Case Management: Client-Centred Care

By Margot Phaneuf, R.N., Ph.D.
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INTRODUCTION

Health care delivery in the developed world is in constant transformation. Structures and values are changing. New and more effective tools and technology are being used to identify and overcome diseases. Yet even if these new technologies are increasingly available to the public, not all of them have market potential. Cost efficiency is at the core of our health care system. Cost considerations often supersede the needs of the individual, leaving him to deal with his worry and pain.

Access to technology is not the only problem. The growing demand for services by an aging population is creating bottlenecks in the system, undermining its effectiveness and forcing administrators to develop new organizational methods. The quest for continuous improvement, quality and efficiency also casts a spotlight on many organizational inefficiencies. In the current context of technology implementation and cuts to operating budgets, our system has become destabilized and requires change.

THE PROBLEM

The current problem leads us to consider that:

- The users of health and social services complain about dehumanization and incoherence within the system. Families complain about the absence of communication with overwhelmed, rotating staff. Relations are often *ad hoc*. The all-too-frequent inability to meet expectations in terms of support provided and the scarcity of information offered to users to help them make enlightened decisions regarding their treatment, justify these comments.

- Our health care institutions, both long-term and short-term, have been offering good community services, but in isolation from each other. Each institution compiles its information and pushes ahead its own administrative methods. The result is that a patient is occasionally treated like a complete stranger when moving from one service or institution to another - all within the same region. There is a tendency to reinvent sliced bread at each institution rather than profiting from peer experience. Even departments within the same hospital can operate independently, in isolation from each other. The most recent ministerial reform tends to attenuate this breakdown, but much work still lies ahead.

- In our health care institutions, the daily cost of a hospital stay is taken into consideration; however, it is also necessary to factor in the total cost of an episode of care for certain clienteles. We must therefore turn to other solutions while encouraging progress and focusing on the patient and the processing of his case through the health care system. Questions are inevitably raised about the use of multiple services, about the added value of the quality of care offered and about access to health and social services. It is also necessary to consider the opportunity cost of not enforcing quality and of its subsequent financial impact as a result of patient readmissions and arising complications. The opportunity cost of these factors is hard to quantify and is not sufficiently taken into account. As in any modern economy, health care institutions and networks cannot simply ignore the relation between costs and benefits. Costs must be factored in function of the clientele affected and the health benefits to the users.

In a context in which continuous improvement and the downsizing of resources are emphasized, it is increasingly necessary for more functional orientations to be adopted in care delivery. Offering better coordinated services within a single episode of care, focusing on the availability of those services and guaranteeing efficient and effective outcomes in pre- and post-hospitalization are essential.

Those imperatives must first and foremost take into consideration the patient, the type of treatment that he needs and his personal and medical requirements throughout treatment. Hospital stays often last a long time because the types of services or treatment required by the patient are not made readily available. Tests, examinations and treatments may even end up being duplicated as a result of lack of transmission of information.

Definition: Case Management

Method which aims for continuity in the delivery of services and quality in clinical outcomes among specifically identified clienteles within a context of efficient, effective and humane management of resources available.

Why should the patient have to undergo such undue treatment and a prolonged hospital stay because the resources required were not planned in advance? Such questions are being raised in many Western nations facing demographic and administrative changes that are forcing decision-makers to simultaneously search for means to increase the quality of care provided while controlling exponentially rising costs in order to create an optimal cost per patient ratio. The aging population, the increase in socio-sanitary needs as well as the ever-growing focus on quality and performance by health care organizations are creating new challenges.

THE NEED TO FIND SOLUTIONS

Solutions which optimally combine quality, performance, humanity and economics while allowing for an increase in the number of persons treated – without increasing budgets - had to be found. In-depth studies were carried out internationally to find a system which met those standards. As expected, the findings indicated that a significant portion of budgets allocated to care in hospitals was spent on patients suffering from complications or severe pathologies and who required an unanticipated extention of their treatment (Flarey and Smith Blancett, 1996). It thus became imperative to rationalize care in a way which optimized hospital stays and reduced the duration of patient stays. Simply put, the goal was to offer adequate services at the right place, at the right time while optimizing the coordination and use of resources available.

The work organization of nurses had to be rethought. According to Cohen and Cesta (1997), the workload of nurses increased significantly over the past two decades due to the increasing complexity in providing care, over-bureaucratization, and the lack of available resources.

For nurses, these questions also continue to raise concerns of a professional nature. Nurses are now at a stage in the development of their profession in which they need to play a larger role in the competitive, hierarchical world of health care dominated by medical administrations. Everywhere, nurses are receiving training that is more suitable to assume greater responsibilities within the major orientations of the health care system.

The increasing complexity in providing care across the various levels and services (reception, emergency, specialties, clinics, satellites, community services, etc.) and the multiplication of highly technical acts create bottlenecks. Unclogging these bottlenecks unfortunately remains in the realm of administrators focused on downsizing and maximizing efficiency. Frequently, the result is fragmented care and limited economic and human resources, as well as the entailing dehumanization of services offered. The current discourse is all about overall quality; however, what is increasingly minimized is the response to the needs of the individual patient.

A PROMISING SOLUTION

To palliate the numerous and diverse problems described above as well as their negative impact on patients, **case management**, also associated with **clinical pathways** or **episodes of care management**, was developed a few decades ago in the United States. The efficiency and effectiveness of this system only benefited its exportation and implementation in Quebec and abroad.

Case management can be defined as **a method which aims for the continuum of services and quality clinical results among specific clienteles in a context of efficient and effective resource management** (UNOFFICIALLY TRANSLATED from OIIQ, Montreal, 1999).

