Utilization Management in Acute Care

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Utilization Management in Acute Care

Introduction

Utilization management (UM) is defined as “planning, organizing, directing, and controlling health care products in a cost-effective manner while maintaining quality of patient care and contributing to an organization’s goals” (Spath, 2009). While one of the major goals of utilization management is cost savings, this should never be at the expense of quality of care. Both under and over utilization are undesirable outcomes. Optimal patient care is the goal and utilization management aims to achieve both improved cost-effectiveness and appropriateness of care.

Canada is faced with the challenge of sustaining a health care system that Canadians have come to expect in the face of increasing costs, improved and expensive technology, an aging population with complex medical conditions, and decreasing resources. In addition, the public is better informed, more demanding, and indeed more litigious than was the case in the past (Evans, et al., 2011). Accountability is paramount. As a result, utilization management is increasingly important in all sectors of the health care system. This professional practice brief (PPB) will concentrate on UM as it pertains to inpatient acute care. Because UM is such a large subject area, this PPB merely scratches the surface of some of the most important issues facing those responsible for utilization management in Canada.

History of Utilization Management

The history of utilization management is first referenced in the United States, with details pertaining to the origins in Canada being difficult to ascertain. Most sources date the beginning of formal utilization management programs in the U.S. to 1965, when the Social Services Act was amended to create the Federal Medicare Program for the elderly and Federal/State Medicaid for the poor (LaTour & Eichenwald Maki, 2010). As the U.S. federal government was funding these programs, the need for accountability became vitally important (LaTour & Eichenwald Maki, 2010). However, third-party insurers continued to pay freely

Traditionally, utilization activities have focused on retrospective review, the practice of reviewing a case after separation occurs (National Research Council, 1989). However, with soaring costs and the growing perception that some medical care is unnecessary, widespread application of prospective review began in the 1980s (National Research Council, 1989). Decisions that used to be at the sole discretion of the physician and patient must now be reviewed by utilization and quality control peer review organizations and are subject to ‘second-opinion’ programs in many cases (National Research Council, 1989). Another factor that has led to the rapid proliferation of utilization management programs is the development of information resources and tools that make large-scale case review feasible (National Research Council, 1989).

According to LaTour and Eichenwald Maki, utilization review programs were initially focused solely on the necessity of the admission to a health care facility and on the length of stay (LOS). While these reviews are still key components of utilization management today, the scope has broadened in the U.S. to include the entire continuum of care, including home care (Fuller Delong, n.d.). More recent evolution of utilization management has seen many advances in the quality and availability of the data necessary to accurately review utilization metrics. These include such things as greater standardization of data elements, increased specificity and accuracy in the coding of diagnoses and interventions, and the development of the software necessary to perform the analysis (National Research Council, 1989).

Canada has lagged behind in implementing utilization management programs in health care. In the past, our publically-funded hospitals simply added to their budgets when the demand for services increased (Vandenbroek, McNestry, & Dobby, 2001). However, with spending on health care outpacing revenues over the decade 2000/01 to 2010/11 (by 3% annually in Ontario, for example), a broad revamping of the system has been deemed necessary in order to maintain a viable public health care system (Commission on the Reform of Ontario’s Public Services, 2012). Utilization management will play a significant role in this, as facilities are forced to do more with less (Abrams & Gibson, 2013).
Utilization Steering Committee

Facilities may not have a department dedicated to utilization, or utilization activities may be part of a decision support portfolio. Some facilities have formal utilization steering committees (USC). Such committees are only effective when fully supported by senior level administration and membership must include a multidisciplinary team of key internal stakeholders. For example, the committee at Hamilton Health Sciences (HHS) in Ontario includes members of the senior team; the chair of the medical advisory committee, as well as other physician representatives, clinical program directors, the decision support director, the quality, safety and clinical resource director, representatives of the diagnostic imaging, lab and pharmacy services, and ad-hoc representatives as issues arise. Its purpose as stated is “to monitor, review, evaluate and make recommendations to improve the use of clinical resources to best meet the needs of patients at all HHS hospitals and the Juravinski Cancer Centre, within the context of the Local Health Integration Network (LHIN) and the broader health system” (Clinical Resource Utilization Management Steering Committee, 2010). The committee does so by developing strategies based on the mission, vision and values of the organization to enhance utilization; by communicating and educating employees on USC objectives; and by monitoring utilization indicators and taking corrective action as necessary. The USC undertakes this by means of utilization review (UR), “the process of determining whether the medical care provided to a specific patient is necessary according to pre-established objective screening criteria at time frames specified in the organization’s utilization management plan” (LaTour & Eichenwald Maki, 2010)

Utilization Management Issues

As noted in the review of the history of utilization management, the earliest work in the field tended to concentrate on the need for admission and on LOS (LaTour & Eichenwald Maki, 2010). Both of these remain critical areas of focus today. Other issues that have come to the forefront include: wait times analysis and the challenge of managing alternate level of care (ALC) patients. Furthermore, an overarching UM issue that encompasses all others is that the required data is both available and of the highest quality.

