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Sickle Cell Disease

Source: PIB

Why in News?

More than 1 crore people have been screened for <u>Sickle Cell Disease (SCD)</u> under the <u>National Sickle</u> <u>Cell Anaemia Elimination Mission</u>.

 The National Sickle Cell Anemia Elimination Mission launched in 2023, aims to eliminate sickle cell anemia from India by 2047.

What is Sickle Cell Disease (SCD)?

- About:
 - SCD is a group of inherited <u>red blood cell</u> (RBC) disorders. RBCs contain hemoglobin, a protein that carries oxygen and healthy RBCs are round. In SCD, the hemoglobin is abnormal, which causes the RBCs to become hard and sticky and look like a C-shaped farm tool called a "sickle.
- Symptoms:
 - Symptoms of sickle cell disease can vary, but some common symptoms include:
 - Chronic Anaemia: leading to fatigue, weakness, and paleness.
 - Painful episodes (also known as sickle cell crisis): these can cause sudden and intense pain in the bones, chest, back, arms, and legs.
 - Delayed growth and puberty
- Treatment:
 - Blood Transfusions: These can help relieve anemia and reduce the risk of pain crises.
 - **Hydroxyurea**: This is a medication that can help reduce the frequency of painful episodes and prevent some of the long-term complications of the disease.
 - It can also be treated by bone marrow or **<u>stem cell</u>** transplantation.
- Government Initiatives to Tackle SCD:
 - The government released technical operational guidelines for the prevention and control of sickle cell anaemia in 2016.
 - The <u>State Haemoglobinopathy Mission</u> has been established in Madhya Pradesh to address the challenges in screening and management of the disease.
 - Anaemin Mukt Bharat Strategy.

UPSC Civil Services Examination Previous Year Question (PYQ)

Prelims

Q. Consider the following statements in the context interventions being undertaken under Anaemin Mukt Bharat Strategy : (2023)

- 1. It provides prophylactic calcium supplementation for pre-school children, adolescents and pregnant women.
- 2. It runs a campaign for delayed cord clamping at the time of child-birth.

- 3. It provides for periodic deworming to children and adolescents.
- 4. It addresses non-nutritional causes of anaemia in endemic pockets with special focus on malaria, hemoglobinopathies and fluorosis.

How many of the statements given above are correct?

(a) Only one(b) Only two(c) Only three(d) All four

Ans: (c)

Exp:

Interventions of Anaemia Mukt Bharat:

- Not Prophylactic calcium supplementation but Prophylactic Iron and Folic Acid Supplementation is provided to children, adolescents and women of reproductive age and pregnant women irrespective of anemia. Hence, statement 1 is not correct.
- Appropriate Infant and Young Child Feeding (IYCF) with emphasis on adequate and age-appropriate complementary foods for children 6 months and above.
- Increase intake of iron-rich, protein-rich and vitamin C-rich foods through dietary diversification/quantity/frequency and food fortification
- Promoting practice of delayed cord clamping (by at least 3 minutes or until cord pulsations cease) in all health facility deliveries followed by early initiation of breastfeeding within 1 hour of birth. Hence, statement 2 is correct.
- Bi-annual mass deworming for children in the age groups between 1-19 years is carried out every year under National Deworming Day (NDD) programme. Hence, statement 3 is correct.
 - The Anemia Mukt Bharat, also integrates deworming of women of reproductive age and for pregnant women as part of the NDD strategy.
- Addressing non-nutritional causes of anemia in endemic pockets, with special focus on malaria, haemoglobinopathies and fluorosis.
- Hence, statement 4 is correct.

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