According to the regional health board, case management is:

> *A system encompassing a set of tools and coordinating strategies for specifically identified client groups. Its objective is to guarantee and optimize the continuum of care and services by using only the resources required. Within a single approach, this model integrates objectives, results and interventions pertaining to the promotion of health, disease prevention, care and recovery for a given population.*
>
> *Case management also sets the ground for continuous improvement and overall quality. Based on multidisciplinary concensus as well as on standardized results and clinical interventions, case management helps ensure that* ***the right actions are taken at the right place, at the right time by the right people.*** *Overall, standardization gives care providers the means to monitor clinical activities throughout the continuum, and makes it possible for the client to take charge of his health condition and to actively participate in achivieving clinical outcomes which can be expected for his condition.*[1]

HOW CASE MANAGEMENT WORKS

In order to be functional, case management relies on:

- A sound knowledge of the needs of the clientele targeted by the program implemented in terms of care requirements for a given pathology or age group (seniors, psychiatric patients, hip or knee prostheses, hysterectomy, mastectomy, cardiac or pulmonary disorders, etc.);

- The duration of the patient stay can be estimated based on the pathology and health condition of the client. Estimates for patient stays vary depending on whether the pathology is classified as acute or chronic.

- Meticulous and chronological planning of care delivery and the treatment process by type of program (daily, monthly, yearly). For example, case management was implemented at Clinique Notre-Dame-des-Victoires in Quebec City in 1997. Case managers coordinate psychotic youth who manifest the initial signs of disease, and provide for a duration of 20 to 30 months.

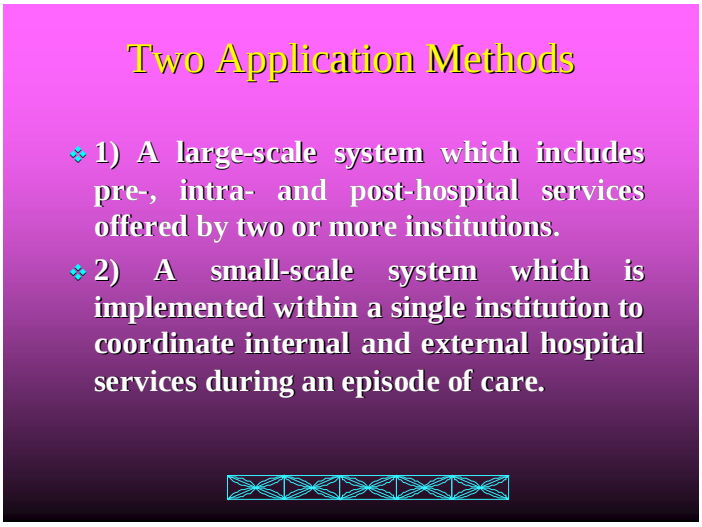
- The functionality of this system for cases managed is determined by:
    - Clinical results anticipated within a predetermined timeframe for the various stages of the treatment plan as well as for the overall treatment.
    - Clearly defined objectives for each group of professionals (physicians, nurses, physiotherapists, occupational therapists, psychologists) and specialists (cardiologists, gastroenterologists, neurologists, surgeons).

[1] Régie régionale de la santé et des services sociaux (2003). Available from: http://www.rrsss04.gouv.qc.ca/ssc/projets_locaux.htm. Last visited August 18, 2008.

Finally, effective case management requires:

- an evaluation of results achieved throughout the care continuum, preferably (depending on the type of program) from pre-hospitalization to post-hospitalization (L. Villeneuve, OIIQ, Montréal, 1999, p.11) .

- Delegation procedures for the interveners involved (i.e. a nurse acts as a program manager). Care can be deferred to other institutions (i.e. to community care providers) in order to build a functional and truly integrated care network. In the psychiatric care project at the Montreal General Hospital, the nurse-to-patient ratio is 1:15. When patients regain a certain level of autonomy and treatment is less demanding, they can be transferred to a CLSC where the ratio may be roughly 1:50.



Case management is a major innovation to health care and to the nursing profession. It puts patient care back at the centre stage and provides for the articulation of all services. Case management is much more complicated to implement than it sounds, but it is its success which makes it attractive. Implemented in many of our care centres with enthusiasm, case management can be applied more broadly by coordinating institutions or, on a smaller scale, by involving many internal and external hospital services.

Case management is usually be implemented in two leading manners:

- 1) A large-scale system which includes pre-, intra- and post-hospital services disseminated across two or more institutions;

- 2) A small-scale system which is implemented within a single institution to coordinate internal and external hospital services during an episode of care.

- Regardless of the system retained, case management is composed of two axes:

- 1) An administrative level to coordinate services and ensure communications among the various departments visited by the patient;

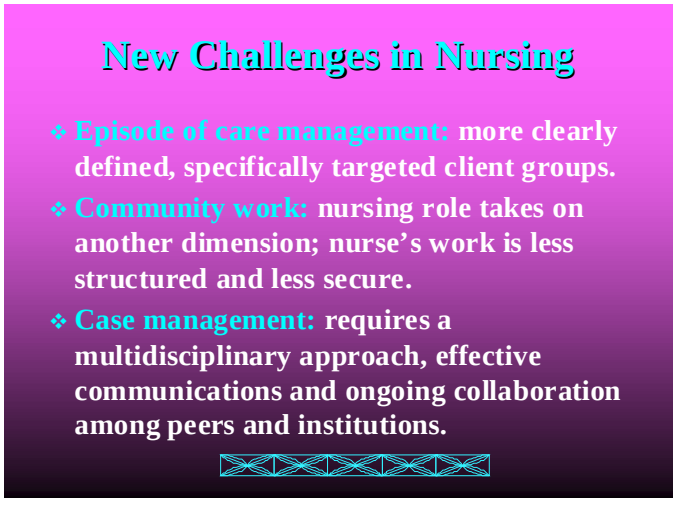
- 2) A clinical level which aims for efficient planning and quality care among professionals. The leading tool for case management remains transdisciplinary clinical pathway plans.

PATIENT NEEDS AND THE FUNCTIONS OF NURSES IN A CASE MANAGEMENT CONTINUUM

Community and pre-hospital care	Intra-hospital care	Post-hospital care convalescence/community
Teaching Monitoring Screening	Acute care Teaching Screening	Convalescence Monitoring Screening
Health prevention, promotion and maintenance	Health recovery	Health recovery and maintenance Prevention Teaching

Adapted from K. Bowe (1995) *Case Management Designed for the Care Continuum* from K. Zander (1995) *Managing Outcomes through Collaborative Care*. Chicago: American Hospital Publishing, 166.

