

A Suggested Clinical Engineering Practitioners Code of Practise Ethics (DRAFT v4)
NB This document is not to be misconstrued as anything other than a collection of principles and ideas with no legal status whatsoever!

Additions, amendment, deletions and reordering input is most welcome.
(Please indicate changes in a different colour!)

1. Clinical Engineering practitioners must ensure that they at all times practice safe and recognised Clinical Engineering techniques in order to preserve patient and public safety as a cornerstone of their practise.
2. Clinical Engineering practitioners must recognise that ensuring the continued safety and performance of medical equipment and devices is their prime responsibility, thus at all times constant surveillance and vigilance on such equipment and devices must be exercised.
3. Clinical Engineering practitioners must utilise quality, contamination-free and safe tooling to perform day-to-day tasks. Where analysers and calibration devices are employed, these must be regularly and traceably checked for function and accuracy, according to manufacturer recommended intervals, by an approved calibration or metrology facility, whom must provide written and dated proof of such services rendered.
4. Clinical Engineering practitioners must at all times exercise the responsibility to provide cost-effective services and materials in the course of his/her practise, however short cutting of recognised Clinical Engineering practices or the employment of materials not meeting relevant specifications or compromising patient and public safety will constitute a serious breach of this Clinical Engineering code of ethics. Materials, parts or spares that have been replaced by the Clinical Engineering practitioner remain the property of the owner and must be returned with the equipment or device that has been the subject of Clinical Engineering procedures; unless unsafe or impractical to do so, in which case these materials, parts or spares are to be retained for possible inspection and safely disposed of only once the owner's permission has been sought and granted.
5. Clinical Engineering practitioners must advocate and responsibly practise recognisable, safe and environmentally friendly procedures at all times in the scope of their work activities. The storage, usage or disposal of components carrying hazardous waste and chemicals such as mercury, heavy metals and other toxic or radiation emitting materials must conform with acceptable standards pertaining to the specific materials being dealt with.
6. Clinical Engineering practitioners must take all known and reasonable precautions to prevent infection or injury to himself or herself, the patient or the public. If need be, Clinical Engineering practitioners must utilise protective gear, gloves, facemasks, respirators, fume-cupboards or other essential means, as appropriate for working on such potentially infectious, hazardous, toxic or radioactive equipment/devices.
7. Clinical Engineering practitioners must have the right of reasonable access to perform Clinical Engineering procedures on equipment or devices under their responsibility and care, nevertheless Clinical Engineering practitioners must only carry out work that has been authorised by the owner or responsible person in the institution.
8. Clinical Engineering practitioners must when providing any In-service training services for registered medical professionals on any equipment or device, ensure that such registered medical professionals are cautioned to understand that irrespective of such training provided, it is the final responsibility of the registered medical professionals to base their clinical decisions upon experience, official user manuals and other evidence based sources pertaining to such equipment or device that training has been provided for.

9. Clinical Engineering practitioners must always represent themselves with honest, modest and credible behaviour, reflect their level of professional Clinical Engineering practitioners registration correctly and respect their responsibility to generously transfer their skills and knowledge to guide and mentor younger Clinical Engineering practitioners towards developing their own full potential.
10. Clinical Engineering practitioners must withdraw from service equipment or devices under their responsibility and care that does not meet safety or performance specifications, clearly labelling such equipment or devices "Not for clinical usage under any circumstances" and that such equipment or devices are to be the subject of further Clinical Engineering procedures. The Clinical Engineering practitioner must advise the owner or responsible person in the institution of this action taken and intended next steps.
11. Clinical Engineering practitioners must always respect copyright of information from any source, including respecting the rights of patient confidentiality, be it demographics, transactions, physiological results or any other personally identifying data.
12. Clinical Engineering practitioners must always behave in a professional manner whenever presented with circumstances dictating Clinical Engineering activities where a patient or members of the public may also be present at the time. Clinical Engineering practitioners must excuse themselves from all circumstances where registered medical professionals interact with, or perform any interventional procedure of any type on a patient, unless expressly authorised to be present by such registered medical professionals whom have sought patient consent for the Clinical Engineering practitioner's presence. The Clinical Engineering practitioner must refuse to touch the patient, unless directed to do so by the attending registered medical professional in an emergency, such as a resuscitation event; even then, the Clinical Engineering practitioner must have undertaken professional CPR procedures training.
13. Clinical Engineering practitioners must at all times professionally, truthfully, clearly and accurately communicate with all persons and entities, other healthcare professional individuals or groups, irrespective of the means of communication.
14. Clinical Engineering practitioners must respect and support the professional ethical codes of all other professional groups, whether medical or otherwise.
15. Clinical Engineering practitioners must timeously and honestly declare conflicts of interest, duality, membership of organisations, financial interests in medical supplies companies, retainers, grants and contracts or any related agreements held if they make or influence decisions for or on behalf of any healthcare provision or services institution.
16. Clinical Engineering practitioners employing advertising must ensure that this is truthful, fair, accurate, complete, and sensitive to the health care needs of the public.
17. Clinical Engineering practitioners must ensure that equipment or devices under their responsibility and care is kept operational, within specification and safe for clinical application at all times. Where doubt exists as to service frequencies or procedures, the manufacturer's written recommendations must take precedence to obviate the risk of medico-legal liability in the event something does go wrong.
18. Clinical Engineering practitioners must focus on the problem (not people or the user) in any incident investigations associated with medical equipment or devices. Emphasis must be on identifying deficiencies in the system (rather than blaming people).
19. Clinical Engineering practitioners must share findings of problems associated with medical devices with their colleagues, so as to prevent similar incidents from recurring.
20. Clinical Engineering practitioners whom perform field safety and performance tests on equipment with internal battery power, must make registered medical professional users aware of their responsibilities to ensure that such equipment or devices are recharged

