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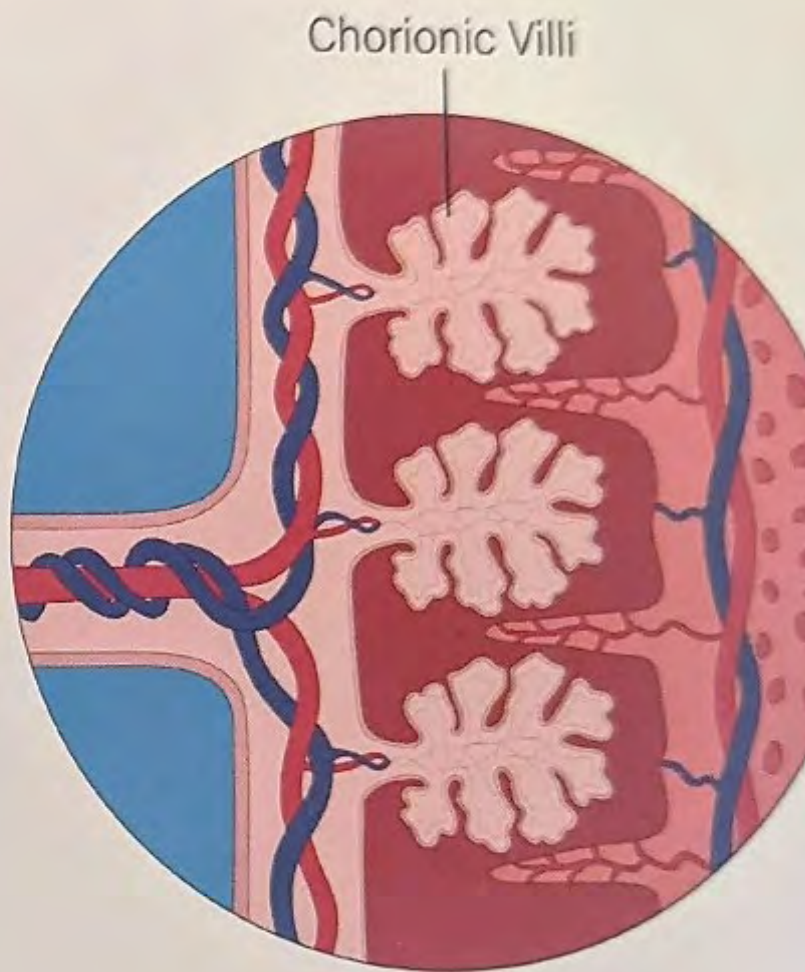
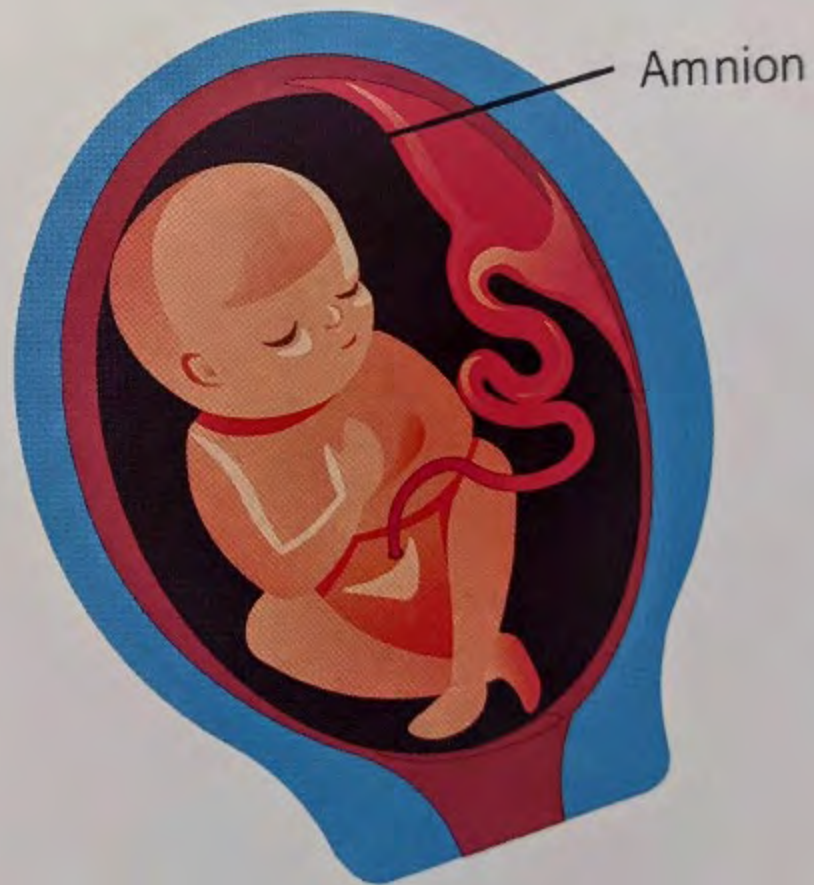
