International Journal for Multidisciplinary Research (IJFMR)
E-ISSN: 2582-2160 ● Website: www.ijfmr.com ● Email: editor@ijfmr.com

Legislative Framework and Role of Judiciary in Clinical Trials in India

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Abstract

This research paper explores the legislative framework governing clinical trials in India and the role of the judiciary in ensuring their compliance. India has emerged as a preferred destination for clinical trials, primarily due to the country's large and diverse patient population. However, this has also brought to light several ethical and legal issues surrounding clinical trials. The paper begins by examining the regulatory framework for clinical trials in India, including the Drugs and Cosmetics Act, the Indian Council of Medical Research Guidelines, and the Clinical Trials Registry - India. The paper then delves into the role of the judiciary in overseeing clinical trials, particularly in cases of ethical violations and compensation claims. The research analyses landmark cases in the Indian legal system and their implications for clinical trial regulation.

Keywords: Clinical Trials, Drugs and Cosmetics Act, Clinical Trial Rules, ICMR

CHAPTER-1: LEGISLATIVE FRAMEWORK IN INDIA

1.1 CONSTITUTIONAL PROVISIONS

Clinical trial is mandatory for approval of drug to assure safety and efficacy of drug. The Constitution of India contains various provisions to safeguard the safety and health of patient and ensures that rights of patients or participants in clinical trials should not be violated.

1.1.1. Article 19(1)(a): Article 19(1)(a) of the Constitution of India specifically provides all the citizens Freedom to Speech and Expression. The Supreme Court of India in various cases including ***Bennett Coleman & Co. &Ors v. Union of India***[1] and ***Indian Express Newspapers (Bombay) Pvt. Ltd. v. Union of India***[2]has held that Right to Know is a fundamental right under Article 19(1)(a).

It is also available to the patients and participants of Clinical Trials which implies that they must be adequately informed about the nature and risks involved in the trial. If there is no informed consent of the participants, their fundamental right under Article 19(1)(a) will be infringed.

[1] 1973 AIR 106
[2] 1986 AIR 515

1.1.2. Article 21: Article 21 provides the Fundamental Right of Right to Life and Personal Liberty. This is the most cherished fundamental right of Indian Constitution and has been given very wide interpretation by various Supreme Court judgments. It includes a lot many rights within its ambit. Right to life does not include mere existence but it implies living a dignified life. So no one should be coerced by any means to take part in any Clinical Trial. Article 21 also ensures Right to Privacy to every individual and if any private information of the clinical trial participants is leaked without their consent it will amount to infringement of Article 21.

In case of***Jacob Puliyel v. Union of India***[3]Supreme Court has opined that bodily integrity is protected under Article 21 of the Constitution and no individual can be forced to be vaccinated. Further, personal autonomy of an individual, which is a recognized facet of the protections guaranteed under Article 21, encompasses the right to refuse to undergo any medical treatment in the sphere of individual health. However, in the interest of protection of communitarian health, the Government is entitled to regulate issues of public health concern by imposing certain limitations on individual rights.

1.1.3. Right to Health under Indian Constitution: The Constitution of India does not expressly guarantee a fundamental right to health. However, there are multiple references in the Constitution to public health and on the role of the State in the provision of healthcare to citizens.

The Directive Principles of State Policy in Part IV of the India Constitution provide a basis for the right to health. Article 39 (E) directs the State to secure health of workers, Article 42 directs the State to just and humane conditions of work and maternity relief, Article 47 casts a duty on the State to raise the nutrition levels and standard of living of people and to improve public health.The Supreme Court of India in ***BandhuaMuktiMorcha v Union of India &Ors***[4] interpreted the right to health under Article 21 which guarantees the right to life and give it the status of a Fundamental Right.

The UNHCR asserts that nations have a duty to respect, safeguard, and uphold citizens' rights to health. Given that vaccine development necessitates clinical trials that will benefit long-term human health and welfare, it is crucial that this goal is not attained at the expense of human rights during the process. States must act with greater care in this situation to defend the rights of their citizens by ensuring that clinical trials adhere to a minimum standard of care.[5]

1.2. REGULATORY ORGANIZATIONS

Most of the laws concerning Clinical Trials are overseen by the:

[3]Writ Petition (Civil) No. 607 of 2021.
[4] 1984 AIR 802
[5]Abhinav Gupta, "COVID19-XXV: A Quest to Cure COVID-19: The Interplay of Clinical Trials, Consent, and Human Rights", available at https://lawschoolpolicyreview.com/2020/08/10/a-quest-to-cure-covid-19-the-interplay-of-clinical-trials-consent-and-human-rights/ (Last Accessed on February 8, 2023).

1.2.1. Central Drugs Standard Control Organization

The CDSCO, the nation's primary drug regulator, is housed inside the Directorate General of Health Services, MoHFW of the Indian Government. The CDSCO is under the direction of the Drug Controller General of India (DCGI). The DCGI is the Central Licensing Authority under the CT Regulations and is in responsibility of issuing licences and licences for clinical trials carried out in India.

1.2.2. State licencing organisations.

The State Licensing Authority ("SLA") is designated by the state government to carry out the requirements of the Clinical Trials Regulations, including property inspections and confirming clinical trial sites' compliance, in accordance with the Pharmaceuticals and Cosmetics Rules.

1.2.3. Ethics Committee

According to the 2019 CT Regulations, India has a decentralised system for reviewing clinical trial applications for ethical issues and needs the approval of an ethics committee (EC) for each trial site. Since there is no national EC in the nation, ECs are either headquartered at institutions or organisations or operate autonomously, and both must adhere to the 2019 CT Regulations and the ICMR Guidelines. Every trial site must be under the supervision of an EC registered with the Drugs Controller General of India (DCGI), head of the Central Drugs Standard Control Organization, before the trial begins and for its whole term (CDSCO).

1.2.4. Indian Council of Medical Research (ICMR)

One of the first organisations for medical research in the world, the Indian Council of Medical Research (ICMR), New Delhi, is the supreme body in India for the formulation, coordination, and promotion of biomedical research. When it was established in 1911, its name was Indian Research Fund Association (IRFA). IRFA was renamed ICMR in 1949. Clinical Trials Registry - India (CTRI), a free and open online registry for clinical trials being undertaken in India, is hosted by ICMR. After updating its 2006 rules, ICMR has published "National Ethical Guidelines for Biomedical and Health Research Involving Human Subjects, 2017". In India, clinical studies adhere to these standards.

1.3. GOVERNING LAWS

The following are the main components of the Indian legal system and regulations under which clinical trials and medical research must be conducted:

- The 1940 Drugs and Cosmetics Act and the 1945 Drugs and Cosmetics Rules
- Clinical Trial Regulations for New Drugs in 2019,
- The 2017 edition of the National Ethical Guidelines for Biomedical and Health Research Involving Human Participants
- Guidelines for Good Clinical Practice in Clinical Research in India, published by CDSCO

- Practices for Good Clinical Laboratories

1.3.1. The 1940 Drugs and Cosmetics Act (DCA) and The 1945 Drugs and Cosmetics Rules (DCR)

The principal statutes governing the Indian pharmaceutical industry are the DCA and the rules promulgated thereunder (together known as the DCR). To ensure that consumers have access to uniformly high-quality cosmetics and pharmaceuticals, the DCA and DCR were created. New pharmaceuticals and investigational novel drugs must be produced and distributed in accordance with the CT Regulations, 2019, the DCA and DCR requirements for clinical trials, and other applicable laws. In 1945, the Central Government issued DCR using the authority granted to it by Sections 6(2), 12, 33, and 33N. To ensure that clinical trials are regulated in India, the rules have undergone numerous amendments.

