Standards for the Management of Mortality and Morbidity in Health Facilities

Version (1.1)

Issue date: 06/03/2025

Effective date: 06/05/2025

Clinical Audit and Control Department

Health Regulation Sector (2025)

ACKNOWLEDGMENT

The Clinical Audit and Control Department (CACD) developed this Standard in collaboration with Subject Matter Experts and would like to acknowledge and thank these health professionals for their dedication toward improving quality and safety of healthcare services in the Emirate of Dubai.

Health Regulation Sector

Dubai Health Authority

TABLE OF CONTENTS

INTRODUCTION

The Health Regulation Sector (HRS) plays a key role in regulating the health sector. HRS is mandated by the Dubai Health Authority (DHA) Law No. (6) of the year (2018) with its amendments pertaining to DHA, to undertake several functions including but not limited to:

- Developing regulation, policy, standards, guidelines to improve quality and patient safety and promote the growth and development of the health sector;
- Licensure and inspection of health facilities as well as healthcare professionals and ensuring compliance to best practice;
- Managing patient complaints and assuring patient and physician rights are upheld;
- Governing the use of narcotics, controlled and semi-controlled medications;
- Strengthening health tourism and assuring ongoing growth; and
- Assuring management of health informatics, e-health and promoting innovation.

The Standards for the Managements of Mortality and Morbidity in Health Facilities aims to fulfill the following overarching Dubai Health Sector Strategy 2026:

- Pioneering Human-centered health system to promote trust, safety, quality and care for patients and their families.
- Make Dubai a lighthouse for healthcare governance, integration and regulation.
- Leading global efforts to combat epidemics and infectious diseases and prepare for disasters.
- Pioneering prevention efforts against non-communicable diseases.
- Become a global digital health hub.
- Foster healthcare education, research and innovation.

EXECUTIVE SUMMARY

Standards are increasingly becoming part of current practice and will become more common over the next decade. These Standards aim to improve the quality and the level of healthcare provided to the clients. Healthcare providers can use these standards to answer specific questions in day-to-day practice and as an information source for continuing professional education.

This document presents a framework to DHA licensed healthcare professionals and health facilities to effectively and efficiently, manage all aspects of Mortality and Morbidity.

Key standards:

1. Standard Three: Management of Mortality and Morbidity Committee Meetings
2. Standard Four: Data Collection and Risk Classification for Morbidity Cases.
3. Standard Five: Criteria for reviewing mortality cases in a healthcare facility.
4. Training, Education, and Disciplinary Action by facility.
5. Quarterly Healthcare Facility Report and KPI table (appendix 1 and 2)
6. Updated mortality and morbidity committee report (appendix 3)
7. Mortality and Morbidity Process Maps (appendix 6 and 7)
8. Appendix 8: Quality Indicators (for internal use only and not required for submission to DHA unless requested)
9. Appendix 9: The National Confidential Enquiry into Patient Outcome and Death (NCEPOD)
10. Appendix 10: General Exclusion Criteria for Morbidity.

DEFINITIONS

Death: is the permanent cessation of all biological functions that sustain a living organism.

Device-Related Infection: This is an infection that occurs when bacteria or other pathogens colonize on a medical device implanted in the body, such as catheters, ventilators, or artificial joints.

Hospital Acquired Infection (HAI): This refers to an infection that a patient develops while in a hospital or other healthcare facility that wasn't present or incubating at the time of admission. It also includes infections acquired in the hospital but appearing after discharge.

Morbidity: are complications that occur causing the patient to need further intervention or prolonged stay in hospital.

Mortality: is the in-hospital deaths for patients under the care of a defined specialty.

Readmission: This refers to the re-hospitalization of a patient shortly after their discharge, typically within 30 days, often due to complications or the reoccurrence of the initial medical issue that warranted the original admission, but it can also be for a different, unrelated reason.

ABBREVIATIONS

CACD	:	Clinical Audit and Control Department
CEO	:	Chief Executive Officer
DHA	:	Dubai Health Authority
FPPE	:	Focused Performance Professional Evaluation
HF	:	Health Facility
HPSD	:	Health Policy and Standards Department
HRS	:	Health Regulation Sector
KPIs	:	Key Performance Indicators
MMC	:	Mortality and Morbidity Committee
MOM	:	Minutes of Meeting
NCEPOD	:	National Confidential Enquiry into Patient Outcome and Death
TOR	:	Term of Reference

1. BACKGROUND

This document serves as a comprehensive standard to the Hospital Morbidity and Mortality Committee (MMC), outlining its roles and responsibilities as stipulated in its Terms of Reference.

- Mortality and morbidity reviews serve as foundational components in delivering high-quality clinical care. In the health regulation sector, we consider these reviews crucial to clinical governance and vital in the pursuit of quality improvement.
- Conducting mortality and morbidity reviews is obligatory, and the outcomes shall be open to review by the regulatory body when needed.
- Primarily, consultant medical staff bear the responsibility to oversee mortality and morbidity reviews within their specialties, with support from the divisional management team.
- The procedures for conducting these reviews need to be strong and efficient to extract lessons from patient care scenarios and to pinpoint alterations in practice that can prevent fatalities or decrease morbidity in the future.
- Reviewing mortality and morbidity data shall be a standard practice, with the acquired knowledge being disseminated within the specialty and the division.
- Cross-divisional insights will be disseminated through the upward thematic reporting of the review outcomes.

2. SCOPE

2.1. To effectively and efficiently manage all aspects of Mortality and Morbidity in DHA licensed Health Facilities.

3. PURPOSE

3.1. To define clear roles and obligations for staff participating in mortality and morbidity reviews, ensuring the trust is fulfilling its commitment to learning and continual enhancement, specifically:

3.1.1. Healthcare professionals will leverage mortality and morbidity reviews to confirm the safety of their services, propagate learning, and enhance patient outcomes.

3.1.2. The outcomes of the reviews shall offer assurance that the trust is maximizing learning from episodes of care resulting in death.

4. APPLICABILITY

4.1. DHA licensed Health Facilities holding in-patient beds and healthcare professionals executing day-case interventional procedures.

5. **STANDARD ONE:** RESPONSIBILITIES OF THE MORTALITY AND MORBIDITY COMMITTEE

5.1. Review and audit the health records for all mortality and morbidity cases taking place in the health facility.

5.2. Identify potentially preventable factors associated with the mortality and morbidity cases in health facility and recommend improvement measure to minimize the mortality and morbidity rates.

5.3. All mortalities must be reported to DHA through CACD – HRS within 35 days, with an exception for mortality cases also identified as sentinel events, which are accepted to be reported within 45 days, Appendix 3.

5.4. All reports and case documents are prepared, endorsed by the relevant stakeholders, and subsequently submitted to the HRS-CACD team monthly. For Grade 3 and 4 morbidities, it is imperative to specify the name of the doctor involved in the incident.

5.5. A quarterly report from each healthcare facility is mandated for submission.

5.5.1. This report shall encompass the areas of concern, implemented solutions, conclusions, and action plans derived from previous HMMC meetings.

5.5.2. Furthermore, it is essential that the report integrates an analysis Grade 3, 4 and 5 morbidities observed within the facility, supplemented by Analysis of the causative factors and Action plan, and evidence of action plans will be expected to be submitted in the following quarter report.

5.5.3. Refer to **appendix 1 & 2** for the Quarterly Healthcare Facility Report and KPI table.

5.6. Submit Mortality and Morbidity Report through the MMC Chairperson to Medical Complaints Section (MCS), Clinical Audit & Control Department (CACD), HRS, within 35 days, from the date of death (**Appendix 3**).

