A case for high cost medical case management in Saudi public hospitals

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Abstract Objectives: High cost medical cases like premature new born, closed head or spinal cord injuries, cancer, stroke and organ transplant require a viable tool to control cost and ensure quality care. In Saudi public hospitals where government policy of free health care has removed most economic constraints that would normally act as a deterrent to frivolous demand and provision of services, economic efficiency in provision of service is not a high priority. High cost cases are not handled differently, in such a way to control costs, and this contributes to the prevalence of long-stay patients and other problems in acute care hospitals.

This paper highlights the problem of aggressive use of highly specialized and expensive but sometimes inappropriate procedures where less specialized procedures and settings would be more effective, and also to the prevalence of custodial care patients in acute hospitals. The effectiveness of case management in controlling the cost of 'high ticket cases' while ensuring quality care through linking the patient with a wide variety of medical and community resources and eliminating unnecessary services is discussed. The paper recommends that all hospitals introduce case management and other utilization review programs to eliminate waste and improve quality.

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D id you know that some catastrophic health care cases like premature new born, closed head injury, congenital malformed infants, cancer and other high cost cases cost well over SR 700,000 and can result in length of hospital stay of well over six months when services are not properly planned and provided for acute hospital settings. Yet, except for the aggressive use of highly specialized procedures and treatment, some of which do not make any significant contribution to patient well being, these cases are sometimes mishandled in our acute care hospitals.

Unless case management, a form of utilization review concerned with high cost procedures and treatment which aims to link such patients with a wide variety of medical and community resources through a pre-planned critical pathway, is introduced in all acute care public hospitals in the Kingdom, to manage the long-term sometimes lifetime cases, provision of unnecessary and costly services, unreasonably long hospital stays and costly re-admissions will continue to be a common occurrence in these facilities.

Brief background of the Saudi health system

Health care in Saudi Arabia is predominantly provided by government through about sixteen health provider agencies. The proportion of direct personal health care provided by the public sector is estimated at over 80% of total. The private sector is also growing, and this trend is expected to continue. The Ministry of Health is the main agency responsible for the health care of the entire population. On the other hand, the other government agencies mainly cater for a specific segment of the Saudi population. The Medical Services Department of Ministry of Defense and Aviation (MODA) for example caters for the armed forces, the National Guard for the national guard staff, the Youth Welfare for sports, etc. The

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other highly specialized facilities such as King Faisal Specialist Hospital, King Khalid Eye Specialist Hospital and the University Teaching hospitals cater for the whole population, and regularly treat patients from outside the Kingdom.

**Financing**

Financing of the public sector agencies is through government annual budget allocations. Fund allocations are made in bulk and not to individual programs. In the case of Ministry of Health (MOH) and some of the specialist hospitals budget allocation is entirely for health services. Other government agencies like MODA on the other hand, allocate funds for health services from their overall budget. Cost recovery is currently not an issue in government health facilities. However, specialist facilities like King Faisal and King Khalid hospitals are beginning to charge a fixed amount for categories of services. The charges are however not intended to cover the full cost of services provided, and do not apply to all patients.

**Free health care**

Health services provided in government health facilities are mostly free in accordance with government policy that nobody should be denied health care for economic reasons. Most social services are provided free of charge, or at a highly subsidized rate. The nominal fees charged in a few specialist facilities are too negligible to be a deterrent in the use of health services even by patients in the low income group. The charges are imposed to curb frivolity and overutilization. Other non-fee costs of medical care such as traveling and waiting costs have also been reduced/eliminated by the abundant supply of health facilities (hospitals, health centers, dispensaries). Saudi residents are well aware of the availability of highly specialized medical procedures in numerous facilities, and are demanding such procedures with increasing intensity.

**Problem**

The system of free medical care at all levels of care, except for some token fees in a few facilities, has led to a loss of perspective regarding health care delivery. Because patients do not pay for services, because physicians are neither in personal financial risk of losing money, nor need worry about charges on patients, and because cost recovery is not an issue for the hospital/health center administrators, services are demanded for and provided indiscriminately. More highly specialized treatment than is needed is sometimes provided, and more specialized and costly settings than are required are used to provide services. Cases of unjustifiably long-stay of custodial level patient care in acute care hospitals abound, while some high cost medical cases are continuously provided with expensive, but sometimes inappropriate and therefore ineffective treatment.

