सत्यमेव जयते

Ministry of Health & Family Welfare
Government of India

FRAMEWORK FOR AUDIT OF MEDICAL CERTIFICATION OF CAUSE OF DEATH AT HEALTH FACILITY

2022

CBHI

ICMR INDIAN COUNCIL OF MEDICAL RESEARCH | NCDIR NATIONAL CENTRE FOR DISEASE INFORMATICS AND RESEARCH

Impacting NCD Public Health Actions and Policies
Collaborate Innovate Inspire

World Health Organization India

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Disclaimer:

The contents of this book can be used for non-commercial purposes like application of framework in establishing, strengthening, reviewing and auditing of medical certification of cause of death system at a health facility, giving acknowledgement to ICMR-NCDIR. Care has been taken to present the content precisely, based on the latest guidelines from Government of India and the International System of Classifications of Diseases and Health Related Problems (ICD). ICMR-NCDIR accepts no liability for any errors or omissions in this regard. However, owing to continuous updates in information on MCCD, readers are urged to update with the latest guidelines as and when released.

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राजेश भूषण, आईएएस
सचिव

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सत्यमेव जयते

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Ministry of Health and Family Welfare

Azadi Ka Amrit Mahotsav

Reliable, timely and comparable mortality information is essential for policy makers, planners, health facility managers and community at large. Timely recording of cause of death, its analysis and feedback is an important endeavor to respond to health issues as quickly as possible.

The probability of mortality misclassification increases with uncertainties among doctors on death certification, inadequate quality checks at different levels, non availability of trained mortality coders etc.

The audit of death certification at health facility is a vital step for generating qualitative and reliable information on cause of death information at source.

I congratulate Central Bureau of Health Intelligence (CBHI), ICMR and its National Centre for Disease Informatics and Research (NCDIR) - Bengaluru, and World Health Organization Country Office for India for their joint efforts on developing a framework for audit of medical certification of cause of death at health facility.

I am confident that the implementation of this framework at health facility level will significantly improve the availability of good quality mortality statistics for evidence based decision making.

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MESSAGE

An accurate description of the cause of death in the death registration form is an important step towards improving the quality of health-care data. For this, medical certification of death (MCCD) is one of the most important time bound necessity at an institutional level for institutional deaths. In this direction, the compilation entitled "**Framework for Audit of MCCD at Health Facility**" prepared by ICMR-NCDIR in collaboration with CBHI and WHO-India Office is a welcome and logical step.

The second step would be training the medical students and residents in certifying death accurately. I believe, including it as part of the curriculum, both undergraduate as well as postgraduate may help doctors in MCCD.

(Atul Goel)

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Message

Information on cause of death from the Medical Certification of Cause of death(MCCD)system has been around 20 % in India for many years. Critical efforts are necessary to provide training to doctors in writing death certificates correctly and completely, and guiding them with feedback and supervision.

ICMR-National Centre for Disease Informatics and Research (NCDIR), Bengaluru is actively engaged in several activities with multiple stakeholders in improving cause of death recording across India. The guideline,'Framework for audit of Medical Certification of Cause of death at health facility', is a logical step to address the gaps in reporting and recording of accurate cause of death by medical doctors. The framework builds on the existing health system to integrate skills of doctors, nurses, medical record officers,hospital administrators towards a common purpose of strengthening the MCCD system.

I congratulate ICMR-NCDIR in developing this comprehensive and simple framework for easy adaptation and implementation by any health facility.

Innovation and collaboration are key to the success of any implementation science. This Framework for audit of MCCD has to bewidely used by doctors and hospitals to improve recording of cause of death. I extend by best wishes to all the efforts put in by Central Bureau of Health Intelligence (CBHI),Director General of Health Services (DGHS), Ministry of Health and Family Welfare (MoHFW)and the World Health Organization (WHO)-Indiafor its wide dissemination and practical use. This shall be one of the small steps towards achieving robust MCCD system in hospitals in India for facilitating health policy and planning.

Balram Bhargava

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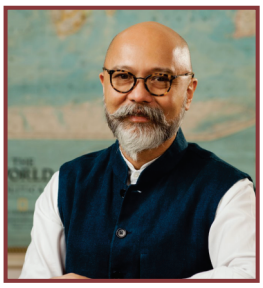
Message from WHO Representative to India



The consistent availability of cause-specific mortality information is critical to estimate local, national, and global disease burden and trends. It serves as a pivotal input for planning national policies, actions and responses to improve health outcomes.

Regular audits of death certificates improve the quality of data and contributes to the production of usable mortality statistics for public health decision-making.

I applaud the collaborative efforts of Indian Council of Medical Research-National Centre for Disease Informatics and Research Bengaluru, Central Bureau of Health Intelligence-Ministry of Health and Family Welfare and domain experts from various other institutions who have contributed to develop this critical document.

The implementation of this framework will further widen coverage and improve the quality of medical certification of the cause-of-death information system in India.