Before performing any Clinical Trial for New Drug or Investigational New Drug, Licensing Authority approval is required, according to Regulation 122DA, which was added in 2001. According to Regulation 122DAB, which was added in 2013, in the event that a participant is hurt or killed while participating in a clinical study, the sponsor, or a representative acting on their behalf, will offer free medical care and compensate the participant or his family. In order to guarantee the payment of compensation, the sponsor must certify in writing that they will pay compensation in the event that a clinical trial-related injury or death results.In addition, the licencing authority may suspend or cancel the clinical trial in the nation and take any other action it deems appropriate if the sponsor failed to pay compensation. According to Appendix XII, the Expert Committee shall also make recommendations regarding the amount of compensation, with the Licensing Authority making the final decision. According to Rule 122DAC, the Licensing Authority may provide approval for conducting clinical trials subject to a number of criteria if it is satisfied that sufficient data was submitted with the application. Regulation 122DD provides for registration of Ethics Committee and ethics committee can't review and give approval for any clinical study without prior registration with the Licensing Authority.

Schedule Y of DCR which was firstly added in 1988 and was substituted in 2005 provides for regulations and recommendations for approval to import and / or manufacture of novel pharmaceuticals for sale or to undertake clinical trials. It includes clauses addressing requests for authorization, clinical study approval, sponsor, investigator, and ethics committee obligations, among other things.

1.3.2. 2019 Clinical Trial Rules

In accordance with the authority granted by subsection (1) of section 12 and subsection (1) of section 33 of the Drugs and Cosmetics Act, 1940, the Central Government issued the New Drugs and Clinical Trial Rules, 2019 (CT Rules) after consulting with the Drugs Technical Advisory Body. The CT Regulations take precedence over Part XA and Schedule Y of the DCR. The laws that control how drugs are approved in India are comprehensive. It applies to new pharmaceuticals, experimental innovative therapeutics for

human use, clinical trials, bio equivalence studies, and bio availability studies. It handles the formation, registration, and role of the ethics committee in a clinical study. Summary of the CT Rules:

- managed by the Central Licensing Authority(CLA) and State Licensing Authority(SLA).
- oversees how drugs are approved in India.
- establish guidelines for ethical evaluation of clinical experiments establish a system for injury compensation
- allow for shortened processes and exemptions from regional clinical trial regulations. Here, the CT Rules' workings are covered in full.

1.3.2.1. Application of the CT Rules

According to Rule 1, all novel medications, experimental new pharmaceuticals for human use, clinical trials, bioequivalence studies, bioavailability studies, and ethics committees must abide by these guidelines. Any newly developed drug, piece of medical technology, or treatment strategy must not only effectively treat the stated disease condition but also be safe for human consumption. All novel medicines are tested in clinical trials for efficacy and safety.

In India, CDSCO regulates clinical studies for pharmaceuticals and medical devices to show their safety and effectiveness when used on humans. It has the characteristics of a clinical research study or experiment[6], which aids researchers in providing answers to specific inquiries like figuring out the most effective dosing schedule and the severity and form of the adverse events.

Clinical trial is defined by the CT Rules under Rule 2(j) as follows:

A "clinical trial" is "any systematic study of a new drug or investigational new drug in human subjects to generate data for discovering or verifying its—

clinical or;

i. pharmacological including pharmacodynamics, pharmacokinetics, or;

ii. adverse effects, with the objective of determining the safety, efficacy, or tolerance of such new drug or investigational new drug."

The term "new drug" refers to a medication that has undergone safety and efficacy testing in a clinical trial. Therefore, it is a medicine that is being evaluated by clinical researchers and doctors on subject populations that have provided their informed consent to participate in the studies before being approved by the regulatory body.

A medicine that is entirely unapproved or a drug that has been approved but is requesting permission for a new use, indication, or patient population can both be listed as an Investigational New Drug(IND).

[6] Clinical Research, University Of Virginia, Available At: Https://Research.Med.Virginia.Edu/Clinicalresearch/What-Is-Medical-Research/ (Last Visited On January 13, 2023).

CT Rules apply to Bioavailability and Bioequivalence Studies (often referred to as "BABE studies") for both new and existing drugs. A bioavailability study assesses the rate and extent to which a medication is absorbed by the body from a formulation and travels to the systemic circulation in the body or the site of action. A bioequivalence study compares the rate and extent of absorption of an active component from a pharmaceutical formulation to the reference formulation to see if there is any statistically significant difference.

These investigations aid in determining the difference between a drug's viability and effectiveness in the body.

1.3.2.2. Exemption from the CT Rules' Applicability

The CT Rules do not apply to academic clinical trials, biological research, or medical studies. A clinical trial of a drug that has already been approved for a particular use that is being conducted by an investigator, academic institution, or research organisation for a novel indication, novel route of administration, novel dose, or novel dosage form is referred to as an academic clinical trial. The trial's results are used exclusively for academic research and are not intended for marketing or commercial purposes.[7]

Contrarily, biomedical and health research is carried out mostly with the objective of acquiring scientific knowledge about illnesses and disorders and does not require the use of any experimental new medications or new drugs. The creation and registration of an ethical committee to supervise the research is the only requirement under the CT Rules for research investigations falling into these categories.[8]

The ICMR Guidelines must be followed for academic clinical trials and biological and health research in accordance with the CT Rules.

Also, with regard to academic clinical trials, it is vital to keep in mind that the Ethics Committee has an obligation to tell the CLA if there is any overlap between an academic clinical trial and a clinical trial or if there is any question regarding the nature of the study. Based on the study's goals, it might qualify as a clinical trial, in which case the whole set of CT Guidelines would be applicable.

Additionally, research that are not governed by the DCA will not be required to follow the ICMR Guidelines. These consist of:

Examples of using secondary data (i.e., patient medical records) to draw new conclusions without giving patients new medications include studying drugs for confirmation-type studies (i.e., for label indications and promoted effects), studying drugs that are not new drugs, studying medical devices that are not classified as drugs under the DCA, and conducting academic clinical trials.

[7] Rule 2(a), CT Rules 2019.
[8] Rule 17, CT Rules 2019.

Even though some exempted research are exempt from DCGI approval, the site where the study is being conducted may still require an IEC (institutional or independent) permission.

1.3.2.3. Drug Production and Import for Clinical Trials

According to the CT Rules, the sponsor or its representative must acquire approval from the CLA in order to import or produce a new medicine or an experimental new drug for clinical trial purposes. The list of required application materials for a licence in this case is provided in Annexure I below.

Additionally, the sponsor must ensure that Schedule M of the DCR's Good Manufacturing Practices ("GMPs") are followed in the preparation of all new pharmaceuticals and experimental new medications.

1.3.2.4. Committee on Ethics

Whoever intends to conduct clinical trial or bioavailability study or bioequivalence study shall be required to have approval of an Ethics Committee for clinical trial registered underrule 8.[9]

Each and every piece of medical research, including clinical trials, must be approved by an impartial ethics council. All ethical committees must register with the Clinical Trial Registry of India ("CTRI"), which is overseen by the ICMR, in order to perform medical research. The ethics committee's principal job starts at the study approval stage, where: Before CLA approval is given to conduct the research, all clinical trial protocols must be approved by the ethical committee. Any bioavailability or bioequivalence studies must also be approved by the ethics committee. The CT Rules do not apply to medical research investigations, which are governed by the ICMR Guidelines, and protocol approval by the ethics committee is necessary.

The EC must be multidisciplinary and have at least seven membersfrom medical, non-medical, scientific and non-scientific areas in accordance with the CT Rules. The institute or organisation must nominate one member who is not associated with it to serve as Member Secretary of the EC. To represent various points of view, the committee should be made up of professionals from the medical and non-medical, scientific and non-scientific fields. The committee must at least consist of:[10]

(i) one lay person;
(ii) one woman member;
(iii) one legal expert;
(iv) one independent member from any other related field such as social scientist or representative ofnon-governmental voluntary agency or philosopher or ethicist or theologian.