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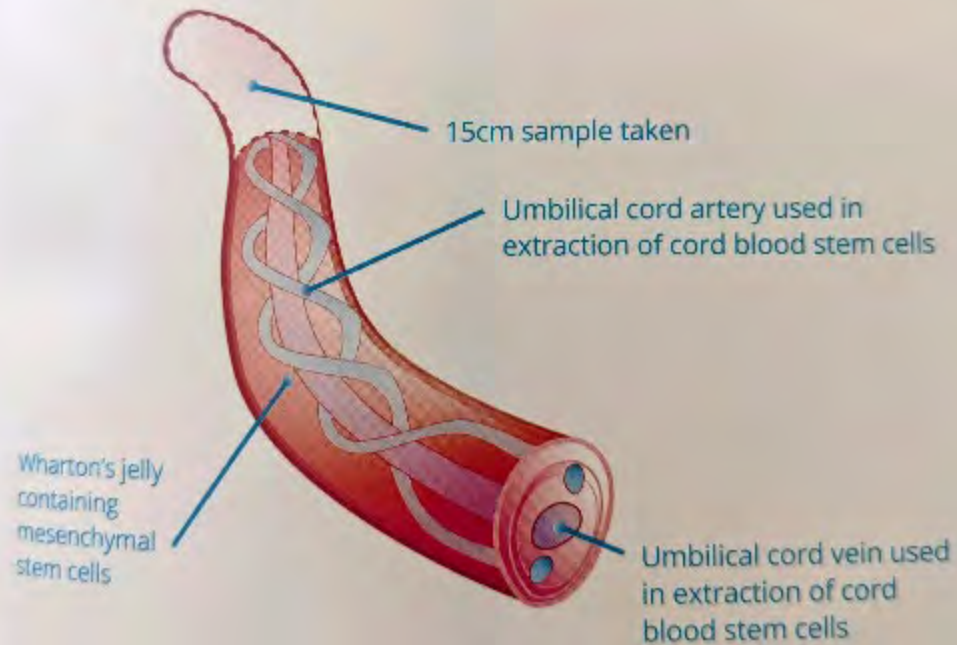
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## 4. +Cord *Tissue*

