

# AMC DENTAL COLLEGE

### Khokhra, Ahmedabad 380008

### Affiliated to Gujarat University

### SELF STUDY REPORT (CYCLE 1) 2022-2023

**CRITERIA:** 3: Research, Innovations and Extension

**KEY INDICATOR:** 3.3: Research Publications and Awards

**METRIC:** 3.3.1: The Institution ensures implementation of its stated Code of Ethics for research.



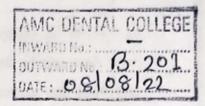




भारतीय दन्त परिषद Dental Council of India







## CODE OF ETHICS FOR INSTITUTIONAL RESEARCH







भारतीय दन्त परिषद Dental Council of India





## Index

#### **Contents**

- 1. Introduction:
- 2. Purpose of Code of Ethics
- 3. Components.
  - 3.1. Research Ecosystem
    - 3.1.1 The scientist as a responsible member of society
    - 3.1.2 Contemporary ethical issues in biomedical and health research:
    - 3.1.3 Sensitivity to societal and cultural impact of biomedical and health research.
    - 3.1.4 Mentoring
    - 3.1.5 The protection of human participants.
  - 3.2. Grooming and Supervision.
  - 3.3. Research Guidelines and Safeguards
  - 3.4. Data management
  - 3.5. Guidelines for collaboration
  - 3.6. Result dissemination and Publication and review process.
  - 3.7. Violation of research integrity.
    - 3.7.1 Plagiarism.
    - a) Level of plagiarism
    - b) Detection/Reporting/Handling of Plagiarism
    - c) Institutional Academic Integrity Panel (IAIP)
    - d) Penalties
    - 3.7.2. Conflict of Interest
  - 3.8. Intellectual property rights.



#### 1. Introduction:

AMC Dental College, Ahmedabad has been at the forefront of promoting a research ecosystem in accordance with the principles of integrity, academic excellence, accountability, Inclusiveness, and professionalism within the standard guidelines of ethical and legal framework.

The credibility and perception of science with the general public depends on the maintenance of the highest ethical standards in research. Not only does the ethical conduct of science satisfy a scientific moral code, but it also leads to better scientific results. Interdisciplinary and extramural research collaborations mandate adherence to ethical research practices, leading to more attention to the details of scientific research, including qualitative analysis, quantitative and statistical techniques. Misconduct in research- including, but not limited to plagiarism - is viewed as a serious professional deviation that is subject to sanctions imposed by concerned regulatory bodies. This code of ethics can be used as a common repository of generally accepted practice for experienced and budding researchers alike.

This code of ethics has been formulated in keeping with the best practices in research as proposed by national and international statutory regulatory like the National ethical guidelines for biomedical and health research involving human participants by the ICMR, 2017.

#### 2.Purpose of Code of Ethics

The purpose of code of ethics for Institutional research at AMC DCH is to provide guidelines with an outlook towards maintaining integrity in research. Observance of this code of ethics will enable an investigator avoid departures from accepted ethical research practice and prevent those most serious deviations that constitute research misconduct. Research misconduct is defined as fabrication, falsification, or plagiarism including misrepresentation of credentials in proposing, performing, or reviewing research or in reporting research results.

#### **3.**Components



#### 3.1 Research Ecosystem:

Values of research at AMC DCH is guided by shared values including honesty, accuracy, efficiency, fairness, objectivity, reliability, accountability, transparency, personal integrity, and knowledge of current best practices, and these should be reflected in our policies.

**3.1.1 The scientist as a responsible member of society:** Scientific research at our institute is vital to improving our understanding of various dental health related problems and their solutions. All research components depend on cooperation and shared expectations as part of inter-professional ethics Unethical behaviour in scientific research can destroy the public's trust in science and have a negative impact on the research team. With this in mind we intend to harbour trust between scientists and the public, without compromising meaningful research. We ensure that Researchers at AMC DCH should be aware that the resources of biomedical research are precious and should be used judiciously.