Dr Roderico H. Ofrin
WHO Representative to India

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From the Desk of Director

ICMR-National Centre for Disease Informatics and Research (NCDIR), Bengaluru focuses on building nationwide databases on non-communicable diseases (NCDs) to generate disease burden and mortality data on cancer, stroke, cardiovascular diseases, etc. Cause of death data is crucial for monitoring disease burden and a path to monitor achieving the Sustainable Development Goals. Robust cause of mortality statistics needs to be strengthened in India with accurate recording of death, assignment of cause of death and death registration.

ICMR-NCDIR has been working with hospitals and states in India to strengthen Medical Certification of Cause of Death (MCCD) through the use of the NCDIR e-Mortality Software (NCDIR e-Mor). This facilitates accurate recording of cause of death and supports to develop mortality review and audit systems in hospitals. As a next step, we have developed the 'Framework for audit of MCCD for health facility'. This shall be a dynamic approach to sealing the gaps in generation of error-free MCCD forms. Hospitals shall adapt the framework to streamline MCCD system with feedback and supervision. In the future, the MCCD system needs to be sustainable and fool-proof to generate robust cause of death data and facilitate mortality audit systems in hospitals.

We are pleased to collaborate with the World Health Organization(WHO)-India and the Central Bureau of Health Intelligence (CBHI), Director General of Health Services (DGHS), Ministry of Health and Family Welfare (MoHFW) in bringing out the framework. We thank the experts for their guidance and critical review in the development of the framework.

The learnings gained from implementation of the framework for audit of MCCD at different settings of health facilities shall support in strengthening MCCD system in India.

(Prashant Mathur)

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Abbreviations

Ca	Carcinoma
CoD	Cause of death
CRS	Civil Registration System
CVA	Cerebrovascular Accident
Form 4	Medical Certificate of Cause of Death (for hospital in-patients)
Form 4A	Medical Certificate of Cause of Death (for non- institutional deaths)
ICD	International Classification of Diseases and Related Health Problems
ICD-10	International Classification of Diseases, Tenth Revision
ICMR	Indian Council of Medical Research
MCCD	Medical Certification of Cause of Death
MRD	Medical Record Department
NCD	Non-Communicable Disease
NCDIR	National Centre for Disease Informatics and Research
NFHS	National Family Health Survey
ORGI	Office of Registrar General of India
RBD Act	Registration of Births and Deaths Act, 1969
SDG	United Nations Sustainable Development Goals
SRS	Sample Registration System
UN	United Nations
UT	Union Territory
WHO	World Health Organization

Chapter 1
Introduction

1.1 Mortality systems in India

Reliable cause specific mortality statistics are the cornerstone of national health information systems. They are essential for evidence-based decision making for monitoring health of populations, health services planning and delivery, programme implementation, policy development and epidemiological research.

Planned progress towards achieving good health and wellbeing at all ages as articulated in the United Nations (UN) Sustainable Development Goals (SDGs), National Noncommunicable disease (NCD) monitoring framework, India's flagship programme Ayushman Bharat scheme (Pradhan Mantri Jan Arogya Yojna and comprehensive primary health care), and all health policy and programmes require timely and robust cause-specific mortality data. Such data is presently available from the Civil and Sample Registration Systems (CRS and SRS) respectively, and national surveys like the National Family Health Survey (NFHS).

The CRS in India is implemented through the States and Union Territories (UT) to record all deaths. Cause specific mortality is reported through the Medical Certification of Cause of Death (MCCD) scheme of the CRS implemented under the provisions of Registration of Births and Deaths (RBD) Act, 1969. The MCCD has gained very little attention and the coverage has been only around 20% for the last decade, though in 2012 it was mandated by the Office of Registrar General of India (ORGI), that all hospitals need to report MCCD.

There are several aspects to the limitations in coverage, in terms of the variations from both administrative and reporting perspectives. For instance, the Office of Registrar General of India (ORGI) mandates all hospitals (public, private and non-profit) to be included in the MCCD scheme. However, there are several states in which many hospitals are yet to implement it. Further, only a proportion of hospitals that are officially included in the scheme actually report deaths, with the rest being non-compliant. Finally, even for deaths that are reported with MCCDs, there are limitations in data quality, as measured by the proportion of medically certified deaths that are assigned non-specific symptoms and ill-defined causes.

A standardized approach for the collection, coding, and analysis of causes of death (CoD) has been provided in the implementation guidelines stipulated in the WHO's International Classification of Diseases and Health Related Problems (ICD). A primary step in this process is the requirement for

doctors who attended to persons in their last part of illness (whether in health facilities or elsewhere) to list the cause(s) of death according to their best medical opinion on a standard form.

In India, the standard format of the MCCD (Form 4 for institutional and Form 4 A for non-institutional deaths) conforms to the standards of the WHO International Form of Medical Certificate of Cause of Death.

The form comprises two parts with Part I listing the patho-physiological sequence of clinical conditions, diseases and injuries directly leading to death, and Part II for recording of other co-existing health conditions in the deceased that may have contributed to the death but which were not directly causally related to the sequence listed in Part I.