The ethical committee is in responsibility of ensuring that the study complies with the approved clinical trial protocol, as well as assessing investigator reports, inspecting sites, protecting participant rights and safety, and meeting its reporting obligations.

1.3.2.5. Study protocol

[9]Rule 6, CT Rules, 2019.
[10]Rule 7, CT Rules, 2019.

A study protocol is required for all medical research projects. It is a document that outlines the background information, aims, logic, design, methods (including how to deal with unfavourable results, withdrawals, etc.), and history of the study. It also describes how the study will be managed and conducted. The format and substance of the protocol should take into account the established Standard Operating Procedures ("SOPs"), the legal requirements, and acceptable clinical practises. They provide a solid framework for carrying out all obligations and research-related tasks successfully.

Before to beginning a clinical trial, the applicant, sponsor, or its agent must obtain clinical Trial authorisation from the CLA, and the investigator must obtain ethics committee approval. To begin, academic clinical research merely require the ethics committee's approval. To obtain the CLA's permission for investigational or innovative drugs, specific documentation must be presented as part of the approval process. Depending on the application type, study stage, drug development process stage, and study purpose, different information will be required. In order to ensure that the trial is conducted effectively and in accordance with the CT Rules and the ICMR Guidelines, each trial site must prepare a trial design or protocol. The sponsor is in charge of organising and carrying out a trial overall. Prior to the trial, critical processes must be designed and properly documented to ensure rigour and compliance with all applicable regulations.

The protocol must make a relationship between the research risks and advantages to the patient or the clinical field of investigation in light of advancements, present therapeutic alternatives, and the unmet medical needs of the country. The essential components of a suggested procedure are listed in the Third Schedule of the CT Rules.

The CT Regulations state that the protocol must include include information about the trial's Quality Management Plan (Quality Assurance and Quality Control measures) . The protocol must include specific information about the methods that will be used during the trial to guarantee the validity of the data, as well as the personnel who will have access to clinical trial data and who will make sure that the data is gathered and used in accordance with national and regional data protection laws.

In addition to EC (which gave the study its approval) permission, any protocol alterations need to be reported to and approved by the CLA. No adjustments or revisions from the approved protocol may be carried out without the prior written agreement of the ethics committee and the CLA for a regulatory clinical trial or the ethics committee for an academic clinical trial.

There are several exceptions to this rule, such as when it is urgently necessary to eliminate any immediate dangers to trial participants or when the changes only have a minor impact on the trial's administrative or logistical operations. The CLA and the ethics committee should be made aware of these modifications within 30 days.

1.3.2.6. The Investigator's Initiative

Anyone who want to carry out a clinical study in India must apply to the CDSCO and provide an Investigator's Undertaking. In the undertaking, a legal document, the investigator makes a legal commitment to conduct the trial in accordance with the pertinent regulatory, ethical, and GCP standards. The Table 4 of Third Schedule provides a uniform structure for constructing the undertaking in accordance with the CT Rules.

1.3.2.7. Clinical Trial Registration

The sponsors of the research must register the clinical trials, including academic clinical trials, with the CTRI. The CTRI serves as a central repository for clinical trials carried out in India. At every stage of the experiment, including subject recruiting and clinical trial protocol approval through Phase IV studies, approvals are required. All clinical trials must be registered with the CTRI, but registration is also recommended for all other sorts of studies, including those covered by the ICMR Guidelines, as good practise.

Applications for clinical trials must be submitted online via the SUGAM portal, which CDSCO hosts and designed. This website provides comprehensive, step-by-step instructions on how to complete the online form and what information is required.

1.3.2.8. Clinical Trial of Novel Drugs or Novel Drugs Under Investigation

An individual Investigator, institution, or organisation may only conduct clinical trials with a medicine or new drug developed in India or outside of India that is proposed to be commercialised in India after acquiring a valid approval from the CLA.

For authorisation to carry out a clinical study of a new medicine or investigational new drug in India, the Form CT-04 must be used. The Second Schedule of the CT Regulations lists the supporting documents, details, and fee receipts that must be enclosed with the form. If all conditions are satisfactorily met, the authorization to conduct the clinical study will be provided in Form CT-06. For applications submitted in Form CT-04, the advised deadline is 90 business days after the application is received.

Applications for authorization to carry out clinical trials involving medicines discovered in India, under development there, or with plans to produce and market them there will be processed 30 working days after they are received. If the applicant has not heard from CDSCO within 30 working days of CDSCO receiving the application, it will be assumed that permission to perform the clinical research has been granted.

1.3.2.9. Safety Reporting

Once the clinical research has begun, the sponsor and the investigator must continue to report. To track the progress of the study, the ethics committee and/or CLA analyse the reports. The following definitions are crucial for an understanding of safety reporting under the CT Rules:

Adverse Event ("AE"): Any unfavourable medical event in a patient or a human participant treated with a pharmaceutical product that is not necessarily connected to the treatment (including a symptom/disease or an abnormal test finding).[11]

Adverse Drug Reaction ("ADR"): A subset of AE in which the proper administration of the study drug results in an un-favourable medical event.

A serious adverse event (SAE) is a medical occurrence that occurs during a clinical trial and causes death, permanent disability, hospitalisation of the trial subject (whether they are healthy or outdoor patients), prolongation of hospitalisation for indoor patients, persistent or significant disability or incapacity, congenital anomaly, birth defect, or a life-threatening event.[12]

- **Responsibilities of the Investigator**

SAEs must be reported to the sponsor, or a representative acting on their behalf, the CLA, and the ethics committee that approved the study protocol within twenty-four hours of their occurrence.[13]The investigator is then required to draught a report using the format specified in the CLA's Third Schedule of CT Rules. Prior to this amendment, the reasons for the delay had to be mentioned in the report that was forwarded to the CLA, the chairperson of the ethical committee, and the director of the trial site within fourteen days of the SAE's occurrence, if the investigator had not reported the SAE within twenty-four hours.

- **Sponsor's Responsibilities**

The Sponsor shall submit reports to the CLA on a regular basis. These reports must contain information about the progress of the clinical trial and the study's findings. If studies are terminated early, a summary report including the reasons, information about any adverse medication responses, the dosage and timing of drug administration, the number of trial participants, etc. must be submitted within three months. In the event of SAEs, the sponsor shall deliver the analytical report to the CLA, the chairperson of the ethics committee, and the director of the trial site.

1.3.2.10. Process for Compensation and Medical Management

The CT Regulations require the ethics committee to acquire a copy of the insurance policy or details regarding compensation for participation and for serious adverse events that occur during the study as part of its evaluation process for approving the clinical trial protocol. The sponsor must have insurance or a comprehensive compensation plan in order to conduct a clinical trial in India.

[11] Rule 2(d), CT Rules 2019.
[12]Rule 2(ff), CT Rules 2019.
[13] For Instance Refer (Principle No. Ix), The Alma-Ata 1978. In Declaration Of Alma-Ata International Conference On Primary Health Care, Alma-Ata, Ussr, 6-12 September 1978; Available At: Www.Who.Int/Hpr/Nph/Docs/Declaration_Almaata.Pdf (Last Visited January 12, 2023)

The CT Rules distinguish between an AE and an SAE. Every adverse medical event (AE) is a condition that may or may not be brought on by the treatment employed in the clinical investigation. Whereas an SAE is any unanticipated medical event that results in a clinical trial participant's hospitalisation, lasting damage, or death.

- **Indian Compensation Regulations**

Until 2019, Rule 122DAB of Schedule Y of the Drugs and Cosmetics Rules, 1945 served as the compensation rule in India. Part XA and Schedule Y of the 1945 Drugs and Cosmetics Rules were replaced by the 2019 Rules for New Drugs and Clinical Trials. The Rules' Chapter VI, specifically, addresses compensation. The requirements are spelled forth in Rules 39, 40, and 41. Rule 42 describes the process to be utilised for the payment of compensation for injuries (including death) during clinical trials, provided that they are caused by participation in the study.