#### 3.1.2 Contemporary ethical issues in biomedical and health research:

Emerging new areas of research give rise to new ethical issues. Among the contemporary issues recently under debate are the use of underprivileged and vulnerable groups as participants, post-trial access of research benefits to participants and their communities, research on emerging technologies, etc. We strive to carry out Continuing education at our esteemed institute through educational programmes to keep researchers apprised of contemporary issues.

## **3.1.3** Sensitivity to societal and cultural impact of biomedical and health research:



To understand the social and cultural impact of research, one must analyse how the health sector and general public engage with the results of biomedical and health research. We ensure that researchers at AMC DCH bear this in mind while planning, conducting, and evaluating research as it will improve public accountability and enhance public, private and political advocacy.

#### 3.1.4 Mentoring:

Mentoring is one of the primary means for one generation of scientists to pass on their knowledge, values, and principles to succeeding generations. Mentors, through their experience, can guide researchers in ways above and beyond what can be gathered from reading textbooks. The relationship between mentors and trainees should enable trainees to become responsible researchers. Mentors should ensure their trainees conduct research honestly, do not interfere with the work of other researchers and use resources judiciously. A mentor should be knowledgeable, teach and lead by example and understand that trainees differ in their abilities. She/he should devote sufficient time and be available to discuss, debate and guide trainees ably. We encourage mentors at AMC DCH to have an honest communication with researchers and guide them accordingly.

#### **3.1.5** The protection of human participants:

Institutions must establish policies and mechanisms for the protection of human research participants. Such policies should assign responsibilities to the institution, the Institutional Ethical committee (IEC), and the researchers. Additionally, there should be mechanisms and policies for monitoring research including data capture, management, conflicts of interest, reporting of scientific misconduct, and appropriate initial and continuing training of researchers and IEC members. The IEC of AMC DCH strives to follow these Policies to the hilt. Researchers should also follow their respective professional codes of conduct.

#### 3.2 Grooming and Supervision



We at AMC DCH ensure that researchers receive rigorous learning in research methodology and data analysis. We impart appropriate and adequate training in ethics and research integrity and ensure that all concerned are aware of the codes and regulations related to research as prescribed by the institute. Researchers across the entire career path, from junior to the most senior level, should undertake training in ethics and research integrity. Senior researchers, research leaders and supervisors should mentor their team members and offer specific guidance and training to properly develop. design and structure their research activity based on principles of research integrity.

#### 3.3. Research Guidelines and Safeguards.

Institutional Ethics Committee of AMC Dental College and Hospital has ensured adherence to a high standard of ethical scrutiny by setting up an Institutional Ethics Committee (IEC) for research, in accordance with the requirements laid down in the Schedule Y (20 January 2005) and is guided by the guidelines for good clinical practice (GCP), ethical principles set forth in the Declaration of Helsinki and the Ethical guidelines for biomedical research on human subjects laid down by the Indian Council of Medical Research (ICMR). **The IEC is registered with the DCGI vide registration no. #ECR/236/Inst/GJ/2015.** 

The Institutional Ethics Committee of AMC Dental College and Hospital has a detailed Standard Operating Procedure (SOP) that details, defines and clarifies any all-procedural ambiguities that may arise as part of research that is undertaken by the students and staff members of the institution. The primary purpose of the Institutional Ethics Committee (IEC) is to ensure the protection of rights. Safety and wellbeing of human participants involved in a research project, and to provide public assurance of the said protection.

The IEC is composed of at least 7 members to a maximum of 15 members, drawing members from the concerned stakeholders in the assurance of the ethical conduct of research at the institute. The responsibility on the members shall be to ensure safety of human participants in research with special emphasis on the informed consent documentation procedure, review all research proposals from both the scientific and ethical perspective within specified time limits. ensure data confidentiality, review progress of research approved by it and maintain clear documentation of all activities.



