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**ACCURACY OF UNDERLYING CAUSE OF DEATH: A CROSS-SECTIONAL STUDY AMONG MULTISPECIALTY HOSPITALS IN AN URBAN SETTING**

NADAR CHRISTLIN LOUIS ALBERT RAJ

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CROSS-SECTIONAL STUDY IN A MULTISPECIALTY  
HOSPITAL IN AN URBAN SETTING**



**MANIPAL**  
ACADEMY *of* HIGHER EDUCATION

*(Deemed to be University under Section 3 of the UGC Act, 1956)*

A dissertation submitted in partial fulfilment for the award of

**“M.Sc. Health Information Management”**

Degree to

**“MANIPAL ACADEMY OF HIGHER EDUCATION”  
2021**

By

NADAR CHRISTLIN LOUIS ALBERT RAJ

Under the Guidance of

**GUIDE**

**DR. SABU K M**

**PROFESSOR,**

**DEPARTMENT OF HEALTH INFORMATION MANAGEMENT,**

**MANIPAL ACADEMY OF HIGHER EDUCATION, MANIPAL.**

## Abstract

**Title:** Accuracy of underlying cause of death: A cross-sectional study in a multispecialty hospital in an urban setting.

**Purpose:** To study the accuracy of underlying cause of death in a multispecialty hospital in an urban setting and to understand the reason for inaccuracy.

**Background:** Underlying cause of death is any disease, injury or circumstances which initiated the train of morbid event which leads directly to death. Mortality statistics are based on underlying cause of death as it is the root cause that led to death of the person. So, it is important that underlying cause of death is accurately determined and recorded.

**Method:** Review of medical record from July 2019 to December 2020 of five specialty was carried out in this cross-sectional study. Each medical record was analyzed, and an underlying cause of death was selected as per ICD-10 guidelines. The newly selected underlying cause of death was cross checked with the original underlying cause of death mentioned in the medical record. The match or mismatch between the original underlying cause of death reported and newly selected underlying cause of death was used to determine the accuracy of underlying cause of death.

**Result:** A retrospective review of 264 medical records was done in a multispecialty hospital. The overall accuracy of underlying cause of death was found 50%. The least accuracy was seen in Cardiology specialty, with accuracy of 23% followed by 32% and 33% in Respiratory and Neurology specialty. The highest accuracy was seen in Surgical oncology specialty with accuracy of 100% followed by medical Oncology with accuracy of 83%. The major inaccuracy

reason observed was incorrect causal relationship and incorrect application of mortality rules mentioned in ICD-10.

**Conclusion:** The study shows that, the accuracy of underlying cause of death in the selected multi-specialty hospital is less compared to expected level. The main reason for inaccuracy is, in most of the cases the sequence of morbid event mentioned in death certificate is same as the list of diagnosis mentioned in death summary. This can be seen as lack of training and understanding in reporting cause of death in the death certificate.

**Keywords:** Underlying cause of death, death certificate, ICD-10, Accuracy