5.7. Any investigation materials that have been gathered. This may include, but is not limited to, peer review reports, additional testimonies, supplementary patient file documents, and other relevant materials, to be kept prepared and ready to be shared with the HRS team in case the team requires more data, it shall be done through the Hospital Quality representative or Risk Manager to CACD – HRS team via email **MC_HRS@dha.gov.ae.**

6. **STANDARD TWO:** ROLES OF THE MORTALITY AND MORBIDITY COMMITTE

6.1. The Medical Director/Chief Executive Officer (CEO) of the health facility shall nominate the members of the MMC.

6.2. The Medical Director shall not be a part of the MMC.

6.3. The MMC shall comprise of a chairperson, a co-chairperson, a quality controller , a secretary and additional committee members.

6.4. Morbidity Reporting list shall be developed aligned with the specialties available at the Health Facility and aligned with internal policies and procedures, local laws, regulations, policies & guidelines and current international best practice.

6.4.1. All physicians involved in morbidity cases graded 3, 4, and 5 shall be mentioned in the case summary report submitted to HRS.

6.4.2. Efforts shall be made to avoid referring morbidity cases to the medical liability committee or medical practice committee.

6.4.3. Facilities will have the primary responsibility to review trends and the involved physicians and take necessary actions. However, if issues persist with repeated reporting of the same morbidity category or the same doctor's involvement, the facility shall be accountable and provide justification to the HRS team and a possible referral to MLC/MPC will be considered.

6.5. Facilities must take corrective action to prevent the cases recurrence.

6.6. The CEO and Medical Director shall address any reports or KPIs indicating a trend of morbidity or mortality diagnoses or physicians with high rates of medical mistakes. Actions

taken shall be proportionate to the severity of the case and documented as evidence in the hospital's personnel folder.

6.7. The Chairman or Chairperson of the MMC shall have the overall responsibility of the outcomes of the committee. In addition, the Chairman shall do the following:

6.7.1. Lead, facilitate and moderate the discussions during the meetings by giving equal chances to all members to express their views and to avoid bias.

6.7.2. Report the status of the MMC to the Health Facility, Medical Director/CEO and to CACD, DHA.

6.7.3. Place relevant items on the agenda.

6.7.4. Sign and endorse the Minutes of Meeting (MOM).

6.8. Co- Chairperson shall ensure doing the following:

6.8.1. Will assist the Chairperson in achieving the objectives of the MMC.

6.8.2. In the absence of the Chairperson, the Co-Chairperson will take over the role of the Chairperson.

6.9. Quality Representative is a regular member of the MMC with additional responsibilities as follows:

6.9.1. Review the health records of all cases of death in the hospital and Dead-On Arrival (DOA) cases and follow up any issues of concern.

6.9.2. Review the health records of:

a. Report all morbidities identified.

b. Report all health facility deaths.

c. Prepare periodic statistical reports related to Morbidity and Mortality Appendix 3.

d. Provide the Key Performance Indicators (KPIs) to CACD, DHA quarterly. (Appendix 2)

e. Others.

6.10. Secretary shall ensure doing the following:

6.10.1. Prepare agenda and send invitations for the meetings.

6.10.2. Record and distribute the MOM copy of case records for discussion after the approval of the Chairperson.

6.10.3. Liaise and coordinate with MMC.

7. **STANDARD THREE:** MANAGEMENT OF THE MORTALITY AND MORBIDITY COMMITTEE MEETINGS.

7.1. Meet on a monthly basis, as defined by the Committee's schedule.

7.2. Members shall actively engage in discussions in a transparent and open manner.

7.3. Each meeting shall result in at least one improvement plan or awareness initiative.

7.4. Members are expected to send the topics that they need to discuss during the meetings to the Secretary at least four (4) days prior to the scheduled date of the meeting.

7.5. Urgent topics can be added to the agenda after obtaining the approval from the chairperson.

7.6. The agenda will be prepared by the Chairperson and the Secretary and distributed at least two (2) days prior to the next scheduled meeting.

7.7. Every effort shall be made to restrict the discussions to the topics as per the agenda, any last minute topics can be discussed after the approval of the Chairperson.

7.8. The MMC shall meet according to the death occurrence in health facility and adhere to the mentioned period in DHA Circular to avoid violations.

7.9. The Chairman shall call for unscheduled meetings when necessary. Every effort shall be made not to conflict these meetings with other scheduled meetings.

7.10. The MMC shall assign other sub-committees and/or taskforce groups to perform specific tasks and report to the MMC as deemed necessary.

7.11. The time allocated for the MMC meeting as per the Committee Chairperson decision.

7.12. The secretary shall prepare and sign the MOM and it shall be approved and endorsed by the Chairperson.

7.13. The MOM shall be distributed to the members.

7.14. The MOM of the previous meeting shall be approved at the beginning of each meeting and changes discussed shall be reflected in the next MOM Appendix 4.

7.15. All members shall ensure the confidentiality of the deliberations that take place during the meeting.

7.16. The MOM shall reflect only the points, recommendations and decisions that were discussed. The MOM shall be concise and not narrative.

7.17. The MOM shall reflect the name(s) and reason(s) for any member(s) who have reservations on the recommendations or decisions taken.

7.18. The MOM shall indicate the members who were Present, Apologized or Absent.

7.19. The MOM shall be distributed to all the MMC members within five (5) working days prior to the next meeting with a copy to Health Facility's Medical Director & CEO.

7.20. The copies of all the MOMs shall be kept in the Health Facility Mortality and Morbidity records.

7.21. The MMC meeting requires the minimum presence of 50% +1 of the members to constitute a formal quorum.

7.22. The MMC meeting requires a quorum within fifteen (15) minutes from the specified time. Failure to achieve quorum would mean that the meeting is automatically cancelled.

7.23. The MMC Chairperson shall notify Health Facility Medical Director/CEO in writing when three consecutive meetings have not achieved quorum.

7.24. The members shall attend all the meetings. In case anybody is on official leave, the appointed acting, if applicable, will attend the meetings. If the member has no acting, then the member will be considered on official leave.

7.25. Members who cannot attend the meeting need to apologize in writing or verbally through contacting the secretary of the MMC.

7.26. If an apology is not received prior to commencing the meeting, then the member will be considered absent.

7.27. If the member considered absent for more than three (3) times without a valuable reason, then the Chairperson of the MMC shall notify the Health Facility Medical Director/CEO in writing and request the replacement of the member. **Note:** a sample for the MOM is provided in **Appendix 4**.

8. **STANDARD FOUR:** DATE COLLECTION AND RISK CLASSIFICATION FOR MORBIDITY CASES

8.1. Refer to the Mortality and Morbidity process maps in **appendix 5 and 6.**

8.2. To utilize both electronic and paper patient records, laboratory results, radiology reports, morbidity reports, and death reports as primary sources for data collection.

8.2.1. It's imperative to maintain strict confidentiality about data.

8.2.2. Access to this data is restricted only to authorized committee members.

8.3. Once a morbidity is identified or a mortality occurs, the relevant data shall be locked, this lock pertains to prior notes and orders, ensuring it does not impede the care of living patients who remain admitted in the facility.

8.4. Identified cases shall be collected and promptly reported to MMC to initiate necessary investigations.

8.5. Grade 1 and 2 Morbidities shall be Excluded from being categorized as morbidities as thus are incidents.

8.6. Grade 3 and 4 Morbidities are categorized as high-risk cases, necessitating swift investigation and obligatory reporting to CACD-HRS. These shall be investigated by risk managers if conformed to be referred to MMC for further review, and mandatory reporting to HRS – CACD.