#### 3.4. Data management

Data acquisition, management, sharing, and ownership are of paramount importance in today's world. The onus of using best practices in data collection and management falls squarely on the researchers. Data collection at AMC DCH involves physical process of recording data in hard copy, soft or electronic copy, or other permanent forms. The physical formats for recording data vary considerably, from measurements or observations to photographs or interview recordings. To be valuable, research data must be properly recorded.

Institutes receiving research funds have responsibilities for budgets, regulatory compliance, and management of collected data with funded research. This means that researchers should obtain appropriate permissions/approvals to take their data and funding with them if they move to another institution. Ownership issues and responsibilities need to be carefully worked out well before data are collected and researchers should ensure clarity about data ownership, publication rights and obligations following data collection. MoUs vetted by the institution and/or IEC should be in place.

For biological samples, donors (participants) maintain the ownership of the sample. She/he could withdraw both the biological material and the related data unless the latter is required for outcome measurement and is so mentioned in the initial informed consent document. Institutes hosting/implementing the research are the custodians of the data samples. Research must be conducted using appropriate and reliable methods to provide reliable data. The use of inappropriate methods in research compromises the integrity of research data and should be avoided.

Quality research requires attention to detail at every step. Proper protocols need to be established and the results accurately recorded, interpreted and published. Implementation of poorly designed research wastes resources and should be avoided. In some cases, authorization is needed prior to data collection. Researchers are responsible for knowing when permission is needed to collect or use specific data in their research. Data protection and storage is important and once collected, data must be properly



protected, as a may be needed at a later stage to confirm research findings, establish priority, or be reanalysed by other researchers.

Responsible data handling begins with proper storage and protection from accidental damage, loss, or theft. Care should be taken to reduce the risk of fire, flood, and other catastrophic events. Computer files should be backed-up and the back-up data saved in a secure place at a site that is different from the original data storage site. Data sharing is important as research data is valuable and needs to be shared, but deciding when and with whom to share may raise difficult questions. Once a researcher has published the results of an experiment, it is generally expected that all the information about that experiment, including the final data, should be freely available for other researchers to check and use. Data should be shared or placed in a public domain in a de-identified form, unless required otherwise, for which applicable permissions/re-consent should be sought unless obtained beforehand.

#### 3.5. Guidelines for collaboration

Biomedical research in general and research in the Dental faculties in particular, frequently involves academic and industry collaborations. The nature and extent of such collaborations may range from a consulting role in a project to collaboration in product design and manufacturing, microbiological sample processing and material testing for physical properties, to mention a few. The institute encourages inter-institute collaboration with academic and industry entities. The researchers are encouraged to ensure the signing of a Memorandum of understanding (MoU) between the department of concern under which the research work is to be carried out and the academic/industry entities.

The MoU shall have to include at least the following:

• Names in full of the two parties involved in the MoU.



- Extent of the collaborations between the parties.
- Responsibilities of the parties involved.
- Exact dates of the commencement and termination of the MoU

#### 3.6. Result dissemination and Publication and review process

Reviewing and reporting research the public's trust in published research is an essential component of ethical and responsible research. Institutions and departments should have authorship policies Editors of journals do not- adjudicate on authorship disputes and would almost always refer these to the institution/researchers themselves to resolve. Authorship should never be gifted and "ghost" authors are not acceptable. The authorship of research should be considered at the time of its initiation.

The primary author should be the person who has done most of the research work related to the manuscript being submitted for publication. Research performed According to the International Committee of Medical Journal Editors (ICMJE), authorship entails the following criteria:

#### Box 1: Criteria for authorship.

Authorship entails the following criteria.

- 1. Substantial contributions to the conception or design of the work, or the acquisition, analysis, of interpretation of data for the work.
- 2. Drafting the work or revising it for important intellectual content.
- 3. Final approval of the version to be published.
- 4. Agreement to be accountable for all aspects of the work and ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

Peer review Scientific disclosure and progress has been dependent largely on peers evaluating research and judging the quality and utility of conducting and publishing research.



