
Research Article

RETROSPECTIVE OBSERVATIONAL STUDY TO DETERMINE THE ACCURACY OF DIAGNOSTIC CODING (ICD-10) IN TERTIARY CARE HOSPITAL OF KOLKATA

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ABSTRACT

Medical coding and classification systems are expected to become increasingly important in the health care sector. Medical coding has various interrelated codes like ICD, CPT, ENM codes. ICD and CPT codes provide specification of the disease and the procedure respectively where the ENM code is a combined systems of both and provides the hospital care of the patient. ICD (International Statistical Classification of Diseases and Related Health Problems) is the international “standard, diagnostic tool for epidemiology, health management and clinical purposes”. The aim of this study is to assess the accuracy of diagnostic coding (ICD10) in patient discharge summary and to also determine the causes of error in diagnostic coding. The retrospective observational study was conducted in a 200 bedded tertiary care teaching hospital. From discharge summary data was collected with diagnostic codes and documented in data collection form. Hard copy data were transferred to electronic database for further evaluation and analysis using ICD10 Guideline. This study specially provides us clear information about different causes of coding errors and its outcome. The impact of wrong coding will affect the economic benefit of the hospital as well as in various resource of epidemiological study.

Keywords: Medical coding, ICD 10, CPT coding, coding error.

INTRODUCTION

Increasing demands for largescale comparative analysis of health care costs has led to a similar demand for consistently classified data. (1) Medical coding and classification system are expected to become increasingly important in the healthcare sector. (2) Medical coding is the process through which health care diagnosis, various medical services and procedures, equipment can be transferred into specific universal alpha numeric code. The diagnosis and procedure code are taken from medical record documentation, such as transcription of physician's notes, laboratory and radiologic results. Medical coding professionals help ensure the codes are applied correctly during the medical billing process, which includes abstracting information from documentation, assigning the appropriate code and creating a claim to be paid by insurance carrier. (3) Medical Coding has various codes like ICD, CPT and ENM codes. They all are interrelated. ICD codes gives the specification of the disease and CPT provides the procedure where the ENM

code is a combined system of ICD and CPT. It provides the hospital care of the patients. For epidemiology, health management and clinical purposes the international diagnostic tool is ICD (International Statistical Classification of Diseases and Related Health Problems). (4) as ICD-10 (International Statistical Classification of Diseases and Related Health Problems), was published in 1992 and codes are fully alphanumeric and up to seven digits long, allowing more specific condition coding.

METHODS

It was a retrospective observational study, conducted in a 220 bedded tertiary care teaching hospital, after getting approval from research ethic committee. In this study, data were collected along with diagnostic codes from discharge summary. Then collected raw data were documented in data collection forms. Collected hard copy data were transferred to electronic database for further evaluation and analysis. Standard references (ICD10 Guideline,

list, alphabetic index) were used for evaluation and analysis process.

RESULT

Out of 200 patients, the male patients were 89 and the female patients were 111. So the percentage of male patients and that of female patients were 44 and 56 respectively. Therefore, female patients were significantly higher than male. There were 8 no. of patients of age group 1 to 20, 36 no. of patients were of age group 21 to 40, 50 patients were belonging to age group 41 to 60, 91 patients were of age group 61 to 80 and the rest 15 patients were of ages from 81 to 100. So, their percentages stand at 4%, 18%, 25%, 45% and 8% respectively. The study shows that the no. of patients having age group 61 to 80 was significantly higher than the patients of other age groups. In this study, total codes were 568 out of which total coding error found was 366 and total correct code was 202. Their percentages were 64 and 36 respectively. Therefore, total coding error was significantly higher than the total correct code. (Fig 1) Out of total 568 codes, no. of missed codes was 137, wrong code was 218 and there happened 11 documentation errors. So, the percentage of these three categories stands 37, 60 and 3 respectively. (Fig 2)

DISCUSSION AND CONCLUSION

A retrospective observational study on "Determination of the accuracy of diagnostic coding (ICD10) in tertiary care hospital" was carried out in a 200 bedded tertiary care teaching hospital of West Bengal, India. This is a single centered study which was conducted for the periods of 5 months that was Feb, 2018 – June, 2018. During this period of study 200 discharge summaries were reviewed for the collection and analysis of data. This study specially focused on assessment of coding accuracy. This study specially provides us clear information about different causes of coding errors and its outcome. According to the result of the study it was found that out of 568 codes 366 ICD codes were wrongly documented. Most of the common causes of coding errors were found due to wrong coding (60%) by the coder followed by missed code (37%) and also due to wrong documentation (3%) in the discharge summary. The impact of wrong coding will affect the economic benefit of the hospital as well as in various resource studies of epidemiology. There is several way mention below to improve the accuracy of the medical coding. Adherence with

ICD 10 Guideline and proper training of the coder.

Medical codes should be evaluated with the registered (CPC) medical coder to reduce the error.

Cross check of discharge summary documentation with the treating physician. Providing proper knowledge medical coding and its impact on healthcare specially to the coders, transcriptionist as well as other healthcare providers those who are directly involved in the documentation process.

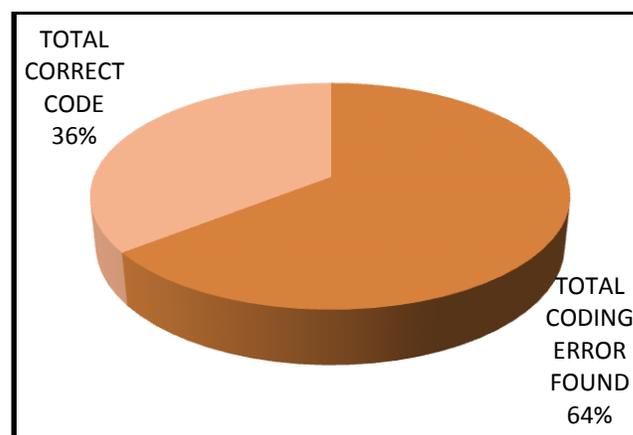


Fig. 1: ICD CODE ACCURACY WISE DISTRIBUTION

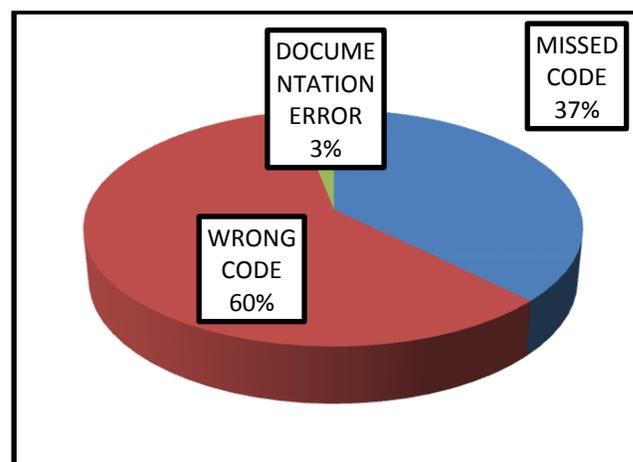


Fig. 2: DISTRIBUTION OF DIFFERENT TYPES OF CODING ERRORS

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