|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Date |  | Centre |  | Clinical Contact |  | | Clinical contact email | |  | | |
|  | | | | H&I Contact |  | | H&I contact email | |  | | |
| **Patient Details:** | | | | | | | | | | | |
| Initials |  | Unique Identifier |  | | | Age or DOB | |  | | Weight (Kg) |  |
| Proposed Transplant Date | | |  | | | Diagnosis | |  | | Ethnicity |  |
| HLA-Specific Antibodies | | |  | | | AN Reference No | |  | | | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Rank** | **CBU ID** | **Bank**  **\*FACT**  **accredited** | **Year** | **TNC**  **x107**  **/kg** | **CD34**  **x105**  **/kg** | **CFU**  **X106** | **Viability**  **%** | **RBC** | **Vol**  **ml** | **ABO &**  **RhD** | **HLA** | | | | | **HLA Match** | |
| **A\*** | **B\*** | **DRB1\*** | **C\*** | **DQB1\*** | **Low**  **/6** | **High**  **/8** |
| **Patient HLA type** | | | | | | | | | |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | R/D |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | R/D |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | R/D |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | R/D |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | R/D |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | R/D |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | R/D |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | R/D |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | R/D |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | R/D |  |  |  |  |  |  |  |  |  |
| **Additional Information** | | | | | | | | | | | | | | | | | |
| Please state if any specific matching hierarchy was used to shortlist cords e.g. DR matching prioritised. Any other information that may be relevant may be added here. | | | | | | | | | | | | | | | | | |

1. A CBU Search should be performed and results discussed between the Clinical Team and the H&I scientists providing support to the Transplant Centre.
2. **Do not** include patient identifiable information (names) on the CBUSAP Summary of CBU Search Form.
3. Request Extended Unit Reports on preferred units based upon current BSBMT Cord Working Group and BSHI Recommendations:
   1. from a FACT accredited bank if possible
   2. **Double CBT:** minimum match of 4/6 at low resolution (antigen level) for HLA-Class I and high resolution (2 field) for HLA-Class II**;** each CBU with TNC at least 1.5x107/Kg according to the Extended Unit Report;
   3. **Single CBT:** minimum match of 5/8 at high resolution (2 field) for HLA-A, B, C, and DRB1; TNC at least  3x107/Kg and depending on HLA match grade and patient diagnosis
   4. including HLA-C and HLA-DQB1 typing if available
   5. avoiding HLA-C mismatch if possible, especially in combination with HLA-DRB1 mismatch
   6. request additional HLA typing as required (eg High Resolution typing of HLA-DR, or HLA-C/DQB1 typing)
4. Up to 10 units can be listed on the Summary of CBU Search and should prioritise the best matched units with the highest cell dose and lowest volume.
5. Complete the Summary of CBU Search form including the following:
   1. Bank Name of the original CBB. Add \* if known to be FACT accredited
   2. Year Year of collection
   3. TNC/Kg Total Nucleated Cell number (2 decimal) divided per kg per 107
   4. CFU CFU contain pre-freezing or ideally after freezing (identified with a p before the number for a post-thaw figure)
   5. Viability Preferentially list a **%** of viable CD34 (CD34+7AAD-) (identified with a p before the number for a post-thaw figure). If this is not available, list the % reported and

record the method used and the cell population tested in the “Additional Information” box.

* 1. RBC Replete or Depleted (see in Volume Reduction field, or work out from Haematocrit )
  2. Vol ml This is the volume of the frozen unit as listed on the CBU Search
  3. ABO ABO group and Rh. Prioritise compatible units if TNC is at least 3x107/Kg
  4. HLA Put the maximum resolution available and use molecular based nomenclature when available.
  5. Low Potential or actual matches out of 6 at low resolution (at least serological equivalent) HLA-A, B, and high resolution DRB1
  6. High Potential or actual matches out of 8 at high resolution (2 fields) for HLA- A, B, C and DRB1.
  7. Rank Identify preferred units in order of priority
  8. NIMA If the information is available, include details on additional NIMA matching in the Addition Information Box.

1. If several options are available, units may be ranked according to:
   1. FACT accredited banks
   2. CD34 (ideally 1-1.7x105 /Kg for a single CBU transplant, or more than

0.7x105 /Kg for each individual CBU in a double unit transplant)

* 1. Blood Group matches or compatibility prioritised
  2. Mismatches are Non-Inherited Maternal Antigens
  3. CFU on cryovial
  4. CFU(all colony lineages)/CD34 >10%
  5. RBC depleted & low volume (RBC<40% or stated as “RBC depleted”)
  6. Homozygosity in HvG direction
  7. More recent collection date

1. Ensure that the data included on the Summary of CBU Search form is the most recent compilation available. This is a voluntary panel relying entirely upon data submitted by the Transplant Centre as a basis upon which to found their advice. The advice given will be of greater value if complete information is provided.
2. The Request for CBUSAP Advice should be submitted to gg-uhb.cbusap@nhs.net by either the Clinical Team or by the H&I contact supporting the Transplant Centre. Whoever submits the report must ensure that the message is also copied to either the Clinical Team contact, or the H&I contact supporting the investigations.
3. Ensure that submissions for urgent consideration are clearly marked as **URGENT** in the subject line of the message.
4. The Clinical Team and the H&I contact will receive an acknowledgement of the submission within 24 hours. For urgent requests, a response will be returned within 2 working days, and for routine enquiries, within 10 working days.

**Figure 1: Flow Diagram Summarising Cord Blood Unit Selection**

UCB Search indicated

(lack of conventional donor, urgency of transplant etc)

Single unit

Allelic HLA match 5-8/8

Cell dose ≥ 5x107 TNC/Kg

Non-malignant disease

**Yes**

Select largest unit (TNC) for degree of HLA match and consider bank accreditation, CD34 dose, ABO match, HLA Ab, red cell depletion

No

UCB search

HLA-A, HLA-B, HLA-DRB1, HLA-C (if available)

Prioritise a) according to HLA match and b) cell dose within each level of match

No

Consider double unit graft if each unit is

≥ 4/6 matched with recipient (Antigen level match HLA-A, HLA-B, allelic level HLA-DRB1)

***and*** TNC ≥1.5x107/Kg (total of both units 3.5x107 TNC/Kg)

Prioritise a) according to HLA match and b) cell dose within each level of match

c) consider bank accreditation, CD34 dose, ABO match, HLA Ab, red cell depletion

**Yes**

Select largest unit (TNC) for degree of HLA match and consider bank accreditation, CD34 dose, ABO match, HLA Ab, red cell depletion

No

**Yes**

Select largest unit (TNC) for degree of HLA match and consider bank accreditation, CD34 dose, ABO match, HLA Ab, red cell depletion

Single unit

Allelic HLA match 6-8/8

Cell dose ≥ 3x107 TNC/Kg

Single unit

Allelic HLA match 5/8

Cell dose ≥ 5x107 TNC/Kg

Malignant disease