The present peer review system at AMC DCH depends on fairness, honesty and transparency of all stakeholders-editors, reviewers, and researchers. It can involve one or more reviewers and should be completed within a reasonable period of time. Researchers must avoid mentioning friends, well-wishers and mentors as reviewers and must decline to review research of close associates, friends, and students. Funding agencies and journals must ask reviewers and researchers to inform them of collaboration, if any. Reviewers must maintain the confidentiality of manuscripts sent to them for review. If reviewers feel they are not competent to review papers, then they should inform editors immediately and should not pass on the manuscripts to friends and colleagues without seeking the consent of the editors. Reviewers who are researchers must not misguide editors in an attempt to self-evaluate their research (using another email ID and profile).

#### 3.7. Violation of research integrity

Authorship of any publication should never be gifted based on seniority with no tangible contributions by the author in concern. This institute strongly discourages 'Ghost' authorship. The authorship of research should be considered at the time of its initiation. The primary author should be the person who has done most of the research work related to the manuscript being submitted for publication. Research performed as part of a mandatory requirement of a course fellowship/training program including staff and or student research should have the candidate as the primary author.

#### 3.7.1. Plagiarism

Plagiarism is using other people's work and ideas without giving proper credit to the original source, thus violating the rights of the original author(s) to their intellectual outputs. These three forms of violation are considered particularly serious since they distort the research record. There are further violations of good research practice that damage the integrity of the research process or of researchers.

In addition to direct violations of the good research practices set out in this Code of Conduct, examples of other unacceptable practices include, but are not confined to:



- Manipulating authorship or denigrating the role of other researchers in publications.
- Re-publishing substantive parts of one's own earlier publications, including translations,
- Without duly acknowledging or citing the original ('self-plagiarism').
- Citing selectively to enhance own findings or to please editors, reviewers, or colleagues,
- With holding research results. Allowing sponsors to jeopardize independence in the research process or reporting of results to introduce or promulgate bias.
- Expanding unnecessarily the bibliography of a study.
- Accusing a researcher of misconduct or other violations in a malicious way.
- Misrepresenting research achievements.
- Exaggerating the importance and practical applicability of findings.
- Delaying or inappropriately hampering the work of other researchers.
- Misusing seniority to encourage violations of research integrity Ignoring putative violations of research integrity by others or covering up inappropriate responses to misconduct or other violations by institutions.
- Establishing or supporting journals that undermine the quality control of research.

The plagiarism checks for all research work carried out by faculty and students at AMC Dental College and Hospital is run through the plagiarism software. We follow UGC guidelines for checking plagiarism.

#### A. Levels of Plagiarism

Plagiarism would be quantified into following levels in ascending order of severity for the purpose of its definition:

- i. Level 0: Similarities up to 10% Minor similarities, no penalty
- ii. Level 1: Similarities above 10% to 40%
- iii. Level 2: Similarities above 40% to 60%
- iv. Level 3: Similarities above 60%

#### B. Detection/Reporting/Handling of Plagiarism



If any member of the academic community suspects with appropriate proof that a case of plagiarism has happened in any document, he or she shall report it to the IAIP.Upon receipt of such a complaint or allegation the IAIP shall investigate the matter.

#### C) Institutional Academic Integrity Panel (IAIP)

IAIP whose composition shall be as given below:

- a. Chairman Dean of the Institute.
- b. Member Senior Academician other than Chairman, to be nominated by the Dean.
- c. Member One member nominated by the Chairperson.
- d. Member A person well versed with anti-plagiarism tools, to be nominated by the chairperson.

The tenure of the Committee members including Chairman shall be three years. The quorum for the meetings shall be 3 out of 4 members (including Chairman).