It is important for hospitals undertaking a utilization review to select the appropriate peer group of hospitals with which to compare results. Peer facilities share similar characteristics such as size, number of patient days or weighted
cases, similar case mix groups (CMGs), and similar expected length of stay (ELOS) data. The choice of peers can be a custom process, useful when specific metrics are being reviewed, or a standard according to set criteria. The Canadian Institute for Health Information (CIHI) has identified four standard peer groups for use in the Canadian Hospital Reporting Project:

- T (Teaching)
- H1 (Community – Large)
- H2 (Community – Medium)
- H3 (Community – Small)

Each is defined by criteria outlined in the glossary of terms (Appendix A).

**Gauging the Appropriateness of Admission**

Ideally, utilization review should begin before the patient is admitted, with an analysis of which service is most appropriate for the care in question (Abrams & Gibson, 2013). It may be that the patient does not require admission to an inpatient unit and can be cared for in an ambulatory setting. An instrument which may be used to determine if an admission is warranted is the appropriateness evaluation protocol (AEP) (Abrams & Gibson, 2013).

According to Sangha, Wildner, Cook, Brennan, Witte, & Liang, (2002) this tool was developed in the U.S. and has been extensively tested there. They state the AEP relies on a list of criteria, which varies in number based on the country and its unique circumstances. Sangha et al further state that some medical services that are now done routinely on an outpatient basis have been dropped from the list. In all cases, the criteria includes factors relating to the medical stability of the patient, such as the inability to urinate or defecate or presenting with a high fever, the necessity of medical services, such as extensive wound care or the need for respiratory therapy, and surgical procedures, if any, planned within 24 hours of admission (Nelson, Gardner, Hedrick, & Gould, 1994). If the patient is found to meet even one of the criteria, admission is deemed to be appropriate; if no criteria are met, then the patient is more appropriately cared for outside the inpatient setting (Sangha, Wildner, Cook, Brennan, Witte, & Liang, 2002). There is always the potential for a clinical override in either direction; admitting a patient who does not meet the criteria or, conversely, not admitting one who does based on the professional judgment of the physician in charge of the case (Sangha, Wildner, Cook, Brennan, Witte, & Liang, 2002; Nelson, Gardner, Hedrick, & Gould, 1994).
Another analysis important to the appropriateness of an admission concerns surgical patients. A review may be done to determine if patients are being admitted the day before surgery and the reasons for this. While this was a common practice in the past, there is no longer a reason for this in most cases and these instances should be evaluated. In addition, it is important to examine cases where the patient has been admitted after a same-day surgery procedure. There may be factors leading to a higher than expected admission rate that should be analyzed and corrected.

Medical day care clinics may reduce unnecessary admissions to inpatient units. These clinics provide medical care for conditions such as diabetes and kidney disease on an outpatient basis. Although many of these cases formerly required admission to hospital, technological advances and new medications have made treatment on an ambulatory basis possible. When it is deemed appropriate, ambulatory care is the preferred method of care delivery for patients and the health system alike. Ambulatory care has been found to be more cost-effective than admission to the hospitals and, more importantly, safer for patients (Health PEI, 2014).

Finally, patients may be evaluated for appropriateness of admission in a medical short stay unit (MSSU). These units are intended for patients who, after evaluation in the emergency department, are deemed to require stays of 72 hours or less. Studies have shown that this is an effective way to care for patients who have been assessed to require a short stay. Most patients are discharged to their home within 48 hours and no increased readmission rate has been noted (Downing, Scott, & Kelly, 2008).

Once the decision has been made to admit, concurrent UR should ideally occur on each day of stay. It is crucial that physicians be involved in this review process (Working Group on Health Services Utilization, 1994).

