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| Title: | Sickle Cell Anemia Protocol | | |
| Department/Service Line: | Laboratory | | |
| Approver(s): | CLIA Director | | |
| Location/Region/Division: | BSWMCI-NTX | | |
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# sCOPE

This policy is to aid the Transfusion Medicine technologist/technician in selecting and providing blood products to patients with Sickle Cell disease.

# DEFINITIONS

*When used in this document with initial capital letter(s), the following word(s)/phrase(s) have the meaning(s) set forth below unless a different meaning is required by context. Additional defined terms may be found in the BSWH P&P Definitions document.*

SOP– Standard Operating Procedure

LIS – Lab Information System

HbS – Hemoglobin S (Sickle cell hemoglobin)

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| policy |
| To provide guidelines to reduce alloimmunization in sickle cell anemia patients undergoing transfusion therapy.   1. All known sickle cell anemia patients will be provided: C, E, K and HbS negative red blood cell products unless the patient is positive for the C, E, or K antigen or has conflicting red cell antibodies. Sickle cell anemia patients who have a history of other antibody (ies) will be provided red blood cells that are negative for the corresponding antibody (ies) and HbS negative. 2. The *Special Message:* **SCKL** (Sickle Cell Neg. Products Only) with the added comment, “Transfuse units negative for C, E, K and Hemoglobin S, unless the patient is positive for the E, C, or K antigen or has conflicting antibodies.” is entered into the patient’s history record in LIS when personnel in Transfusion Medicine become aware of a sickle cell diagnosis. 3. The *Special Message:* **AMUNT** (Provide antigen matched units.) with the added comment, “Red cell antigen typing results for C:negative, E:negative,K:negative was performed on MM/DD/YEAR.” 4. Irradiated blood products are provided to a sickle cell anemia patient **ONLY** when the IRRAD Special Need already exists for the patient due to another indication or the patient’s physician specifically requests irradiated products. |

# PROCEDURE

**On Receipt of Crossmatch Orders on Patients with a Sickle Cell Diagnosis**

1. Perform Type and Screen.
2. Antigen type patient for C, E and K antigen if patient has not been typed previously.
3. Add *Special Message:* **AMUNT** (Provide antigen matched units.) with the added comment, “Red cell antigen type for C (result), E (result), K (result), and any other antigen typing result was performed on MM/DD/YEAR.”
4. If antibody screen and antigen typing are negative, obtain red blood cells that are antigen negative for C, E, K and HbS.
5. If the screen is positive for antibody/ies then order antigen negative units corresponding to the patient’s antibody needs, along with C, E, K and HbS negative units.
6. Perform compatibility testing on appropriate units as indicated for the patient, based on patient history and antibody screening results.
7. Enter result comment for all red blood cells crossmatched on sickle cell patients to include negative antigen specificity and sickle cell negative.

**Note:** If the antigen typing for C, E, or K are positive it is not necessary to order red blood cells negative for that antigen.

# ATTACHMENTS

None.

# RELATED DOCUMENTS

[Selection of Blood Components for Transfusion](https://bmci.policymedical.net/policymed/anonymous/docViewer?stoken=AF388E0F-C29E-4107-74F7-C8FA9B8DA13B&dtoken=80F4C033-AAAC-9B85-910B-E3281A86A3E6)

# REFERENCES

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* Standards for Blood Banks and Transfusion Services. Current version.
* AABB Technical Manual version.
* College of American Pathologists, Transfusion Medicine Checklist. Current version

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| Revision History |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Version #** | **Effective Date** | **Description of Change** | **Revised By** | **Removed Date** | | 1 | 1/1/2020 | New | Salma Thobani |  | | 2 | 05/31/2022 | Revised scope and update format | Stacie Nieburger Smitham |  | | 3 | 02/08/2024 | Revised and added hyperlink. | Stacie Nieburger Smitham |  | |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  |  | |
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