In his study of long-stay patients in acute care short-stay hospitals in Riyadh, Othman Abahussein found that serious problems exist. Long-stay patients accounted for more than 11% of the operational beds at the six hospitals studied. In some other government non MOH hospitals the problem was more serious with long-stay patients accounting for more than 17% of operational beds. The study revealed that long-stay patients, totalling 183 in two of the hospitals studied, had an average stay of nearly 116 days, with a full one third of them staying more than six months. Majority (89%) of the long-stay patients did not require acute care beds and should have been discharged, on average, a little more than 53 days earlier. Some of the patients were not receiving medical treatment. Most of the patients in the study were accident victims, those over the age of 65 and mentally retarded.

A review of service utilization in some acute care hospitals in Riyadh also showed that high cost health cases like spinal cord injury, premature new born, closed head injuries, strokes, cancer, and other long-term, sometimes lifetime cases which cost tens or even hundreds of thousands of riyals, are not handled in a way to contain cost and at the same time provide quality care. The practice is often to pursue an aggressive course of high tech medicine. There were numerous cases of serious congenital malformed infants and other high cost cases that had been in the acute care hospitals for outrageously long periods. While some of the patients truly needed acute care beds, some could have been transferred to a less specialized setting.

The treatment plan for these ‘high ticket’ cases did not include possible discharge to alternative settings. Once a case has met the requirement for admission either through referral from another facility or through securing permission from the appropriate medical committee, there appears to be no more limits to the length of time or amount of resources that can be devoted to the case. On the contrary, the cases are handled with utmost aggressiveness, even in situations where the futility of such efforts appear to be obvious. This
aggressive use of high tech medicine to the neglect of less specialized but, nonetheless effective treatment/therapy flies in the face of increasingly new findings. For example, Neonatal Intensive Care Units (NICU) which are still the mainstay of care for medically fragile infants, do not meet the critical developmental interactive needs of the child and parents to ensure positive psychological bonding. If the need for this bonding is ignored, the daily cost of neonatal intensive care of SR 3750 to over SR 9,000 may be wasted.

Some of the long-stay patients grow used to the acute care hospital environment. At that point, transfer or discharge becomes threatening. Family members believing that the highest quality care is being provided in acute care hospitals, are in no hurry to request for discharge or transfer, since they do not bear the costs. Relatives urge for more and higher specialized procedures. This suits those physicians who like to perform whatever new procedure is available. Issues such as the marginal benefit accruing from the increased cost of resource use in terms of quality of patient care appear to be irrelevant.

Need to control cost

High cost cases like the ones mentioned earlier in this paper account for less than 10% of the population, but account for about 70% of all health care spending. As mentioned previously, closed-head injuries cost over SR 150,000, while if uncontrolled, the cost for premature new birth or congenital malformed infants could run into hundreds of thousands of Saudi riyals. The problem is not that the treatment costs are quite high, but that in some cases the treatment is inappropriate and therefore ineffective.

Medical case management

Medical case management, also known as catastrophic case management, is a form of utilization review (UR) concerned with high cost procedures and treatment. The goals of case management are twofold: contain costs and provide quality care better tailored to the needs of the patient. The strategy is to identify all high cost cases using a predetermined criteria, and plan a complete course of treatment (critical pathways), including hospital-phase, long-term facility-phase, community-phase, and home-phase aspects of care before the patient commences treatment.

The basic principle of case management is that a case manager takes responsibility for a catastrophic case; arranges an assessment of need, a comprehensive service plan, delivery of suitable services and monitoring and assessment of service delivery. The case manager coordinates the multidisciplinary care plan, thereby eliminating unnecessary services, preventing duplication of unnecessary stays and costly readmission in high risk patients. Critical pathways for cases sometimes include services provided in facilities outside the hospital, community services, patient and family education, services provided in patients homes and outpatient visits. The case manager is also involved with ensuring that necessary medical and other equipment is available, arranging with accepting facilities in cases of transfer, coordinating with all other professionals involved and the overall discharge planning. The role of a case manager can be grouped into three categories: interpersonal, including leader and liaison; informational, including monitor, disseminator and spokesperson; and decision-making, including resource allocator, negotiator, disturbance handler and entrepreneur.