8.7. Grade 5 Morbidities are recognized as a sentinel event; for further details, kindly refer to the sentinel event guidelines management and reported to HRS – CACD.

8.8. All Mortalities must be reported to CACD–HRS within 35 days, with an exception for mortality cases also identified as sentinel events, which are accepted to be reported within 45 days.

8.9. A quarterly report from each healthcare facility is mandated for submission.

8.9.1. This report shall encompass the areas of concern, implemented solutions, conclusions, and action plans derived from previous HMMC meetings.

8.9.2. Furthermore, it is essential that the report integrates an analysis of Grade 3, 4 and 5 morbidities observed within the facility, supplemented by Analysis of the causative factors and Action plan, and evidence of action plans will be expected to be submitted in the following quarter report.

8.10. Refer to the NCEPOD Table for determining final outcomes and action plans.

8.11. Instead of simply determining if cases meet standards, outcomes shall be categorized based on the **NCEPOD** table score.

8.11.1. This score will guide the necessary action plans and highlight areas for facility improvement and possible referral to MLC/MPC accordingly – for more details please referral to **Appendix 8.**

8.12. Clearly document and disseminate recommendations to relevant departments. Tracking: Assign members to monitor the implementation of recommendations and report back to MMC.

8.13. The utilization of the Clavien Dindo classification for surgical incidents is strongly recommended. (Appendix 11)

8.14. The utilization of the **WHO classification of** severity of patient harm shall be used for Medical incidents is strongly recommended.

8.15. When writing cause of the death it should be clear and related to the actual cause of death, Accurate cause-of-death information is important , To the public health department in evaluating and improving the health of all citizens in Dubai, and Often to the family, now and in the future, and to the person settling the decedent's estate.

8.16. The cause-of-death section consists of two parts. Part I is for reporting a chain of events leading directly **to death**, with the **immediate cause of death** (the final disease, injury, or complication directly causing death) and the **underlying cause of death** (the disease or injury that initiated the chain of morbid events that led directly and inevitably to death) , for reporting **all other significant diseases**, conditions, or injuries that contributed to death but which did not result in the underlying cause of death. The cause-of-death information should be your best medical opinion, Do not abbreviate conditions.

8.17. Some condition requires extra and detailed diagnoses and cannot be used solely as a direct cause of death (see appendix 12).

8.18. For infant death should have a clear and distinct etiological sequence for cause of death, if possible. "Prematurity" should not be entered without explaining the etiology of prematurity. Maternal conditions may have initiated or affected the sequence that resulted in infant death, and such maternal causes should be reported in addition to the infant causes on the infant's death certificate (e.g., Hyaline membrane disease due to prematurity, 28 weeks due to placental abruption due to blunt trauma to mother's abdomen).

8.19. Random inspections of causes of death and details of death will be conducted, comparing them against medical file submissions and the NABIDH system to guarantee the quality of reports submitted by facilities.

8.20. Submissions with incomplete or inaccurate causes of death will be rejected and returned to the originating facility. Persistent submission of faulty or incomplete data regarding the cause of death will be deemed as non-compliance with DHA policies and rules, resulting in violations.

9. **STANDARD FIVE:** CRITERIA FOR REVIEWING MORTALITY CASES IN A HEALTHCARE FACILITY.

9.1. **Unanticipated Death:**

9.1.1. Death with unclear cause despite a clear diagnosis and treatment.

9.1.2. Death without obvious risk factors for imminent demise.

9.1.3. Sudden and unanticipated death in healthcare facilities for young population of 30 years of age and below.

9.1.4. Deaths occur in the emergency department after being triaged alive.

9.1.5. Death within 48 hours of hospital admission.

9.1.6. Death following hospital admission for a work-related injury that was poorly managed by the medical team, leading to a fatality within the facility (exceptions apply if all appropriate measures were taken and the case was managed according to guidelines).

9.1.7. Death resulting from a sudden transition in the level of care, either from a higher to a lower level or vice versa.

9.2. **Inpatient Deaths:**

9.2.1. Post-Procedure Death: Within 14 days following any medical, surgical, or radiologically guided invasive procedure. (Post-Discharge Death with Discharge from the same hospital needs to be reported, Post-Discharge Death with Discharge from other hospital needs to be notified.)

9.2.2. Full-Term Infant Mortality: Excludes known case of congenital anomalies that are documented and proven by reliable medical testing to be genetically incompatible with life.

9.2.3. Maternal Death: Associated with pregnancy, birth, and the puerperium.

9.2.4. Stillbirth and Neonatal Deaths: Includes pregnancy loss from 24+0 weeks onwards, stillbirths, early neonatal deaths, and severe brain injuries like Hypoxic Ischemic Encephalopathy.

9.2.5. Medication-Related Deaths: Includes medication errors and adverse drug reactions.

9.2.6. Healthcare-associated infection (HAI): Deaths associated with infection occurring in a patient during the process of care in a hospital or other healthcare facility that was not present or incubating at the time of admission.

9.2.7. Brain Deaths: Documented by three consultant-level physicians.

9.2.8. Trends or Patterns: Deaths are part of a trend or pattern of adverse events or unexpected outcomes.

9.3. **Post-Discharge Deaths:**

9.3.1. Within 28 Days: Any Deaths occurring within 28 days after hospital discharge for the

same condition.

9.3.2. Frequent Hospital Visits: Deaths among patients with frequent hospital, PHC, or emergency department visits, excluding those who leave against medical advice.

9.4. **Exclusions:**

9.4.1. Deaths occur upon arrival at the emergency department (excluding post-discharge deaths)

9.4.2. Any stillbirths previously diagnosed as congenital anomaly cases.

9.4.3. Infants born extremely preterm (less than 28 weeks) Or very preterm (28 to less than 32 weeks) or those diagnosed with life-incompatible chromosomal/genetic conditions supported by laboratory evidence, or preterm infants weighing less than 1000g at birth.

9.5. **Eligibility criteria for inclusion (morbidity):**

9.5.1. Cases may be included based on, but not limited to the criteria mentioned in **appendix 10.**

9.6. **General Exclusion Criteria for (Morbidity):**

9.6.1. Refusing treatment with a signed refusal form

9.6.2. Discharging against medical advice

9.6.3. Prior admission to another healthcare institution (only applicable for cases of hospital-acquired infections) but Notification is mandated by the facility identifying the morbidity.

9.6.4. Scheduled surgical procedures or elective readmissions (for cases of readmission to

facility or cases of return to surgery within 24 hours). see appendix 9

9.6.5. Excessive postpartum bleeding due to an identified morbidly adherent placenta or placenta previa grade 4.

9.6.6. All exclusions shall be reported as notification only to DHA HRS with approval signature and summary but all inclusions shall be reported in details with action plan for both morbidities and mortalities

9.7. **Disclaimer:** The hospital M&M committee may also review cases not explicitly covered by these criteria if there are concerns about patient safety or quality of care.

9.7.1. The above list is not exhaustive; leadership shall review and get involved in cases where the quality of care has impacted the patient's outcome, leading to death.

9.7.2. If the hospital M&M committee determines that the case was handled both adequately and appropriately, with no issues or concerns regarding the quality of care, then the committee shall be held accountable for the final decision outlined in the mortality format.

9.7.3. In the event that we receive a notification from a medical complaint system, inspection team, or any other reporting source to the Health regulation sector (HRS) indicating that a report previously submitted to our team contains inaccurate morbidity or mortality information, and it is determined that the grading was misrepresented, making the report untruthful, the responsible team will be held accountable. A potential violation may be issued against the involved facility.