NEW CHALLENGES



Case management raises certain challenges for nurses. The quest for efficiency and effectiveness has traditionally been centred around more global methods for organizing care, but within a single hospital setting. Case management focuses on episode of care management by type of clientele. Nowadays, hospitals classify cases (i.e. heart attacks, hip fractures) in order to offer clients better services by providing more systematic and structured care.

While seeking to create a system to provide responses to seemingly similar needs, case

management is neither a standardized care method nor a Taylorist approach; rather, case management is a method which takes into consideration the reactions and specific requirements of the client as well as the need to communicate with his family.

Case management leads us to broaden our concerns and outlook at the professional level in a way which transcends disciplines through integration and to consider aspects such as the coordination and quality of services. All actors in case management are put into a dynamic relationship in which the patient and his family become significant protagonists. Relationships can be made with various communication theories in which retroactions among interveners are made evident, and functional, and end up creating an integrated network of participants. These theories include the systems theory, the cybernetics theory and the communications theory.

In some cases, case management also puts the nurse in contact with the community. Her role is to gather information and to provide pre-hospitalization care. Nurses may be required to prepare the patient for his discharge, to plan his return to his home environment, and to provide support during his convalescence while being accountable for his ongoing treatment. The implication is that the nurse has to work in different environments in which her role takes on a new dimension. She effectively becomes a laison agent or coordinator among the interveners. Thus, nursing takes on a much broader social dimension.[2]

The nursing profession is evolving and is offering new possibilities as a result of:

- **Population ageing;**
- **Changes in society and its values;**
- **Increasing complexity of care;**
- **Obligation to achieve better cost-benefit ratios;**
- **Need to open up to the community.**

The success of case management depends greatly upon multidisciplinary cooperation, even upon inter-institutional relations. These are essential when coordinating services within a network and guaranteeing the continuum of care. Case management transcends the traditional frontiers of nursing (i.e. the walls of hospital departments).

Case management means taking charge of the person being cared for throughout the care process. Actions must speak louder than words. Care must not be fragmented to the point where the patient is repeatedly taken in charge by specialty and by type of care. Case management rests upon an integrated organization, a collective network of people and services working together to achieve better results. It also encompasses a clinical preoccupation for quality care, a search for more humane values and a focus on achieving economic balance within a more functional framework.

[2] Adapted from Lorraine Fournier in Goulet and Dallaire, 27.

A CHANGING PERCEPTION OF ROLES

Case management also contributes to the changing perception of those involved in care, namely in terms of the roles of departments, consultants and nurses. The traditional lines of reference are blurred by the fact that the patient is taken in charge by a team and that a nurse can assume a coordinating role. Coordination confers zero authority over other professionals or team members as its role remains horizontal in nature. The coordination role is one which encompasses communications, cooperation and concerted action within a group pursuing the same objectives.

It is essential that the case manager be effective. Case managers encompasss all of the great nursing functions described by Dallaire:

- Providing the global delivery of life maintenance care to individuals.

- Educating patients and populations at risk.

- Cooperating with the physician in applying the treatment.

- Coordinating care and teams which monitor and manage professional services during an episode of care.

- Supervising the response to the needs of the individual and ensuring that care is provided and of quality (Dallaire, 1999).

These functions are broad and diverse, and cover the paradigms of the nursing profession, namely:

- The individual, his optimal functioning and his well-being;

- The environment in terms of its relationship with events which have a defined impact on health;

- Health, factors which influence it, modalities and Coping mechanisms

- Technical care, educational care and relational care.

Among these paradigms, the educative role is predominant. The complex system in which the patient must manoeuver, increasingly shorter hospital stays, clients being forced to take charge of their health and treatment during the post-hospitalization phase – all require guidance and coordination. Researchers have shown that what underlies the trend towards self-managed care (i.e. empowerment) is a partnership rather than a passive approach to health care.

In such a context, the individual is required to make choices, to voice his opinion, to exercise control over his health and life. One of the essential conditions is that the individual must have all the information required at hand (Talbot, 2001). As Trofiro (1995) noted, “nurses are exceptionally well prepared to assume the role of information specialists in health care."

LEADING PROGRAMS

Many case management programs have been implemented in various departments:

- In cardiology: acute myocardial infarction (AMI), heart failure, and so on;
- In respirology: chronic obstructive pulmonary disease (COPD), pneumonia, tracheotomy, and so on;
- In surgery: total hip and knee replacement, intestinal resection, mastectomy, and so on;
- In psychiatric care: bipolar disorder, severe and persistent mental illness, and so on;
- In perinatal care, and the list goes on.

EXAMPLE OF A CLINICAL PATHWAY PLAN FOR DAYS 2 AND 8 OF A PATIENT IN SURGERY

Diagnosis: Surgery, colostomy CMG: 148/149
Expected duration of stay: 8 days

Consultations	Tests and examinations	Activities	Prescribed interventions	Medication	Nutrition	Relationship with patient	Signature
Cardio Oncology	Electrolytes Complete blood count EEG	Monitoring of vital parameters Getting up Breathing exercises Turn every 4 h	I.V. Nasogastric suction Urethral catheter	Analgesics* Antibiotics*	Nothing orally	Listening and psychological support	S.J.

*See doctor’s order
Adapted from Elaine L. Cohen and Toni G. Cesta, 1997.

BASIS

Case management depends upon on a group care plan developed by the professionals involved for each domain and referred to as a *clinical pathway plan* (or critical pathway plan). This plan functionally covers each day (of the week or of the stages of the program, depending upon requirements) of the anticipated stay. The duration of the stay is predetermined by professionals, is based on health care statistics and is implemented and monitored by the coordinator and a multidisciplinary team. The table above provides a simplified example of a client pathway in case management. The categories which make up each of the days of the planned treatment are of interest. The systematic organization and planning of care and avoidance of any waste of time in the client trajectory is at the core of case management. The client pathway plan should in no way be forced upon the patient in a manner which would be detrimental to him if he does not conform to the curve in his trajectory.