Although there is potential for multiple conditions to be listed on the MCCD, only one of these conditions is selected as the underlying cause of death for each death. By convention, this underlying cause is recorded in the lowest line of Part I and is assigned an ICD code. The underlying cause of death terms that are coded are used for primary statistical tabulations and analysis of cause-specific mortality.

The underlying causes of death provides the burden of preventable and avoidable causes of death and are of immense public health importance. The contributing conditions that worsened the disease status are significant comorbidity that add to the burden of disease/s in the population.

1.2 Accuracy and completeness of MCCD in India

The MCCD forms are completed by the doctors attending to the deceased at the time of terminal illness, based on the best of his / her knowledge and medical opinion. Errors in the cause of death certification are common and occur at every step of the certification process. Studies have described that certificates had at least one major error (which could affect the accurate selection of the underlying cause of death), or one minor error (which was less likely to lead to miss-classification of the underlying cause of death).

Multiple errors in the same certificate were also common. The most common certification errors observed were sequencing errors (incorrect presentation of order of immediate, antecedent and underlying causes of death), antecedent causes not being mentioned, unacceptable or unlikely causes of death, and listing of mechanism of cause of death in Part I.

Absence of time interval between onset of the events to the terminal death event was a regular feature. The medical terms were mentioned “with” instead of “due to” leading to lack of clarity of the sequence of events. Abbreviations, vague and ambiguous terms and disease broad categories also compound the data quality of CoD.

Clerical errors ranged from missing information in any of the fields of the MCCD form, absence of status of pregnancy in female deaths and missing information on the manner of death.

Further errors can occur during ICD coding of the underlying cause of death. Miscoding includes assignment of wrong codes or generic codes when information exists for assigning specific codes.

1.3 Challenges in health facility for generating good quality mortality data

Unavailability of trained staff (doctors as well as coders), higher clinical work-load for doctors, lack of interest in MCCD, absence of quality control mechanisms at the health facility are key contributing factors for suboptimal quality of MCCD.

These are further compounded by lack of processes for feedback and accountability for submitting accurate and complete causes of death in the MCCD forms.

1.4 MCCD form 4/4A

The format of the MCCD is adapted from the WHO and comprises of the following components:

- socio-demographic and identification details
- cause of death Part I & II
  - time interval
  - statistical part for ICD-10 coding
- manner of death
- death associated with pregnancy or not
- details of medical practitioner/s
- detachable part containing information on the fact of death

FORM NO. 4

(See Rule 7)

MEDICAL CERTIFICATE OF CAUSE OF DEATH

(Hospital In-patients. Not to be used for still births)

To be sent to Registrar along with Form No. 2 (Death Report)

Name of the Hospital ……

I hereby certify that the person whose particulars are given below died in the hospital in Ward No…….. on ……..…….. at ……AM/PM

NAME OF DECEASED					For use of Statistical Office
Sex	Age at Death				
	If 1 year or more, age in years	If less than 1 year, age in month	If less than one month, age in days	If less than one day, age in hours	
1. Male 2. Female					

CAUSE OF DEATH

		Interval between onset and death approx.
I Immediate cause State the disease, injury or complication which caused death, not the mode of dying such as heart failure, asthenia, etc.	(a) …….. due to (or as a consequences of)	
Antecedent cause Morbid conditions, if any, giving rise to the above cause, stating underlying conditions last	(b) …….. due to (or as a consequences of)	
	(c) ……..	
II Other significant conditions contributing to the death but not related to the disease or condition causing it	…….. ……..	

Manner of Death

How did the injury occur?

1. Natural 2. Accident 3. Suicide 4. Homicide
5. Pending investigation

If deceased was a female, was pregnancy the death associated with? 1. Yes 2. No
If yes, was there a delivery? 1. Yes 2. No

Name and signature of the Medical Attendant certifying the cause of death

Date of verification ……

SEE REVERSE FOR INSTRUCTIONS

(To be detached and handed over to the relative of the deceased)

Certified that Shri/Smt/Kum…….. S/W/D of Shri ……..

R/O …… was admitted to this hospital on ……

and expired on ……..

Doctor ……..
(Medical Supdt.
Name of Hospital)

Chapter 2
Aim & objectives

Aim

Availability of reliable and timely mortality data by cause for evidence based decision making.

Objectives

- To minimize errors and ensure completeness in MCCD data at the health facility
- To ensure timeliness in submission of MCCD for death reporting at the health facility
- To develop a death certification review system at the health facility

Chapter 3
Methodology

This framework was developed through a process that entailed developing a draft from a literature review. It also considered sourcing critical inputs from experts and physicians of hospitals who are currently implementing the National Centre for Disease Informatics and Research (NCDIR) e-Mor software for strengthening MCCD. They are engaged in mortality review or audit systems.