9.7.4. HRS acknowledges that medical incidents, including morbidity, can occur for various

reasons. Efforts will be made to prevent premature referrals to the Medical Liability Committee or Medical Practice Committee.

9.7.5. It is important to note that if repeated incidents of morbidity occur without appropriate actions being taken by the facility, or if a formal complaint is lodged by a patient's family, the matter will be escalated to the aforementioned committees for review. This is in accordance with the UAE Federal Decree-Law No. (4) of 2016 on Medical Liability, Article 24, which upholds the rights of patients to file complaints and have them investigated by the respective committees.

10. STANDARD SIX: TRAINING, EDUCATION, AND DISCIPLINARY ACTION BY FACILITY.

10.1. Orientation Offer an introductory program for new members in the committee. Continuing education promote participation in relevant educational programs for all relevant staff.

10.2. **Performance Review and Monitoring in the department:**

10.2.1. Doctors may undergo rigorous performance reviews and continuous monitoring (ongoing practice professional evaluation) to assess and improve their clinical skills and decision-making.

10.3. Training **and Education:**

10.3.1. Additional training and education may be mandated to address identified areas of weakness and enhance overall clinical competency.

10.4. Peer **Support and Wellness Programs:**

10.4.1. Doctors may be referred to peer support or wellness programs to address stress, burnout, or other personal issues that may be contributing to the errors.

10.5. Supervision**:**

10.5.1. Increased supervision may be required to ensure patient safety and guide the physician toward better clinical practices for a minimum of 60 days duration.

10.6. **Restriction of Privileges by facility medical director/Clinical Privileging Committee (CPC):**

10.6.1. Based on the severity of the incident or morbidity, a doctor's clinical privileges might be limited or modified, potentially restricting the ability to perform certain procedures or manage specific conditions.

10.7. **Referral for Professional Assessment by the HRS – CACD team:**

10.7.1. Physicians may be referred for a professional competency assessment to objectively evaluate their clinical skills and knowledge.

10.8. Employment **Actions:**

10.8.1. Employers (CEO or board members) have the right to take actions ranging from written warnings to termination of employment, depending on the organizational policies and the nature of the mistakes made.

10.9. **Actions by HRS:**

10.9.1. When all fails, the CACD team shall be notified, action can include referral to the MPC team and issue of warning letter, penalty or suspension, or revocation of the medical license.

REFERENCES

1. Australian Commission on Safety and Quality in Health Care (2013), Australian Open Disclosure Framework. ACSQHC, Sydney. Available on: https://www.safetyandquality.gov.au/our-work/open-disclosure/the-open-disclosure-framework (Accessed on 03/10/2023).
2. Australian Commission on Safety and Quality in Healthcare (2021). National Safety and Quality Health Services Standards (HSQHS). Available at: https://www.safetyandquality.gov.au/sites/default/files/2021-05/national_safety_and_quality_health_service_nsqhs_standards_second_edition_-_updated_may_2021.pdf (Accessed on 09/10/2023)
3. Australian Commission on Safety and Quality in Health Care (2020). Australian Sentinel Events List (Version 2)
4. Decree No. (14) of 2017 Concerning Maternity, Miscarriage/ Stillbirth, and Childcare Leave for Female Employees of the Government of Dubai. 2017. Available at: https://www.dghr.gov.ae/admin/Documents/Decree%2014%20of%202017%20Maternity%20Leave_English%2020062017.pdf (Accessed on 10/10/2023).
5. Federal Decree Law no. (4) of 2016 on Medical Liability.
6. Healthcare Improvement Scotland (2018). Mortality and Morbidity Reviews Practice Guide – Working Version. Available at: Mortality and Morbidity Reviews Practice Guide – Working Version: July 2018 (healthcareimprovementscotland.org) (Accessed on 09/10/2023).

7. Higginson J, Walters R and Fulop N (2012). Mortality and Morbidity meetings: An untapped resource from improving the governance of patient safety? Available at: https://qualitysafety.bmj.com/content/qhc/21/7/576.full.pdf (Accessed on 09/10/2023).
8. Hospital Mortality and Morbidity Committee Term of Reference (2018-2020)
9. Hospital Mortality and Morbidity Committee Term of Reference (2009-2011).
10. Leadership response to a sentinel event: respectful, effective crisis management, Institute for Healthcare Improvement, Cambridge, Massachusetts, USA.
11. National Health Service (NHS) England (2017). Learning from deaths policy. Available at: https://www.england.nhs.uk/patient-safety/learning-from-deaths-in-the-nhs/ (Accessed on 10/10/2023)
12. Ministry of Health & Prevention (MOHAP) UAE. Mortality and Morbidity Review (M&MR). (Accessed on 10/10/2023),
13. MVH Hospital Operations (ph) Sentinel Event Policy, Revised 2019.
14. Patra K, De Jesus O. (2023) Sentinel event. StatPearls Publishing LLC. Available at: https://www.ncbi.nlm.nih.gov/books/NBK564388/ (Accessed 03/04/2023).
15. Royal College of Surgeons (2015). Mortality and Morbidity Meetings, A Guide To Good Practice. Available at: https://www.rcseng.ac.uk/standards-and-research/standards-and-guidance/good-practice-guides/morbidity-and-mortality-meetings/ (Accessed on 03/10/2023).
16. The Joint commission sentinel event policy (2022).

17. World Health Organization (WHO). Improving infection prevention and control at the health facility: and interim practical manual. (2018) Available at: https://www.who.int/publications/i/item/WHO-HIS-SDS-2018.10 (Accessed on 03/10/2023)
18. Wachter, R. M., Shojania, K. G., Saint, S., Markowitz, A. J., & Smith, M. (2002). Learning from Our Mistakes: Quality Grand Rounds, a New Case-Based Series on Medical Errors and Patient Safety. Annals of Internal Medicine, 136(11), 850.

APPENDICES

APPENDIX 1: QUARTERLY HEALTHCARE FACILITY REPORT

Health Regulation Sector **Clinical Audit and Control Department** **Medical Complaints Section**
Quarterly Healthcare Facility Report **Comprehensive Review and Analysis** **Facility Name:**
Introduction
Reporting Period: **HMMC Chairperson:** **Medical Director of the facility:** **Quality Representative:**
Areas of Concern & Implemented Solutions (Mandatory)
• Detailed description of identified areas of concern. • Summary of solutions implemented to address these concerns. • Any relevant data or statistics to support the findings.
Conclusions & Action Plans from HMMC Meetings (Mandatory)
• Summary of key conclusions from recent Health Management and Monitoring Committee (HMMC) meetings. • Outline of action plans developed based on these conclusions. • Timeline or roadmap for implementing these action plans.
Analysis of Morbidities (Mandatory):
• Comprehensive analysis of all morbidities observed within the facility. • Data visualization (charts, graphs) showing morbidity trends. • Discussion of potential causes and implications of these trends.
Related KPI data. (to be submitted separately in a unified Excel sheet that will provided by the CACD team)
• Rate of unplanned re-admission within 28 days • Rate of medication error (Rate per 100,000)

- Device-related healthcare-associated infections
- Rate of Surgical Site Infection (SSI)

Trend Analysis (Required only at the end of the Year)

- In-depth trend analysis over the reporting period.
- Comparative data from previous periods.
- Predictions or forecasts based on current trends.

Conclusion

- Overall summary of the report's findings.
- Reiteration of the importance of these findings for future planning and quality improvement.
-

HMMC Chairperson Declaration

I, [Chairperson's Name], in my capacity as the Chairperson of [Committee's Name], hereby declare that the information provided in this report is accurate and truthful to the best of my knowledge and belief. I affirm that no part of this report has been falsified, tampered with, or altered in any manner.