Cord tissue is a rich source of MSCs<sup>15</sup>. Current research has demonstrated that these cells, together with the stem cells from whole cord blood, can form many if not all of the cell types necessary for tissue repair or replacement.



<sup>13</sup> Oxford NHS Trust. Transfer Protocol

<sup>14</sup> Armitage et al. 1999

<sup>15</sup> <http://www.ncbi.nlm.nih.gov/pubmed/23895058>

<sup>16</sup> <http://www.parentsguidecordblood.org>

<https://youtube.com/shorts/fXGRb5-D-zU?feature=share>

## Umbilical cord blood stem cell sample





PINCH CORNER

PINCH CORNER

Place Barcode Here

# Specimen Transport Bag

## Closing Instructions

- Remove adhesive backing from bag
- Fold bag at opening so star aligns inside box
- Press hard from center working outward to seal
- Pinch Corners

### UMBILICAL CORD BLOOD

Sample Bag Label

Cells4Life  
sample ref

7007002888



## Cells4Life

Customer  
number

7007002888



### INSTRUCTIONS TO PROCURER

1. Please complete the following information.
2. Attach this label to the BLOOD BAG used.

Name of hospital

Name of procurer

Date of collection

Time of collection

Time zone/country (if not UK)

Child's name (if known)

Child/twin number

**NOT EVALUATED FOR INFECTIOUS SUBSTANCES**



**UVC, CORD BLOOD**

For Autologous Use Only

Transportation temp: +2°C to +25°C

InmarkL

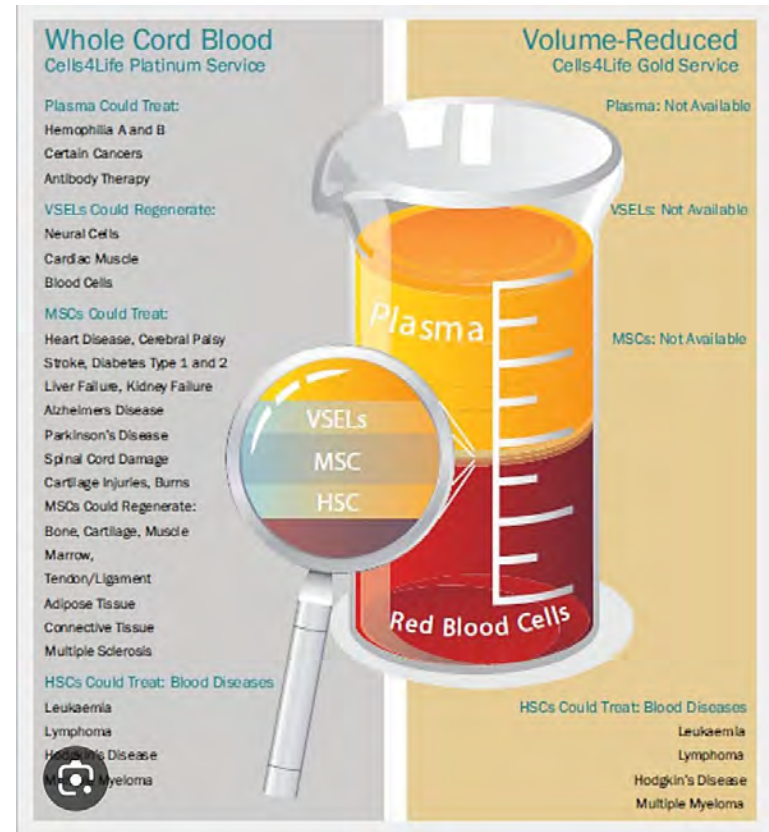
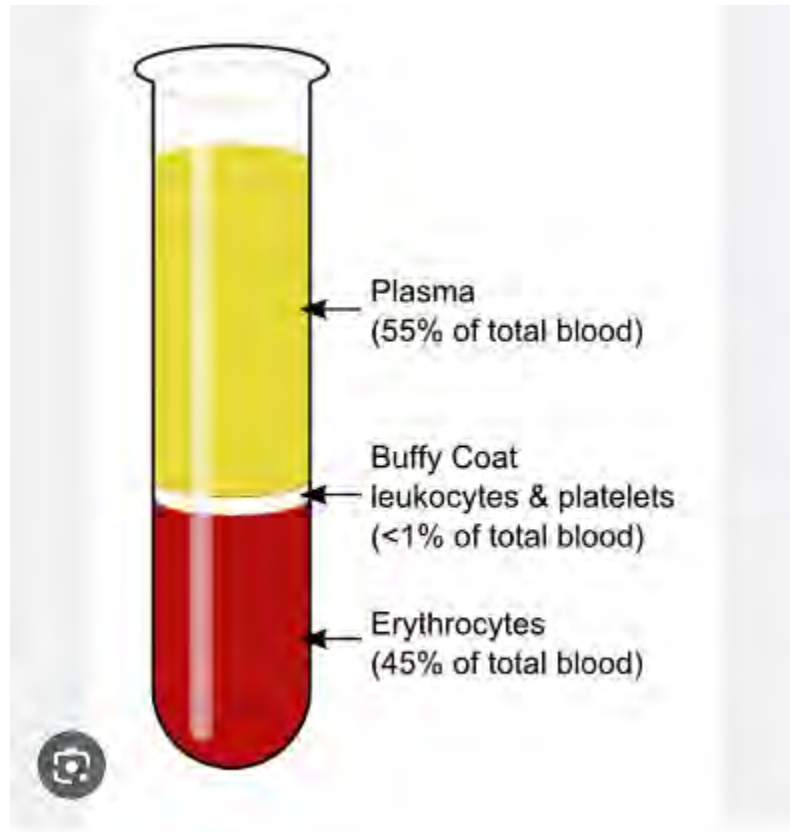
Pat.