**Length of Stay (LOS) and Conservable Bed Days**

Length of stay remains a critical utilization issue and encompasses many sub-issues, such as conservable bed days, readmission rate, and late discharges. An expected length of stay (ELOS) is calculated for each acute inpatient case within the abstracting system and is deemed the optimal length of stay for that case. It is based on the case mix group (CMG), age of the patient, and four additional
Conservable bed days are a key measure of LOS utilization. These are the number of days that might be conserved if a hospital reduced its average length of stay (ALOS) to benchmark levels. LOS can vary for a number of reasons: physician practice, facility site, even day of the week discharges (in many facilities, discharge rates vary on the weekend). Conservable day calculations assist a facility in drilling down to the root cause and are most appropriate for cases that are ‘typical’ in the CMG methodology, as the various benchmarks have been developed from typical cases. It can be calculated as the difference between the acute care days of stay and the ELOS. It is important to note, alternate level of care (ALC) days are not included in this definition, but a separate calculation for ALC conservable days is sometimes done (Royal Victoria Regional Health Centre, 2013).

Another methodology that has been used is to benchmark a facility against the top 25th percentile for that CMG among the facility’s chosen peer hospitals (Manitoba Centre for Health Policy, 2001).

**Readmission Rate**

Readmission rate is also a key metric, as it encompasses both LOS and potential quality and effectiveness of care concerns. Readmissions also increase the cost of health care and many of these costs are considered to be avoidable. The Canadian Institute for Health Information (CIHI) determined that the overall 30-day readmission rate in Canada was 1 in 12 in the fiscal 2010/2011 year (CIHI, 2012). Certain factors have been shown to increase the risk of readmission, including very long and very short length of stays, rural and low-income patients, smaller hospital size, patients of a more advanced age and a higher Charlson comorbidity index score. Patients of the male gender are more likely to be readmitted (CIHI, 2012).

Certain diagnoses are more likely to be seen in these readmission statistics. These include chronic obstructive pulmonary disease, congestive heart failure, pneumonia, and certain digestive disorders (CIHI, 2012). As a consequence of this, the 30-day readmission rate for these conditions is often tracked separately from the overall rate for a facility and is often included in the accountability agreements that facilities sign with their region or province. For example, in Ontario the 30-day readmission rate for selected CMGs is reported by hospitals.
to their LHIN and is included in the hospital service and accountability amending agreement, albeit without specific targets at the present time (Ontario Ministry of Health and Long-Term Care, 2014).

The overall cost to the Canadian health care system of inpatient readmissions within 30 days has been estimated to be $1.8 billion in an 11 month study period. An estimate on how many of these readmissions could be prevented varies widely, from 9% at the low end to 59% at the high end (CIHI, 2012). This is thought to be because most of the studies done to date have been fairly subjective and use a variable methodology. There is a lack of agreement about what constitutes ‘avoidability’ (van Walraven, Bennett, Jennings, Austin, & Forster, 2011). Simply extending LOS is not the answer, as nosocomial infections and skin ulcers are more likely to be contracted with a longer stay in hospital, and most patients experience a more rapid recovery when in their home environment. For the elderly, longer stays in hospital have been shown to lead to rapid declines in physical and cognitive abilities (CIHI, 2012).

A return to the emergency department (ED) within seven days of an acute care discharge is also an expensive challenge for the health care system, with an estimated cost to the system of $30.6 million over the same 11 month period that inpatient readmissions were tracked (CIHI, 2012). It is estimated that about 9% of acute care discharges result in a return to the ED. Patients with the same risk factors as were seen for readmission to inpatient care tend to be the ones returning to the ED. (CIHI, 2012). LOS is not as strong a factor for ED encounters as it is for inpatient readmissions. One in four of these return ED visits are triaged as less-urgent or non-urgent. Better access to family physicians and/or services in the community could therefore be seen as a potential solution, as patients may be visiting the ED for primary care services (CIHI, 2012).

Discharge Planning

Closely linked to unplanned readmissions is the concept of discharge planning. Discharge planning should begin on admission (or even at the pre-admission clinic, if applicable) and must involve multi-disciplinary teams meeting on a regular basis during the course of the episode of care (Working Group on Health Services Utilization, 1994). An estimated date of discharge should be established on admission or as soon as possible thereafter (Office of the Auditor General of Ontario, 2010). Crucial to discharge planning is working with community organizations to ensure adequate services are available post-discharge. In Ontario, it has been estimated that 20% of discharged patients need further care
once they leave the hospital and that perhaps 50% of ALC patients could be discharged if sufficient home care services were available (Office of the Auditor General of Ontario, 2010). It is important to discharge as soon as possible once the discharge order has been written by the physician. As noted above, nosocomial infection and skin ulcers are more prevalent with longer stays as well as the mental and physical decline of elderly patients. (Office of the Auditor General of Ontario, 2010).