correctly and that there is a back up device available on call within the healthcare institution until such equipment has been fully recharged and proven to be suitable for clinical usage.

21. Clinical Engineering practitioners must factually, concisely and accurately document work performed on medical equipment or devices, such records adequately and completely reflecting work undertaken, parts replaced, calibration procedures, safety and performance testing and any other Clinical Engineering procedures undertaken. The Clinical Engineering practitioner's name and signature must be clearly affixed on each sheet pertaining to that record, except in the case of electronic records, which must be adequately backed up on removable media. Where an identical hard-copy based record of the electronic version exists, this must carry the name of the Clinical Engineering practitioner and be signed by him/her in indelible ink. No correction fluid may be applied to hard copy records, deleted text must be crossed out and such endorsements signed and dated accordingly.
22. Clinical Engineering practitioners must, with the approval of the owner, affix or attach a dated and signed prominent label or note to the equipment or device that has been the subject of Clinical Engineering procedures and when this action is next due This label or note must reflect work performed and results outcomes specific to the equipment or device. If accessories or batteries require regular changing, date these are next due must also be indicated. Potential medical professional users must be urged to complete their own pre-use safety or performance tests to satisfy themselves that such equipment or device is actually safe and suitable for clinical usage.
23. Clinical Engineering practitioners must retain and back up practise records for a period equal to but not less than that of healthcare professionals and institutions whom clinically employ / have employed the equipment or devices that have been worked upon. In the event of decommissioning, such records must be kept for a period of not less than 6 years from date of decommissioning of the medical equipment or devices.
24. Clinical Engineering practitioners must continuously endeavour to update their knowledge and remain current in their professional field. To retain professional registration, Clinical Engineering practitioners must be subject to a Continuing Professional Development (CPD) points system to be determined by CEASA and ECSA.
25. Clinical Engineering practitioners must permanently withdraw from service equipment or devices under their responsibility and care that cannot by recognised Clinical Engineering procedures be made to meet safety or performance specifications, clearly labelling such equipment or devices as "Condemned and not for clinical usage under any circumstances". The Clinical Engineering practitioner must return the equipment or devices to the owner or responsible person in the institution with written disclosure of all reasons that such a decision has been reached.
26. Clinical Engineering practitioners must refuse to undertake work for which their competency to do so is in doubt, or for which facilities, standards, special tools, service manuals, reference data or other essential requirements are not available; instead referring such work to Clinical Engineering practitioners competent and able to perform it.
27. Clinical Engineering practitioners must refuse to accept or to work on any equipment or device that is contaminated with potentially infectious, hazardous, toxic or radioactive substances, until such time as such equipment or device has been demonstrated to be entirely decontaminated by the owner or institution submitting this for any Clinical Engineering activity.
28. Clinical Engineering practitioners must not return to clinical service any equipment or device that is contaminated with potentially infectious, hazardous, toxic or radioactive substances, until such time as such equipment / device has been demonstrated to be entirely decontaminated, or that the Clinical Engineering practitioner has made

documented arrangements for this to be done before the equipment or device is returned to service.

29. Clinical Engineering practitioners must refuse to undertake work on any equipment or device providing diagnostic results currently being used to alter the course of patient treatment or regimes, or which is currently attached, connected to or being used on or by a patient, instead to call for substitute/replacement/equivalent equipment/devices to be employed by professionally registered medical personnel attending to the patient until the Clinical Engineering activity has been completed.
30. Clinical Engineering practitioners must refuse to undertake work on any equipment or device if a reasonable and mutually agreed time, including a safety buffer to perform such work, has not been provided for.
31. Clinical Engineering practitioners must refuse to undertake any work that should be performed by a registered medical professional.

Breach of Code

Any breach of this code renders the Clinical Engineering practitioner personally liable and accountable to explain and support his/her own action or behaviour, irrespective of whether or not at the time the Clinical Engineering practitioner may have deemed this action or behaviour to be as the result of justifiable emergency circumstances.