FOUNDATIONS OF CASE MANAGEMENT FOR NURSES

The American Nurses Association (ANA) and l'Ordre des Infirmières du Québec (OIIQ) support case management efforts. In case management, emphasis is placed on the care process as a planning tool with the additional dimension of cooperation among professionals.[3]

PARALLELS BETWEEN THE CARE APPROACH AND CASE MANAGEMENT

Information gathering	Stage in which contact is established to determine the needs of the patient, his family and his support network
Analysis and interpretation	Nursing diagnosis problems are identified.
Planning	Multidisciplinary planning of the clinical pathway. Links are made with the professionals and services ; a network is established among them. Resources available are identified. Care is coordinated and delivered to guarantee optimal clinical outcomes.
	Multidisciplinary care delivery and follow up are monitored.
Evaluation	Quality of care and system functioning are evaluated. Deviations from plans are analyzed.

[3] The term nursing care plan is often used nowadays.

The table above covers the essence of the definition given to the case management system by Groupe Tactique National de travail sur la gestion systématique des clientèles. They refer to it as "a collaborative process in which a nurse is responsible for gathering data, planning, implementing, coordinating, supervising, and evaluating options and services which correspond to the health requirements of individuals by using communication tools and resources available to promote quality care with a view to achieving optimal cost-balance efficiency."[4]

Case management creates a complete and integrated network of services for a predefined group of beneficiaries. This managerial method transcends the hierarchies and the responsibilities traditionally assigned within departments in order to provide a matrix or an integrating care plan which corresponds to the needs of the patient as well as the various levels of professionals and services involved.

MAIN OBJECTIVES OF CASE MANAGEMENT

Basically, case management tends to:

- Harmonize care and services offered with a view to optimizing clinical results through the efficient and effective coordination and allocation of clinical resources;
- Provide a solution to the dysfunctional use of resources and facilitate access to the services required;
- Structure a multidisciplinary approach in the coordination of quality care and services;
- Take into account the needs of the patient, including family presence.

REASONS FOR THE SUCCESS OF CASE MANAGEMENT

Case management has been successful because it depends mainly on exploiting the skills developed by nurses when working with patients and respond to their needs.

The successful implementation of case management also depends upon:

- The delivery of care from the variety of disciplines involved in the care plan of the clinical pathway;

- The planning of quality care within a reasonable timeframe and in a context in which the cost/benefit ratio can be controlled;

- The assurance for both patient and clinician that the case will follow a logical and pragmatic pathway through the various departments and services from pre-admission to discharge, and, in some cases, even to home care;

[4] UNOFFICIAL TRANSLATION, Catherine M. Mullahy, 1998; and Flarey and Blancett, 1996.

- The maintenance of a high degree of well-being and satisfaction for both the patient and his family throughout their experience with the various departments;

- The effective control of costs by avoiding unnecessary duplication, bottlenecks, delays, and interventions;

- The meaningful statistical analysis of the means and deviations of a stay.

ADVANTAGES

Clients gain certain benefits from the implementation of case management. These benefits include:

- Improved coordination among professionals, which reduces delays and unnecessary procedures;
- Improved planning of patient discharge;
- Standardized administrative procedures and care which facilitate the flow of information to the patient and his family during an episode of care, and which in turn leads to increased participation and more enlightened decision-making;
- The availability of information which makes it possible to evaluate the quality of care offered.

Clinical staff and institutions also reap their share of benefits, including:

- An improvement in the quality of care, which is essential for any health institution. Case management offers the tools to realize this objective;
- A systematic planning of the tasks and implementation logistics throughout the process by the team makes work and time management more efficient;
- The structured planning of clinical pathways by various professionals serves as a basis for work planning and organization.

THE CONCEPT OF RESULTS

Case management depends essentially on achieving results. Of primary importance is the observation of the achievement of optimal clinical results among patients followed by the effectiveness of administrative procedures.

Results are achieved by:

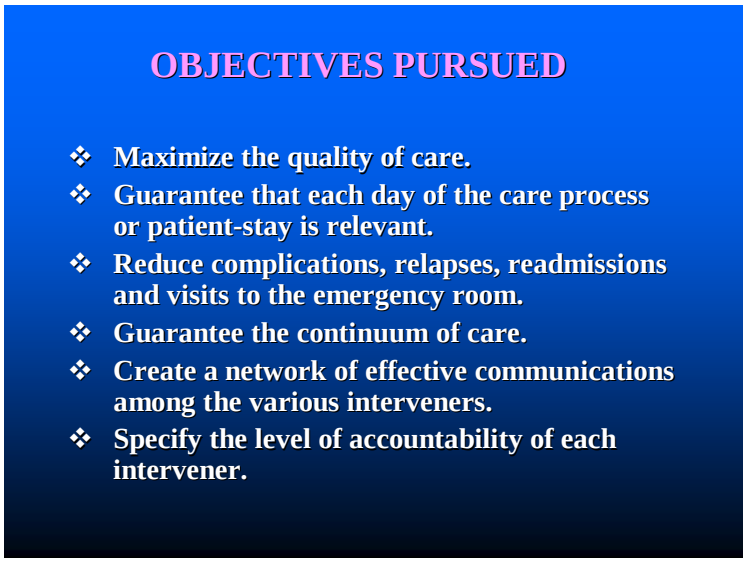
- Effective communications; close, multidisciplinary cooperation grounded in a global vision of health care which is neither limited to a specialized department related to the pathology of the patient nor to the institution which took charge of him;

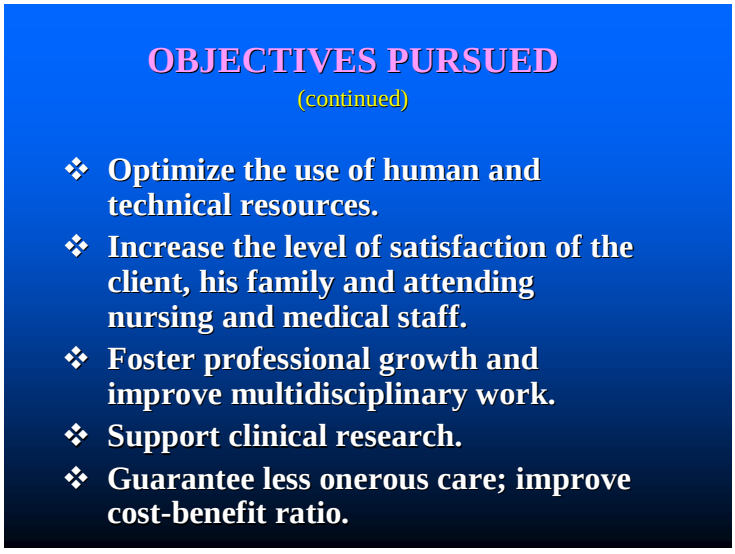
- Administrative adherence to achieving budgetary balance while treating an optimal number of patients; physicians striving for optimal clinical results for their patients; nursing departments being willing to engage in a structural context which is more effective, humane and open to evaluation;

- Availability of essential rehabiliation services and their openness to the needs of services within the community to pursue treatment.

