**Baseline Timeline: 2 weeks from an acute visit (e.g., 2 weeks after discharge from hospital) OR 2 weeks from ED or infusion center stay OR 2 weeks after patients deems self as baseline if crisis at home**

**3 months to transfusion**

|  |  |
| --- | --- |
| Visit  |  |
| Visit Date | \_\_\_ \_\_\_ - \_\_\_ \_\_\_ \_\_\_ - \_\_\_ \_\_\_ \_\_\_ \_\_\_ (DD-MMM-YYYY) |

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| --- |
| **Blood Typing** |
| Sample collected | [ ]  Yes[ ]  No |
| If No, Reason not done*Do not complete the rest of this section* |  |
| Collection Date | \_\_\_ \_\_\_ - \_\_\_ \_\_\_ \_\_\_ - \_\_\_ \_\_\_ \_\_\_ \_\_\_ (DD-MMM-YYYY) |
| Collection Time | \_\_\_ \_\_\_: \_\_\_ \_\_\_ (24-hr clock) |
| Accession Number |  |
|  |  |
| **Laboratory Test Name** | **Result** |
| Antiglobulin Test, Direct | [ ]  Positive[ ]  Negative |
| Antiglobulin Test, Indirect | [ ]  Normal[ ]  Abnormal |
| ABO Blood Group | [ ]  A+ | [ ]  B+ | [ ]  AB+ | [ ] O+ |
| [ ]  A- | [ ]  B- | [ ]  AB- | [ ]  O- |

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| **Blood Gas** |
| Sample collected | [ ]  Yes[ ]  No |
| If No, Reason not done*Do not complete the rest of this section* |  |
| Collection Date: | \_\_\_ \_\_\_ - \_\_\_ \_\_\_ \_\_\_ - \_\_\_ \_\_\_ \_\_\_ \_\_\_ (DD-MMM-YYYY) |
| Collection Time: | \_\_\_ \_\_\_ : \_\_\_ \_\_\_ (24-hr clock) |
| Accession Number: | \_\_\_ |
|  |  |  |  |  |
| **Laboratory Test Name** | **Result** | **Unit** | **Comparison to Reference Range** | **Clinically Significant** |
| Partial Pressure Oxygen |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Partial Pressure Carbon Dioxide |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| **Laboratory Test Name** | **Result** | **Unit** | **Comparison to Reference Range** | **Clinically Significant** |
| pH |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| **Hematology: Complete Blood Count** |
| **Laboratory Test Name** | **Result** | **Unit** | **Comparison to Reference Range** | **Clinically Significant** |
| \*Leukocytes |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| \*Lymphocytes/Leukocytes |  | % | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| \*Lymphocytes |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| \*Neutrophils/Leukocytes |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| \*Neutrophils |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| \*Monocytes |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| \*Eosinophils |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| \*Hematocrit |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| \*Hemoglobin |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| \*Platelets |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| \*Ery. Mean Corpuscular HGB Concentration |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| \*Erythrocytes |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| \*Ery. Mean Corpuscular Volume |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| \*Reticulocytes |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |

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| **Hematology: Hemoglobin Analysis** |
| \*Method of Test: | [ ]  High performance liquid chromatography (HPLC)[ ]  Capillary zone electrophoresis (CZE)[ ]  Isoelectric focusing (IE)[ ]  Gel electrophoresis[ ]  Unknown |
| Laboratory Test Name | Result | Unit |  |  |
| \*Hemoglobin A |  | \_\_\_% |  |  |
| \*Hemoglobin A2 |  | \_\_\_% |  |  |
| \*Hemoglobin C |  | \_\_\_% |  |  |
| \*Hemoglobin F |  | \_\_\_% |  |  |
| \*Hemoglobin S |  | \_\_\_% |  |  |
| \*Hemoglobin A, Genetic \*Modified Variant |  | \_\_\_% |  |  |
| \*Hemoglobin, Other |  | \_\_\_% |  |  |
| Specify Other Hemoglobin\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |

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| **Coagulation** |
| **Laboratory Test Name** | **Result** | **Unit** | **Comparison to Reference Range** | **Clinically Significant** |
| \*Prothrombin Time |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| \*Activated Partial Thromboplastin Time |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Antithrombin Antigen |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| \*Prothrombin Intl. Normalized Ratio |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Fibrinogen |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| \*D-Dimer |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Factor V Leiden |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Factor XIV Activity |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Protein S, Free |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |

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| **Coagulation** |
| **Laboratory Test Name** | **Result** | **Unit** | **Comparison to Reference Range** | **Clinically Significant** |
| Activated Protein C Resistance |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Methylene Tetrahydrofolate Reductase |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Dilute Russell's Viper Venom Time Ratio |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Lupus Anticoagulant Sensitive APTT |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Plasminogen |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Thrombin Time |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| **Chemistry: Metabolic Panel** |
| **Laboratory Test Name** | **Result** | **Unit** | **Comparison to Reference Range** | **Clinically Significant** |
| Sodium |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Potassium |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Chloride |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Bicarbonate |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Magnesium |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Phosphate |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Calcium |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Calcium, Ionized |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Anion Gap |  | [Prepopulate or codelist] | [ ] Normal[ ]  Abnormal[ ] Unknown | [ ] Yes[ ]  No |
| Urea Nitrogen |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Creatinine |  | [Prepopulate or codelist] | [ ]  Normal[ ] Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Glucose |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Urate |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| BUN/Creatinine |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| **Chemistry: Renal** |
| Comparison to Reference Range | Clinically Significant |
| Creatinine Clearance (24-hr) |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Glomerular Filtration Rate, Estimated (Cockcroft-Gault Formula) |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| **Chemistry: Liver Function** |
| **Laboratory Test Name** | **Result** | **Unit** | **Comparison to Reference Range** | **Clinically Significant** |
| Albumin |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Protein |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Aspartate Aminotransferase |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Alanine Aminotransferase |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Bilirubin |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Direct Bilirubin |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Alkaline Phosphatase |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |

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| **Chemistry: Cardiac** |
| **Laboratory Test Name** | **Result** | **Unit** | **Comparison to Reference Range** | **Clinically Significant** |
| Troponin I |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Troponin T |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Creatine Kinase |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Creatine Kinase MB |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |

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| **Chemistry: Inflammation** |
| **Laboratory Test Name** | **Result** | **Unit** | **Comparison to Reference Range** | **Clinically Significant** |
| \*C Reactive Protein |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |

| **Chemistry: Lipid Panel** |
| --- |
| Laboratory Test Name | Result | Unit | Comparison to Reference Range | Clinically Significant |
| Cholesterol |  | [Prepopulate or codelist] |  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| LDL Cholesterol |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| HDL Cholesterol |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| VLDL Cholesterol |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ] Yes[ ]  No |
| Triglycerides |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ] Yes[ ]  No |
| Lipoprotein-a |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Apolipoprotein A1 |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Apolipoprotein B |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Apolipoprotein E |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |

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| **Chemistry: Nutrition** |
| Laboratory Test Name | Result | Unit | Comparison to Reference Range | Clinically Significant |
| Vitamin B12 |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Homocysteine |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Folate (Erythrocytes) |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Methylmalonic Acid |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |

| **Miscellaneous** |
| --- |
| Laboratory Test Name | Result | Unit | Comparison to Reference Range | Clinically Significant |
| Lactate Dehydrogenase |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Lactate |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Iron |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Transferrin Saturation |  | % | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| 25-Hydroxyvitamin D |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Choriogonadotropin Beta |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Total Iron Binding Capacity |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Ferritin |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Soluble Transferrin Receptor |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Fructosamine |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Occult Blood  |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Ammonia |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ] . No |
| Amylase |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Brain Natriuretic Peptide |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |

| **Urinalysis** |
| --- |
| Laboratory Test Name | Result | Unit | Comparison to Reference Range | Clinically Significant |
| Protein |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Glucose |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Occult Blood |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| RBC Casts |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| WBC Casts |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Albumin/Creatinine |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Specific Gravity |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal [ ]  Unknown | [ ]  Yes[ ]  No |
| Hemoglobin |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Protein/Creatinine |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ] Yes[ ]  No |
| Creatinine |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Choriogonadotropin Beta |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| **Microbiology** |
| Microbiology Test Name | Result | Unit | Comparison to Reference Range | Clinically Significant |
| Parvovirus B19 IgG Antibody |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Parvovirus B19 IgM Antibody |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| Parvovirus DNA |  | [Prepopulate or codelist] | [ ]  Normal[ ]  Abnormal[ ]  Unknown | [ ]  Yes[ ]  No |
| SARS-CoV-2 RNA | [ ]  Positive[ ]  Negative |  |  |  |
| SARS-CoV-2 IgG Antibody | [ ]  Positive[ ]  Negative |  |  |  |
| \*HIV-1 Antigen |  |  |  |  |
| \*Hepatitis A Virus Antibody |  |  |  |  |
| \*Hepatitis B Virus Surface Antigen |  |  |  |  |
| \*Hepatitis B Virus Core Antibody |  |  |  |  |
| \*Hepatitis B Virus Surface Antibody |  |  |  |  |
| \*Hepatitis B Virus Antibody |  |  |  |  |
| \*Hepatitis C Virus Antibody |  |  |  |  |

##

## **Hemoglobulin Level**

Autoimmune laboratory Test

**Instructions:**

**Baseline Timeline: 2 weeks from an acute visit (e.g., 2 weeks after discharge from hospital) OR 2 weeks from ED or infusion center stay OR 2 weeks after patients deems self as baseline if crisis at home**

**3 months to transfusion**

The items with astericks (\*) are Core and should be collected on all genetic studies in sickle cell disease assessing acute painful episodes. The others are Supplemental and should be collected based on study design.

Visit: Visit name or number can be pre-populated based on protocol visit schedule. A separate form could allow for unscheduled or contingent visits and allow for capture the visit type and/or reason for the visit.

Visit Date: A “visit” need not occur on a single date. Visit start/end is determined by the protocol schedule of assessments, which may include a visit window. Suppose a visit has a window of +/- one day, and the subject was inpatient for all three days. The form would need to collect a start and end date for the visit. All of the assessments that follow below would have their own collection date/times as they could occur any time during that three-day visit period.

Sample Collected Y/N: For planned panels/assessments, it’s important to capture whether the sample was collected and if not, the reason why it was not collected. For unplanned or supplemental assessments, the “reason not done” can be updated to something like “reason collected.”