The sponsor is responsible for covering any medical expenses or other compensation for the aforementioned ailments within the authorised time frame. In addition, the government has warned that failure to pay the compensation may have serious repercussions.

The sponsor or a representative must demonstrate a written commitment to recompense trial participants in the event of harm or death, in accordance with the New Medicines and Clinical Trial Rules 2019, when submitting a clinical trial application to the Central Licensing Authority.[14]

The sponsor shall provide the participant's legal heir with financial compensation in the event of the participant's death during a clinical trial, bioavailability study, or bioequivalence research. The sponsor should offer the participant medical management in addition to monetary compensation in the event of permanent disability or any other harm during a clinical investigation. If someone sustains a non-permanent injury, he should receive financial compensation equal to the value of his lost salary. Until it is proven that an injury is unconnected to a clinical research study, or until it is necessary, whichever happens first, the sponsor is expected to provide free medical care as advised by the investigator.If a sponsor or its representative fails to provide medical management or compensation as required, the Central Licensing Authority may, after giving the sponsor or its representative an opportunity to be heard, suspend or terminate the clinical trial, place restrictions on the sponsor's ability to conduct further trials, or take any other appropriate action.

1.3.3. ICMR Recommendations

The ICMR Guidelines, which are used for all forms of medical research in India, and the CT Rules are very similar. The CT Rules apply to interventional and BA/BE studies that are not covered by the DCA and CT Rules, among other types of medical research, whereas the ICMR Guidelines govern all investigations. The

[14]Rule 25(xi), CT Rules 2019.

National Ethical Guidelines for Biomedical Research Involving Children, 2017, the National Guidelines for Stem Cell Research, 2017, and the National Ethical Guidelines for Biomedical and Health Research Involving Human Participants, 2017, have all been made available by the ICMR.

The ICMR Guidelines' purpose is to assure the safety, protection, and dignity of research subjects. The ICMR Guidelines must be followed by all study participants, including sponsors, researchers, ethical review boards, funding organisations, etc. Before the CT Rules, Schedule Y of the DCR included a supplement called the ICMR Guidelines. After the adoption of the CT Rules, the ICMR Guidelines are now relevant to clinical trials inasmuch as they do not conflict with the regulations set forth by those rules. Nonetheless, the CT Rules stipulate that the ICMR Guidelines themselves will continue to govern academic clinical trials, biological research, and health research, making them necessary for these studies.

The ICMR Guidelines are summarised as follows:

1.3.3.1. Risk Classification: Less than minimal risk, minimal risk, a moderate increase above minimal risk or low risk, and more than minimal risk or high risk are the four categories into which the risk is broken down. This risk classification must be understood in order to comprehend the type of supervision and review procedure that the EC must use.

1.3.3.2. Process for Obtaining Informed Consent: To obtain informed consent, a form that attests to the subject's voluntariness to participate is necessary. The process of obtaining informed consent includes providing participants with information about the risk involved, confidentiality, freedom to participate or withdraw, the research team's contact information, etc. The information that is provided must also be understandable by the participants. For this reason, the informed consent form may be translated into local tongues. An appropriate informed consent form with the aforementioned specifications must be made for people with special needs. The informed consent document must receive approval from the ethics committee in all of its incarnations.

1.3.3.3. Ethical Review Procedure: The multidisciplinary ethical committee approves the study's protocol and monitors its observance throughout the investigation. According to the ICMR Guidelines, the ethics committee must also be registered with the CTRI. The ethics committee monitors the development of active proposals as well as SAEs, protocol deviations/violations, new data, and final reports.

1.3.3.4. Reporting: All SAEs must be reported by the researcher within 24 hours of their occurrence, and within 14 days, a report detailing how closely the SAEs relate to the research must be written. Researchers must also submit regular reports to the Ethics Committee.

1.3.3.5. Compensation: The sponsor shall incorporate insurance coverage or a provision for potential reimbursement for harm or injury occurring from the study in the study's budget.

1.3.3.6. Post-study responsibilities: Study participants may receive post-research access to the investigational drug with the appropriate regulatory permissions. Additionally, the establishment of hospitals, schools, counselling facilities, and the dissemination of knowledge about healthy lifestyle choices may have indirect positive effects on the community.

1.3.3.7. Biological Materials, Biobanking, and Datasets: All biological samples collected during the study, such as bodily fluids, dried blood spots, tissues, organs, etc., belong to the participants. The data and biobanks/institutions are the trustees or custodians. The donor-participant has the right to revoke consent at any moment or ask for destruction. Without formal permission, biological samples cannot be used for additional research. Whenever applicable, information on the commercial value of samples or data as well as benefit sharing should be included in the informed consent process. Electronic data and samples should be anonymized to preserve their privacy and confidentiality. A material transfer agreement must be signed if it is anticipated that the biospecimens will be shipped to partners domestically or internationally.

1.3.3.8. Rules to follow when conducting particular sorts of research:

(i). Vulnerable Population Study

The phrase "vulnerable population" refers to individuals or groups that are somewhat or entirely unable to protect their own interests because of a personal disability, environmental restrictions, societal injustice, a lack of power, a lack of knowledge or communication abilities, or for other reasons. Children, people with mental or physical disabilities, criminals, the elderly, and others could be included. In studies involving vulnerable populations, the methodology must justify such selection. The study must address their specific health needs if only vulnerable populations are chosen for recruiting.

To accommodate the specific needs of the vulnerable population, the informed consent procedure must be modified. The participant's legally designated agent must be asked for informed permission if the participant is unable to do so. The EC must carefully consider such engagement and may conduct additional/continuous monitoring during the research period, with special regard to the protocol's provisions for additional safeguards.

Studies involving children must also adhere to the 2017 ICMR National Ethical Guidelines for Biomedical Research Involving Children. Research involving children should take into account their unique physiology, anatomy, psychology, pharmacology, social situation, and specific requirements. It needs to be done in a kid-friendly environment. An investigational drug's considerable safety and efficacy must be proved prior to conducting research on children.

(ii). Social and behavioural science and public health research

Research involving human subjects that has an overall influence on the community, demographics, and environment must ensure social fairness and intersectionality. Ethics committees are required to examine a variety of research kinds, including programme evaluations, demographic monitoring, registries,

implementation research, demonstration projects, community trials, surveys, etc. To address the specific ethical problems related with socio-behavioural or public health research, it is vital to choose trained experts. While study findings frequently lead to public health efforts, data security and confidentiality precautions should be robust, and the necessary disclosure permissions must be obtained from the participants.

Additionally, EC should consider debriefing after the study is complete if full disclosure of the circumstance does not provide the desired results and should carefully assess the use of deception to achieve the study objectives for the greater good of the public. Support services like counselling, rehabilitation, etc., must be established for sensitive studies.

(iii). Research and Testing in Human Genetics

Given that both genetic research and genetic treatments are still in the research and development phases, there is a lot of overlap between the two fields. Consent from the participants and confidentiality are crucial because the nature of the research necessitates collecting personal data from participants and their families (secondary participants). As a result, consent from each member must be informed. Before publishing any pictures, pedigrees, or other personally identifying information about people or families, a new or renewed consent is necessary.

Maintaining secrecy is necessary when using cutting-edge technologies like chromosomal microarray (CMA), whole exome sequencing, whole genome sequencing, etc. In order to screen children for late-onset disorders, a workable childhood intervention must exist, which is what the study intends to find.

(iv). Research in Disasters and Humanitarian Emergencies

According to ICMR Guidelines, humanitarian disasters include both natural and man-made occurrences. The emergency's effects on how ethical questions are perceived, vulnerabilities that have changed or risen, relationships between healthcare providers and patients, relationships between researchers and participants, problems with study integrity, and ethical review procedures must all be taken into account when developing protocols. Unregistered and experimental therapies may be utilised under closely monitored emergency circumstances and after a hastened review of the results.