Chapter 4
The framework - prerequisites

The facilities desirous of implementing the framework of MCCD audit shall establish:

- MCCD system and submit MCCD forms in a prescribed format to the local registrar in a timely manner
- Adequate staff who are trained in the assignment of cause of death (doctors-certifiers) and data entry and ICD coding (medical records and other staff)
- Guidelines in the hospital which specify the responsibilities of the certifiers, coders, data entry operators and administrators
- Setting up of a unit or department to facilitate the MCCD system and its review at the health facility

Chapter 5
MCCD Audit system

The audit system comprises of two components, namely:

- Review of MCCD forms using a checklist to conduct level 1, 2 and 3 review on daily basis
- Audit of MCCD forms by an audit committee on a monthly basis

5.1 Review of MCCD forms using a checklist

5.1.1 Checklist for level 1 review

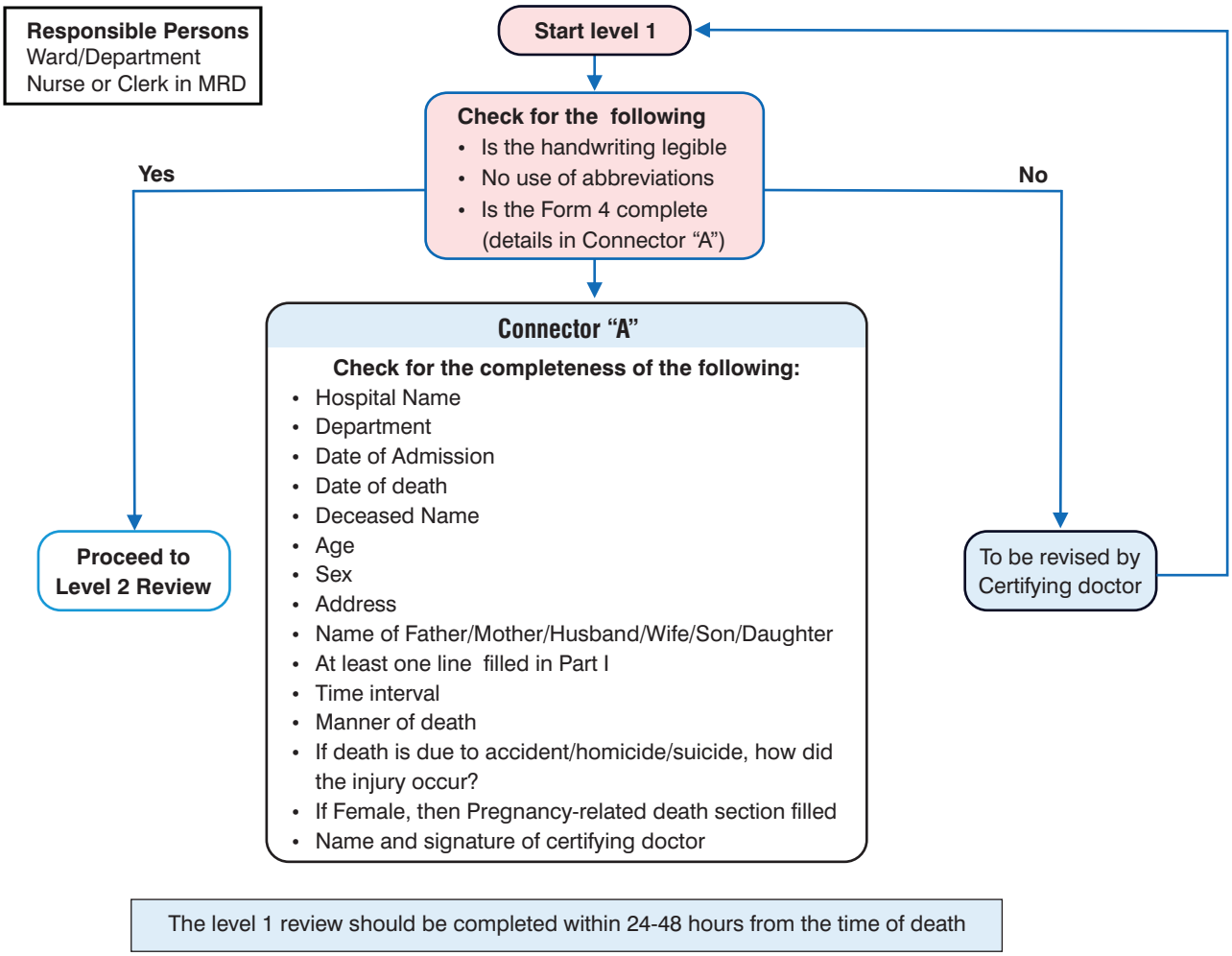
i. Completeness of all fields
   - ✦ Hospital related information: complete name, address, ward, date of admission, date and time of death; any unique identification number (hospital registration number)
   - ✦ Demographic details of the deceased: age, sex
   - ✦ Identifying information: address, father/mother/husband/wife/son/daughter of deceased
   - ✦ Cause of death section: Part I, immediate cause, antecedent cause and Part II (in case any line is blank, shall confirm from the certifying doctor that it was not left out inadvertently)
   - ✦ Manner of death section, including details on how did the injury occur
   - ✦ Pregnancy and delivery details in females
   - ✦ Name and signature of the certifying doctor and date

ii. Legibility of handwriting

iii. No use of abbreviations

iv. One condition / disease / injury written per line

Fig 5.1 Flowchart for review of
Medical Certification of Cause of Death (MCCD) forms at health facility-Level 1