There are several tools that exist to assist with the discharge planning process. A completed discharge summary and medication reconciliation form is crucial to getting patients on their way. Templates can be provided to make the process easier for busy physicians to complete in a timely fashion. Electronic information and referral systems can match patients to the best available post-discharge care for their unique circumstances, particularly for more complicated discharges, where patients are unable to return to their home (Office of the Auditor General of Ontario, 2010).

The Challenge of ALC

One of the most critical challenges facing Canadian utilization management is the issue of inpatients assessed as ALC. These patients do not need the level of care provided by their current setting, but for a variety of reasons, they are unable to be discharged or moved to a more appropriate level of care. As ALC patients occupy a bed they do not require, these beds are not available to patients who do need them, leading to long waits for patients admitted through the emergency department and cancelled elective surgeries outside the priority procedures (Sutherland & Crump, 2013). According to CIHI, ALC patients account for 5% of hospitalizations and 14% of patient days, at huge cost to the health care system. The median LOS for ALC patients was 10 days in 2007/2008 and this had been consistent over three years (CIHI, 2009).

There is some question as to whether ALC days are being properly captured, with underreporting being the greatest concern. Data varies across the country, due to differences in documentation and in system capacity and funding. As coders must have documentation from the physician of the patient’s ALC start date, it is crucial that physicians be encouraged to make the designation on the chart in a timely fashion.

ALC patients are likely to be the frail elderly and often have cognitive or behavioural difficulties due to dementia, stroke or other neurological conditions.
43% are waiting for long-term care beds, and these neurological challenges may make them more difficult to place. This suggests the need to train more caregivers to be able to manage such patients (CIHI, 2009).

Facilities have tried different solutions to deal with the ALC challenge, as some are reporting more than half their patient days as ALC (CIHI, 2009). Some facilities have created units that exclusively cater to the care needs of ALC patients, allowing the facility to reduce staffing costs.

In Ontario, ALC data is collected as part of the Wait Time Information System (WTIS), which is maintained by Cancer Care Ontario (CCO). Often, the collection and submission of the data and reports to the WTIS is an HIM role in the facility. The system collects data on the ALC wait times, as well as barriers that prevent discharge. Recently, the system was updated with a new data element ‘most appropriate discharge destination’. This is intended to capture not only the setting where patients should be discharged to, but also the location they are actually discharged to. For example, it has been found that patients who are suitable for a retirement residence often end up in a long term care facility, as retirement residences can be prohibitively expensive. The data collected by the province through CCO is intended to inform future planning (Access to Care CCO, 2012).

Integrated Care

One way in which jurisdictions hope to tackle ALC and other issues around the high cost of inpatient hospital care is through the integration of the different sectors of the health care system. Treatment in the community or at home, when possible, is more cost-effective and better for the discharged patient than remaining in the hospital. In other parts of the world, it has been found that health care institutions respond positively to financial incentives. Here in Canada, British Columbia is experimenting with providing financial incentives for increased utilization of community-based programs for post-acute care (Sutherland & Crump, 2013).

Ontario has also put a program in place to better integrate the different sectors of the health care system. The first such initiative was ‘Home First’, which attempts to identify patients at risk of progress to ‘ALC for long-term care’ status and proactively arranging the support systems necessary for them to return to their homes (CIHI, 2012). The formal provincial philosophy statement is as follows: “When a person enters a hospital with an acute episode, every effort is
made to ensure adequate resources are in place to support the person to ultimately go home on discharge” (Advocacy Centre for the Elderly, 2011). The Home First program has had some success in reducing ALC days, but critics claim that some patients requiring a high level of care were discharged home without the proper supports in the community (Advocacy Centre for the Elderly, 2011).

One community-based program that has met with success in the U.S. is the Program of All-inclusive Care for the Elderly (PACE). This model provides care in the community for those aged 55 and over who have complex medical needs. In this program, providers are given incentives to keep clients out of the hospital (Sutherland & Crump, 2013). This model seems to be effective in the U.S. privately-run system, and has also been adapted for Canada, with some facilities providing PACE outpatient clinics.