OBJECTIVES PURSUED

The objectives pursued by health care institutions in implementing case management shed light on its operating modes. The definition of case management and the adherence and importance given to it by nursing and multidisciplinary team members are essential: not only do they guide the treatment process; they also serve as a reference tool to evaluate the effectiveness of the entire system. They are the matrix of the action plan for services offered to individuals requiring complex care and their families. The definitions below will help us better understand the objectives pursued.



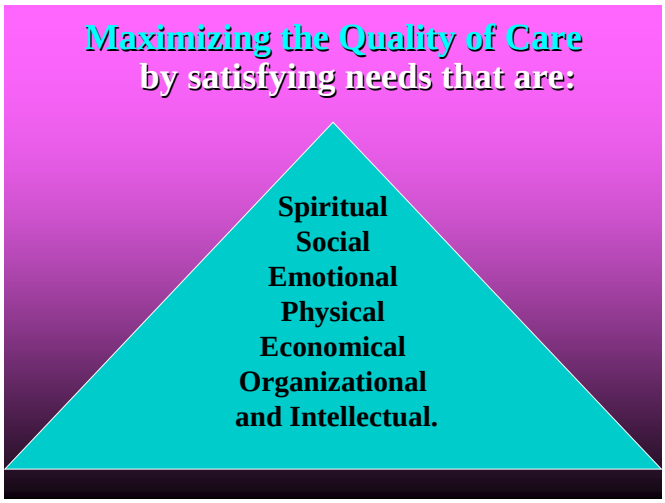


1- Maximizing the quality of care

This is by far the leading objective of a systematic monitoring system. This managerial model arose from a willingness to improve client services coupled with cost efficiency considerations per client treated. Simply put, it aims for an optimal cost-benefit ratio. The term *quality of care* obviously centres around the quality of the technical act as well as the organizational setting in which it is carried out. Quality of care also integrates the human component of the act of welcoming, providing support and taking into account the needs of the consumer at the physical, psychological, social and spiritual levels.

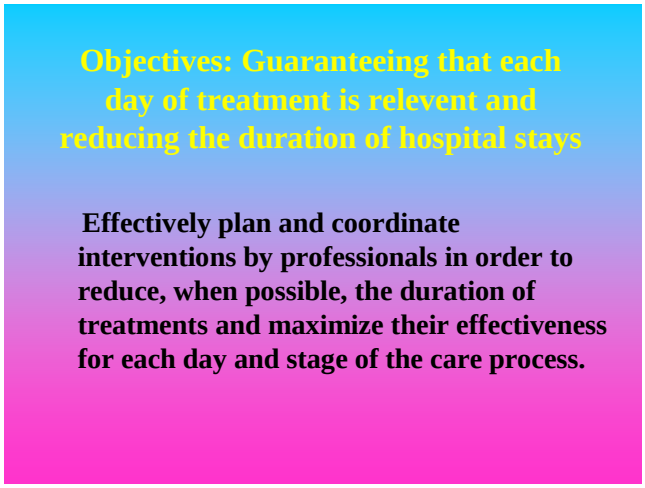
Care is a series of acts which aim to improve the well-being of the patient. In order to be effective, two dimensions must converge. The first dimension focuses on the patient by considering his expectations, needs, preoccupations and feelings. The second dimension centres on the disease, wound or pain.

Case management creates optimal conditions for the achievement of better quality. An optimal stay for a given pathology will have been planned meticulously - care articulated around a carefully coordinated treatment plan, a team which listens to the patient to determine his needs, functional communications with the family of the client in order to prepare relatives for his discharge - all provide support for the claims by the promoters of case managers that it can improve the quality of care.



2- Guaranteeing that each day of treatment is relevant and reducing the duration of hospital stays.

This objective is inherent to case management as a method for establishing a more optimal cost/duration of patient-stay ratio. In order to reduce the duration of hospital stays or the time required for treatment within a department, the client must be processed through the system as quickly as possible, without incurring unnecessary or unanticipated delays, while receiving optimal care. The timing and the relevance of the duration of a hospital stay are both essential factors in case management, but not the only ones.



Each day the client spends in the hospital or in treatment must be planned judiciously. As such, all care activities, specialist consultations, tests, examinations, treatments and nursing services must be planned meticulously and coordinated methodically for each day spent by the patient in the hospital.

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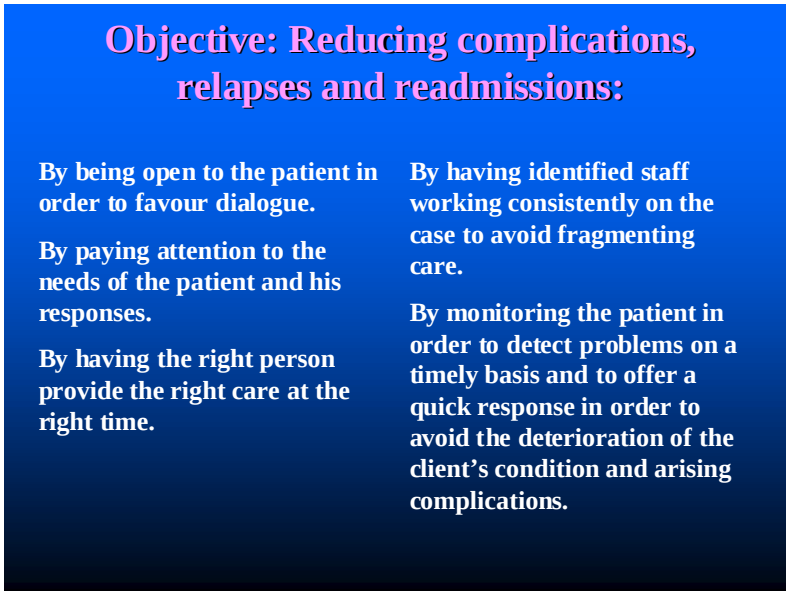
To achieve this objective, a certain form of *reengineering* must be carried out in order to align the needs of the patient with the duration of his hospital stay and then balancing them with effective outcomes.