5.1.2 Checklist for level 2 review

- Agreement of information between the case sheet and MCCD form (pertaining to cause of death section)
- Listing of mechanism of death as cause of death in Part I e.g.,

Cardiac arrest/heart attack
Cardio respiratory failure
Cardio respiratory arrest
Respiratory failure/arrest
Renal/kidney failure
Shock
Heart failure
Coma/brain failure
Multi organ/system failure
Asthenia/exhaustion
Syncope

- Terms that are unacceptable as causes of death in Part I e.g., old age, senility and natural deaths. Terms that are ambiguous, vague, ill-defined or abbreviations as causes of death in Part I e.g., fever, jaundice, unconscious, sev. mal (severe malnutrition), CVA (Cerebrovascular Accident).
- Multiple causes of death written in any of the lines in Part I is an error. A single cause of death term in each of the lines of Part I should be written.
- Competing causes of death written in Part I or Part II. In a patient presenting with acute symptoms and multiple conditions, it may lead to several causes of death sequence. e.g.,

Cause	Sequence 1	Sequence 2
Immediate cause	Peritonitis	Acute renal failure
Antecedent cause	Intestinal obstruction	Nephropathy
Underlying cause	Strangulated inguinal hernia	Diabetes mellitus

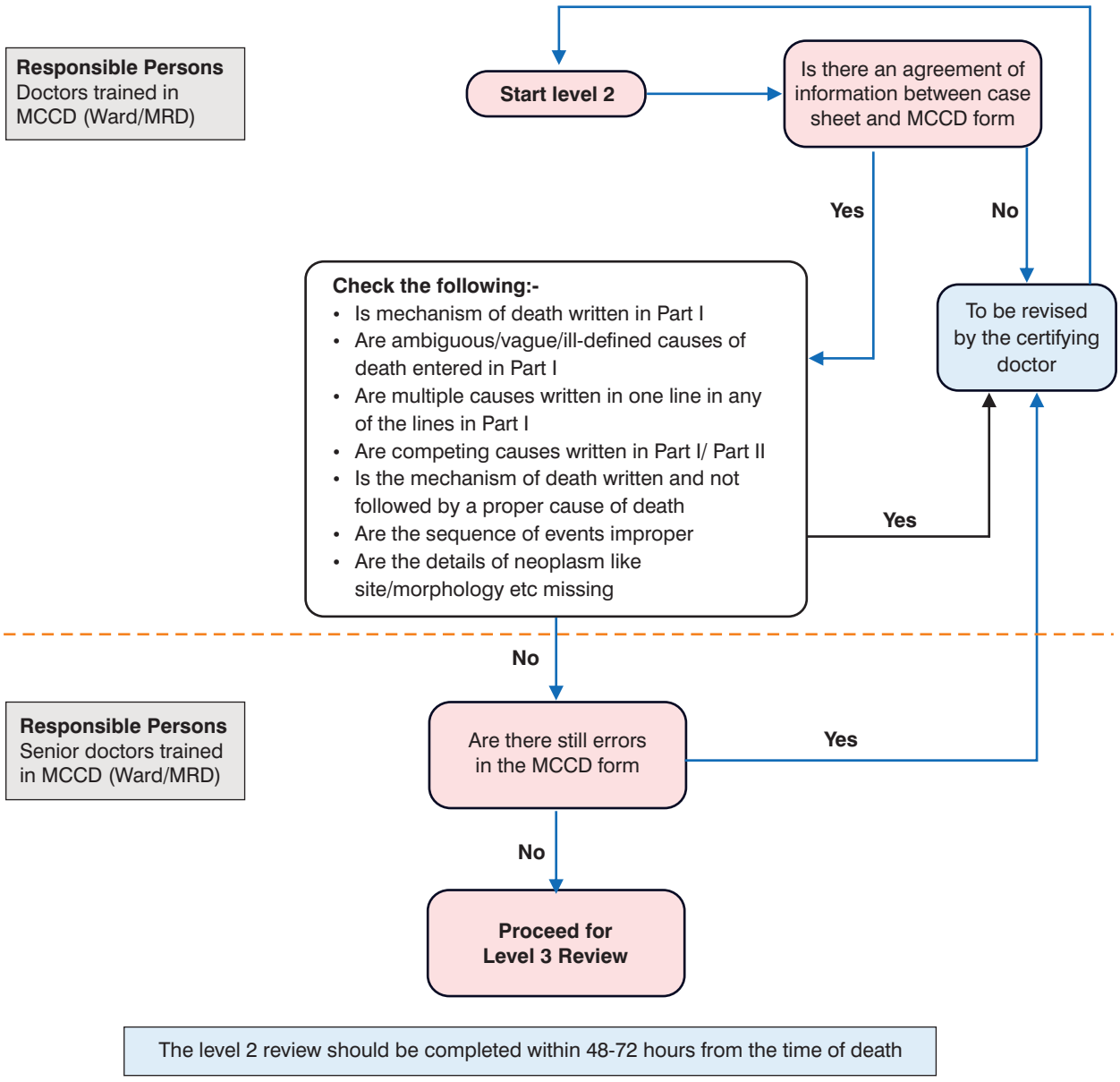
Here both the sequences of events may occur in same person. In such situations, the treating doctor has to identify one sequence that actually led to death.