## Umbilical Cord Blood Specimen

Parental signature:

Date:





## CellsPlus

powered by TotiCyte

Our newest service

TotiCyte is a ground-breaking new cord blood separation technology approved by the HTA, **developed by and is exclusive to Cells4Life!**



### Highest cell recovery

TotiCyte delivers **up to 5x more viable cells**



### 99.3% red cell removal

TotiCyte removes **more red blood cells**



### More cell types

TotiCyte delivers **more types of cells**

- ▶ MORE **cells** = MORE **opportunities**
- ▶ MORE **cells** = MORE **treatments**
- ▶ Two **storage locations**
- ▶ Multiple **sample subdivisions** (up to 6)
- ▶ Sample is **transplant ready**
- ▶ Storage of **20, 25, 30, 35 & 60 years**

## WholeBlood

Whole cord blood storage

- ▶ 100% of **every cell: 12 types** stored that can treat **blood disorders, solid tumors, cancers, metabolic disorders, immune system disorders and more.**
- ▶ Used by treatment centers: **Imperial Trust, UK & Duke University, USA**
- ▶ MORE **cells** = MORE **opportunities**
- ▶ MORE **cells** = MORE **treatments**
- ▶ Future **proofing**
- ▶ Whole cord blood is **used worldwide**
- ▶ Two **storage locations**
- ▶ Storage of **20, 25, 30, 35 & 60 years**
- ▶ Multiple **sample subdivisions**