I acknowledge and endorse the content of this report, including all data, findings, and the evidence presented therein. Furthermore, I approve the action plan outlined in this report and its implementation.

I understand and accept my responsibility for the veracity of the information contained in this report. If any part of this report is found to be inaccurate, misleading, or false by either the inspection team or the medical complaints section, I accept full accountability for such discrepancies.

- I recognize that this declaration is a commitment to uphold the highest standards of integrity and responsibility in the presentation and use of this report's information.

The Report Prepared by	Designation	Date and Signature
The Report Approved by	**Designation**	**Date and Signature**

Medical Director Name		Date and Signature
For Clinical Audit & Control Department use only:		
The Report Reviewed by	**Designation**	**The Report Reviewed by**
The report Approved by	**Designation**	**Date and Signature**

APPENDIX 2: QUARTERLY HEALTHCARE FACILITY REPORT KPI MEASURES

Measures	Target	Q1	Q2	Q3	Q4	YTD
Rate of unplanned re-admission within 30 days	0.38					
The total number of unplanned admissions	Numerator					
Total number of admission	Denominator					
Rate of medication error (Rate per 100,000)	31					
Number of medication error incident	Numerator					
Total number of medication prescription	Denominator					
Device-related health care associated infections (composite score)	100%					
Number of targets met	Numerator					
Total number of targets	Denominator					
Catheter-associated Urinary Tract Infections (CA-UTI)	<2.4					
Number of CA-UTIs	Numerator					
Total number of catheter days	Denominator					
Central Line Associated Primary Bloodstream Infection	<2.0					
Number of Central Line Associated Primary Bloodstream Infections	Numerator					
Total number of days catheter in place	Denominator					

Ventilator Associated Pneumonia	<3.0					
Number of Ventilator Associated Pneumonia cases	Numerator					
Total number of ventilator days	Denominator					
Rate of Surgical Site Infection (SSI)	1.4					
Number of surgical site infections	Numerator					
Total number of surgeries	Denominator					
In Hospital Mortality Rate						
Number of in-paitent deaths	Numerator					
Total number of admissions	Denominator					
In Hospital Maternal death Rate						
Number of Maternal deaths are those that occur during pregnancy, childbirth	Numerator					
total number of live births in the hospital	Denominator					
In Hospital Still birth Rate						
total number of stillbirths that occurred in the hospital	Numerator					
Count the total number of births (both live births and stillbirths)	Denominator					

APPENDIX 3: MORTALITY AND MORBIDITY COMMITTEE REPORT

CLINICAL AUDIT AND CONTROL DEPARTMENT **HEALTH REGULATION SECTOR, DUBAI HEALTH AUTHORITY**	
Patient's Details	
Name of Deceased:	
Date of Birth/ Age:	
Sex:	
Nationality:	
Emirates ID (For UAE Nationals/ UAE Resident)	
Passport No (For Non-UAE Resident)	
Health Facility Details:	
Hospital Name:	
File No/ Health Card No.	
Date of Admission:	Time of Admission:
Date of Discharge:	Time of Discharge:
Date of Death:	Time of Death:
Death Notification Reference	

Morbidity Case	☐ Yes ☐ No ☐ If Yes please choice is it ☐ Reporting ☐ Notification
Type of morbidity: ☐Medical ☐ Surgical If medical - **WHO Grading** Score : : ☐1 ☐ 2 ☐3 ☐ 4 ☐ 5 If Surgical - **Clavien Dindo classification** Score : ☐1 ☐ 2 ☐3 ☐ 4 ☐ 5 • brief clinical summary of the morbidity case:	
Involved personals: (Name and designation)	
Mortality Case	☐ Yes ☐ No If Yes please tick Yes box ☐ Reporting ☐ Notification
Type of Death: ☐ Death on Arrival ☐ Inpatient Death ☐ Stillbirth ☐ Post-Discharge Deaths ☐ Unanticipated Death	
☐ Others (specify)	

Brief clinical summary of event leading to death:	
Cause of Death	
1. Direct cause of death	
2. Intermediate cause of death	
3. Underlying cause of death	
4. Other significant condition contributing to death	
5. Is it a Occupational related injury	☐ Yes ☐ No
Possible Contributing Factors	
1. Equipment Problem	☐ Yes ☐ No
If Yes, describe here:	
2. System/ Process/ Resources	☐ Yes ☐ No
If Yes, describe here:	
3. Staffing Problem	☐ Yes ☐ No

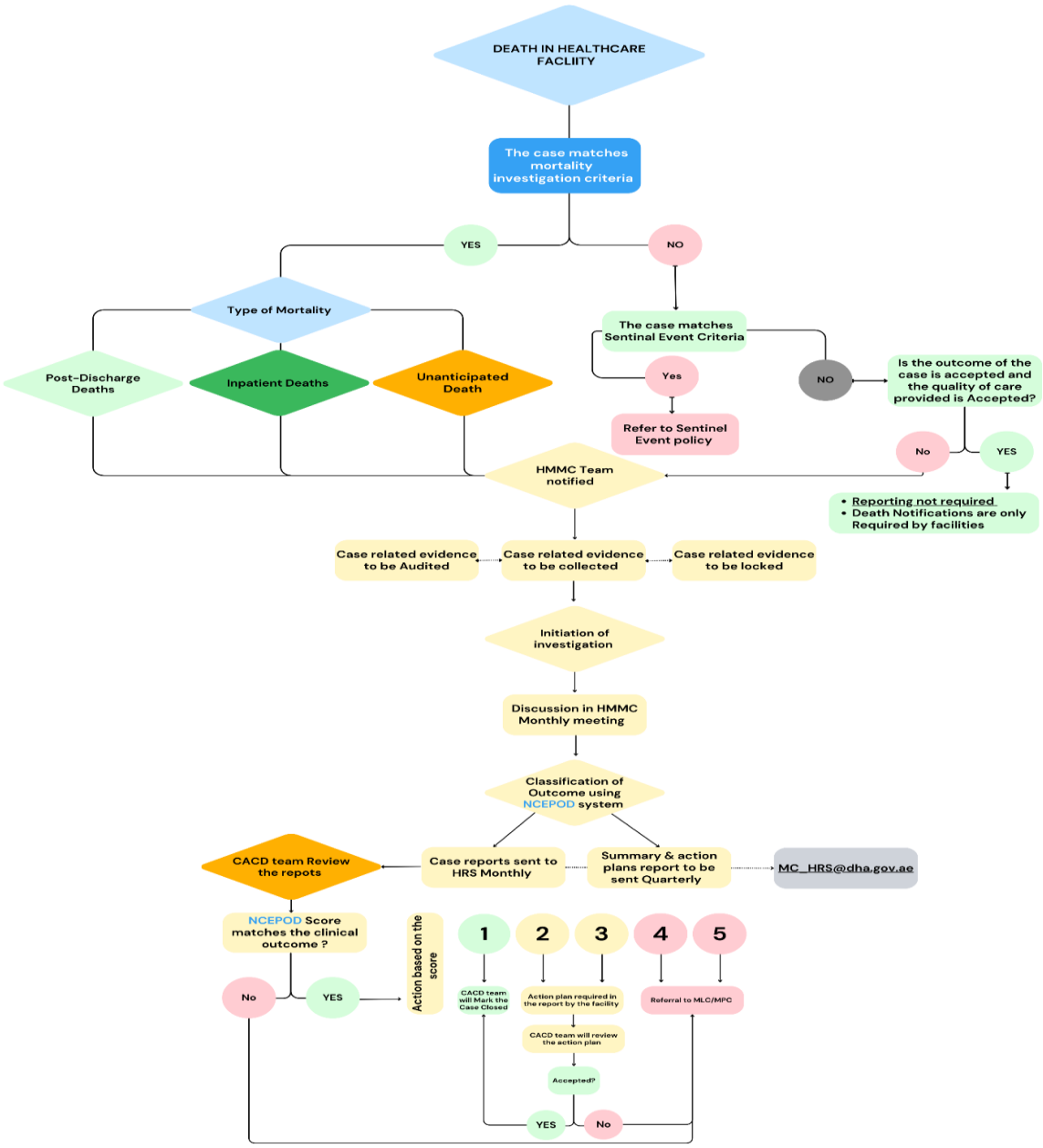
If Yes, describe here and add the names of the involved personals:		
4. Communication Failure	☐ Yes ☐ No	
If Yes, describe here:		
5. Others	☐ Yes ☐ No	
If Yes, describe here:		
Outcome Based on **NCEPOD** scoring system	☐1 ☐ 2 ☐3 ☐ 4 ☐ 5☐ 6	
Action Taken	☐ Yes ☐ No	
If Yes, describe action taken here:	Assigned to	Date & Time of Completion
M&M Committee Conclusion:		
Summary of **Committee Conclusion:**		
M&M Committee Action Plan & Recommendations:		