- Writing the mechanism of death without a clinically probable cause of death in the sequence of events is an error.
- In sequencing errors, the events leading to death may be written in a clinically improbable sequence or ignoring the time intervals between the events as shown below

Cause	Documented sequence (incorrect)	Correct sequence
Immediate cause	Fall in bathroom	Pulmonary embolism
Antecedent cause	Pulmonary embolism	Fracture neck of femur
Underlying cause	Fracture neck of femur	Fall in bathroom

- When cause of death is due to neoplasm, details like site of the primary neoplasm (lung, breast etc.), behaviour (malignant/benign) and morphology (e.g., lymphoid/myeloid/ monocytic in case of leukaemia; papillary/follicular/medullary in case of thyroid cancer) as applicable should be written in Part I

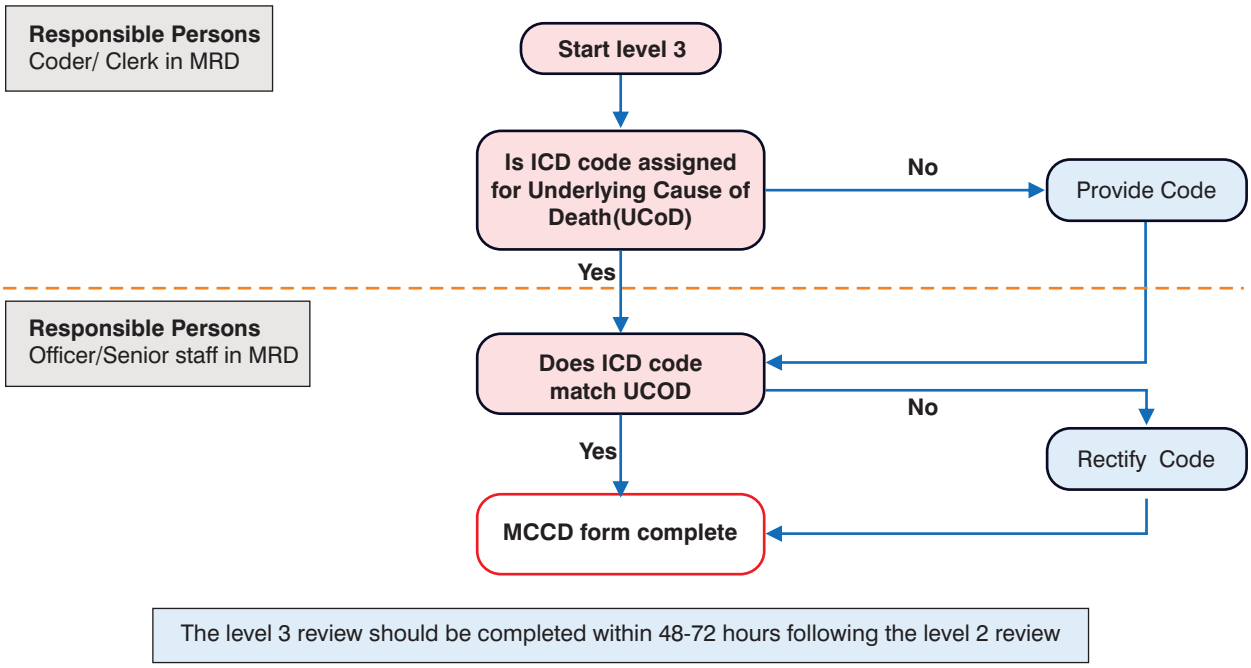
Fig 5.2 Flowchart for review of Medical Certification of Cause of Death (MCCD) forms at health facility-level 2



5.1.3 Checklist for level 3 review

- **Miscoding:** assignment of incorrect codes and generic codes when information exists for assigning more specific codes (e.g., there is evidence in the case sheet to suggest that the carcinoma is of the upper gum and a specific ICD-code for Ca upper gum is available. But still the coder assigns the code for Ca gum unspecified)

Fig 5.3 Flowchart for review of
Medical Certification of Cause of Death (MCCD) forms at health facility-level 3



5.2 Job responsibilities of various stakeholders

5.2.1 Staff nurse/MRD clerk (level 1 review)

- Shall ensure that the MCCD form is written for all deaths occurring anywhere in the hospital, and verifies:
  - I. Legibility
  - ii. Completeness of all the fields, such as:
    - Hospital name, ward/Department, time and date of death
    - Name, sex and age of the deceased
    - Cause of death section Part I and Part II (if applicable) with time intervals
    - Manner of death and details of injury
    - Pregnancy and delivery details for females
    - Name and signature of the certifying doctor
  - iii. No use of abbreviations in cause of death section
  - iv. One condition / disease / injury written per line
- Shall get it rectified by the concerned doctor in case of any errors
- Shall ensure that review and rectification, if any, are completed within 24 to 48 hours from the time of death

