201945 Use of SNOMED for strengthening Medical Certification of Cause of Death

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Summary

This paper discusses the implementation of the SNOMED CT to a software system for recording cause of death information and map with ICD-10 for strengthening the Medical Certification of cause of death (MCCD) system.

Audience

Clinical, Policy/administration, Research/academic, Technical

Learning Objectives

1. Understand the need for innovation in disease surveillance systems
2. Understand the role of ICD and SNOMED for cause of death reporting systems
3. Appreciate the Strengths,Weakness,Opportunities in using SNOMED to ICD 10 mapping

Abstract

Medical Certification of Cause of Death (MCCD) as a source of mortality statistics in India is limited by data coverage (1) and poor quality of cause of death information. MCCD is manually completed by doctors with inadequate training and thus the use of free text and local terms leads to errors and poor information. The Civil Registration System has enabled electronic record system for death registration nationally and also in many states in India, but very little is done to strengthen MCCD (2).

The main integration of SNOMED CT terminology to a software recording deaths may be useful for standardizing clinical inputs on cause of death to avoid errors and also enable ICD -10 classification. The National Centre for Disease Informatics and Research, ICMR, Bengaluru has developed electronic mortality software (e-Mor) to record MCCD. e-Mor software has been developed in Java and MySQL and uses a 128-bit encryption algorithm. CSNOtk tool provided by the National Release Centre of Electronic Health Record standards (NRCeS) (3), India is used for the purpose of fetching the SNOMED CT terms and mapping with International Classification of Diseases – 10 (ICD-10). CSNOtk tools are used retrieve the SNOMED CT terms in the field of 'cause of death', which is linked to the ICD -10 codes through the MAP. This paper explains the process of integrating SNOMED CT to e-MOR software and its use in generating cause of mortality statistics using ICD-10.

The use of SNOMED CT in electronic medical record system such as e-Mor software may be considered as an innovative solution to strengthen medical certification of cause of death, as well as to establish mortality audit systems in hospitals and enhance generation of robust mortality statistics of populations.

Reference Documentation

1.MCCD. (2016). Report on Medical Certification of Cause of Death. OFFICE OF THE REGISTRAR GENERAL, INDIA, VITAL STATISTICS DIVISION,. GOVERNMENT OF INDIA.

2.Gupta M, Rao C, Lakshmi P, Prinja S, Kumar R. Estimating mortality using data from civil registration: a cross-sectional study in India. Bulletin of the World Health Organization. 2016 Jan 1;94(1):10–21.

3.National Resources Centre for EHR standards, Ministry of Health and Family Welfare, C-DAC, Pune, India. Available from: https://www.nrces.in/#services