



"ANIMAL ETHICS AND THE CPCSEA": A REVIEW

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KEYWORDS :

Animal ethics is a term used in academia to name the branch of **ethics** that examines human-animal relationships, the moral consideration of **animals** and how nonhuman **animals** ought to be treated. (1) (2).

The 3 R's were first introduced in 1959 by Russell and Burch, and that stands for Replacement, Reduction, and Refinement. The 3 R's are the guiding principles for the ethical treatment of animals used for testing and experimentation.[3] There are a wide range of ethical assessments regarding animals used in research. There are general opinions on that animals do have a moral status and how they are treated should be subjected to ethical consideration. Some of the positions include:

- Animals have intrinsic values that must be respected.
- Animals can feel pain and their interests must be taken into consideration.
- Our treatment of all animals/lab animals reflects on our attitudes and influences us on our moral beings.[4]

The Committee for the Purpose of Control and Supervision of Experiments on Animals (CPCSEA)

The Committee for the Purpose of Control and Supervision of Experiments on Animals (CPCSEA) is a statutory Committee, which is established under Chapter 4, Section 15(1) of the Prevention of Cruelty to Animals Act 1960.

India is one of the pioneering countries to institute Prevention of Cruelty to Animals Act in 1960 whereas such Act was instituted in France in 1963 and in USA in 1966. The detailed rules for experimentation on animals were first enacted by the Ministry of Agriculture in 1968 and were implemented by a Committee set up in pursuance of Section 15(1) of the PCA Act, 1960. However, the Committee was later wound up in 1977.

After a hiatus of 13 years, a recommendation to reconstitute Committee for the purpose of control and supervision of experiments on animals (CPCSEA) was received from Animal Welfare Board of India (AWBI). After due consideration of the recommendation of AWBI, CPCSEA was set up by this Ministry on 8th February, 1991.

The Committee was, subsequently, reconstituted on 23rd February, 1996 with 15 Members and one Member Secretary. Since then, this Ministry has reconstituted the CPCSEA routinely. The present Committee was constituted on 30th August, 2012 under the chairmanship of Additional Secretary, MoEF with 17 Members.

Member Secretary (CPCSEA)

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Ministry of Environment, Forest & Climate Change, Government of India (MoEF): Animal Welfare Division, 5th Floor, 'Vayu' Wing, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi - 110 003, **Telephone No. 011-24695356, Email:** cpcsea-mef@gov.in & cpcsea.moef@gmail.com

CPCSEA is currently under Ministry of Fisheries, Animal Husbandry and Dairying department of Animal Husbandry and Dairying Government of India.

Web site: Cpcsea.nic.in

User login, User name/ID, password (PW) -----proceed Home page, About us, **Online services,** Forms, Acts & rules, Guidelines, Contact Us.

Online services : new /renewal of registration, Reconstitution of IAEC, submission of Minutes of the meeting (MOM), submission of the Inspection reports, Research protocols etc.

CPCSEA Guidelines and facilities for the laboratory animals (5).

OBJECTIVES:

1] To conduct the **UG Practicals & demonstration** as required by the respective State Universities in various fields & course years. 2] To do **PG experiments** as per the University syllabus & **PG research studies** on various projects & dissertation / thesis topics taken up the PG students.

Functions of CPCSEA:

- 1) Registration of establishments conducting animal experimentation and breeding of animals for this purpose.
- 2) Approval of Animal house facilities on the basis of reports of inspections conducted by CPCSEA.
- 3) Permission for conducting experiments involving the use of animals.
- 4) Recommendation for import of animals for use in experiments.
- 5) Action against establishments in case of violation of any legal norm/stipulation.
- 6) Selection and appointment of nominees in IAEC of registered establishments.

As per CPCSEA guidelines **Record keeping** to be maintained about 1) Animal house plan that includes typical floor plan, fixtures etc. 2) Animal house staff record: both technical & non-technical 3) Health record of all CAH staff. (Staff to be advised to do routine health check up every 3 monthly basis) 4) Health record of animals of CAH (3 monthly basis) 5) All SOPs

relevant to animals 6) Record of breeding, stock, purchase & sales of the CAH animals 7) Minutes of the IAEC meetings 8) Record of experiments conducted with number of animals used 9) death record 10) Clinical record of sick animals 11) Training record of staff involved in animals activities. 12) water analysis report (every 3 montly basis).