In the absence of case management and well coordinated discharge planning, patients who have or should have been discharged sometimes stay for days, or even weeks, because adequate arrangements were not completed. Receiving facilities in the case of transfer may not have been informed, or may not have been given enough time to arrange for a receive of the patient. In cases where patients are going home, families are sometimes not informed of the special arrangements that need be made until the very last minute. Other things considered minor such as wheelchair, crutches, other medical equipment and transportation if not planned for in advance, can delay the transfer to a less costly facility. Also the availability of a wheelchair provided by the case manager can mean the difference between a family accepting the transfer of a patient home and their refusal. The same is also true in cases where arrangement is made for home visits by health professionals. Continued stay of such patients in acute hospitals while arrangements are made for their transfer are not only wasteful, but may deny those in real need of acute care beds the chance of being admitted.

Case management is used extensively by Managed Care Organizations (Health Maintenance Organizations, Preferred Provider Organizations, etc.) in the United States, and has been accepted as an effective method for containing health care cost while providing high quality care. The cry for health reform, public concern about cost, waste and quality in the US has created an environment.
that demands highly creative strategies to deliver quality care while reducing costs. Through the use of various Utilization Review programs, managed care organizations are able to reduce the number of admissions and average length of stay, cut down unnecessary tests, surgeries and service, and still provide comparable quality care. Case management has proven effective in reducing the cost of treatment of a full range of high cost cases: severe mental disorders, neonatal cases, ventilator dependent patients, and cerebral revascularization.

**How case management works**

A list of diagnoses likely to need case management is prepared by the hospitals and given to the UR nurse or whoever is involved. Items in the list may vary slightly from one hospital to another depending on past experience and population served. Such a list normally includes premature new born, organ transplants, closed head injuries, spinal cord injuries, cancer, severe mental disorder, congenital malformed infants, HIV cases and stroke. It might be necessary to include on such lists less serious cases in situations where the patient may not have a relative that could be responsible for the family phase of treatment. Criteria for inclusion is usually cost, the length of time and availability of relations. Immediately any of the above cases are presented, the UR staff notifies the case manager. The case manager discusses the case with experts and with their help determines the likely course of treatment including both hospital and non hospital phases and plans accordingly.

Instead of having a case manager, a hospital may choose to have a committee of 3-5 senior consultants of different specialties. This committee would meet frequently to screen all complex cases following a predetermined criteria and plan a complete course of treatment (critical pathways). Of course, a hospital contemplating the use of a committee rather than 'one person case manager' will have to weigh the benefits of group opinion against the obvious inflexibility of committees.

**Discussions** The point has been made that the government policy of free health care and ample supply of facilities, eliminated significant economic constraints which would normally act as a deterrent to frivolous demand for services. All parties involved seem to pay little attention to the cost of care, and economic efficiency does not rank high among priorities. The availability of high tech medical equipment and procedures in a situation where neither the patient nor the physician is under any personal financial risk, has created the temptation to use more specialized procedures for relatively minor problems. Some of the popular UR programs like preadmission screening, continued stay review, discharge planning, second surgical opinion and retrospective review are not widely used in public hospitals. In hospitals where some of these exist, they are mostly for purposes other than cost containment.

As is the case in most countries, an increasing proportion of government budgets go to health care and currently account for about 8% of gross domestic product (GDP). The government policy of free health care is highly commendable and has led to admirable improvement in the health status of the population. The health system owes it to the government to ensure that resources are not used to support wasteful habits as evidenced in the unnecessary use of highly specialized procedures and settings, unjustifiable use of laboratory tests and other diagnostic and therapeutic techniques. Unless a viable tool such as case management is introduced to control cost while at the same time maintaining high quality care, a significant proportion of government expenditure on health will not be to the benefit of the patients.

Case management is one of the most popular UR programs. The main strategy is to plan the entire course of treatment from admission to discharge before treatment begins. The premise of this strategy is that in high cost catastrophic cases, once treatment has begun, it is hard, if not impossible, to change a patient or family’s mind in terms of what is really quality care, particularly if a perceived lower level care or setting is being suggested. Once the patient is already in the system, there is really not much that can be done, other than continue the expensive, hospital-based and sometimes inappropriate treatment. Saudis are entitled to free health care, and sometimes refuse to be discharged by health professionals. Authorities in some of the acute care hospitals list numerous instances where some patients' families resisted attempts to discharge the patient or transfer them to rehabilitation centers. Some hospital staff have also been threatened by families with action ranging from physical harm to litigation and being held responsible for anything that might happen to the patient after discharge.