3 – Reducing complications, relapses and readmissions

Special care needs to be placed on the patient and on his reaction to his disease and treatment. Effective, efficient, less fragmented care must be provided by personnel at the right time and be consistent from one hospitalization episode or episode of care to the next. All these efforts make it possible to identify the problems faced by the client and to offer a swift response in order to avoid complications, relapses and readmissions.



In our hospital system which strives for efficiency, hospital stays must be short. However, little or no planning is carried out in terms of effectiveness. The patient and his family are often not prepared for the discharge or the pursuit of treatment. Some patients need to be hospitalized again and face multiple visits to the emergency room due to acute or chronic pathologies which incur relapses and various complications. This phenomenon is costly, but case management can limit its ravaging effects.

In certain cases of repeated hospitalizations for patients suffering from chronic diseases, at-risk pregnancies, cognitive impairments, psychiatric cases or other conditions in which primary care is insufficient, care is spanned over a continuum which factors in the condition of the client.

Flarey and Blancett wrote in 1996 that hospitals which implement a systematic monitoring system can significantly reduce the duration of hospital stays. In Quebec, the Direction générale de la planification et de l'évaluation du réseau MSSS (health and social services department) has noted real gains. This affirmation is backed by the OIIQ (1997).

For example, at Hôpital Sainte-Croix du Centre de la Mauricie for the financial year 2001-2002, in psychiatry, child psychiatry and in a variety of other programs (attention-deficity hyperactivity disorder, anxiety disorders, schizophrenia, bipolar disorder (manic phase, depressive phase), major depression, borderline personality disorder), the average

stay remained similar to those recorded in previous years; however, the readmission rate dropped from 39.5% to 10.8%.[5]

4 – Ensuring the continuum of care

Case management aims to ensure the continuum of care through the various departments and services and between the hospital and external resources required for an episode of care. Every party involved in the case knows what he must do and when. That is because the multidisciplinary teams are involved in the care process, each activity is coordinated meticulously and the roles are clearly identified. There is thus neither unnecessary waiting nor disruption in the continuum. Patients who often complain about having to deal with multiple interveners and individuals who may not be familiar with their case appreciate this outcome

Objective: Ensuring the Continuum of Care:

- **By generating more effective communications among interveners and care structures and thus avoid duplicating interventions.**
- **By having a team consistently monitor the client when possible.**
- **By instilling cooperation among the various complementary hospital services and departments (i.e. health centres, outpatient clinics, community services).**

Objective: Ensuring the Continuum of Care

The ongoing presence of a coordinator is a factor of stability.

- **She ensures communications among interveners and departments.**
- **She helps get the patient and his family involved in the care process.**
- **She monitors the implication of the care plan.**
- **She processes and analyzes deviations between the intervention plan and patient outcome.**

Stability depends much upon the presence of a nursing coordinator who oversees the patient outcome and ensures the relevance of contacting interveners in various disciplines and of resorting to secondary and tertiary care with the patient and his family. By her ongoing presence and communicative role, the coordinator becomes a central figure in the system.

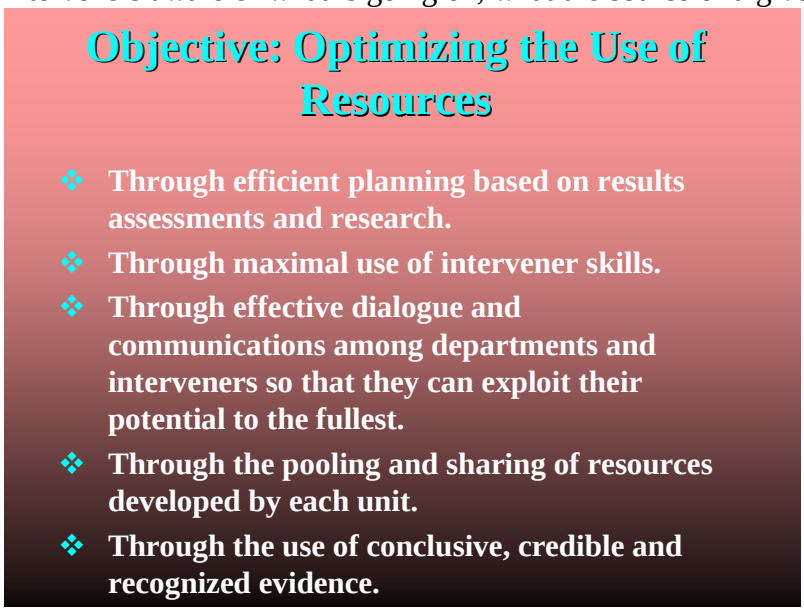
[5] Hôpital Sainte-Croix Drummondville, Québec. Available from: http://www.hopitalste-croix.qc.ca/soins/contenu/suivi_clienteles.htm. Last consulted on August 18, 2008.

5 – Creating a communications network among interveners and departments

Effective case management requires an efficient communication network for intra-hospital services and extra-hospital services as well as for transmitting patient information. Care providers are all-too-often unaware of the patient's medical history, disease or condition because they have no access to his records. Effective communications help avoid duplicating information gathering, examinations and treatments. Access to information is essential in case management for the efficient functioning of an organization. This allows care providers to intervene early and to uncover relationships between the former functional and psychosocial conditions of the client. The clinical pathway plan, meetings among multidisciplinary team members, reports, and the communicative role of the coordinator make it possible to transmit relevant information effectively.