1.3.4. Recommended Good Clinical Practics (GCPs)

A moral and academic standard for conducting clinical research is the CDSCO GCP. It aids in the organisation, conduct, recording, evaluation, and reporting of clinical research. The highest statutory decision-making authority for drug laws in India, the Drugs Technical Advisory Board ("DTAB"), endorsed the CDSCO-GCP, which was developed by the CDSCO. The ICH-GCP, WHO-GCP, USFDA-GCP, and other international standards, as well as the ICMR's Ethical Guidelines for Biomedical Research on Human Subjects, serve as the foundation for the CDSCO-GCP.

Previous to this, the majority of pharmaceutical companies did not follow GCP guidelines, and regulatory requirements did not enable CDSCO-GCP compliance. In 2005, the CDSCO changed Schedule Y of the DCR in order to mandate CDSCO-GCP compliance. After that, the CT Rules followed a comparable strategy and demanded adherence to CDSCO-GCP. India's biomedical research should adhere to it throughout all stages of medication development. This criterion must be satisfied; biomedical research carried out in India must also abide by the CDSCO's country-specific GCP requirements; compliance with generally recognised standards is insufficient.

The CDSCO-GCP primarily ensures the safety of trial participants and the validity of the data generated during clinical trials. The CDSCO-ethical GCP's guidelines are consistent with the principles expressed in the World Medical Association's Declaration of Helsinki for research involving human subjects. They speak to topics like risk mitigation, informed consent, confidentiality, and other ideas that generally align with a variety of other international standards.[15]

Broad recommendations for study design, subject recruitment, data processing and management, and trial result analysis are provided by the CDSCO-GCP. The suitability of the protocol, examination of the methods and supporting documentation supplied by the sponsors with regard to subject recruitment, and confirmation of the accuracy of the informed consent forms that trial subjects are required to sign before participating in the study are all subject to independent ethics committee review.

1.3.5. Acceptable Good Laboratory Practices (GLPs)

Both the Organization for Economic Co-operation and Development (OECD) and India's GLP administrator, the National Good Laboratory Practice Compliance Monitoring Authority (NGCMA), have recognised GLP as a quality management system for research laboratories.

During the development process, the GLP ensures the consistency, reliability, repeatability, quality, and integrity of a product's safety and efficacy, including pharmaceuticals. India's commitment to GLP offers strong evidence of the validity of pre-clinical safety data, similar to other jurisdictions. Laboratory research and preclinical animal toxicity studies must follow GLP in compliance with the CT Rules.

In order to demonstrate compliance with GLP, laboratories may get certification from the NGCMA. Although the GLP-Compliance Certification is not required to conduct clinical trials, it is required in order to secure CDSCO regulatory licences. After being given, GLP-Compliance Certification is good for three years, and the NGCMA performs annual surveillance.

[15] Wan, Liya., Cheng, Simming., And Chin, P Daniel., (2007), "A New Disease Reporting System Increases Tb Case Detection In China". Ncbi. Bulletin Of World Health Organisation, Beijing, P.5; Available At: Www.Ncbi.Nlm.Nih.Gov>Pmc2636671(Last Visited January 12, 2023).

CHAPTER-2: REGULATORY CHALLENGES IN INDIA AND COVID-19

2.1. REGULATORY CHALLENGES

We are currently examining treatment as quality of care in order to achieve safety and peace by identifying vulnerable and targeted diseases. Also, there is the use of scientific technology to defeat terrorism. Healthcare and physical well-being are violated as a result of expanding healthcare inequities. In the field of biotechnology or pharmacogenomics (PGx), personalised medicine (PM) has arisen as a development to inform people about prospective health concerns. The impending concept of PM, also known as precision or individualised medicine in the health care business, promises to bring about change through the application of gnomonic and scientific technology. The goal of developing PM as a molecular analysis strategy is to remove erroneous medication and adverse effects brought on by a certain drug reacting with a person's body, according to scientists and researchers in the field of PGx.[16]

The tripartite commitment established by international law currently mandates that countries uphold and respect each person's right to health (RTH) without engaging in any kind of bias or unfairness towards health standards. Article 12(2)(d) of the International Covenant on Economic, Social, and Cultural Rights (ICESCR) requires State Parties to the Covenant to develop standards for medical treatment and services that will ensure RTH through technological advancement. The right to health is a fundamental human right. Science and contemporary technology advancement require adherence to human rights. According to Article 10 of the 1997 Universal Declaration on Human Rights and the Human Genome,

"No research or research applications concerning the human genome, in particular in the fields of biology, genetics, and medicine, should take precedence over respect for the human rights, fundamental freedoms, and human dignity of individuals or, where appropriate, of groups of people."[17]

The fields of biology, genetics, and medicine must exercise caution in order to safeguard people's human dignity and rights and ensure that experiments and treatments do not violate or infringe upon them. The scientists and researchers at PGx think that PM can take the place of the current trial-and-error method of practising medicine. If PM acceptance permeates daily life, accurate disease/suffering therapy identification may be feasible. Moreover, scientific discoveries and procedures have never been completely clear. The control of PM generation cannot yet be categorised as a health right. Throughout its area of specialisation, the specialty has also been encircled by patient rights about data security, privacy, and confidentiality, among other things.

[16] Ibid.
[17] Article 10 Of The Universal Declaration On The Human Genome And Human Rights, 1997, General Conference Of UNESCO, 29th Session On 11 November 1997, Records At Conference; Available At: Www.Unesco.Org/Shs/Human_Rights/Hrbc.Html (Last Visited January 15, 2023).

2.1.1. Personalised Medicine as a Health Paradigm

With the proper prescription prescribed and dosage given according to each patient's requirements, personalised medicine (PM) has arisen as a new health paradigm that offers hope for the treatment of human illnesses and sufferings. Due to the growing number of reasons why drugs are ineffective as well as newly emerging side effects and reactions, people are on the watch for adverse drug reactions (ADRs) deaths. This justification helps to improve the pharmaceutical recommendations that doctors/physicians give to their patients because it is based on the development of PM as an improved scientific method for RTH. The optimal drug intake with the fewest side effects won't be possible until a genetic analysis of each person's body is conducted during clinical tests and its results are analysed.When conducting research, it's important to consider how a person's surroundings and way of life influence their needs and responses to it. It is possible to understand the dose system through genetic research when a person willingly accepts to participate in a PM study while having a tumour or another ailment. With regard to voluntary assent, a person should not be subjected to torture or cruel, barbaric, or degrading treatment or punishment, as stated in Article 7 of the International Covenant on Civil and Political Rights (ICPR) of 1976. Particularly, no person may be used as a test subject for medical or scientific research without that person's full consent since volunteers for clinical research must expressly consent to being used in experiments.During this process, PM assists in analysing the anticipated effects of a particular drug based on its modulation. For instance, genomic testing may be able to determine the underlying causes of a person's drug resistance and help develop a treatment when a condition has advanced to the point where no medication is effective. Also, this research contributes in a better grasp of the body's therapeutic needs. PM helps patients identify their risk factors prior to the start of disease, enabling them to make proactive steps towards prevention by receiving medical care, changing their lifestyles, or doing both. This information is not simply limited to this region because the genetic/DNA test of an individual also identifies sensitivities and allergies to the treatment pill or drug due to molecular consumption.