Action Required	☐ Yes ☐ No	Assigned to	Date & Time of Completion
• Clinical Presentations (Educational Purposes)			
• Peer Review			
• Investigations			
• Others (specify)			
Committee Members			
Name: Designation:		Signature: Date:	
Name: Designation:		Signature: Date:	
Name: Designation:		Signature: Date:	
Committee Chairperson			
Name: Designation:		Signature: Date:	

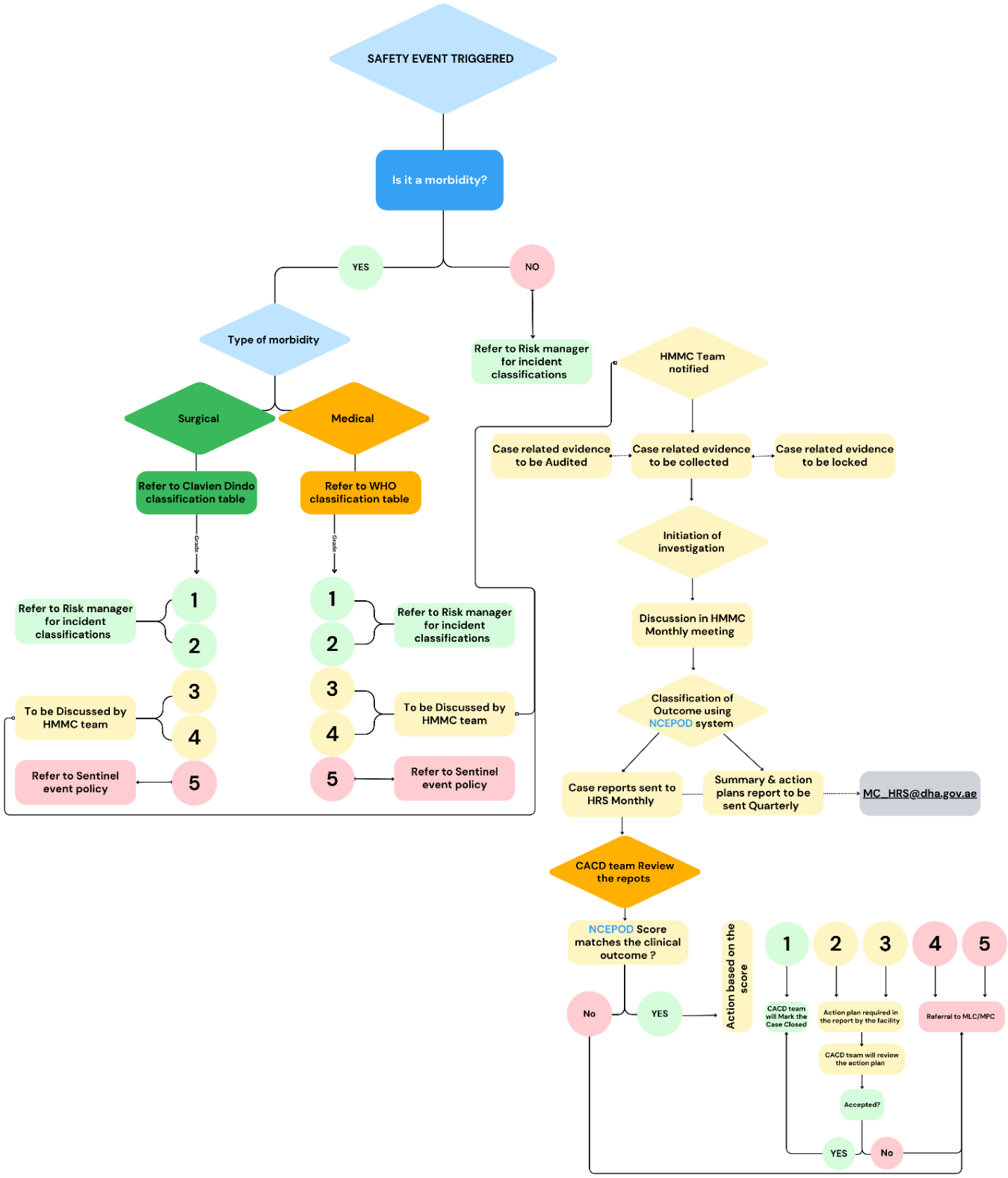
APPENDIX 4: MINUTES OF COMMITTEE MEETINGS

Minutes of Meeting of the Mortality and Morbidity Committee (MMC)- sample					
Date:			Time:		
Venue:					
Attendees					
1.					
2.					
Apologies/Absent					
1.					
2.					
Minutes of Meeting					
	Topic	Discussion	Action Taken	Assigned to	Date and time of Completion
1.					
2.					