## Cells

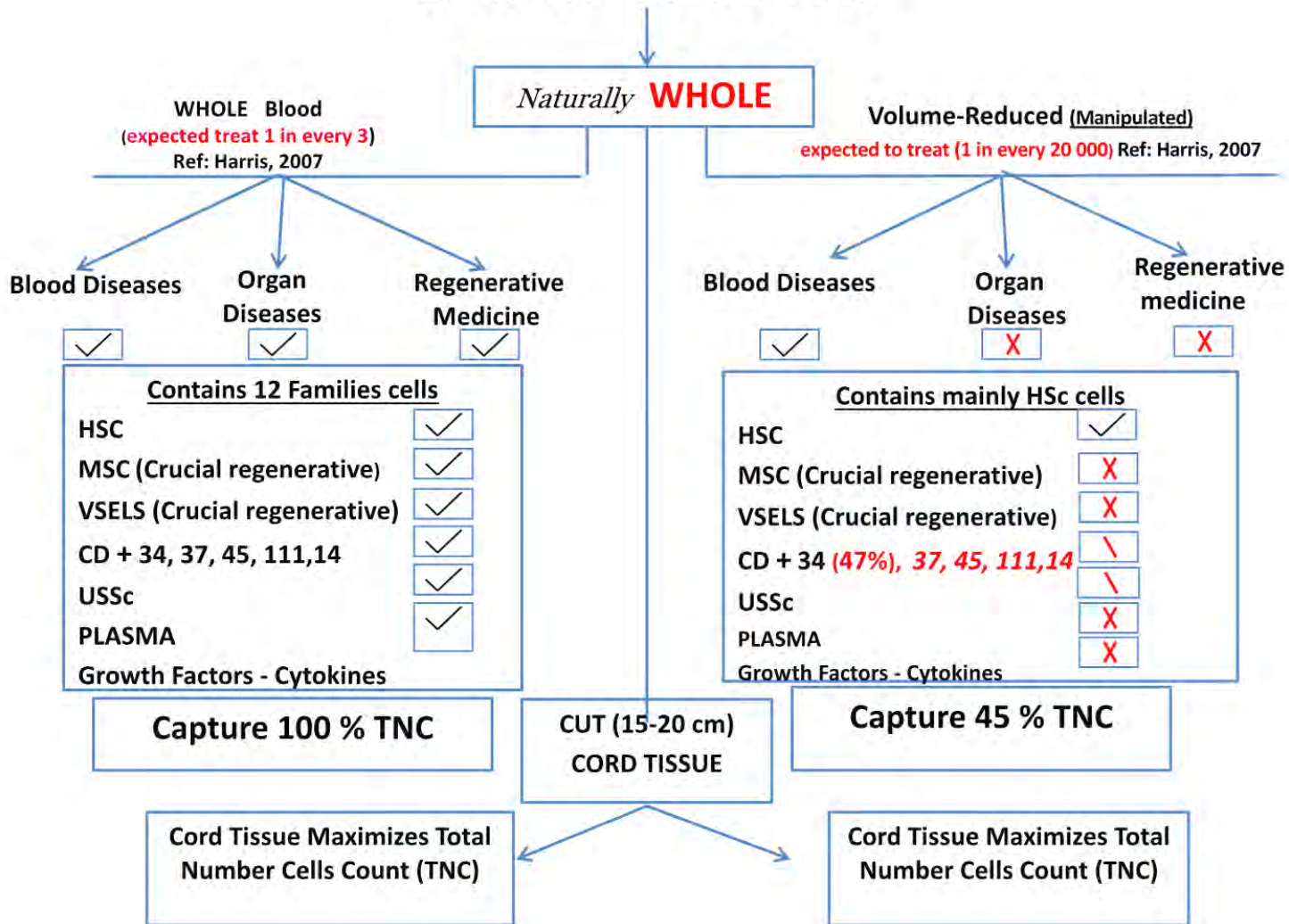
Volume-reduced storage

Similar to other UK providers

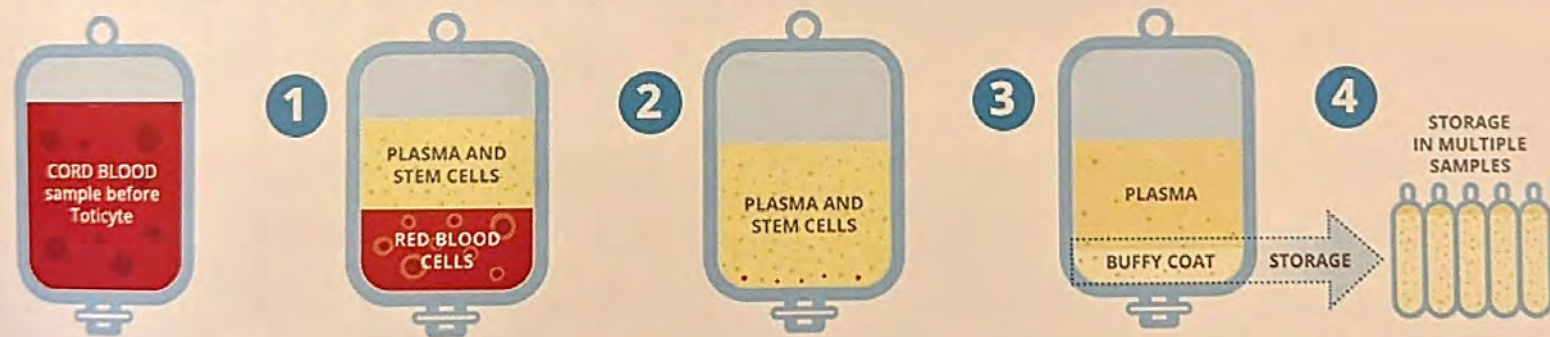
- ▶ Stores **maximum no. of Haematopoietic Stem Cells (HSCs)** that can treat **blood disorders**
- ▶ 20% **more HSCs than other volume reduction methods**
- ▶ MORE **cells** = MORE **treatments**
- ▶ Used by: **Cord Blood Registry (CBR), NHS & New York Cord Blood Bank**
- ▶ **Lower cost** option
- ▶ Two **storage locations**
- ▶ Storage of **20, 25, 30, 35 & 60 years**
- ▶ Two **sample subdivisions**



# Umbilical Cord Blood



## How does TotiCyte Technology work?<sup>12</sup>



- 1 TotiCyte causes the red blood cells to sediment, leaving the stem cells and all other cell types, suspended in plasma.
- 2 The plasma and stem cells are expressed into the next processing bag, leaving 99.5% of the red cells behind.
- 3 The plasma and stem cells are gently centrifuged, which causes a layer ('buffy coat') of stem cells to form at the bottom of the plasma.
- 4 The excess plasma is removed leaving 25ml stem cell sample, which can be divided into multiple units prior to storage.



