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Hospital Death Audit in Practice

Vivekanshu Verma[1], Shri Gopal Kabra[2]

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Abstract

Mortality audit, also known as death review, is a systemic process that documents the causes of death and factors that contributed to it. Conducted by a medical audit committee and recommended by Quality Council of India, this review aligns with standards set by NABH and JCI. It scrutinizes deaths occurring in Operation Theatres, addressing issues on criminal negligence under the Consumer Protection Act. The audit investigates therapeutic misadventures, surgical errors, and deficiencies in surgery, involving Healthcare Providers (HCPs). It also examines anesthetic toxicity, overdoses, anaphylaxis, and other critical factors. Through verbal autopsies and postmortem analyses of the critical facts, the process aims to identify lapses and improve future medical practices, ensuring higher quality care and patient safety.

Keywords: Medical Audit; Committee; Quality Council; NABH; JCI; Death in Operation theatre; CP Act; Therapeutic misadventure; Surgical errors; Deficiencies in surgery; HCPs; Anesthetic toxicity; Overdose; Anaphylaxis; Autopsy; Postmortem.

INTRODUCTION

Medical Audit, i.e. expert scrutiny and review of all hospital deaths is a basic quality control method of hospital management. It is one of the standards of the National Accreditation Board for Hospitals and Health Care Providers (NABH), a constituent board of Quality Council of India. The best method for it is autopsy. However, since autopsy can be done only with relatives' consent, it is not possible because of their religious beliefs and social perceptions. The next best is **death audit** which is retrospective peer review of the death file.

Author Affiliation: [1]Associate Consultant, Medanta - The Medicity, Gurugram 122001, Haryana, [2]Director Legal Affairs and Medical Audit, Santokba Durlabhji Memorial Hospital, Jaipur 302015, Rajasthan, India.

Corresponding Author: Shri Gopal Kabra, Director Legal Affairs and Medical Audit, Santokba Durlabhji Memorial Hospital, Jaipur 302015, Rajasthan, India.

E-mail: kabrasg@hotmail.com

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Process and Procedures

The following is the method of Death Audit, just following the Audit Cycle (Fig. 1) that the first author had established himself in a multi-disciplinary private hospital in Jaipur while working as their Director Legal and Medical audit.

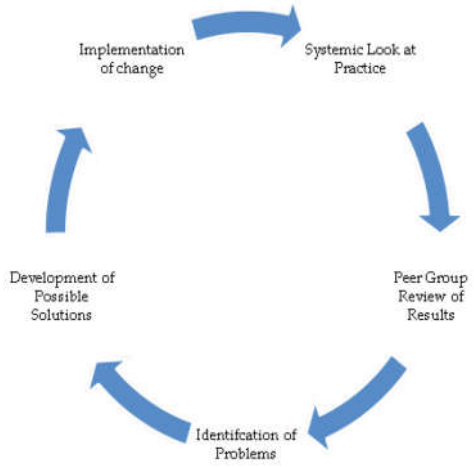

Fig. 1: The Audit Cycle

Death summary: It was made compulsory that every death file must have a death summary. This was in place of discharge summary. Death summary is a concise summary of chronological events recorded in the case file. Medical Records Department (MRD) will not accept any death file that did not have death summary. The death summary is typed and transmitted on line to the Audit Cell. At the end of the month the Audit Cell would take printout of all the death summaries. They are sorted for each specialty and endorsed to the specialty heads for conducting a death review and send their written compliance. The MRD to is provided with a copy to make the respective death file available to the department.

Mortality Audit: It is compulsory for all the medical staff, including house surgeons and DNB candidates of the specialty, to attend the meeting. The primary physician in-charge of the case presents the case details, usually as a power point presentation. The cause of death certificate showing the underlying cause, the intermediate cause and immediate cause of death is the last slide. The case is critiqued and discussed. All questions raised by the members have to be answered by the case in-charge. Any deficiency noted in investigations, interpretation or treatment is discussed. The case discussion is most educative for all, especially the DNB candidates. However, the discussion is not recorded for fear of litigation. On the death summary, an endorsement is made that the case was discussed, and lessons learnt were shared. The Head of the Department returns all the death summaries discussed along with the participants list to the Audit Cell.

Cause of death certificate: It's a vital legal document. Unfortunately the law enforcement authorities, being unaware, do not insist for it – they just want a death certificate. A cause of death certificate in the WHO approved format, detailing in sequence, the underlying cause of death, the events that is intermediate cause of death and the final event that is immediate cause of death, executed on the basis of sequence of events in death summary, is virtually a death summary in few words. The underlying disease is the cause of death and not the final event that is reported. The ICD coded causes of death, provide a readily retrievable real time mortality statistics. Unless underlying cause of death extracted for the cause of death certificate is mandatorily reported to a central agency, no reliable mortality statistics will be available at the state or the national level. The death certificate is executed by the House Surgeon on duty at that time. They are, therefore, to be trained, else they would write Cardio Respiratory Arrest as cause of death. Gross Mortality, Net Mortality, Mortality Pattern (percentage occurrence) and Case Fatality Ratio, Maternal Mortality, Infant Mortality are the essential statistics for quality control. Annual mortality statistics were presented at a hospital meeting with the Medical Auditorduring these periodicHospital Mortality Meet.

Notes from Medical Auditors' Desk

In the halls where healing thrives,
A new task arrives, the audit jives.
Clipboards in hand, with keen eyes keen,
They review the charts, the pages unseen.

Through sterile halls, they silently tread,
Ensuring compliance, by the book they're led.
Policies and procedures, they scrutinize,
No detail too small, no corner hides.

