

12 Cord Blood Banking

Context: Recently, Poona Citizen Doctors' forum dispels beliefs on commercial **cord blood banking**. It has warned to-be parents against falling prey to the emotional marketing tactics by stem cell banking companies.

Cord Blood:

- **Cord blood** (short for umbilical cord blood) is the blood that remains in the umbilical cord and placenta post-delivery.
- Cord blood has an abundance of **stem cells** and **immune system cells**, and the medical uses of these cells have been expanding at a rapid pace.

Uses of Cord Blood

- The umbilical cord fluid is loaded with stem cells. They can treat cancer, blood diseases like anemia, and some immune system disorders, which disrupt your body's ability to defend itself.
- As these cells help the body re-generate tissues and systems, cord blood is often referred to as **regenerative medicine**.
- The fluid has 10 times more stem cells than those collected from bone marrow.
- Stem cells from cord blood rarely carry any infectious diseases and are half as likely to be rejected as adult stem cells.

Cord Blood Banking:

- **Cord blood banking** is the process of collecting the cord blood and extracting and cryogenically freezing its stem cells and other cells of the immune system for potential future medical use.
- Globally, cord blood banking is recommended as a source of hematopoietic stem cell transplantation for haematological cancers and disorders where its use is recommended.

13 What is meant by pandemic disease declared by WHO?

Context: The World Health Organization (WHO) declared the COVID-19 outbreak a pandemic.

About:

- A pandemic is a measure of the spread of disease.
- When a new disease spreads over a vast geographical area covering several countries and continents, and most people do not have immunity against it, the outbreak is termed a pandemic.
- There is no fixed number of cases or deaths that determine when an outbreak becomes a pandemic.
- The Ebola virus, which killed thousands in West Africa, is an **epidemic** as it is yet to mark its presence on other continents.
- Other outbreaks caused by coronaviruses such as MERS (2012) and SARS (2002), which spread to 27 and 26 countries respectively, were **not labeled pandemics** because they were eventually contained.