- The IAIP shall also investigate cases of plagiarism as per the provisions mentioned in these regulations.
- The IAIP shall follow the principles of natural justice while deciding about the allegation of plagiarism against the student, faculty, and researcher.
- The IAIP shall have the power to review the recommendations of Departmental Head where Plagiarism has been reported.
- The IAIP shall send the report after investigation and the recommendation on penalties to be imposed within a period of 45 days from the date of receipt of recommendation of complaint / initiation of the proceedings.
- The IAIP shall provide a copy of the report to the person(s) against whom inquiry report is submitted.

#### **D)** Penalties

## In case of breach of code of conduct, Penalty will be decided by the IAIP committee.

Penalties in the cases of plagiarism shall be imposed on students pursuing studies at the level of Masters and Research programs and on researcher, faculty & staff of the institute only after academic misconduct on the part of the individual has been established without doubt, when all avenues of appeal have been exhausted and individual in question has been provided enough opportunity to defend himself or herself in a fair or transparent manner.



#### Penalties in case of plagiarism in submission of thesis and dissertations

Institutional Academic Integrity Panel (IAIP) shall impose penalty considering the severity of the Plagiarism.

- i. Level **0: Similarities** up to 10% Minor Similarities, no penalty.
- ii. Level **1: Similarities** above 10% to 40% Such student shall be asked to submit a revised script within a stipulated time period not exceeding 6 months.
- iii. Level **2: Similarities** above 40% to 60%- Such student shall be debarred from submitting a revised script for a period of one year.
- iv. Level **3: Similarities** above 60% -Such student registration for that programme shall be cancelled.

Note 1: Penalty on repeated plagiarism- Such student shall be punished for the plagiarism of one level higher than the previous level committed by him/her. In case where plagiarism of highest level is committed then the punishment for the same shall be operative.

Note 2: Penalty in case where the degree/credit has already been obtained - If plagiarism is proved on a date later than the date of award of degree or credit as the case may be then his/her degree or credit shall be put in abeyance for a period recommended by the IAIP and approved by the Head of the Institution.

## 12.2 Penalties in case of plagiarism in academic and research publications

- I. Level **0**: Similarities up to 10% Minor similarities, no penalty.
- II. Level 1: Similarities above 10% to 40%
  - i) Shall be asked to withdraw manuscript.
- III. Level **2: Similarities** above 40% to 60%
  - i) Shall be asked to withdraw manuscript.
  - ii) Shall be denied a right to one annual increment.
  - iii) Shall not be allowed to be a supervisor to any new Master's, M.Phil., Ph.D.Student/scholar for a period of two years.
- IV. Level **3: Similarities** above 60%



- i) Shall be asked to withdraw manuscript.
- ii) Shall be denied a right to two successive annual increments.
- Shall not be allowed to be a supervisor to any new Master's, M.Phil., Ph.D.Student/scholar for a period of three years.

Note 1: Penalty on repeated plagiarism - Shall be asked to withdraw manuscript and shall be punished for the plagiarism of one level higher than the lower level committed by him/her. In case where plagiarism of highest level is committed then the punishment for the same shall be operative. In case level 3 offence is repeated then the disciplinary action including suspension/termination as per service rules shall be taken by the HEI.

Note 2: Penalty in case where the benefit or credit has already been obtained - If plagiarism is proved on a date later than the date of benefit or credit obtained then his/her benefit or credit shall be put in abeyance for a period recommended by IAIP and approved by the Head of the Institution.

Note 3: Institute shall create a mechanism so as to ensure that each c f the paper publication/thesis/dissertation by the student, faculty, researcher, or staff of the Institute is checked for plagiarism at the time of forwarding/submission.

Note 4: If there is any complaint r f plagiarism against the Head of an Institute, a suitable action, in line with these regulations, shall be taken by the Controlling Authority of the Institute.

Note 5: If there is any complaint of plagiarism against the Head of Department/Authorities at the institutional level, a suitable action, in line with these regulations, shall be recommended by the IAIP and approved by the Competent Authority.

Note 6: If there is any complaint of plagiarism against any member of IAIP, then such member shall excuse himself / herself from the meeting(s) where his/her case is being discussed/investigated.

