

**DATA QUALITY RELATED TO UNGROUPABLE CASES :
A PILOT STUDY FOR PRE-IMPLEMENTATION OF
CASEMIX SYSTEM IN HOSPITAL UNIVERSITI SAINS
MALAYSIA**

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**INFLUENCE OF GENETIC VARIATION OF NFKB1A
GENOTYPE IN SPORADIC COLORECTAL CANCER
SUSCEPTIBILITY RISK AMONG 3 ETHNIC SUBGROUPS
OF MALAYSIA**

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5 Data quality related to Ungroupable cases: A pilot study for pre-implementation of casemix system in Hospital Universiti Sains Malaysia.

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Introduction: Universiti Sains Malaysia (USM) as a premier university in Malaysia awarded an APEX (Accelerated Programme for Excellence) status has given an autonomy and flexibility in administration and access to additional funding from the government that the university heavily committed with a long term objective to transform the university into a centre of excellence at par with top universities of the world. Decision of using UNU-CBG Grouper as the grouping tool in Hospital USM (HUSM), the second oldest teaching hospital in Malaysia is the brilliant step to implement the casemix system as one of the initiative to improve quality and efficiency of its services. Project collaboration between HUSM and United Nations University-International Institute for Global Health and International Centre for Casemix and Clinical Coding of National University of Malaysia has developed a three year programme to gradually implement casemix system in the hospital. A pilot study was carried out to assess the quality of coding system currently practice at the Patient Record Unit, HUSM.

Methods: All in-patient medical records for patients discharged in 2009 and 2010 were reviewed and selected for the pilot study. Six trained coders coded the diagnosis using ICD10 and procedures using ICD9-CM classifications. Those coded data set were exported into UNU-CBG Grouper for patient grouping process. In UNU-CBGs the first level of classification is Casemix Main Group (CMG) and the second level with higher degree of granularity is Case-Based Group (CBG).

Results: A total of 43, 273 medical records contained adequate information to be grouped using the UNUCBG Groupers. This represents 60.6% of the total discharges for the two years period. 60% were female. Most the patients were of younger age group with 29.7% below the age of 20 years, 21.2% between the age of 21-30 years and only 14.5% are above 60years. A total of 1,806 (4.2%) discharges were ungroupable. Common reasons for ungroupable are coding errors of principle diagnosis (49.7%), no birth weight for babies (33.5%), coding errors for deliveries (7.9%) and wrong gender (5.5%). High percentage of invalid principle code was due to the technical error (50.2%) in assigning the ICD-10 codes where coders were mistakenly encode an extra digit or incomplete code or wrong character listed within the ICD-10 Classification System.

Conclusions: Although the rate of ungroupable is quite low, more efforts should be made to train the coders on the coding rules as required by the casemix groupers. The outcome of this pilot study showed that the medical records system in the hospital could be further enhanced by ensuring that the minimum data set for casemix system is captured routinely. Therefore, would achieve the inspiration of casemix principle as an initiative to improve quality and efficiency of healthcare services in HUSM and thus, support the University for the APEX agenda.