APPENDIX 5: MORTALITY PROCESS MAP



APPENDIX 6: MORBIDITY PROCESS MAP



APPENDIX 7: QUALITY INDICATORS

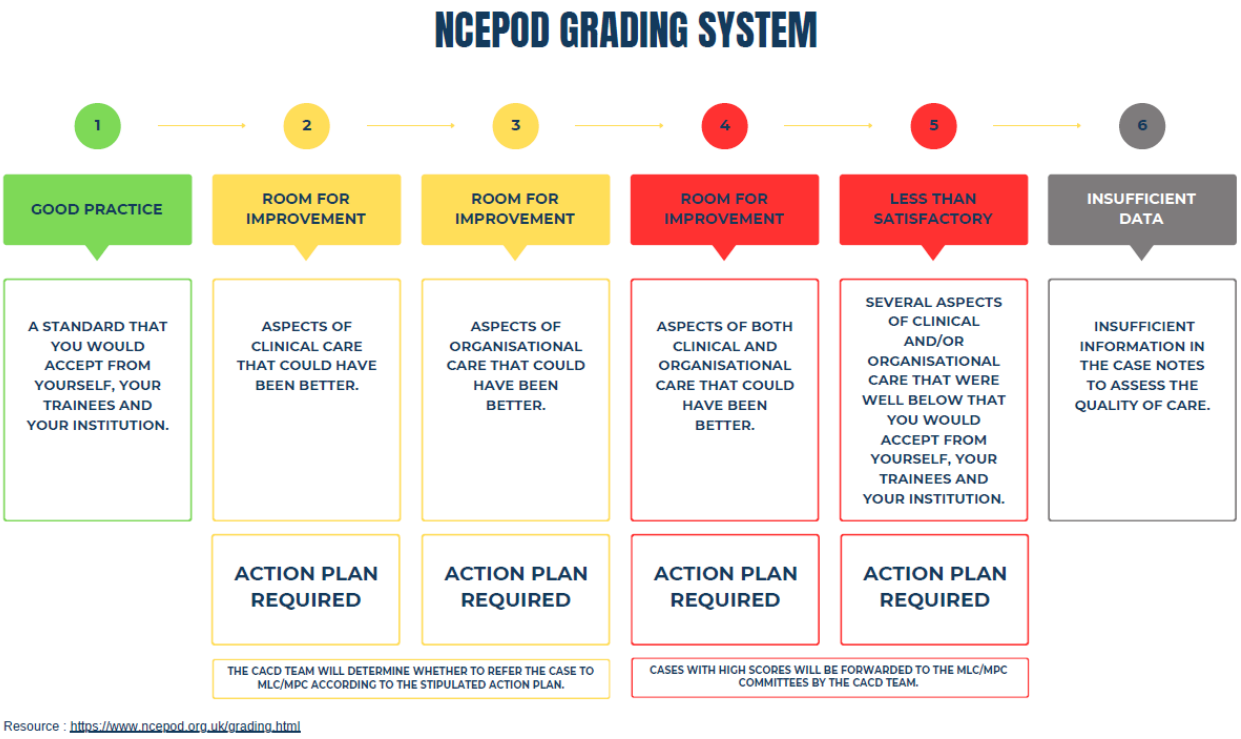
*FOR INTERNAL USE ONLY NOT REQUIRED FOR SUBMISSION TO DHA UNLESS REQUESTED.

Morbidity Rates (Incidence per 1,000/10,000)	
Quality Domain	**Population Health**
Scope	Incidence of diseases or conditions within the facility.
Goal	Monitor and reduce the incidence of specific diseases or conditions.
Desired Outcome	Lower morbidity rates, indicating healthier population within the facility's catchment area.
Primary Point of Collection/ reporting	Facility Quality office / Health regulation sector
Data Collection Source/System	Electronic Health Records (EHR), incidents reporting systems
Indicator Definition	Incidence of a particular disease or condition per 1,000 or 10,000 population at the facility.
Numerator	Number of new cases of a specific disease or condition within a defined period.
Inclusions/Exclusions	May exclude pre-existing conditions or those not relevant to the scope of services provided by the facility or based on the exclusion criteria in the approved DHA Guidelines and policy
Patient Safety Indicators (Rates of Incidents)	
Quality Domain	**Safety**
Scope	Measurement of harmful events such as infections, falls, or medication errors within the facility.
Goal	Minimize and prevent patient safety incidents.
Desired Outcome	A safer environment resulting in fewer incidents, promoting trust and care quality.
Primary Point of Collection/ Reporting	Facility Quality office / Health regulation sector
Data Collection Source/System	Incident reports, safety surveillance, pharmacy records, Electronic Health Records (EHR), incidents reporting systems
Indicator Definition	Rate of specific patient safety incidents within the facility.
Numerator	Number of specific patient safety incidents.
Inclusions/Exclusions	Exclusions may include incidents unrelated to direct patient care or that are considered non-preventable or based on the exclusion criteria in the approved DHA Guidelines and policy
Readmission Rates (Frequency per 100 Admissions)	
Quality Domain	**Clinical Care**
Scope	Tracking the frequency of readmissions to the facility within 30 days post-discharge.
Goal	Reduce unnecessary readmissions through improved care coordination and discharge planning.
Desired Outcome	Lower readmission rates, indicating better initial treatment and follow-up care.
Primary Point of Collection / Reporting	Facility Quality office / Health regulation sector

Data Collection Source/System	Admissions records, follow-up care reports , Electronic Health Records (EHR), incidents reporting systems.
Indicator Definition	Proportion of patients readmitted to the facility within 30 days of discharge.
Numerator	Number of readmissions within 30 days post-discharge for a cohort of discharged patients.
Inclusions/Exclusions	Exclusions might include planned readmissions or transfers from other facilities , or based on the exclusion criteria in the approved DHA Guidelines and policy
Severity Indices (Category Frequency)	
Quality Domain	**Clinical Outcomes**
Scope	Categorization and tracking of morbidity cases by severity.
Goal	Identify trends in severity of conditions to improve patient care and infection control.
Desired Outcome	Balanced severity indices with fewer cases in more severe categories.
Primary Point of Collection/ Reporting	Clinical documentation / Case management / Facility Quality office / Health regulation sector
Data Collection Source/System	Clinical documentation, EHR, severity classification systems.. Electronic Health Records (EHR), incidents reporting systems
Indicator Definition	Distribution of morbidity cases across predetermined severity categories.
Numerator	Number of cases in each severity category.
Inclusions/Exclusions	May exclude conditions not treated within the facility or those without established severity categories , or based on the exclusion criteria in the approved DHA Guidelines and policy
Surgical Complication Rates (Rate per 100 Procedures)	
Quality Domain	**Clinical Care**
Scope	Monitoring complications arising during or post-surgery.
Goal	Decrease the occurrence of surgical complications.
Desired Outcome	Safer surgical procedures with minimized complications, improving overall patient outcomes.
Primary Point of Collection/ reporting	Surgical department / Post-operative care unit/ Facility Quality office / Health regulation sector
Data Collection Source/System	Surgical reports, post-operative monitoring records., Electronic Health Records (EHR), incidents reporting systems
Indicator Definition	The rate of complications noted during or after surgical procedures.
Numerator	Number of complications occurring out of 100 surgical procedures.
Inclusions/Exclusions	Typically excludes minor complications not requiring additional treatment or based on the exclusion criteria in the approved DHA Guidelines and policy
In-Hospital Mortality Rate (Rate per 1,000 Admissions)	
Quality Domain	**Clinical Outcomes**
Scope	The number of patient deaths occurring within the hospital.
Goal	To minimize in-hospital deaths through improved quality of care.
Desired Outcome	Reduced mortality rates, reflecting better patient outcomes and care efficiency.
Primary Point of Collection / Reporting	Hospital mortality committee / Clinical governance // Facility Quality office / Health regulation sector

Data Collection Source/System	Hospital admissions and discharge records, death certificates, Electronic Health Records (EHR), incidents reporting systems
Indicator Definition	The rate of patient deaths per 1,000 hospital admissions.
Numerator	Number of patient deaths occurring within the hospital.
Inclusions/Exclusions	May include all deaths irrespective of cause; exclusions could apply for palliative care cases if the purpose of admission is end-of-life care , or based on the exclusion criteria in the approved DHA Guidelines and policy
Perioperative Mortality Rate (Rate per 100 Surgical Procedures)	
Quality Domain	**Surgical Outcomes**
Scope	Deaths related to surgical procedures within a specified timeframe post-surgery.
Goal	To decrease mortality associated with surgery through enhanced surgical and anesthetic care.
Desired Outcome	A decrease in perioperative mortality, indicating safer surgical practices and postoperative care.
Primary Point of Collection /Reporting	Surgical department / Anesthesiology department/ Facility Quality office / Health regulation sector
Data Collection Source/System	Operating theatre logs, postoperative follow-up records, Electronic Health Records (EHR), incidents reporting systems
Indicator Definition	The rate of deaths occurring during surgery or within a defined period post-surgery (e.g., 30 days).
Numerator	Number of deaths during or within the specified period after surgical procedures.
Inclusions/Exclusions	Exclusions may include non-surgical deaths or patients who were not candidates for surgery due to high preoperative risk , or based on the exclusion criteria in the approved DHA Guidelines and policy

