3. Indian Council of Medical Research (ICMR)

Why in News?

- Indian Council of Medical Research (ICMR) has recently issued a guiding document- "The Ethical Guidelines for Application of AI in Biomedical Research and Health care", which outlines 10 key patient-centric ethical principles for Artificial Intelligence (AI) application in the health sector

Highlights

- Diagnosis and screening, therapeutics, preventive treatments, clinical decision-making, public health surveillance, complex data analysis, predicting disease outcomes, behavioral and mental healthcare and health management systems are among the recognized applications of AI in healthcare.

- It underlines the importance of regular internal and external audits to ensure optimum functioning of AI systems which must be made available to the public.

- It ensures human oversight of the functioning and performance of the AI system.

- Before initiating any process, it is also critical to attain consent of the patient who must also be informed of the physical, psychological and social risks involved.

- It mandates AI-based technology should ensure privacy and personal data protection at all stages of development and deployment. This principle encourages interdisciplinary, international collaboration and assistance involving different stakeholders.

- This principle aimed at preventing "unintended or deliberate misuse", anonymized data delinked from global technology to avoid cyber-attacks, and a favorable benefit-risk assessment by an ethical committee among a host of other areas.

- This acknowledge that the deployment of AI technology assumes widespread availability of appropriate infrastructure and thus aims to bridge the digital divide.

- Poor data quality, inappropriate and inadequate data representations may lead to biases, discrimination, errors and suboptimal functioning of the AI technology.

- In order to refrain from biases and inaccuracies in the algorithms and ensure quality AI technologies should be designed for universal usage.

- In order to effectively use AI, clinicians and healthcare providers need to have a simple, systematic and trustworthy way to test the validity and reliability of AI technologies.

- In addition to providing accurate analysis of health data, a trustworthy AI-based solution should also be lawful, ethical, Reliable and valid.