Wait Times

Another challenge for the Canadian health care system and for utilization management is the issue of wait times. The 2002 Romanow Report on the Future of Health Care in Canada cited timely access to diagnostic tests, surgeries, and specialists as a key priority for Canadians and a major reason why those with the means to do so seek care in other countries, particularly the United States (Romanow, 2002). In addition, the 2004 Federal Speech from the Throne included this passage: “the length of waiting times for the most important diagnoses and treatments is a litmus test of our health care system and these waiting times must be reduced” (BCMA Council on Health Economics and Policy, 2006). The provinces were directed to begin systematically collecting wait time data beginning with five priority areas: cancer, heart disease, diagnostic imaging, joint replacement surgery, and cataract surgery. The federal government provided funding as part of a ten-year plan to improve wait times. This funding allowed the provinces to put tools in place to understand and deal with the problem of long waits, including central registries (such as Ontario's WTIS registry at Access to Care), clinical guidelines based on best practices, the information technology to support the registry, and financial incentives for facilities to meet their wait time goals in the priority areas. Each case is given a priority level based on urgency as judged by the physician and the goal is for the patient to receive their treatment within the target established for that priority level (BCMA Council on Health Economics and Policy, 2006).

As time has passed, many provinces have expanded their wait time system to include other procedures beyond the priority areas. Ontario and Alberta are also
collecting emergency department wait time data and Ontario has expanded the system to include ALC, as noted above. CIHI has found that, while there has been improvement in access to joint replacement surgeries, cataract surgery results have been mixed. In addition, there are still challenges around access to diagnostic imaging tests, specialists and cardiac surgery. Cancer wait times vary by the site of the cancer. There has been no change in the proportion of patients treated within established benchmarks over a three year study period, while the numbers who have received care has increased (CIHI, 2014).

In Ontario, WTIS now tracks the time it takes for a patient to get from the referral by their primary care provider to the appointment with the specialist. Targets will be developed once enough data is collected to ascertain the current state of affairs. This is intended to shorten the wait time for this initial phase of the patient care experience (Access to Care, n.d.).

Special funding is often associated with the priority procedures and reports must be provided to the wait time overseer in the jurisdiction, as well as the regional and/or provincial governing bodies. Explanations must be provided and penalties may ensue if targets are not met. Wait time targets are often part of accountability agreements, both between regional authorities and the Ministry for the province, and between individual facilities and their regional overseers (Ontario Ministry of Health and Long-Term Care, 2013).

Toward ‘Patient – Centred’ Funding Models

Traditionally, hospitals in Canada have been funded by some form of global funding. Although funding allocation among facilities could be adjusted, the funding levels were more reflective of the facility’s location than the types or complexity of their patients. Facilities are given a lump sum of money and it is left to their discretion as to how it is allocated. Both Ontario and British Columbia have moved to models of funding that are more focused on the patient. Known as activity-based funding (ABF), these models compensate hospitals based on the number and types of services they perform (Marcy, McGregor, Ivanova, & Kinkaid, 2012). In Ontario, under health services funding reform (HSFR), 70% of funding is projected to be activity-based by the 2015/2016 fiscal year. The Ontario model consists of two components: the health-based allocation model (HBAM), which combines population factors, such as the ‘rurality’ of the patient’s residence, with case-mix data, and funding for quality-based procedures (QBP), the specific procedures that have been given priority (Ontario Ministry of Health and Long-Term Care, 2014). Ontario has gone so far as to develop its own
grouping methodology, known as HBAM inpatient group (HIG). Fully supported by CIHI, HIG groups are based on CMGs (approximately 80% of HIGs are identical to CMGs), but a further split for specificity is done in some cases (CIHI, 2012). The B.C. plan involves only participating hospitals receiving ABF based on total number of cases combined with the complexity level of each patient (BC Health Services Purchasing Organization, 2011).

This method of funding would seem to be the wave of the future and it is likely that more provinces will get on board, as accountability to the public, who funds the health care system, has become a key driving force for governments.

The Role of the HIM

Health Information Management professionals are key players in the UM process in any organization. UM activities depend on timely and accurate submission of coded data and on skilled analysis of the finalized data submissions. HIM professionals ensure that data is collected, coded and abstracted accurately and submitted on time. Data quality is one of the Canadian Health Information Management Associations (CHIMA’s) four domains of practice, which means the HIM professional is uniquely qualified to ensure that data is held to the highest standard, in compliance with legislative and ethical principles. HIM professionals are often found in the role of Wait Times Coordinator for a facility and, as such, work with specialists’ offices to support the management of their wait list so that patients receive their procedures within target for the priority level of the case. In this role, they are responsible for submitting jurisdictional mandatory reports. HIM professionals may find themselves in roles as Data Analysts where software proficiency in Crystal Reports, SAS, SQL Server, or other applications, is required for data mining of large databases. In addition, advanced Microsoft Excel skills are required, as data is typically exported into Excel to manage the large amounts of data with sorting, filtering and statistical database analysis to produce tables and charts used for planning, administering, or evaluating health services.

