Casemix in Singapore—A Clinician's Perspective

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In her autobiography, *Falling Leaves*, Adeline Yen Mah, an anaesthesiologist, described how her career in private practice flourished in the early seventies in the United States of America. Health-related charges were automatically reimbursed by Medicare and other insurance companies and it was then considered inappropriate for the patient to discuss fees with the doctor. Clearly, this mode of financial reimbursement was unsustainable in the long term. Health care costs in the USA spiraled 26,000 per cent from $4 billion in 1940 to $1.035 trillion in 1996 outpacing the general inflation rate by 25 to 1.[1,2] On 1 October 1983, the Health Care Financing Administration of the U.S. Department of Health and Human Services imposed the Diagnosis Related Groups (DRGs) casemix classification system for the public Medicare program.[3] Many countries were to follow suit in their public hospital reimbursement programmes, including the United Kingdom, Belgium, Spain, Portugal, Norway, Sweden, Austria, France and Australia.[4] Singapore introduced casemix in funding of all acute care restructured hospitals in October 1999 after pilot runs of one year in these hospitals. Singapore adopted the Australian National DRG or AN-DRG system with input from the Clinical Classification Committees which comprised of senior clinicians from the public sector.

Casemix was initially intended as an information tool for measurement of the outcome of health services to improve hospital management and quality, and subsequently, to serve as a basis for prospective payment for hospital services. Casemix has since been identified mainly as a health-funding tool to benchmark allocative and technical efficiency amongst hospitals with incorporation of quality monitors. Casemix has been found to change clinicians' practice patterns in the US. The problem of possible lower quality of patient care associated with this change however did not materialise.[5] The only negative indication was greater instability of patients at discharge in tandem with shorter hospital stays and the growth of ambulatory surgery.[6,7] No significant adverse effects of earlier discharge were noted in other aggregate measures.

The concept of conservation of resources is already inherent in our medical culture. When a surgeon cuts a vessel at surgery, he instinctively applies pressure to stop bleeding before definitive ligature or cautery. He does not allow the patient to bleed unchecked; for if he did so, possible massive blood transfusion made necessary by the squandering of this haemodynamic resource may lead to more dire consequences such as disseminated intravascular coagulopathy. Casemix brings to the clinician, the focus that financial resources in patient management are similarly limited and important.

In his *Seven Habits of Highly Effective People*, management guru Stephen Covey teaches one to begin with the end in mind. Casemix requires the clinician to begin with the end in mind in patient care. The clinician needs to look beyond the patient's recovery from his acute condition to his recuperation. To this end, step down facilities for a patient requiring long-term recuperation and increased responsibility of patients and family in the recovery process are essential facets of disease management. The acute care hospital, being a resource intensive place, is best utilised to accommodate only the sick patient who requires its resources. Squandering acute care resources for the long-term recuperation of patients is akin to allowing intraoperative bleeding to go on unchecked.

High technology medicine (endoscopic instruments and safer anaesthesia), although expensive in initial outlay, actually empowers the clinician to reduce the need for hospitalisation or reduce hospital stay of patients. The rapid development of high technology medicine e.g., safer and less invasive modes of surgery, coincides well with the implementation of casemix allowing patient management to be more independent of the inpatient hospital setting

Under the casemix system, accurate, complete and optimal collection of clinical information form the basis for hospital reimbursement. Thus, the clinician has to be constantly aware of his role in proper documentation of his clinical notes. The notes need to be logically constructed and be legible to our clinical coders whose interpretation of our notes determine the resource weights for reimbursement.

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Clinicians will adapt to this culture of utilisation review well. The implementation of clinical pathways, good clinical practices based on evidence-based medicine and quality reviews will allow for effective disbursement of clinical resources without deterioration in the delivery of clinical care. The Singapore casemix experience is relatively new and will continue to evolve. Data collected from casemix hold great potential for use in our evaluation of local clinical trends. The feedback of clinicians and administrators is essential to fine-tune our casemix system to our local needs. This will enable Singapore to maintain an effective world class health care delivery system within an affordable framework.

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