Every student/researcher/academician will be required to run his/her work through the plagiarism software of Gujarat university (E-Sodhshuddhi) to which our institution has been affiliated.

#### 3.7.2. Conflict of Interest (COI)



Academic members of staff may not allow other professional or outside activities to distract their attention from their primary responsibilities towards the University. They should maintain a significant and professionally acceptable presence on campus during each semester in which they are on active duty Holidays and leave should be in accordance with the University's regulations They should create an atmosphere of academic freedom by promoting the open and timely disclosure of the results of their academic activities, by ensuring that their advice to students and postdoctoral associates is not influenced by personal interests, and by disclosing external activities that could affect, the free flow of academic information between themselves, students and colleagues.

Table 1: Responsibilities of the institute, researcher, and the IEC towards the mitigation of conflict of interest (modified from the National ethical guidelines for biomedical and health research involving human participants, ICMR 2017

| RESEARCH<br>INSTITUTE MUST:   | RESEARCHER MUST:   | IEC MUST:  |
|---|--|--|
| Develop policies and sops<br>to address CO issues that<br>are dynamic, transparent,<br>and actively<br>Communicated | Ensure that documents<br>submitted to the EC include<br>disclosure of COI (financial<br>or nonfinancial) That may<br>affect their research:<br>Demands on researchers'<br>time and loyalties | Evaluate each study in light<br>of any disclosed COI and<br>ensure appropriate action is<br>taken to mitigate this |
| procedures to address COI   | Guard against conflicts of<br>commitment that may arise<br>from situations that place<br>competing   | -  |



| Monitor the research or    | Prevent intellectual and    | Make appropriate              |
|----------------------------|-----------------------------|-------------------------------|
| check research results for | personal conflicts by       | suggestions for               |
| accuracy and objectivity   | ensuring they do not serve  | management if COI is          |
| and not interfere in the   | as reviewers for Grants and | detected at the institutional |
| functioning and decision   | publications submitted by   | or researcher's level.        |
| making of the EC           | close colleagues, relatives |                               |
|                            | and/or students.            |                               |

Researchers may use University resources, including facilities, staff, equipment, information or confidential information as part of contract work, provided that the University is compensated in terms of the provisions of the Rules for Contract Work of the University, Researchers may not use University resources for any purpose other than purposes related to tuition, research or service by the University, unless prior permission has been obtained by the head of the department and/or the dean, as provided by the University's regulations

Ownership of inventions should be dealt with in accordance with the policy of university. The inventors will, together with the University, share in the benefits or royalties earned in accordance with the provisions of the University's Intellectual Property Policy. Researchers at AMC DCH should inform the University whether they (or members of their families) have consultation agreements or work in an outside institution before the following proposed arrangements or agreements between such institutions and the University will be approved: a) gifts; b) funded projects; c) technology licensing agreements; and d) allocations. In such cases formal University permission will be required before the proposed arrangements or agreements can proceed. University researchers should not allow their names to be used as "ghost" authors of manuscripts written or provided by commercial sponsors.

#### 3.8. Intellectual property rights

Establishment of ethical standards and procedures with regard to intellectual property Promotion of creative and innovative research and cooperation by the establishment of mechanisms recognizing the rights of all the parties concerned, promoting the

acquisition-of benefits from research and guaranteeing the equitable distribution of benefits by establishing principles and procedures for distribution of the work from inventions and creative work (as per the funding agencies); protecting and marketing the institute's assets, including its intellectual property, to the benefit of all interested parties.

#### **References:**

1. Mathur R. National ethical guidelines for biomedical and health research involving human participants. [Internet]. New Delhi: Indian Council of medical Research; October 2017: cited on 2021 September 23. Available from: <u>https://main.icm.nic.in/sites/default/files/guidelines/ICMR Ethical Guidelines</u> 2017.pdf



Dean, A.M.C. Dental College