5.2.2 Medical staff (MRD Medical Officer/Doctor) trained in MCCD audit (level 2 review)

- To review the following:
  - i. Agreement of information between the case sheet and MCCD form
  - ii. Listing of mechanism of death as cause of death in Part I
  - iii. Unacceptable cause of death (ambiguous/vague/ill-defined) in Part I
  - iv. Multiple causes written in one line in any of the lines in Part I

v. Competing causes of death in Part I/II

vi. Mechanism of death written and not followed by a proper cause of death

vii. Sequencing errors (incorrect presentation of order of immediate, antecedent and underlying causes of death)

viii. Whether details of neoplasm like site/morphology/behaviour etc are written

- Shall get the MCCD form rectified by the concerned doctor in case of any errors and obtain signature after ensuring all points in level 2 review are correct
- Shall ensure that review and rectification, if any, are completed within 48 to 72 hours from the time of death

5.2.3 Senior doctor trained in MCCD and in a supervisory role

The senior doctor must preferably be the Head of the unit or department or a senior level faculty/consultant and who is designated by the institution and undertakes the following

- Countersign after ensuring correctness of level 2 review
- Ensure that level 2 review and rectification if any, are completed within 48 to 72 hours from the time of death

5.2.4 Coders

- Shall complete training on the cause of death certificate of WHO ICD training tool
- Shall give appropriate ICD code to the underlying cause of death as per instructions in volume II of ICD
- Shall seek clarification from the respective faculty/Unit chief/MRD senior manager in case of doubt

5.2.5 MRD Officer/Senior MRD staff

- Should have completed the training on cause of death certificate of WHO ICD training tool with at least 3 years' experience in coding
- Shall verify the ICD code assigned by the coder and ensure there is no miscoding
- Shall ensure that level 3 review and rectification, if any, is completed within 48 to 72 hours from the level 2 review

5.2.6 Medical superintendent/Signatory authority

- Shall countersign after reviewing corrections of all level 1, 2 and 3 review aspects
- Ensure timely submission of MCCD forms to local registrar
- Shall convene meeting of the MCCD audit committee every month to give appropriate feedback and inputs to the certifying doctors and coders
- Training on MCCD to interns/postgraduates/residents (junior or senior)/demonstrators/ Assistant Professors

5.3 MCCD audit committee

- The Audit committee constituted by the Head of the institution must review the MCCD forms. The committee must comprise of persons trained in MCCD, ICD coding and the process of assessment of quality of MCCD forms
- The composition of the committee depends on the size and staffing of the health facility. The committee shall bring multi-disciplinary expertise and may include any of the following: doctors (with experience) from the departments of community medicine, forensic medicine

and any one/more of these clinical departments- general medicine, general surgery, critical care and emergency medicine, obstetrics and gynaecology, paediatrics and any other clinical department. The committee shall include a mix of clinicians/public health experts/ epidemiologists/statisticians / nurses / medical record officers who can analyse the MCCD data

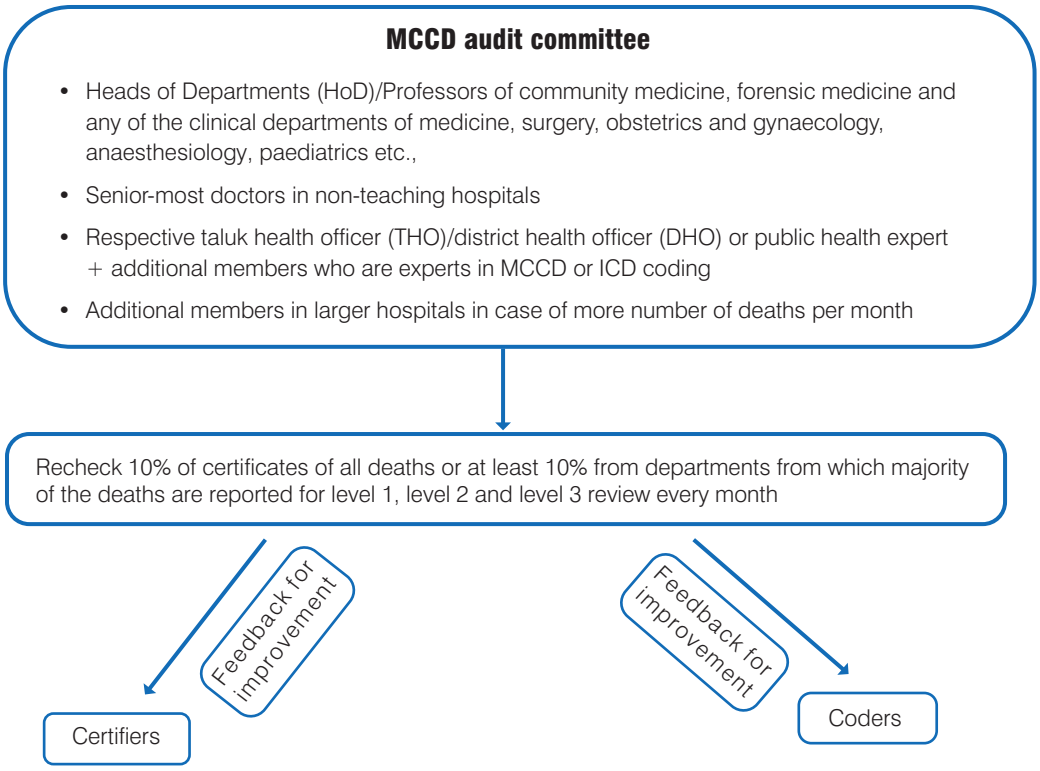
- In the public sector, the committee may also include the respective Taluk Health Officer / District Health Officer or any officer from the state health department of the same rank. In some instances, the committee shall include additional members from other institutions who are experts in MCCD and ICD coding. In larger hospitals (like medical colleges, super specialty blocks in medical colleges, multiple standalone hospitals under a medical college), with more number of deaths, additional members may be included from level of Associate Professor and above depending on the workload
- The Audit committee must include all the deaths in all the divisions of the institution. The Chair of the committee should be able to lead the team and foster an inclusive and participatory approach to conduct the audit