A facility may or may not have a formal utilization committee or utilization management department. Often, UM activities are part of the decision support department of a facility and many HIM professionals find their niche in decision support. Coded data and health care information are the primary sources of facility data. HIM professionals have expert knowledge in the data continuum (data, information, knowledge, wisdom) and are skilled at developing tools such as indicator reports, balanced scorecards and dashboards to report on
organizational performance. They are also trained in presentation skills ideally suiting them to share their knowledge and expertise by educating all stakeholders on the importance of UM in decision making. Managing this data and information, in whichever role, requires an HIM professional who is knowledgeable about the Canadian health care system, federal and provincial legislation, the requirements of regulated health professions, information technology, and has advanced skills in data analysis.

Conclusion

This PPB has provided an overview of some of the main issues facing utilization management in acute care today. Additionally this PPB provides a few examples of provincial initiatives based on the author and reviewers areas of expertise. It is an area of practice for which HIM professionals are well-suited, owing to their in-depth knowledge of health care data and information and their commitment to quality data for quality decision making. Utilization management is a field which will continue to evolve as increasing accountability compounds the need to assess and identify opportunities for improvement in our never-ending determination to achieve an efficient and sustainable high-quality health care system.
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## Appendix A - Glossary of Terms

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
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<tr>
<td>Activity – Based Funding (ABF)</td>
<td>Under this funding model, hospitals are funded based on the number and types of ‘activities’ they perform. This is in contrast to the traditional global funding in which hospitals are given a yearly budget that they can allocate as they wish (Marcy, McGregor, Ivanova, &amp; Kinkaid, 2012).</td>
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<td>Age factor</td>
<td>First step in calculating base ELOS for each CMG.</td>
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<td>Alternate Level of Care (ALC)</td>
<td>Ontario Provincial Definition: When a patient is occupying a bed in a hospital and does not require the intensity of resources/services provided in this care setting (Acute, Complex Continuing Care, Mental Health or Rehabilitation), the patient must be designated Alternate Level of Care (ALC) at that time by the physician or her/his delegate. The ALC wait period starts at the time of designation and ends at the time of discharge/transfer to a discharge destination or when the patient's needs or condition changes and the designation of ALC no longer applies. (Cancer Care Ontario, 2011). Note: Other provinces have similar definitions. CIHI Definition: The term “alternate level of care” is used in health care settings, including: acute care, complex continuing care, mental health and rehabilitation, to describe persons who occupy a bed in a facility but no longer require the intensity of resources and services provided in that setting. In the context of this analysis, ALC identifies a person who has completed the acute care phase of their treatment but remained in an acute care bed (CIHI, 2012).</td>
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<td>Average Length of Stay (ALOS)</td>
<td>Calculated by dividing the sum of inpatient days by the number of patient discharges in the same time period. ALC days are excluded.</td>
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<td>Balanced Scorecard</td>
<td>A strategic planning and management system that balances traditional financial data with key strategic non-financial metrics. It was originated by Drs. Robert Kaplan and David Norton. The balanced scorecard terminology was first used in the 1990s (Balanced Scorecard Institute, 2014).</td>
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<tr>
<td>Beds Staffed and in Operation</td>
<td>The beds/cribs available and staffed to provide services to inpatient/residents at the required type and level of service, at the beginning of the fiscal year. Includes bassinets set up outside the nursery and used for infants other than newborns. (CIHI, 1996 - 2014).</td>
</tr>
<tr>
<td>Benchmarking</td>
<td>The process of comparing a health care practice/performance to that of the best in the business. Serves to improve quality of care/services by observing these best-practices and adopting them. (Abrams &amp; Gibson, 2013).</td>
</tr>
<tr>
<td>Canadian Hospital Reporting Project (CHRP)</td>