Staff of the Central Animal House (CAH): Professor & Head, (Pharmacology dept. of the Institute), **Incharge** (Pharmacology dept. of the Institute), **Residents** (FYRs in rotation, Pharmacology dept.), **Senior Animal house attendant.** **Junior Animal house attendant,** **Animal house keeper** (1 – 2), **Animal house sweeper** (2).

Facilities of Central Animal House (CAH): **Animal cages** (Observation & Housing cages), **Trays** for keeping Channa/pellets, **Aquaguard** for filtered water, **Airconditioning** system, **Fans** for ventilation (alternate provision), **Exhaust fan/s** for fresh & clean pure air, **Wash basin** with soap and **Animal Record books / Registers**

Central Animal House (CAH) responsibilities / duties: Usually rounds to be taken **daily / alternate** days in the morning between **10.00 am to 11.00 am** or else conducted in afternoon period. All the staff / atleast **majority of the staff** to attend the round to ensure following points. Presence of **Veterinarian** is very important. **Cleanliness** of the CAH & the cages to be ensured, Ensure cleanliness of corridors, passages, cages, furniture, ceiling, floor, fixtures, exhaust etc., **Cleanliness** of Doctor's / Staff room, storage room, servant room & expt. Rooms etc., **Counting** of respective animal species., **Provision of feed & water** to the animals, **Notifying & treating** of **wounded or injured** animal/s., **Noticing dead animal/s** and their adequate **disposal**, **Substitute appointment** in case of absent staff, **Maintaining / update of Registers / books**, **Checking of health reports** of staff & servants. **Updating** done if required. **Checking of CAH water analysis reports & Updating** done if required, **Checking of animal cage swab reports & Updating** done if required.

Rooms for animals: Separate rooms to be maintained for different species of animals in the Animal house. The animals are kept in housing cages.

Rats (2 -4) are housed in poly-carbonated cages with lid for water bottle & pellets provision.(42 cm X29 cm X 19 cm dimensions) and **Mice (4 to 6)** housed in poly-carbonated cages with Lid for water bottle & pellets provision. (30 cm X 16 cm X 16 cm).

Guinea Pigs (8 to 20) housed in open cages having provision for water at one corner. **Grass / channa / carrots** are distributed all over the cage. (**150 cm X 90 cm**).



Figure 1: Rabbits (1 to 2) per poly-propylene cages (65cm X 50cm X18 cm).

Upto **60 %** of total construction space to be used for **animal rooms** and **40%** space to have rooms for staff, machines, corridors, office, store room & washing purpose.

Food for Central Animal House (CAH) animals: **Lucern grass** for Guinea pigs and Rabbits **Carrots** for Rabbits and Guniea pigs. **Channa** or **Pellets** for rats & mice.

Water supply: Animals to have access to fresh, potable, uncontaminated **drinking water** continuously. **Watering devices** (aquaguard) to be examined very much routinely and regularly.

Plastic or Steel bottles to be provided to the animals through the attachments and to be cleaned / refilled regularly. **Water analysis report** is done via microbiology dept. every 3 monthly basis.

Bedding :

To be kept at the bottom of the cages and to be made up of absorbent substance, free of toxic chemicals or material that could injure the animal/s. Substance **Not** to be eaten up readily by the animals. **Change regularly** (every alternate day or q 2 days) to maintain fresh & dry state in the cages. Usually composed of **Husk**.

Animal breeding: In house breeding is carried out with **F : M** ratio **3 : 1** in Rats / Mice, **2 : 1** for G. pigs and **2 : 1 / 1 : 1** for Rabbits. (6)

Power & Lighting: Electric system to be **safe** & to provide proper lighting & sufficient power outlets. **Adequate illumination** should be provided by the lighting system so installed. Try to use power saver lights to minimize on the electricity bills. **Emergency power backup** to be made available in case of power failure. It is also very important to ensure regular **Diurnal (day – night) lighting cycle** of 12 hrs duration each.