APPENDIX 8: THE NATIONAL CONFIDENTIAL ENQUIRY INTO PATIENT OUTCOME AND DEATH (NCEPOD)



Resource : https://www.ncepod.org.uk/grading.html

APPENDIX 9: GENERAL EXCLUSION CRITERIA FOR MORBIDITY

Trigger / Morbidity	Exclusion	Reporting to HRS
30-day readmission at the same facility for the same condition	• Case who was discharged in the first encounter against medical advice. • Planned and documented readmissions. • A readmission for maintenance chemotherapy.	Required
48-hour emergency department return visit	• Case who was discharged in the first encounter against medical advice • Cases of medications refills • Planned and documented revisit .	Required
Unplanned 48-hour post-surgery return	• Planned and documented RE - surgery.	Required
ICU readmission after discharge from ICU within 48 hours.	N/A	Required
Preoperative and postoperative diagnosis discrepancies	N/A	Required
Medication administration errors	N/A	Required
Surgical site infection	• Infection caused by admission in another facility , Organisms that is not related to hospital setting infection please use CDC index for more reference https://www.cdc.gov/hai/infectiontypes.html	Required
Hospital-acquired infections including device related infections.	• Infection caused by admission in another facility , Organisms that is not related to hospital setting infection please use CDC index for more reference https://www.cdc.gov/hai/infectiontypes.html	Required
Injuries to organs or vessels requiring surgical repair, blood	N/A	Required

transfusion, or an extended hospital stay		
Unplanned post-surgical ICU admission.	• Planned and documented ICU transfer after Surgical Procedure	Required
Maternal morbidity that occurs from the intrapartum through the immediate postpartum period (24 hours), requiring the transfusion of 2 or more units of packed red blood cells (PRBC) and/or unplanned admission to the intensive care unit (ICU).	• Cases of identified morbidly adherent placenta or Placenta previa Grade 4	Required
Postoperative pulmonary embolism	N/A	Required
Postoperative DVT (secondary DVT for inpatient)	N/A	Required
Adverse even following an anesthesia or deep sedation use .	N/A	Required
Prolonged fluoroscopy use with cumulative dose of > 1500 rads to a single filed.	N/A	Optional , Required for facility with interventional radiology services .
Delivery of radiotherapy to a wrong body region or more than > 25 % of the planned dose.	N/A	Optional , Required for facility with interventional radiology services .

Ischemic injury to a harvested organ compromises its viability, leading to the failure of the harvesting process.	N/A	Optional , Required for facility with organ donations services .
Cases of Failure of proper preservation of an harvested organ leading to preservation injury during transport, resulting in transplantation failure due to complete damage to the harvested organ.	N/A	Optional , Required for facility with organ donations services .
Cases of patients who are an alive organ donor who experience significant psychological distress, necessitating admission to a mental health department or intervention from mental health services.	N/A	Optional , Required for facility with organ donations services .
Organ recipients who develop malignancies following long-term use of immunosuppressive medications, particularly when delays or failures in acquiring the organ occur.	N/A	Optional , Required for facility with organ donations services .
Donors who encounter cardiovascular incidents subsequent to organ transplantation.	N/A	Optional , Required for facility with organ donations services .

APPENDIX 10: WHO MEDICAL CRITERIA FOR SEVERITY OF PATIENT HARM

Box 1. **World Health Organization's International Classification for Patient Safety: descriptions of harm severity**[5]

None

Outcome was not symptomatic or no symptoms were detected and no treatment was required.

Mild

Patient outcome was symptomatic, symptoms were mild, loss of function or harm was either minimal or intermediate but short-term and no intervention or only a minimal intervention, e.g. extra observation, investigation, review or minor treatment, was required.

Moderate

Patient outcome was symptomatic, required more than a minimal intervention, e.g. additional operative procedure or additional therapeutic treatment, and/or an increased length of stay and/or caused permanent or long-term harm or loss of function.

Severe

Patient outcome was symptomatic, required a life-saving or other major medical/surgical intervention, shortened life expectancy and/or caused major permanent or long-term harm or loss of function.

Death

On balance of probabilities, death was caused or brought forward in the short-term by the incident.

Grade	Definition
Grade I	Any deviation from the normal postoperative course without the need for pharmacological treatment or surgical, endoscopic, and radiological interventions. Allowed therapeutic regimens are drugs as antiemetics, antipyretics, analgesics, diuretics and electrolytes and physiotherapy. This grade also includes wound infections opened at the bedside.
Grade II	Requiring pharmacological treatment with drugs other than such allowed for grade I complications. Blood transfusions and total parenteral nutrition are also included.
Grade III	Requiring surgical, endoscopic, or radiological intervention
- IIIa	Intervention not under general anaesthesia
- IIIb	Intervention under general anaesthesia
Grade IV	Life-threatening complication requiring IC/ICU-management
- IVa	single organ dysfunction
- IVb	multiorgan dysfunction
Grade V	Death of a patient

Based on: Dindo, D. et al. "Classification of surgical complications: a new proposal with evaluation in a cohort of 6336 patients and results of a survey" [16].

APPENDIX 11: CLAVIEN DINDO CLASSIFICATION

When processes such as the following are reported, additional information about the etiology should be reported:

Abscess
Abdominal hemorrhage
Adhesions
Adult respiratory distress syndrome
Acute myocardial infarction
Altered mental status
Anemia
Anoxia
Anoxic encephalopathy
Arrhythmia
Ascites
Aspiration
Atrial fibrillation
Bacteremia
Bedridden
Biliary obstruction
Bowel obstruction
Brain injury
Brain stem herniation
Carcinogenesis
Carcinomatosis
Cardiac arrest
Cardiac dysrhythmia
Cardiomyopathy
Cardiopulmonary arrest
Cellulitis
Cerebral edema
Cerebrovascular accident
Cerebellar tonsillar herniation
Chronic bedridden state
Cirrhosis
Coagulopathy
Compression fracture
Congestive heart failure
Convulsions
Decubiti
Dehydration
Dementia (when not otherwise specified)
Diarrhea
Disseminated intravascular coagulopathy
Dysrhythmia
End-stage liver disease
End-stage renal disease
Epidural hematoma
Exsanguination
Failure to thrive
Fracture
Gangrene
Gastrointestinal hemorrhage
Heart failure
Hemothorax
Hepatic failure
Hepatitis
Hepatorenal syndrome
Hyperglycemia
Hyperkalemia
Hypovolemic shock
Hyponatremia
Hypotension
Immunosuppression
Increased intracranial pressure
Intracranial hemorrhage
Malnutrition
Metabolic encephalopathy
Multi-organ failure
Multi-system organ failure
Myocardial infarction
Necrotizing soft-tissue infection
Old age
Open (or closed) head injury
Pancytopenia
Paralysis
Perforated gallbladder
Peritonitis
Pleural effusions
Pneumonia
Pulmonary arrest
Pulmonary edema
Pulmonary embolism
Pulmonary insufficiency
Renal failure
Respiratory arrest
Seizures
Sepsis
Septic shock
Shock
Starvation
Subarachnoid hemorrhage
Subdural hematoma
Sudden death
Thrombocytopenia
Uncal herniation
Urinary tract infection
Ventricular fibrillation
Ventricular tachycardia
Volume depletion

APPENDIX 12: CDC CAUSE OF DEATH.