Use of the Casemix System Outcome in Restructuring the Teaching Hospital Administration to Improve Efficiency and Quality for Sustainable Health Care.

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Introduction
The role of the Administration is to support and enhance the health care mission of the Universiti Sains Malaysia teaching hospital. Its role has two elements, firstly to support and enhance the activity of the hospital, its staff and students and secondly to protect the institution from liability and ensure that it complies with internal and external legislation. Casemix System has been implemented at this teaching hospital for the past two years after a series of an intensive capacity building workshops involving clinicians, nurses, head of hospital departments and units. The purpose of adopting Casemix System is to increase efficiency, improve quality of care and enhance transparency in decision making. The strategy is to ensure that the implementation of clinical activities clear and objective driven. Therefore, the Casemix Steering Committee of the hospital is set-up to serve as an internal body to monitor clinical practice.

Methods
Analysis of minimum data-set collected from the Patient Medical Records and the Finance department of USM hospital was consecutively conducted from 2012 to 2014. Data was cleaned and group using Maaysian DRG i.e MY-DRG casemix grouper, which is based on UNU-CBG international casemix grouper. The output of the analysis including the patients' demographic characteristics, clinical outcomes and the trend hospital expenditure for the respective years were presented to the university's top management to be used for strategic planning.

Results
Overall complexities of cases managed in the hospital shows an increasing trend. Less complex cases with Severity Level I shows a reduction of 8.1% while cases in Severity Level II and III increased by 5.4% and 3.9% respectively. Average length of stay of patients remained the same at 3 days. The quality of coded data shows some improvement with reduction in ungroupable rate of 4.8%.

Conclusions
The outcomes of this Casemix System implementation had satisfied the hospital's top management. The acceptance of Casemix System as a hospital management tool has made it possible to enhance the efficiency and quality of the hospital delivery system. Output of the Casemix System has been use as essential information in the restructuring of the hospital administration that took place recently to support the mission of APEX programme of USM teaching hospital.

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