<td>A project developed by CIHI to create a set of standardized and comparable performance indicators for hospitals across participating jurisdictions. Hospitals are sorted into four categories based on size and type. (CIHI, 2013).</td>
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<tr>
<td>Canadian Triage and Acuity Scale (CTAS)</td>
<td>A formalized instrument designed to prioritize patients in the emergency room to ensure that the most urgent patients are identified and to improve throughput in the department. The scale has five levels: Level I – Resuscitation, requiring immediate and often aggressive interventions; Level II – Emergent, requiring rapid medical intervention; Level III – Urgent, conditions that may progress and require care in a timely fashion; Level IV – Less Urgent (Semi urgent), conditions that require care within 1 – 2 hours; Level V – Non Urgent, conditions for which treatment can be delayed or even referred to other areas of the health care system (Canadian Association of Emergency Physicians).</td>
</tr>
<tr>
<td>Case-Mix Group (CMG)</td>
<td>The Case Mix Groups+ (CMG+) methodology is designed to aggregate acute care inpatients with similar clinical and resource-utilization</td>
</tr>
<tr>
<td><strong>Charlson Comorbidity Index</strong></td>
<td>A method of predicting mortality by weighing the effects of comorbidities. It has been validated for many disease subgroups, including stroke, cancer and renal failure and is widely used by health researchers. The Index has recently been updated to reflect medical advances made since it was originally developed in the late 1980s (Quan, et al., 2011).</td>
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<tr>
<td><strong>Clinical Decision Unit (CDU)</strong></td>
<td>Clustering potential patients to be admitted for no more than 24-48 hours to undergo tests, consultations. May end up being admitted or discharged home. Takes some of the pressure off the ED.</td>
</tr>
<tr>
<td><strong>Clinical Practice Guidelines</strong></td>
<td>Recommendations for caring for patients with specific medical conditions. These should be based on ‘best practice’ per the most recently available data. Guidelines have two parts: the foundation, a systematic review of the research evidence to date and a more subjective part, combining evidence and value judgments (Fletcher, 2007).</td>
</tr>
<tr>
<td><strong>Community Hospital – Large (H1)</strong></td>
<td>Hospitals are designated H1 if they meet two of the following three criteria (per fiscal year): more than 8,000 inpatient cases, more than 10,000 weighted cases and/or more than 50,000 inpatient days (CIHI, 2013).</td>
</tr>
<tr>
<td><strong>Community Hospital – Medium (H2)</strong></td>
<td>Hospitals are designated H2 if they do not meet the criteria for H1 designation but have 2,000 or more weighted cases (CIHI, 2013).</td>
</tr>
<tr>
<td><strong>Community Hospital – Small (H3)</strong></td>
<td>Hospitals are designated H3 if they have fewer than 2,000 weighted cases (CIHI, 2013).</td>
</tr>
<tr>
<td><strong>Comorbidity Factor Level (CL)</strong></td>
<td>Each patient is assigned to a Comorbidity Factor Level reflecting the cumulative cost impact of comorbidities on patient stay.</td>
</tr>
<tr>
<td><strong>Comprehensive Ambulatory Care Classification System (CACS)</strong></td>
<td>The national grouping methodology for ambulatory care patient data. This data may be submitted to either DAD or NACRS, depending on the province.</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
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<td>-------------------------------------------</td>
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</tr>
<tr>
<td>Concurrent UR</td>
<td>Ongoing review during the course of the episode of care.</td>
</tr>
<tr>
<td>Conservable Bed Days</td>
<td>(ICES) “The number of days that might be conserved if a hospital decreased the adjusted average length of stay (LOS) from existing levels to benchmark levels.” (Manitoba Centre for Health Policy, 2007).</td>
</tr>
<tr>
<td>Episode of Care</td>
<td>An episode of care refers to all adjoining inpatient hospitalizations and same-day surgery visits (CIHI, 2012).</td>
</tr>
<tr>
<td>Expected Date of Discharge (EDD)</td>
<td>Date the patient is expected to be discharged from the hospital. This is ideally determined early in the episode of care.</td>
</tr>
<tr>
<td>Expected Length of Stay (ELOS)</td>
<td>Derived from average of acute days of stay in hospital for a particular CMG. The age of the patient and four additional factors (comorbidity, flagged interventions, intervention events, and OOH interventions) are taken into account when calculating this estimate.</td>
</tr>
<tr>
<td>Flagged Intervention Factor (FI)</td>
<td>Select interventions flagged to identify patients expected to use significant resources, though the interventions themselves are not necessarily costly.</td>
</tr>
<tr>