Patients rest in beds so white,
While auditors work late into the night.
Metrics and measures, each box checked,
Standards upheld, no room for neglect.

The sterile beeps of monitors blend,
With the whispers of audit pens.
Safety, care, and protocols grand,
All under the auditor's watchful hand.

They sift through data, thick and dense,
Making sense of every pretense.
Ensuring every rule's adhered,
So the hospital's mission is clear.

With the dawn, their task concludes,
A report compiled, with insights imbued.
Improvements noted, praise where it's due,
The audit's done, the hospital anew.

Healing continues, as it should,
With each audit, ensuring the good.
In the quiet halls where hope resides,
The audit secures, and care abides.

ICD coded data base: Universally followed and WHO mandated International Classification of Disease Code (ICD 10) is followed for maintaining the disease coded patient data base. One of the parameters recorded is Outcome. Under it, Discharge, Expired and LAMA is entered for each patient. Shuffling for 'Expired' collects all the mortality cases together. It is then possible to correlate with and collect disease specific, sex specific, and age specific mortality data.

Operative and anesthetic deaths: Death of a patient within 24 to 48 hours after anesthesia and operation is considered anesthetic death and, death of a person in the hospital within 30 days of operation, an operative death. In these cases the death summary received is immediately endorsed to the Heads (Anesthesia and Surgery) for an immediate joint review. Since on a per-

operative set back, after immediate resuscitative measures the patient is shifted to ICU where final death is declared, 'on table death' is not technically appropriate label for these deaths. Audit of these deaths is a crucial procedure for identifying anesthetic or surgical mishaps.

Verbal Autopsy: This is a retrospective review of a death record by a Forensic expert in collaboration with the subject experts. This is usually done in criminal complaints (FIR). As has been mandated in Jacob Mathew judgment, the police officer is required to approach the principal of a medical college to constitute a Board for conducting the review. The physician complaint against provides the entire case record (preferably transcribed) to the police to be provided to the Board. The Board issues summons to the Primary Physician to appear before the Board and present his case and be subjected to cross examination. The Board then issues a detailed report, which includes examination of the primary physician. This has the same legal value as a postmortem report.

Mini Autopsy: In selected cases relatives of the deceased are persuaded to give written permission to take biopsies of the diseased organ without in any way mutilating the body. Histopathology report of the tissue could be used to substantiate the clinical diagnosis.

Virtual Autopsy: Autopsy done by Radiological imaging by CT scan with contrast of the whole body, to ascertain the cause of death in the patients, who died as inpatient during hospital stay. It may identify the hidden focus of infection, a forgotten gauze piece after surgical closure, acting as direct evidence as a *res ipsa loquitor*, the thing speaks for itself, for the proving the surgical negligence by the OT Doctor / Nurse. This is undergoing as a clinical trial to establish standard practice of care in the premier institutes e.g., PGI Chandigarh.

Hospital Mortality Meet: Annual mortality statistics are presented and discussed. Selected cases of hospital deaths are scheduled for the meet. The entire medical faculty attends. This is to detect system failures and to develop protocols for prevention of the same.

Peer Review: In cases of FIR or criminal complaint under IPC 304 A, a peer review is undertaken. All the treating doctors, the respective department head, chief pathologist, chief radiologist, Medical Superintendent (MS) and legal cell chief are required to attend. The case is discussed in detail. The case file is examined in detail to ensure its completeness. It is duly indexed. The concerned doctors are briefed about what statement they are to make in Hindi before the police. The entire case file is photocopied and attested for handing over to the police. Concerned doctors are asked to be ready for appearance before the Medical Board of the Medical College.

Hospital Death Audit: Riddle in Rhymes

In the halls of healing, lives entwined,
Where hope and healthcare are reassigned,
A somber task, the medical audit starts,
To analyze why the patient's life departs.

A committee forms, with solemn grace,
From the NABH, their watchful place,
With JCI Commission, the standards set,
To trace critical steps where fate was met.

Within Operation theater, stark and bright,
Where death and life in that silence fight,
The Country's Quality Council takes its stand,
To understand what their ill fate had planned.

Therapeutic adventures, brave and bold,
In Operation theaters, success tales are told.
But surgical errors shadow, dark and grim,
Sterile Gauzes, if left inside, brings foe at brim
If not brought in light, chance of survival, slim.

Deficiencies in Patient's surgery, laid bare,
A health care provider's cross to bear.
Anesthetic toxicity, the hidden foe,
An Overdose and pain's overflow.

Intoxication, or the anaphylaxis's grip,
In moments where the heart may slip.
The audit seeks to find the truth,
In every lapse, in every proof.

The autopsy and postmortem speak,
Of silent battles, harsh and bleak.
In the Hospital MRD Records, stories lie,
Of when, where how and sometimes why?

To prevent the echoes of despair,
The Medical auditor's role is to repair.
To learn, to change, to better strive,
So more may heal, and more survive.

CONCLUSION

In a dynamic and highly complex discipline like practice of medicine, deficiency, mistakes, mishaps, accidents are a routine occurrence. Mortality Audit is to timely detect these deficiencies to initiate measure to prevent its recurrence. Mortality audit is never to penalize a physician. The fear of litigation, especially after CP Act, has totally ruined the hospital functioning. Development of clinical acumen and surgical skill is a lifelong learning experience from one's own mistakes and the mistakes committed by colleagues, labelled medicolegally as therapeutic misadventure. Statutory protection under Exemption Clauses, that exempt a physician from any civil or criminal

liability, if strictly implemented, will go a long way to take care of the situation. Good Faith doctrine has be accorded due credence. Medical negligence decisions should also be subjected to Medical Audit by professional bodies, Medical Councils and ICMR.

Conflict of Interest: Nil

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