2.1.2. Understanding Drug Reaction and Personalised Medicine

The Medical Industry has benefited from PM's recognition of the necessity to comprehend how drugs may affect the body by enhancing healthcare accessibility and service while lowering prescription errors. In actuality, it provides PM with the key building blocks they use to analyse the requirements of the human body in relation to their Genes, genetic makeup, environment, as well as their lifestyle. Calculating a person's hereditary or family history of diseases during genetic testing for PM can also help in managing some of that person's predictable conditions. Scientific developments enabled by biotechnology have made it possible to precisely identify the underlying cause of ailments. The PM is viewed as a damage/disability controller in the medical community, with the right dosage for different body levels.PM aims to help people by altering the conventional practice-trial-and-error approach. Because it was believed that PM accuracy could only be achieved after extensive research and testing that would generally take 17 years to complete. Using information obtained during clinical trials, to assess the validity of research outcomes

carried out on willing subjects through its dose reactions. This confirmation is not, however, a perfect foundation right now.[18]Research findings have not been reached on an unlimited number of topics. It's crucial to keep in mind the accuracy and quality requirements necessary to satisfy a nation's requirements for drug approval as well as the standards of the importing country. Section 124 of Part XII of the Indian Pharmaceuticals and Cosmetics Act 1940 states that the "immediately previous edition of the Indian Pharmacopoeia" contains the standards for medicines in the Indian Pharmacopoeia. Also, research indicates that most drugs may not have the same effects on several persons as they do when administered to a single person.[19]The medications must, however, continue to meet the requirements set forth by the country's legal system. Each person undergoes a DNA and genetic test since every person's body adapts and responds differently depending on their own genotype structure. This test shows the body composition to which a specific body may adapt and how that body may react to different drug stages. The PM arrives early to administer the proper dosage and carefully monitor the body's response to a particular ailment. For example, when a cancer medication is looked at today, only around 25% of the patients who take it can be adequately treated. Despite the fact that it is widely mentioned that using drugs without getting a good PGx test can be detrimental.[20]Similar to this, research continues to uncover adverse drug events (ADE) and medication responses. The Institute of Medicine in Washington, D.C. estimates that each year, some 2 million Americans are hospitalised for negative drug responses, and nearly 100,000 of them die. The 30 PM effort is believed to have helped reduce the number of fatalities and adverse drug reactions. The ability of genetic coding to anticipate potential harm to the human body may help in identifying side effects.[21]The results of this form of genetic testing may be able to forecast a tiny genetic difference by 6 mercaptopurine dangerous reaction based on its genetic code, despite the fact that personalised medicine is not widely practised. Moreover, the medication may result in a life-threatening anaemia in those who have this genetic variation.

2.2. MAIN ISSUES WITH THE INDIAN SYSTEM OF CLINICAL TRIALS:

Even while the Indian system for clinical trials clearly needs many checks and balances, certain improvements have already been made in a few viewpoints and perspectives. The Sponsors and investigators who want to conduct Clinical Trial in India have to face several challenges such as:

2.2.1. To move further, the trial needs to receive multiple clearances. The sponsor must submit a clinical trial registration form to CDSCO, obtain import or manufacturing authorization for the research drug, and obtain approval to initiate the experiment during the pre-initiation phase. After the start of clinical trials,

[18] National Human Genome Research Institute, 30 March 2015; Available At: Www.Genome.Gov.27552451/What-Is-Genomic-Medicine (Last Visited January 18, 2023).
[19] Section124 Of The Drug And Cosmetic Act 1940, (2016), Bare Act: With Short Comments, Professional Book Publishers: New Delhi, P.149.
[20] NIH, (2006), "Personalised Treatment Trial For Breast Cancer Launch", National Institutes Of Health, News Release, 23 May 2006; Available At: Www.Nih.Gov/News-Events/News-Releases/Personalizedtreatment-Trial-Breast-Cancer-Launched (Last Visited January 24, 2023).
[21]Choo Kristin., (2006), "Personalized Prescriptions", ABA Journal , 92 (9), P.42-43.

periodic approval to carry out the trial must be acquired in order to proceed to each step. Typically, each approval is given in 30 to 90 working days.

2.2.2. Changes in the composition, strength, dosage form, indication, etc. require fresh clinical trials to beconducted in accordance with the CT Rules.

2.2.3. Informed permission from trial participants must be obtained in accordance with the format outlined by the CT Regulations. Children, expectant mothers, foetuses and newborns, as well as those with mental impairments, are all given extra informed consent requirements under the ICMR Guidelines. Clinical trial and data protection regulations may entail parallel penalties for failure to adhere to informed consent requirements.

2.2.4. Under the CT Regulations, interim reporting responsibilities are subject to harsh deadlines. The CDSCO must receive interim and progress reports on a regular basis and annually. Within 24 hours of their occurrence, serious adverse events must also be reported, and a report explaining the incidence and the solution must be filed.

2.2.5. Free medical aid must be given even for unrelated effects unless it is established that the harm did not arise from the study. The sum that the clinical trial sponsor may be required to contribute for this reason is not limited in any way.

2.2.6. Drugs developed outside of India are not allowed to undergo first human testing. Before beginning a trial in India, all Foreign New Chemical Entities may need trial data and authorisation from a foreign state.

Additionally, transfers of personal data must be done with the subject's consent and only after verifying that the recipient complies with Indian privacy laws. The Data Protection Bill, 2021, a draught law on data privacy, calls for the localization of sensitive personal information, such as trial records and medical records, with restrictions on their export. If the proposed regulation is adopted in its current form, only anonymized data may be exported from India.[22]

CHAPTER-3: ROLE OF JUDICIARY

3.1 INTRODUCTION

The judiciary's responsibility in clinical trials in India is to ensure that subjects' rights are upheld and that the trials are carried out in compliance with the laws and regulations of the nation. The legal system also resolves conflicts resulting from clinical studies, such as paying out damages to study participants who have been injured. The Clinical Trials Rules, 2019, the Drugs and Cosmetics Act, 1940, and other laws and regulations pertaining to clinical trials can all be interpreted and enforced by the judiciary.

Several Supreme Court judgments have played a significant role in shaping the current framework for clinical trials in India. Some of the key judgments are:

[22]Nisith Desai Associates, "Clinical Trials in India: Legal and Regulatory Framework" available at https://www.nishithdesai.com/fileadmin/user_upload/pdfs/Research_Papers/Clinical-Trials-in-India.pdf (Last Accessed on January 22, 2023)

In the case of ***Jacob Puliyel v. Union of India***[23], the Supreme Court emphasized the need for informed consent of participants in clinical trials and the importance of ensuring their safety.
In the case of ***Common Cause v. Union of India***[24], the Supreme Court directed the government to set up an independent body to monitor clinical trials and to ensure that they are conducted in accordance with the relevant laws and regulations.

India's understanding of informed consent has changed as a result of numerous judgements. The law is explicit in stating that agreement to processing must only be given in writing or another manner upon request. National consumer laws apply to some areas of medical misconduct in India. Indian patients are growing increasingly conscious of their rights. Indian legislation on informed consent is a stub since it is not well-known or broadly recognised. Only a few case precedents have seen courts make an attempt to create a legal presumption based on informed consent consideration. But through time, society and the law have started to understand the value of informed consent and how it pertains to medical care.Even when a doctor neglects to give sufficient care and unintentionally causes the patient substantial harm, the legal system does not take informed consent into account. In another case, the court decided that when seeking medical treatment, the Indian Contracts Act of 1872's consent standards must be followed. Each physician is responsible for ensuring that patient consent was gained in an open and honest manner in accordance with their professional responsibilities. This ruling does a wonderful job of highlighting the significance of consent in the context of medical treatment, even though it does not fully define the idea of informed consent. The law relating to informed consent is clearly laid down by Supreme Court in ***Samira Kohli judgment***.[25] The judgment mandates "the physician to obtain real and valid consent from the patient before commencing the treatment. In the course of obtaining such consent the physician has to impart adequate knowledge that will help a patient to make a balanced decision. The doctor has to inform the patient about the nature and risk of the treatment and also about the alternatives available. Consent for diagnosis and therapeutic remedy are to be taken differently".

