FINANCIAL IMPLICATIONS OF INACCURATE CLINICAL DOCUMENTATIONS OF THIRTY DAYS READMISSION RATE OF ACUTE EXACERBATION CHRONIC OBSTRUCTIVE AIRWAY DISEASE IN A NON SPECIALIST HOSPITAL NORTHERN MALAYSIA

## INTRODUCTION

Government hospitals in Malaysia has been implementing casemix in phases since 2010. For the past 13 years, casemix data has been used as classification of patient, describing hospital activity and monitoring hospital quality output. In 2024 Ministry of Health has started a pilot project to use casemix as hospital budget allocation in one of the government hospitals. There are important parameters to be monitored in Diagnosis-Related Group (DRG) payment Average length of stays (ALOS), Readmission Rate, Volume of Patient, especially severity of illness 1 (SOI), upcoding and cost per stay. The significance of this study is to identify financial implications of inaccurate clinical documentation.

## **METHOD**

A retrospective cross-sectional study was carried out analysing casemix data obtained from Casemix MOH system, MalaysianDRG for the year 2019 using patient discharges from 2019 with diagnosis Acute Exacerbation of Chronic Obstructive Disease (AECOAD) from the highest readmission rate of AECOAD in government hospitals in 2018 & 2019. In 2018, national readmission rate was 10.3% compared to this Non-Specialist Hospital in Northern Malaysia (NSHNM) 33.3% (in 2018) and 38.4% (in 2019). Sixty one (61) coded medical records were selected, re-examined and re-coded by 4 casemix officers Malaysia Ministry of Health. These officers reexamined and re-coded the error code that was originally entered by the hospital coders. The pre- and post-clinical documentations and coding results were compared, and if there was any disagreement, the codes by the officers were considered the accurate codes. The cases were then re-grouped using a MalaysianDRG grouper to assess and compare the changes in the DRG and the price per case for DRG. The outcomes were then verified by a casemix expert.

## **RESULT**

The accuracy of clinical documentation of primary diagnosis was 55.74% and incompleteness of other diagnosis documentation was only 1.64%. Coding accuracy was 100% for primary diagnosis and 59.57% for other diagnosis. The clinical documentation inaccuracy and incompleteness resulted in the assignment of different DRG codes in 46.81% of the cases which all had a lower assigned price per case. In total, the financial implication due to changes in the assignment of the DRG was RM26,081.78.

TOTAL SAMPLE	DIAGNOSIS DOCUMENTATION (%)		ICD-10 CODING(%)	
	PRIMARY DIAGNOSIS ACCURACY	OTHER DIAGNOSIS COMPLETENESS	PRIMARY DIAGNOSIS CODE ACCURACY	OTHER DIAGNOSIS CODE ACCURACY
61	55.74	1.64	100	59.57

## **CONCLUSION**

This denotes that accurate coding was done on inaccurate clinical documentation of primary diagnosis. The quality of coding is a crucial aspect in implementing casemix systems. Intensive re-training and the close monitoring of coder performance in the hospital should be performed to prevent the potential loss of hospital income.