

15. How comfortable are you in managing chronic pain in individuals with SCD?

- Very Uncomfortable
- Somewhat Uncomfortable
- Neither Comfortable or Uncomfortable
- Somewhat Comfortable
- Very Comfortable
- Don't know
- Not applicable
- Prefer not to respond

16. Do you prescribe opioids to patients with SCD?

- Yes
- No
- Prefer not to respond

17. Please indicate your impression of how much each of the following concerns is a barrier to using opioids in the management of chronic nonmalignant pain (e.g., SCD) to you:

|   | Not a barrier                    | Minimal barrier          | Somewhat a barrier       | Moderate barrier         | Complete barrier         | Don't know               | Rather not provide       |
|---|----------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Lack of efficacy  | <input type="checkbox"/>         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Respiratory effects   | <input type="checkbox"/>         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Cognitive effects   | <input type="checkbox"/>         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Psychomotor effects   | <input type="checkbox"/>         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Tolerance   | <input type="checkbox"/>         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Dependence  | <input type="checkbox"/>         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Addiction   | <input type="checkbox"/>         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Community perception  | <input type="checkbox"/>         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Regulatory  | <input type="checkbox"/>         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Overview  | <input type="checkbox"/>         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Cost  | <input type="checkbox"/>         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Availability  | <input type="checkbox"/>         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Diversion   | <input type="checkbox"/>         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Provider restrictions   | <input type="checkbox"/>         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Training in prescribing opioids   | <input type="checkbox"/>         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Time (prior authorization, dose adjustments and/or State database assessment) | <input type="checkbox"/>         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Other   | If "Other" please specify: _____ |                          |                          |                          |                          |                          |                          |

18. Please estimate the percentage of your patients with SCD that you are currently managing with hydroxyurea?

- 0
- 1 - 10%
- 11 - 20%
- 21 - 30%
- 31 - 40%
- 41 - 50%
- More than 50%
- I do not manage hydroxyurea therapy for SCD
- Don't know
- Not applicable
- Prefer not to respond

19. Which of the following CRITERIA do you use to place patients with SCD on hydroxyurea therapy?

(Check all that apply.)

- Episodes of acute chest syndrome
- At least three painful episodes/year requiring hospitalization
- At least three painful episodes/year at home
- Chronic pain requiring excessive or frequent opioid use
- Stroke history
- Renal failure
- Priapism
- Low hemoglobin F levels
- Pulmonary hypertension
- Symptomatic severe anemia
- Elevated white cell count without evidence of infection
- Leg ulcers
- Patient or family request
- Presence of hypoxemia
- Other
- Prefer not to respond

If "Other" please specify: \_\_\_\_\_

20. Indicate the number of episodes of acute chest syndrome required to initiate treatment with hydroxyurea:

- 0
- 1
- 2
- 3
- 4
- 5+
- Prefer not to respond

21. Please estimate the proportion of patients with SCD or their families that you offer hydroxyurea to refuse it?

- 0
- 1 - 10%
- 11 - 20%
- 21 - 30%
- 31 - 40%
- 41 - 50%
- More than 50%
- I do not prescribe hydroxyurea
- Don't know
- Prefer not to respond

## 22. What are the most common reasons patients/families refuse hydroxyurea?

- Worry about carcinogenic potential
- Worry about side effects
- Don't think it will work
- Don't want to take another medicine
- Don't want the additional laboratory monitoring
- Don't want the additional clinic visits
- Other
- Don't know
- Not applicable
- Prefer not to respond

If "Other" please specify: \_\_\_\_\_

## 23. Sometimes providers do not initiate hydroxyurea use even though its use might be indicated. In your experience, how important has each of the following reasons influenced YOUR prescribing of hydroxyurea?

|  | Important                        | Very important           | Somewhat important       | Not important            | Not applicable           | Rather not provide       |
|--|----------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Cost issues  | <input type="checkbox"/>         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Age of patient (Patient is too young)                              | <input type="checkbox"/>         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Patient/family adherence with hydroxyurea                          | <input type="checkbox"/>         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Patient/family adherence with required blood tests                 | <input type="checkbox"/>         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Patient anticipation of side effects                               | <input type="checkbox"/>         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| My discomfort with carcinogenesis potential                        | <input type="checkbox"/>         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Doubt the effectiveness of the drug                                | <input type="checkbox"/>         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Patients lack of contraception/ possible pregnancy                 | <input type="checkbox"/>         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Provider lacks time/resources to adequately explain risks/benefits | <input type="checkbox"/>         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Hydroxyurea is not FDA approved for use in children                | <input type="checkbox"/>         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| There are a lack of formal guidelines for use in children          | <input type="checkbox"/>         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Concerns for hydroxyurea causing infertility in male patients      | <input type="checkbox"/>         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Other  | If "Other" please specify: _____ |                          |                          |                          |                          |                          |

24. What is your comfort level in managing hydroxyurea as a disease modifying therapy for SCD?

- Very Uncomfortable
- Somewhat Uncomfortable
- Neither Comfortable or Uncomfortable
- Somewhat Comfortable
- Very Comfortable
- Don't know
- Not applicable
- Prefer not to respond

25. How effective do you think hydroxyurea is for preventing painful events in people with sickle cell disease?

- Very effective
- Somewhat effective
- Effective
- Not effective
- Don't know
- Prefer not to respond

26. Are you aware that the National Heart Lung and Blood Institute published guidelines on Primary Care Management for SCD?