6 – Promoting accountability

The cohesion of the case management team, the meticulously developed multidisciplinary plans, the clearly identified clinical objectives, and the pragmatic assignment of roles - all make it possible to determine the responsibilities of each individual and to ensure that they assume them. The fact that the patient and his family know who is in charge of what helps simplify the system: it is thus easier for them to address the right person. The frequent evaluation of results achieved in relation to set objectives speeds up the implementation of corrective measures and helps keep all interveners aware of what is going on, what the source of a given problem is, what needs to be improved, what the roles of the participants are, and where accountability lies.



7 – Optimizing the use of resources

Effective planning based on research, information-gathering, conclusive evidence, and the evaluation of results make case management a system that is efficient in controlling costs and

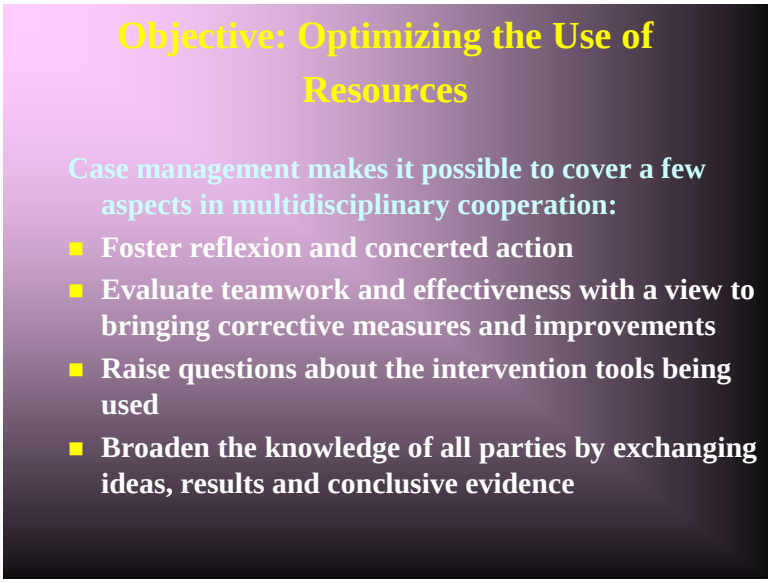
limiting the use of resources. All interveners and technologies used by specialists involved in the treatment process are used to their maximum potential. An open dialogue and closer cooperation among the interveners and departments involved generates overall participation and maximizes the contribution of their potential. The following considerations also need to be made:

- Fragmented care all-too-often results in the duplication of data-gathering, examinations and interventions, resulting in astronomical hidden costs.

- **Non-optimal** care leads to considerable budgetary increases due to the allocation of costly resources to avoidable and repeated hospitalizations and emergency admissions. The emergency room should normally be reserved for advanced medical purposes.

- Enhancing the use of community resources helps offer local services at the right time, a measure which may be less onerous and more effective.

Optimizing resource allocation is in effect ensuring that the needs of the population and services available are efficiently aligned.



8 – Increasing client, family, nursing and medical staff satisfaction

Positive patient outcomes resulting from case management as well as more comprehensive listening to the needs of clients and their families leads to a significant increase in their level of satisfaction as regards the care received and the hospital environment (Cohen and Cesta, 1997). They are aware that everything has been put into place to ensure their well-being and that their particular needs have been heard. Every event has been thoroughly planned throughout the episode of care, from admission to discharge and post-hospital follow up.

A significant source of satisfaction for all interveners involved is the succesful outcome of patient care, preferably with the health of the client improving or the latter experiencing full recovery. Harmonized and functional communications among multidisciplinary team members is also another source of satisfaction.

Job satisfaction among nurses also arises from participating in a less hierarchical structure in which they feel respected and recognized for their competencies and in which their participation in planning and implementing clinical pathway plans is appreciated.

Meaningful professional relations also increase their degree of satisfaction in favour of this system. The role of the nurse is only enhanced, as it is she who most often assumes the role of coordinator.

Below is an example that illustrates many of the objectives outlined above.

Ms. Brown, 67, is rushed to the hospital emergency room by ambulance. For many hours, she has been experiencing increasingly intense pain in her chest which has also been irradiating to her jaw.

Upon admission, she is sent to the triage area where a nurse immediately evaluates her health condition. Ms. Brown requires emergency intervention. She is sent to the critical care section of the emergency ward and a physician is duly notified.

The clinical pathway for clients suffering from retrosternal pain outlines the procedures to follow. The physiological parameters of the patient are evaluated, diagnoses specific to this condition are completed, an acute myocardial infarctus diagnosis is confirmed by the physician, and the appropriate treatment is subsequently initiated. The nurse designated for taking the patient in charge knows which interventions must be completed and which professionals to contact. She reassures Ms. Brown and summarizes the steps to be undertaken.

The patient is transferred to the care unit where she is already expected. A nurse has already been informed about the evolution of the patient's condition and of her response to the treatment administered. The unit has a clearly identified clinical pathway for acute myocardial infarctions (AMI). The nurse refers to it to plan her intervention with Ms. Brown and to contact the other professionals who will intervene during the episode of care. The CLSC has been contacted and informed that the patient has been admitted to the hospital centre and provided information about the length of her stay. The patient's discharge is being planned upon arrival.

The family of the patient is being met. The nurse explains the stages of the episode of care and the anticipated clinical outcomes for each day of the patient's stay. An information leaflet is provided along with the explanations. The relatives of Ms. Brown are now able to understand how her health condition will evolve, to plan her return to her home and to help her regain autonomy.

Throughout her stay, examinations, interventions, educational activities and consultations are planned under a standardized approach. Deviations from the standards are to be noted and analyzed if they indeed do occur. Ms. Brown will be entitled to personalized care which meets the highest quality standards. An episode of care manager has been mandated to provide support to professionals in using clinical pathways and to analyze, if necessary, any deviations reported with the multidisciplinary team.