Cells4Life

the experts in stem cell processing

CellsPlus



# Why store stem cells?

The stem cells from your baby's umbilical cord can be used to treat disease and injury, and are considered to be the cornerstone of regenerative therapies.

Although there are many fields of study, two types of therapy are receiving particular focus. These are transplants and regenerative therapy.

## TRANSPLANTS

Haematopoietic stem cells (HSCs) can transform into any type of blood cell and are currently being used in the treatment of various blood cancers and disorders. This includes leukaemia, lymphoma and myeloma

### Available today to treat:

#### Metabolic Disorders:

- Krabbe Disease
- Hurler Syndrome

#### Blood Cancers:

- Leukaemia
- Lymphoma
- Myeloma

#### Solid Tumours:

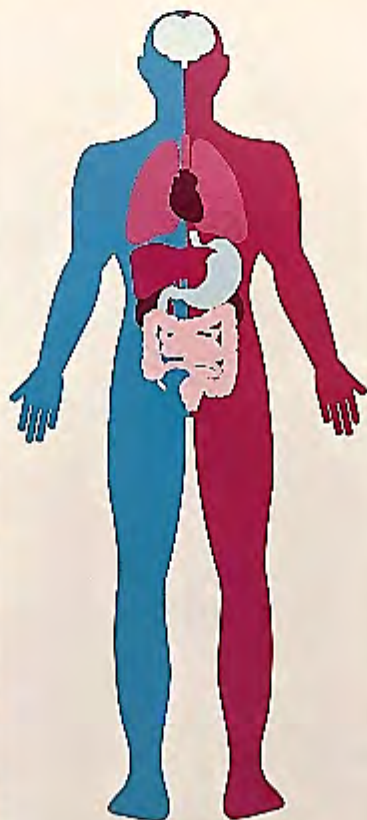
- Neuroblastoma

#### Immune Disorders:

- SCID
- Wiskott-Aldrich Syndrome

#### Blood Disorders:

- Sickle Cell Anaemia
- Aplastic Anaemia
- Fanconi Anaemia



## REGENERATIVE THERAPY

This groundbreaking medical field uses stem cells to repair or replace damaged tissues and organs. Over half the samples released by Cells4Life have been used in this area.

### Being researched to treat:

- Cancer
- Brain Injury
- Multiple Sclerosis
- Cerebral Palsy
- Parkinson's Disease
- Alzheimer's Disease
- Cystic Fibrosis
- Hearing Loss
- Bone Fractures
- Burns
- Stroke
- Heart Disease
- Cardiac Regeneration
- Liver Failure
- Diabetes
- Spinal Cord Injury

## Testing Certificate

PRIVATE & CONFIDENTIAL

Date Printed: 6th July 2023

Customer  
Number: 7007002953

### Maternal Disease Markers

HIV I/II	Nonreactive
Hepatitis B Surface Antigen	Nonreactive
Hepatitis B Core Antibody	Nonreactive
Hepatitis C	Nonreactive
Syphilis	Nonreactive
HTLV I/II	Nonreactive

### Umbilical Cord Blood

Processing Method	Whole Blood
Sample Volume Received	88 ml
Calculated Sample Volume	87 ml
Stored	
UCB - Subdivisions	12
Viability	99.3 %
Total Nucleated Cell Count	1.43e+9
UCB - Microbial Sterility	Pass