The above situation will not arise if a hospital has a case manager. This is because the family is made aware of the probable course of treatment, including the professionals, and the possibility of
transfer to another facility as indicated in the critical pathway from the beginning. It is easier to explain the merits of various stages of the critical pathway at the beginning: the need to link the patient to a wide variety of medical and community resources, optimize patient self care, enhance quality of life and the need to promote cost efficiency.²⁰

**Recommendation** From the foregoing, it is imperative from both a quality and economic standpoint that all public hospitals in Saudi Arabia should introduce, as a matter of urgency, case management programs to deal with high cost cases. Studies in the US show return on investment in case management to be in the range of $5 to $11 for every dollar.³ It is relatively easy to plan and implement and is only suitable for high cost cases.

A very important component of the critical pathway for some of these long-term lifetime cases is to transfer them to a custodial/rehabilitation level care facility. The aim of any effective case management program is the timely identification of high ticket treatment in order to assist in arranging for timely out-of-acute-hospital care. However, an unpublished questionnaire survey shows that most Saudis have a negative attitude toward institutionalization of relatives in solely long-term care facilities such as nursing homes and rehabilitation centers.²¹

A move which is likely to increase acceptability is the introduction of 'step down' units in acute care hospitals. The step-down units will be used in much the same way as a skilled nursing or rehabilitation facility. Patients who require less care and monitoring will be sent to this unit. Because it does not require transfer outside the hospital, step-down units will be more acceptable to patient and family and more convenient for the physician. The cost in the step-down unit, while considerably less than in the acute care unit, will be slightly higher than a free-standing nursing or rehabilitation facility. However, the difference in cost may be worth it in terms of cultural acceptability. While Saudis may feel uncomfortable sending an elderly relative to a free-standing nursing home, a long-term skilled or semi-skilled unit inside an acute care hospital might be more acceptable.

**References**


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ملخص:

إن التكلفة العالية لحالات طبية مثل الأطفال ناقصي النمو وإصابات الدماغ المفتوحة أو إصابات النحاع الشوكي، السرطان، الصدمات وزراعة الأعضاء تتطلب وسائل حيوية لراقبة تكلفتها مع التأكد من جودة العناية المقدمة. وفي المستشفيات السعودية العامة حيث إن سياسة الدولة هي تقديم رعاية صحية مجانية فقد أدى ذلك لرفع كل القيود الإقتصادية والتي يجب أن تكون ضمانًا لعدم استعمال الخدمات المتوفرة بها بغير حساب أو مراقبة – حيث إن الناحية الإقتصادية ليست ذو أولوية في تقديم تلك الخدمات – إن الحالات الطبية عالیة التكاليف لا تعامل بطريقة مختلفة لمراقبة التكلفة وهذا يسبب في مكون المرضي لمدة طويلة بالمستشفيات ومشكلات أخرى في المستشفيات الإسعافية.

إن هذه الورقة تسلط الضوء على مشكلة الاستعمال المستمر لوسائل عالية التخصص والتكلفة، وفي بعض الأحيان استعمال وسائل غير مناسبة في حين أن بعض الوسائل الأقل تخصصًا وكمالًا يمكن أن تكون أكثر جدوى، وكذلك تسلط الضوء على وجود مرضى الخوادث والذين يتطلب علاجهم زمنًا طويلاً في المستشفيات الإسعافية. إن الرعاية العلاجية الحالات في مراقبة تكلفة المرضى عالي التكلفة وفي الوقت نفسه التأكد من جودة الخدمات المقدمة لهم ذلك من خلال ربط المريض بمصادر طبية واجتماعية واسعة هي من أهم النقاط في هذه الورقة، وكذلك التخلص من الخدمات غير المهمة.

إن الورقة تفترض على جميع المستشفيات أن تدخل نظام الرعاية والمراقبة المالية للحالات المرضية، وكذلك برامج مراجعة استعمال تلك الخدمات الأخرى للتخلص من كل الممارسات غير المرغوب فيها وتطوير جودة تلك الخدمات.