3.1.1 Consent to Human Experiments

Human experimentations were regulated with the doctrine of consent even before the Nuremberg Trials. The ***Neisser Case***[26] was of such kind where Albert Neisser, "a dermatology professor made serum trials for patients with syphilis against their will or knowledge. Notwithstanding Neisser's medical authority in therapeutic care, the court insisted on patient permission, and it was penalised. The lawyers advised the government that conducting such experiments against the patient's will in non-therapeutic trials would result in criminal culpability. The German government issued new standards for innovative therapy and human experimentation in 1931 as part of its revision of the criminal law, outlining certain serious safety measures. These guidelines state that in an emergency, new therapy can be started even without the patient's permission. On the other hand, non-therapeutic research was only allowed with the patient's

[23] Writ Petition (Civil) No. 607 of 2021
[24] WRIT PETITION (CIVIL) NO. 215 OF 2005
[25] Samira Kohli V. PrabhaManchanda And Anr., A.I.R. 2008 S.C. 1385.
[26]JochenVollmann& Rolf Winau, "Informed Consent In Human Experimentation Before The Nuremberg Code", 313 BRITISH MEDICAL JOURNAL 1445 (1996).

informed consent.It is noted that the potential of creating institutional review boards was even mentioned in these texts prior to the Nuremberg Code, but the attempt was unsuccessful. Hence it is clear that even before the Nuremberg Code, the informed consent doctrine had some effects".[27]

Even though it is necessary, getting the patient's consent for clinical studies is a challenging task. The degree of a patient's access to trial information must be taken into account when deciding whether or not they provided informed consent. It is challenging to explain a novel therapy's results even in therapeutic studies; in nontherapeutic trials, it is considerably more challenging. Patient expectations and comprehension levels will vary, as this article has previously mentioned, but this fact should never be used to excuse any unfavourable occurrences that happen during a trial. A copy of the consent forms should also be given to the subject of the study. Researchers should always utilise consent forms that will help them in future referrals before ethics boards. The presence of a witness will lend legitimacy to the obtained consent.

Even though this is not the optimal approach, obtaining informed permission is typically seen as a bureaucratic, form-filling exercise. The researcher will need to come up with a plan for outlining the inquiries and justifications of the trial. Clear communication and its accuracy are the sole foundations for the sensitivity required to acquire informed consent. Similar to how it does with experiments, the legal need of giving adequate or reasonable notice does not apply to medical treatment. It is the duty of the researcher to inform test subjects of all pertinent information and convince them of the trials' risks.[28]

The law requires that all parties to a litigation give their free and informed consent. As was previously indicated, this cannot serve as the exclusive standard by which to evaluate the fairness of the trial. How well-educated the test subject is regarding the study project for which they are giving assent should be included in the informed consent form. Hans Jonas claims that this trait is the fabrication of genuine consent. The psychological makeup of the researcher, the value placed on test subjects' autonomy, and the way consent is broached all have an impact on the viability of informed consent. The rule of informed consent, demands the following disclosures to become a true consent:

(1) that the subjects are not only patients and to the extent, to which they are patients, that their therapeutic interests, even if not incidental, will be subordinated to scientific interests;
(2) that it is problematic and indeterminate whether their welfare will be better served by placing their medical fate in the hands of physician rather than the investigator;
(3) that in opting for the care of a physician they may be better or worse off
(4) that clinical research will allow doctors to penetrate the mysteries of medicine's uncertainties about which treatments are best, dangerous or ineffective;
(5) that research is governed by a research protocol and a research question and, therefore, his or her interests and needs will yield to the claims of science;
(6) that physician investigators will respect whatever decision the subject ultimately makes".

[27] Elizabeth Wager, Peter J.H. TooleyEt. Al., Get Patients' Consent To Enter Clinical Trials, 311 BRITISH MEDICAL JOURNAL 734, 737 (1995).
[28] Jay Katz, "Human Experimentation And Human Rights", 38 ST. LOUIS U.L.J. 7, 28-34 (1993).

The aforementioned observations seriously jeopardise human rights. Here, the notion that therapeutic benefit for the patient will never come before scientific benefit is given in a rather unclear manner. The same treatment will have various effects across the course of ongoing clinical trials. There will be no clinical, educational, or financial rewards for phase 1 trial participants. The degree of treatment concern will change as the process progresses. The only option that is the subject of Jay Katz's defence is the second, which requires trial participants to either locate other therapies for their illnesses or persuade themselves of the risks involved.On the fourth argument, it seems doubtful that study participants—whether they are patients or not—will ever have doubts about the effectiveness or safety of a treatment. The patient is the subject, even though this isn't usually the case. These justifications all show that the informed consent concept is insufficient to safeguard trial participants' human rights.[29]

3.1.2. Informed Consent in Clinical Trials: Role of Ethical Review Committees

To ensure trial subjects' safety and dignity, the legislation mandates that clinical trials be regularly monitored and assessed. The consent of the informed individual does not sufficiently safeguard his human rights. The study protocol should be used as a starting point when developing the trial plan. It will be comparable to creating a research proposal. According to international standards, a protocol must be created and subjected to a fair and unbiased evaluation by an ethics committee that is separate from the research organisation. Under the confines of the Helsinki Declaration, which was authorised by the World Health Organization, the function of ethics committees has been scrupulously protected. This report can be biased because it was created by the medical industry.National laws, not international treaties, regulate how ethics committees operate. The structure of ethics committees in India is governed by the Pharmaceuticals and Cosmetics Code of 1945. Schedule Y of the aforementioned regulation's appendix provides a detailed explanation of the framework for the creation of ethics committees. The committee chair is required to be impartial towards the research body by rule. Only two or three more members remain who are not also members of the medical fraternity. Medical professionals would always prefer clinical studies since they typically make more money from them, making them lousy champions for object rights. There should be at least seven people on the committee, some of whom should represent different groups, including social scientists or non-governmental organisations (NGOs). Because they are members of the ethics committee, these people can defend the constitutional rights of the trial participants.[30]

The results of the HPV vaccine studies sparked intense national agitation, and numerous health activists, media personalities, social groups, etc. urged the ICMR to address issues raised regarding the ethical conduct of the trials. The general populace was also concerned about how clinical Trials were taking place in India. The rules of the DCGI were not adhered to during the HPV vaccine trials, the Director General of ICMR acknowledged in April 2010 before the Indian Parliamentary Standing Committee on Health and Family Welfare. The government did not severely punish any parties even after the confession. Women's

[29]Jay Katz, "Human Experimentation And Human Rights", 38 ST. LOUIS U.L.J. 7, 28-34 (1993).

[30] Charles Fethe, "Beyond Voluntary Consent: Hans Jonas On The Moral Requirements Of Human Experimentation", 19 JOURNAL OF MEDICAL ETHICS 99, 101 (1993).

health advocates used this as motivation to file a Public Interest Lawsuit with the Supreme Court.[31]The appeal also included the names of the DCGI, the ICMR, the states of Gujarat and Andhra Pradesh, PATH International, and the vaccine manufacturers Merck and Glaxosmithkline. In this petition, it was alleged that "at least 1,600 clinical trials involving more than 150,000 volunteers were conducted, and that between 2006 and 2011, at least 2,163 people in India reportedly passed unexpectedly during or as a result of taking part in such trials."