<td>HBAM Inpatient Group (HIG)</td>
<td>Ontario–specific grouping methodology. HIG groups are assigned based on CMGs, with additional clinical information included. Most HIG groups (approx. 80%) are identical to CMGs. The remaining 20% are split for more specificity. Note: Factors that affect HIG weight differ from the CMG methodology.</td>
</tr>
<tr>
<td>Health - Based Allocation Model (HBAM)</td>
<td>Ontario–specific formula that allocates funding to hospitals and Community Care Access Centres. It takes into account population factors, as well as clinical case mix data (Ontario MOHLTC, 2013).</td>
</tr>
<tr>
<td>Health System Funding Reform (HSFR)</td>
<td>Ontario–specific concept that moves funding away from the traditional global funding to activity-based funding (Ontario MOHLTC, 2014).</td>
</tr>
<tr>
<td>Index Episode</td>
<td>The initial hospitalization (CIHI, 2012). Used in the calculation of readmission rates.</td>
</tr>
<tr>
<td><strong>Inpatient Days</strong></td>
<td>The days during which services are provided to an IP between the census-taking hours on successive days; the day of admission is counted but the day of separation is not; if an IP is admitted and separated on the same day, one IP day is counted. (CIHI, 1996 - 2014).</td>
</tr>
<tr>
<td><strong>Integrated Care</strong></td>
<td>The concept of removing barriers between different arms of the health care system and creating partnerships that will allow for seamless and more efficient patient care across the continuum (Ontario MOHLTC, 2013).</td>
</tr>
<tr>
<td><strong>Intervention Event Factor (IE)</strong></td>
<td>Assignment of a code to indicate the number of interventions (CCI partition list). Multiple intervention events may indicate higher patient resource consumption.</td>
</tr>
<tr>
<td><strong>Length of Stay (LOS)</strong></td>
<td>The number of days a patient spends in hospital from time of admission to time of discharge (CIHI, 1996 - 2014).</td>
</tr>
<tr>
<td><strong>Occupancy</strong></td>
<td>The occupancy indicator represents the percentage of the organization's inpatient and resident days, to bed days/bassinet days staffed and in operation, reported in selected inpatient and community functional centres. (CIHI, 1996 - 2014).</td>
</tr>
<tr>
<td><strong>Out of Hospital Intervention Event Factor (OOH)</strong></td>
<td>Certain cardiac interventions performed in an ambulatory care setting of another facility during the inpatient stay.</td>
</tr>
<tr>
<td><strong>Patient – Focused Funding (PFF)</strong></td>
<td>British Columbia–specific plan for compensating hospitals on an activity basis, including procedures, diagnostic imaging and emergency pay for performance (BC Health Services Purchasing Organization, 2011).</td>
</tr>
<tr>
<td><strong>Prospective UR</strong></td>
<td>Review that takes place upon initial contact with the system.</td>
</tr>
<tr>
<td><strong>Quality – Based Procedures (QBP)</strong></td>
<td>Ontario–specific concept that funds specific procedures based on a price X volume formula. Qualifying procedures will be phased in gradually over several years (Ontario MOHLTC, 2013).</td>
</tr>
<tr>
<td><strong>Retrospective UR</strong></td>
<td>Review that occurs post-encounter and is the most...</td>
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<tr>
<td><strong>common type of UR.</strong></td>
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<tr>
<td><strong>Teaching Hospital (T)</strong></td>
<td>Hospitals with full membership in the Association of Canadian Academic Healthcare Organizations (ACAHO). These can be stand-alone or networked facilities. These hospitals are affiliated with universities and work with them to provide medical education at the undergraduate and graduate level (CIHI, 2013).</td>
</tr>
<tr>
<td><strong>Total Length of Stay (TLOS)</strong></td>
<td>Length of stay including ALC days.</td>
</tr>
<tr>
<td><strong>Utilization Management (UM)</strong></td>
<td>“Planning, organization, directing, controlling of the health care product in a cost-effective manner while maintaining quality of patient care and contributing to overall goals of the organization” (Spath, 2009).</td>
</tr>
<tr>
<td><strong>Utilization Review (UR)</strong></td>
<td>“The process of determining whether the medical care provided to a specific patient is necessary according to pre-established objective screening criteria at time frames specified in the organization’s utilization management plan” (LaTour &amp; Eichenwald Maki, 2010).</td>
</tr>
<tr>
<td><strong>Utilization Steering Committee (USC)</strong></td>
<td>Committee formed from a cross-section of hospital personnel to map out, weigh and prioritize strategic objectives. The USC identifies key indicators and uses balanced scorecard methodology to communicate, educate and monitor utilization metrics (Course Notes). Includes clinicians, finance, management, decision support and/or UM members.</td>
</tr>
</tbody>
</table>