Temperature, Humidity & Noise: Temperature in the range of **18 degree C to 28 degree C** to be maintained for the CAH as the comfortable zone. Humidity to be kept in limits of **30% to 70%** throughout the year. The CAH to be kept Noise free environment. **Concrete walls** are more efficient than metal or plaster of paris (POP) structures.

Procurement of Animals: From Institutions/Pharma Companies (exg. GSMC, Haffkien, TIFR, IRR, NIN (Hy'bad) Pharma companies like (Lupin, Pfizer, GSK etc). Transportation to be done via air conditioned (**A/C**) vehicle (**Van / taxi**) &/or by Rail (**Chair Car**). By **Air Journey** (used for long distance transportation).

Table 1:

REQUIREMENTS FOR TRANSPORT OF LABORATORY ANIMALS BY ROAD, RAIL AND AIR

	Mouse	Rat	Hamster	G. pig	Rabbit	Cat	Dog	Monkey
Maximum No. of Animals per cage	25	25	25	12	2	1 or 2	1 or 2	1
Material Used in Transport box	Metal, Cardboard, Synthetic material	Metal, Cardboard, Synthetic material	Metal, Cardboard, Synthetic material	Metal, Cardboard, Synthetic material	Metal, Cardboard, Synthetic material	Metal	Metal	Bamboo / wood / metal
Space per Animal (Cm. Sq.)	20 – 25	80 – 100	80 – 100	160 – 180	1000 – 1200	1400 – 1500	3000	2000 – 4000
Minimum height of box (cm)	12	14	12	15	30	40	50	48

Form for Approval for animal procurement to be filled in prior to purchase of the animals.

Animal Record Books: **Four registers/books** to be maintained as 1) **Cleaning & Hygiene record** of animals, 2) **Animal Count record** of the respective animals (total, gender, adult & young ones), 3) **Feeding record** of the animals and 4) record of **Experimental procedures** carried out on animals. (7)

Cage Swab report:To be done every 3 monthly basis to determine that the cages in which animals are housed are uncontaminated and free of any infection.

Disposal of dead animal: **Yellow bag** used for disposing animal carcasses & tissues (post experiments or procedures), Incineration process. **Cold Storage** of tissues to prevent

decomposition (used for /during experiment / Research) .
Animal disposable form to be filled by the resident posted and signed by Animal house Incharge & the Department head and attached to the bag at the time of disposal.

The department office / CAH should maintain the **death record** of animals (natural death or during experimental procedures). The respective staff should fill up "Form D" also.

Procedures routinely done on animals: Feeding (PO), Intraperitoneal (i.p) injection, Blood collection, Experimental tests or procedures.

Intra-peritoneal (ip) injection in mouse, rat and guinea pig. **Retro-Orbital technique** is used for blood collection in rat and rabbit. **Tail vein** procedure is used for blood collection in rat while



Figure 2: Marginal ear vein for blood collection in rabbit

Straub tail reaction in Mice (due to constriction of anal sphincter as a response to opioid mu agonists) is demonstrated to UG and PG students.

Institutional Animal Ethics Committee (IAEC) Members:
Usually to have an odd figure of **5 to 7 members** (or more)

Chairperson, Secretary, Co-Secretary, Nominee of CPCSEA, Scientist, Biological scientist Veterinarian (Sr.VO)

Atleast **02 meetings in a year** (once every 6 monthly) to be conducted by registered establishment regards experimental projects or thesis is being taken up by students.

thical guidelines of animal testing are:

CPCSEA Committee for the Purpose of Control and Supervision on Experiments on Animals CARE Community on Animal Research and Ethics GCUASR Guidelines For Care And Use Of Animals In Scientific Research NACLAR National Advisory Community for Laboratory Animal Research APA American Psychological Association Ethical guidelines of animal testing are: CPCSEA Committee for the Purpose of Control and Supervision on Experiments on Animals CARE Community on Animal Research and Ethics GCUASR Guidelines For Care And Use Of Animals In Scientific Research NACLAR National Advisory Community for Laboratory Animal Research APA American Psychological Association

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