At the end of the hospital stay, most interventions and results anticipated for this phase have unfolded as planned. CLSC officials are notified that Ms. Brown has returned to her home, and take over her case the very same day. Thus, the activities and expected clinical outcomes outlined in the home clinical pathway are in continuum with those of the hospital phase.

Upon the initial home visit, the intervention plan is discussed with Ms. Brown and her family. The visiting schedule and appointments are established. The family is informed and persons to be notified in case of an emergency identified. Ms. Brown is also registered in the cardiac rehabilitation program for her region. She will begin participating as soon as her condition allows her to do so. Ms. Brown will thus be able to pursue rehabilitation at home while benefiting from services which are safe and adapted to her condition. The family physician has been informed of the interventions and results contained in the clinical pathway. He will therefore be able to monitor the patient more efficiently[6].

9 – Fostering professional development

Turning care delivery and treatments into a system with a view to multidisciplinary cooperation and the search for conclusive evidence not only increases the quality of client monitoring, it also facilitates the integration of new points of reference, generates debate, concerted action and the continuous improvement of clinical pathway tools thanks to the ongoing exchanges among professionals from a variety of disciplines.

The processing and analysis of deviations and variances fosters dialogue among interveners who seek to determine the source of complications which fall out of line with the matrix for the treatment and hospital stay. Clinical and administrative research creates room for professional development which goes beyond rivalries and which makes it possible to truly integrate various disciplines.

[6] Hôpital Sainte-Croix (2003). Drummondville, Québec. Available from: http://www.hopitalste-croix.qc.ca/soins/contenu/suivi_clienteles.htm. Last consulted August 18, 2008.

10 – Supporting clinical research and encouraging a more scientific approach

The frequent evaluation and implantation of corrective measures in case management is essential in order to guarantee its efficiency and effectiveness and is at the core of its success in better responding to client needs (Case Management Practice Guidelines, 1996). The administrator must carry out the evaluation using a meticulous, investigative methodology and using conclusive evidence or benchmarking as a tool for comparison.

The administrator must conduct a serious analysis of the results and determine whether the clinical pathway plans are relevant. She must also evaluate client satisfaction as well as the level of satisfaction of the families and professionals involved at regular intervals. Deviations and variances must also be examined. They are used to analyze objectives which are not met as well as complications which arise. They are also used to determine the length of hospital stays and treatments and why some cases failed to correspond to the plan. Evaluations and corrective measures offer the possibility of initiating broader investigations which can only help the nursing profession evolve and enhance the recognition of its role in clinical expertise, creativity and leadership.

11 – Establishing a better cost-benefit ratio per number of people treated

One of the main obectives of the systematic monitoring system is to optimize care delivery and to optimize the cost-benefit ratio for services offered while achieving better equilibrium of expenditures for the number of patients treated. In effect, this goal should be described as a consequence or positive outcome of more effective case management.

Ongoing research conducted in many countries clearly demonstrates the potential for cost savings. Case management affects the effectiveness of the system; through the efficient use of both human and technological resources, it influences the duration and costs of hospital stays. It even makes it possible to make some cost savings. Aligning the pathways of the system to case-mix groups helps develop a more effective health care system. The table

below is a sample form used for cost-benefit analysis. A comparison of the numbers in the two tables below indicates how savings can be made.

EXAMPLE OF A COST-BENEFIT ANALYSIS REPORT

Name: XXX Age: 2
Diagnosis: status asthmaticus
Duration of follow up: 3 months

Number of hospitalizations
during 1996: 3
Duration: 7 days Cost: $6 000
Number of medical consultations: 9 Cost: $540

Number of hospitalizations
during 1997: 0
Duration: Cost: $0
Number of medical consultations: 2 Cost: $120
Nursing case management: 6 visits Cost: $240
Patient status: stable Net cost: $360

Estimated avoidable costs: $6 060

Adapted from Catherine M. Mullahy (1998).

DAYS SAVED BY GROUPS OF CLIENTS IN CASE MANAGEMENT
(only a few centres are covered)

CLIENT GROUP	DAYS SAVED
- Chronic obstructive pulmonary disease (COPD)	1,971.2
- Cerebrovascular accidents (	1,156.5
	240
	368.75
- Hip fractures	1,680.84
	5,340
- Coronary bypass surgery	1,140.80
- Hip prosthesis	3,788.57
- Amputations	3,080
- Intravenous antibiotic therapy	3,000
	6,500

Source: O.I.I.Q. (1997). *Bilan du suivi systématique des clientèles. Vers un nouveau contrat entre les infirmières et les clients.* Montreal, 17-20. N.B.: Each number represents a different hospital.

SELECTING CLIENTELES TO BE INTEGRATED INTO CASE MANAGEMENT

The types of patients that should be integrated in case management are those at risk of developing complications and having prolonged or frequent hospital stays, as well as those whose treatements are costly. The patients may suffer from complex pathologies, chronic disases, or undergo surgery for severe problems. There are also less complicated, common cases in which there exists a potential to reduce hospital stays. Each institution must base its decisions upon the operating statistics at its disposal.

Patients which may be found in a systematic monitoring system include: persons suffering from hip fractures, knee problems, heart or kidney conditions, and chronic obstructive pulmonary disease (COPD); clients who require a coronary bypass, arthroplastia, total hip replacement, bone marrow transplant, vaginal hysterectomy, prostate resection, mastectomy, and antibiotic therapy. Case management also extends to seniors, mental health cases and, increasingly, the community. The following Quebec-based centres all have systematic monitoring systems: Hôpital Robert Giffard, Quebec City; Hôpital Sainte-Croix, Drummondville; Montreal General Hospital; Hôpital Saint-Jean-sur-Richelieu

Not every patient suffering from the pathologies described is integrated into case management systems; however, those who meet the admissions criteria are. The reasonably expected potential for the client to develop further complications or hospital stays (i.e. due to age) as outlined in the clinical pathway plan is taken into consideration. Patients who do not meet the criteria are treated in the normal manner.

CONCLUSION

When it is implemented, case management offers many benefits to both the patient and the health care system. It also benefits nurses. Case management makes nursing roles and responsibilities more visible and requires the nurse to apply her skills and abilities. This nursing management method only enhances the role and potential of nurses.

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