### Umbilical Cord Tissue

Mass of Tissue Stored	22 g
UCT - Subdivisions	3
UCT - Microbial Sterility	Pass

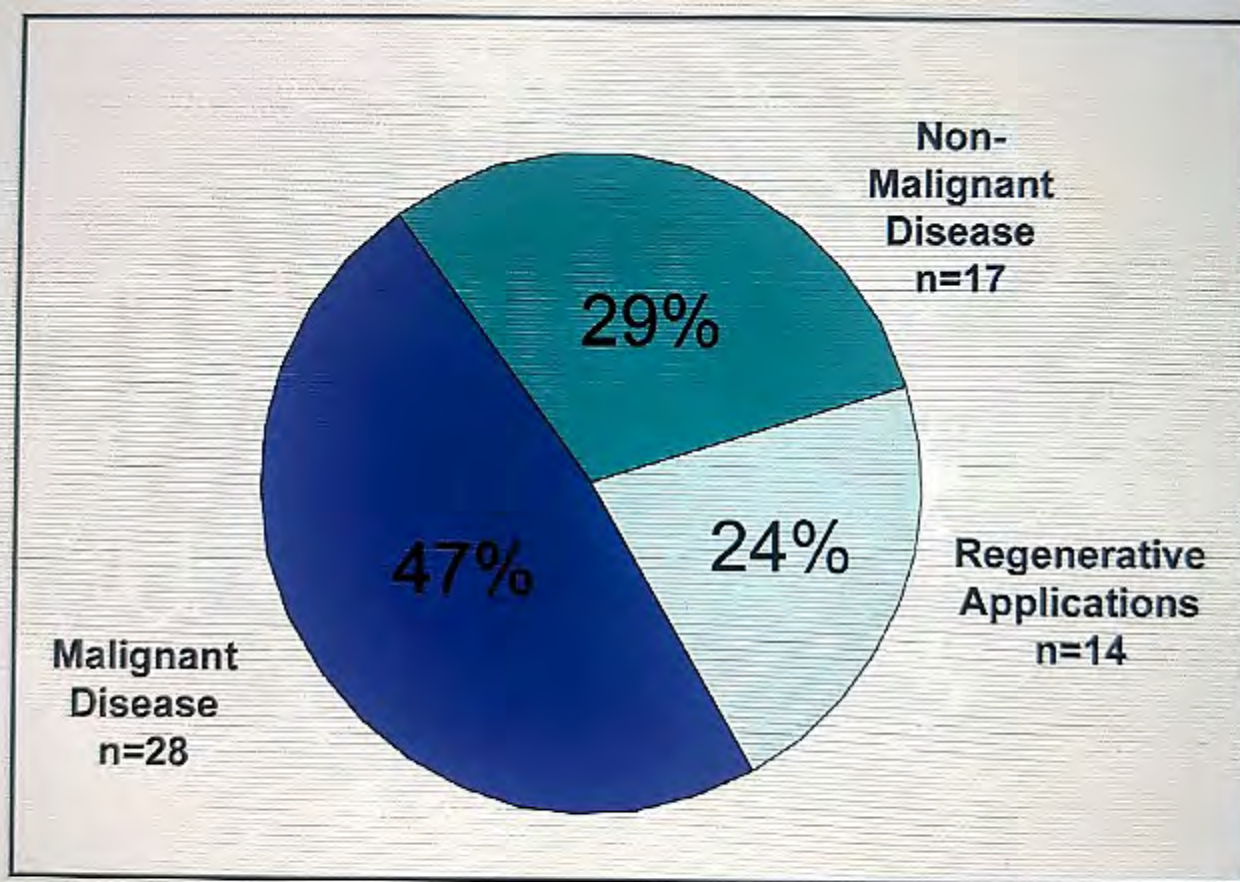
### Cells4Life Group LLP

All sample(s) have been fully analysed.  
These results do not constitute any form of clinical advice or recommendation.

06 JUL 2023

*Dr. Lesley-Ann Martin*  
HTA Licence No. 00183  
Medical License No. 00183

Dr. Lesley-Ann Martin  
Designated Individual HTA Licence #11083  
For and on behalf of Cells4Life Group LLP



**Figure 3** Categories of cord blood stem cell use. An illustration of the types of applications for cord blood samples banked by the Cord Blood Registry. Data is shown as the percentage of uses for each application along with the absolute numbers of samples.





[https://youtu.be/R3XH-\\_dVn84](https://youtu.be/R3XH-_dVn84)

## **Cord Blood & Cord Tissue Collection | Cells4Life**

Collecting the cord blood with Cells4Life takes only a few minutes. All collection materials are included on the Cells4Life kit which will be handed to the doctor on the day of delivery.

Speak to one of our cord blood specialists now: +971 4 3116613 or send us an email on [info@medcells.ae](mailto:info@medcells.ae)

Visit our website: [www.medcells.ae](http://www.medcells.ae)

Facebook: [www.facebook.com/Cells4Life.MidEast](https://www.facebook.com/Cells4Life.MidEast)