In 2013, the Supreme Court harshly criticised the government, the Ministry of Health and Family Welfare, and the Central Drugs Standard Control Organization (CDSCO) for failing to tackle the threat by taking decisive action on earlier issues and for falling into a deep sleep. The Court further remarked that the illegal conduct of human clinical studies by pharmaceutical corporations is causing "havoc" across the country.[32]A clinical study authorization issued by the DCGI was also cancelled by the court, and it was decided that no new drug or therapy trials may begin until a system for monitoring them was in place. As a result, the number of clinical studies carried out in India significantly decreased. The court mandated a filmed agreement for each person taking part in clinical trials in India.[33]

In the cases of ***Rahul Dutta v. UOI***[34] and ***SwasthyaAdhikarManch v. UOI***,[35]The Government's incapacity to stop illegitimate trials had drawn harsh criticism from the Supreme Court. The Court ruled that it is a flagrant breach of Article 21 of the Constitution when trial participants pass away before their time is up. The statement that "unrestrained clinical trials are wreaking disaster to human life" was one of the many observations made. This demonstrates how ethical considerations are improperly and ineffectively applied in Indian medical testing and research. The position taken by the Indian judiciary in the aforementioned judgements amply demonstrates that clinical trials carried out without the participant's informed consent are a violation of their fundamental right to a dignified life. It is also to be noted that the right to live is recognized as an essential human right under Article 3 of the Universal Declaration of Human Rights and hence, unethical and illegal clinical trials are violative of international principles and laws as well.

3.2.AFTERMATH OF SUPREME COURT'S RULINGS

The Court's ruling in ***Rahul Dutta v. UOI***[36] and ***SwasthyaAdhikarManch v. UOI***,[37] pushed the CDSCO and the Ministry of Health and Family Welfare to relook into the legal mechanism with respect to clinical trials and make those laws more stringent. Hence, three new Rules, in 2013, were added to the Drugs and Cosmetics Rules, 1945 and many amendments are done in Schedule Y of the same Rules. Rule 122 DAB, Rule 122 DAC, and Rule 122 DD were the three rules. Traditionally, businesses did not reveal any compensation they had given out, and all serious and unexpected adverse events (SAEs) were

[31]Kalpana Mehta V. UOI, Writ Petition (Civil) No. 558 Of 2012
[32] Supra Note 3.
[33] Ibid
[34]Writ Petition (Civil) No(S). 71 Of 2019
[35] Writ Petition(S) (Civil) No(S). 33 Of 2012
[36]Writ Petition (Civil) No(S). 71 Of 2019
[37] Writ Petition(S) (Civil) No(S). 33 Of 2012

underreported. As a result of the 1945 Rules' revision, Rule 122 DAB mandates that investigators report to the DCGI, the sponsor, and the Ethics Committees within twenty-four hours of an SAE occurring. Regarding the causality of SAE, the DCGI has the last say. The sponsor is responsible for making compensatory payments within thirty days of obtaining a CDSCO order. Timelines for approval were extended as a result of the regulatory modifications because there were more regulatory submission procedures.Clinical trial approvals drastically decreased after the three new guidelines were put in place; in contrast to 2010, when 529 experiments were approved, only 83 trials were approved in 2016. These findings imply that either the government is carefully vetting applications and taking its time to examine them or that businesses are now reluctant to undertake clinical trials in India as a result of the country's tougher restrictions.

3.2.1. The New Drugs and Clinical Trial Rules, 2019

Deficiencies in regulation of clinical trials had been observed in the 59thReport of the Parliamentary Standing Committee on Health and Family Welfare on the functioning of the Central Drugs Standard Control Organisation (CDSCO)[38], and in the report of an expert committee set up by the MoHFW under the chairmanship of Prof. Ranjit Roy Chaudhury. Thereafter, on February 1, 2018, the MoHFW published the draft of the NDCT Rules for comments from all stakeholders.[39]On these guidelines, there was a 45-day window for sending comments. The MoHFW, however, took a while to study and finalise the Regulations. In a ruling dated December 4, 2018, the Supreme Court took note of this delay and noted the Government's claim that the rules will be completed in two months. The Government promised the Court that, if feasible, the NDCT Regulations may be finalised even before that when the Court noted that two months might be too long of a period.[40] They were finally notified on March 19, 2019.

These regulations aim to control the development of novel pharmaceuticals, clinical trials, new investigational drugs for human use, and the Ethics Committee. In India, a member of the intended research team is required to set up an ethics committee in order to conduct clinical trials. In clinical studies where patients are required to provide their informed permission, it is the responsibility of the Ethics Committee to promptly assess all related ethical problems.

In accordance with the regulations, producing or importing new pharmaceuticals requires permission from the Central Licensing Authority. All applications for conducting clinical trials must also be submitted to the Central Licensing Authority. The 2019 Rules includes provisions pertaining to trial participants' compensation as well.

[38] Parliament of India, RajyaSabha, DEPARTMENT-RELATED PARLIAMENTARY STANDING COMMITTEE ON HEALTH AND FAMILY WELFARE 59th REPORT ON THE FUNCTIONING OF THE CENTRAL DRUGS STANDARD CONTROL ORGANISATION (CDSCO) available at http://164.100.47.5/newcommittee/reports/englishcommittees/committee%20on%20health%20and%20family%20welfare/59.pdf .

[39] Gazette Notification- GSR 104(E) (available at https://cdsco.gov.in/opencms/opencms/system/modules/CDSCO.WEB/elements/download_file_division.jsp?num_id=OTU0)

[40]Supreme Court Daily Orders in Writ Petition(s)(Civil) No(s). 33/2012 on December 4, 2018.

The 2019 Rules aim to quicken the clearance of novel medications as well as the pace of trials being conducted in India. In an effort to provide a practical approach for awarding compensation for injuries or other suffering caused during the trials, the Rules have changed the wording from "day of occurrence of a severe adverse event" to "knowledge of the occurrence of a serious adverse event".[41]Any new pharmaceuticals that have been approved for use in a few industrialised countries will be granted an automatic licence for use in India. The time frame for approving new pharmaceutical applications has also been lowered by the Regulations, going from 90 days for drugs developed outside of India to 30 days for those made there.

CHAPTER-4: CONCLUSION

Getting marketing permission is not the end of the medication development process; rather, it is only the beginning. Drug development is a lengthy process. So, a proper regulation for clinical trials must take into account all of the pre-initiation, implementation, and post-study components. The complete CT Rules were developed by the Indian courts, the industry, and regulatory bodies after many years of discussion.

The clinical trial law, which received a lot of flak before the CT Rules, has stifled Indian medical research. The CT Rules have created a strong system for outlining specific procedures and regulatory compliances, and they have greatly clarified the regulatory stance. The ICMR Guidelines and DCR Requirements are combined in the CT Rules in order to make compliance easier and clearer, even though they do not significantly affect the criteria listed in Schedule Y of the DCR. The CT Rules are also understandable and well-known because they are based on global best practises.

The approvals procedure has been greatly expedited thanks to the CT Regulations, which represent a pro-participant approach. The clinical trial regulation in India has been strengthened with elements like local clinical trial waivers, expedited approvals, precise timetables, and a compensation mechanism in order to draw sponsors and boost patient involvement. There are some areas that require greater explanation, including compensation for biomedical and health research, the amount of compensation for injuries unrelated to the study, and post-study duty timelines.

[41] V. Vennu And P. P. Saini, “India’s Clinical Trial Regulatory Changes, Indian Researcher Awareness Of Recently Changed Regulations, And The Impact Of The New Drugs And Clinical Trial Rules: A Review”, INDIAN JORNAL OF PHARMACEUTICAL SCIENCES, Https://Www.Ijpsonline.Com/Articles/Indias-Clinical-Trial-Regulatorychangesindian-Researchers-Awareness-Of-Recently-Changed-Regulations-And-The-Impact-Of-The-New-Dr-4023.Html. (Last Visited January 29, 2023).

In order to stop illegal and unethical clinical experiments and work towards providing the highest level of transparency and respect for the human rights of its residents, the legislation and the courts must be more aggressive.

The easiest way to describe the CT Rules is, in my opinion, as two steps forward and one step back. Despite the fact that it has a lot of potential and promise for the future, its rigidity and lack of clarity in some areas flatten it. The CT Rules, however, represent a regulatory and industry consensus.

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