- Yes
- No
- Prefer not to respond



27. What would prompt you to see patients (or to see more patients) with SCD? (Please check all that apply.)

- Higher reimbursement or Relative Value Units
- Accessible community health worker who you can consult to understand the social situation of your patients better
- Accessible case management services available without charge
- Pertinent sickle cell specific continuing medical education
- An easily accessible comprehensive sickle center
- An easily accessible day hospital
- Access to a SCD specialist (hematologist) on call to answer questions 24/7
- A pain management specialist on call to answer questions
- Access to pain management specialist who will manage my patients with chronic pain
- Better communication with hematologists about shared patients
- A formal agreement with a local emergency room that will treat my patients with an acute pain episode promptly and professionally
- Access to brief electronic medical records that includes specialty clinic and information on emergency department visits and hospitalizations
- Access to transportation for my patients to clinic
- Better understanding of your role in the patient's care vs. the hematologist's role
- No role in managing hydroxyurea
- Other
- I do not want to see any more patients with SCD than I do now
- I would prefer not to see patients with SCD
- Clinical decision support software
- Prefer not to respond

If "Other" please specify: \_\_\_\_\_

28. In the past 7 days... for which aspects of managing SCD patients would a clinical decision support tool be particularly useful (1 not useful at all, 4 very useful):

|                        | Not useful at all        | Somewhat useful          | Useful                   | Very useful              | Not applicable           | Rather not provide       |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Diagnosis              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Treatments             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Avoiding complications | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

29. Are there any other factors that would prompt you to see patients, or see more patients, with SCD?

- Yes  
 No  
 Not applicable  
 Prefer not to respond

If "Yes" please specify: \_\_\_\_\_

### B. Other Comments

1. Please provide any other comment(s) that you have about the care and management of patients with SCD that were not addressed in this survey.

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### C. Demographics Section

1. What is your age?

- \_\_\_\_\_ Years  
 Prefer not to provide

2. What is your gender?

- Female  
 Male  
 Prefer not to provide

3. What ethnicity do you self-identify with?

- Non Hispanic or Latino  
 Hispanic or Latino  
 Prefer not to provide

## 4. What race do you self-identify with?

- American Indian or Alaskan Native
- Asian
- Native Hawaiian or Other Pacific Islander
- Black or African American
- White
- Prefer not to provide

## 5. What is your provider type?

- Medical Doctor
- Physician's Assistant
- Nurse Practitioner
- Licensed Practical Nurse
- Registered Nurse
- Social Worker / Therapist
- Other
- Prefer not to provide

If "Other" professional training, please specify: \_\_\_\_\_

## 6. How many years have you been in clinical practice?

- \_\_\_\_\_ Years
- Prefer not to provide

## 7. What is your area of practice?

- Internal Medicine
- Pediatrics
- Family Medicine
- Med-Peds
- OB/GYN
- Hematologist/SCD Specific
- Emergency Medicine
- Sub-specialist
- Other
- Prefer not to provide

If "Sub-specialist", please specify the type: \_\_\_\_\_

If "Other", please specify the practice area: \_\_\_\_\_

8. What is the age range of the patients you care for? (*Check all that apply*)

- Infancy Through Young Adult
- Adults
- Prefer not to provide

## 9. What is your practice setting?

- Rural
- Urban
- Suburban
- Prefer not to provide

**D. Continuing Medical Education (CME)**

## 1. Would you be interested in free SCD CMEs?

- Yes
- No

## 2. What format would you prefer?

- Webinar
- Telephone
- Newsletter
- In-Person Lecture in your office
- Dinner forum
- Full-day retreat
- Other

If other, please specify: \_\_\_\_\_

## 3. What specific areas of SCD management would you be interested in learning about?

(Check all that apply.)

- |   |  |
|---|--|
| <input type="checkbox"/> Acute Chest Syndrome and Other Pulmonary Complications | <input type="checkbox"/> Pain                                      |
| <input type="checkbox"/> Adolescent Health Care and Transitions                 | <input type="checkbox"/> Priapism                                  |
| <input type="checkbox"/> Adult Health Care Maintenance                          | <input type="checkbox"/> Psychosocial Management                   |
| <input type="checkbox"/> Anesthesia and Surgery                                 | <input type="checkbox"/> Renal Abnormalities in SCD                |
| <input type="checkbox"/> Bones and Joints                                       | <input type="checkbox"/> Sickle Cell Eye Disease                   |
| <input type="checkbox"/> Cardiovascular Manifestations                          | <input type="checkbox"/> Sickle Cell Trait                         |
| <input type="checkbox"/> Child Health Care Maintenance                          | <input type="checkbox"/> Splenic Sequestration                     |
| <input type="checkbox"/> Contraception and Pregnancy                            | <input type="checkbox"/> Stroke and Central Nervous System Disease |
| <input type="checkbox"/> Coordination of Care: Role of Mid-Level Practitioners  | <input type="checkbox"/> Iron Overload, and Chelation              |
| <input type="checkbox"/> Fetal Hemoglobin Induction                             | <input type="checkbox"/> Transient Red Cell Aplasia                |
| <input type="checkbox"/> Gall Bladder and Liver                                 | <input type="checkbox"/> Other                                     |
| <input type="checkbox"/> Genetic Counseling                                     |  |
| <input type="checkbox"/> Genetic Modulation of Phenotype by Epistatic Genes     |  |
| <input type="checkbox"/> Hematopoietic Cell Transplantation                     |  |
| <input type="checkbox"/> Infection  |  |
| <input type="checkbox"/> Leg Ulcers   |  |
| <input type="checkbox"/> Neonatal Screening                                     |  |

If other area, please specify:

\_\_\_\_\_