5.3.1 Functions of the Committee

- Re-check 10% of the certificates of all deaths or at least 10% from the departments from which a majority of the deaths are reported, for for all levels of review (1, 2 and 3) on a monthly basis
- Identify types of errors that are occurring and select solutions through consensus with concerned staff
- Provide appropriate feedback and inputs to the respective departments/units/staff for rectification of mistakes and improvement (may develop case studies using the MCCD forms that have been reviewed and use the same for providing feedback)
- Assess the training needs and give recommendations to the hospital administration on training as deemed appropriate to the staff
- Prepare the aggregate frequencies, tabulation and analysis of mortality data

  [demographic distribution, patterns of cause of death, manner of death (natural or accident/ homicide /suicide), and presence of any comorbidity etc]
- Provide feedback to the hospital on MCCD review on a periodic basis (atleast quarterly) and maintain record of solutions and recommendations
- Follow up on the implementation of the recommendations
- Conduct grading of MCCD forms and MCCD system in the health facility
- Ascertain timely submission of MCCD forms to the local registrar
- The Committee shall encourage discussions with stakeholders to develop practical solutions for improving the quality of MCCD. This kind of approach or review requires greater time commitment and may be a challenge. Eventually the process shall be standardized and internalized by the health facility, when it is obvious that there will be positive outcomes

Fig 5.4 Flowchart for audit of Medical Certification of Cause of Death (MCCD) forms by committee at health facility



5.4 Grading

MCCD system at the facility level may be graded as follows:

5.4.1 Scoring of MCCD forms

I. Agreement between the case sheet and MCCD form with respect to the sequence of events → 4 ; No agreement → 0

II. Major errors (Any error in level 2 review)
- ✔ No major errors → 4
- ✔ 1 major error → 2
- ✔ >1 major error → 0

III. Minor errors (Any error in level 1 review related to completeness)
- ✔ No minor errors → 3
- ✔ 1 minor error → 2
- ✔ 2 minor errors → 1
- ✔ ≥ 3 minor errors → 0

IV. Coding
- ✔ Correct and specific ICD -10 code assigned → 4
- ✔ Generic code assigned when more specific information/code is available → 2
- ✔ Incorrect/no code assigned → 0

Final score: Scores of the sections I, II, III and IV to be added up to get the final score of the form (maximum possible score = 15)

5.4.2 Grading of the facilities

Scores of all MCCD forms assessed is added up to obtain the final score for the facility.

Final score for the facility = Obtained score/Maximum possible score (%).

Obtained Score = Sum of score of all MCCD form assessed in the health facility.

Maximum score = Maximum score per form (15) X number of MCCD forms assessed.

Interpretation of the final score for the facility

>95% of the maximum possible score	→	Excellent
85 - 94.9%	→	Good
75 - 84.9%	→	Satisfactory
<75%	→	Unsatisfactory and needs significant improvement

The cut-off for satisfactory functioning has been fixed at 75% because the facility is expected to make absolutely no errors in section I, II and IV, though some occasional errors may be permissible in section III. In order to achieve this, the facility would have to score an average of 12/15 per form.

Efforts to improve and strengthen MCCD to achieve and maintain high grades should be done on a continuous basis.

Chapter 6
Conclusion

Any audit process should not be primarily an end in itself. The analyses and outcomes of the audit should be linked with impact assessment of the interventions. One of the important indicators of implementing the MCCD audit in a health facility is the generation of reliable mortality statistics. This would provide information on understanding the disease burden of communities that the hospital caters to and monitor health system performance.

The Framework proposed is dynamic and may be adapted to cater to the needs of the health facility and the scope of the MCCD system which is in place. It is highly recommended that health facilities may test the components of the framework and provide insights of their learnings.

In this manner, the framework for audit of MCCD forms in a health facility would have served its purpose of improving documentation of MCCD and would then develop context specific standard MCCD systems in health facilities across India.

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