

Utilizing Technology to Validate Case Management Data

Information and Outcomes for Hospital Case Management

By Carol Canada, RN, BS, CCM

In today's healthcare arena, with continued reform and the demand for managing costs, it has become increasingly important to monitor and improve performance in the delivery of services.

Case management places a vital role in supporting the balance between cost and quality. Traditionally, hospital case management has predominately been known for activities such as utilization review and discharge planning. Today's case management activities continue to include these tasks and an ever-increasing responsibility for resource management.

These expectations further emphasize the need to define case management roles and fine tune activities and develop strategies for continued process improvement. Emphasis is put on the development of models to include key elements such as appropriateness of the inpatient stay, internal resource utilization, documentation integrity, transition of care, maintaining regulatory compliance, patient satisfaction and supporting standards of practice for case management.

A Fine Balance To Stay Afloat

Every day across the United States, hospitals are collecting information and data related to resource management and quality of care. The focus is to improve performance in order to keep up with the ever-increased demand for maintaining a healthy bottom line and improving quality healthcare.

Case management-related data has been broad and subjective and equated to issues that are real or potential resource losses. But what about case management activities support the bottom line and ensure quality care? How can a hospital or case management department know how large a problem is if it does not know how well things are working?

It is important for the hospital and the case management department to develop information to show the value of case management interventions and activities. Hospital UR committees tend to be a format for related information, but most often the information is presented in broad terms and the direct relationship to case management activities is difficult to determine enough to bring about significant change.

Every day, case managers do activities that result in real change. If you speak to any case manager, they often comment about how the pressure is on to produce more. They explain, "I do several things every day to save

the hospital money and prevent problems. I move the patients to the correct status, talk to doctors, support the family and meet regulatory compliance along with building relationships with insurance companies."

The dilemma has been to identify and quantify these and related activities and provide outcome information to improve performance. It is time to step up from the norm and take a fresh look at what case managers do and collect information that can promote real change in care across the continuum—and, in addition, support the bottom line.

Hospital case management programs have struggled to provide data demonstrating the value of the case manager's interventions and the relationship of those interventions to the bottom line and the improvement of patient satisfaction. Anyone working in a hospital environment knows that case management is an essential part of making this happen, but the gathering of information related to the specific cause and effect of those activities are seldom attempted. In most cases, the information remains rather broad and somewhat subjective. Most data collected focuses on "what went wrong" like in the case of tracking delay days. While such data still remains important, a focus on "what is going right" maybe an additional approach.

The importance of focused outcome information from case management is crucial in today's hospitals in order to improve processes, identify gaps in the delivery of services, acquire appropriate staffing for the department, improve patient care and acquire appropriate reimbursement.

Focus of Outcomes

Outcomes are the result of a certain activity or strategy. When developing measures, it is best to identify the activity through which you are attempting to collect information—for example, actions taken by case managers during their daily routine.

For example, the nurse case manager or social worker has discovered that a discharge order has been written and the patient is scheduled to go home with home health. The case manager is notified by the clinical nurse that the specialist has just ordered a test, and the case manager reviews notes that the test may not be related to the current acute care stay and could possibly be done as an outpatient. The case manager is aware that if the transfer is delayed, most likely this will cause a prevent-

Acute Care Case Management Outcomes

able avoidable delay of one day in addition extra cost to the hospital that may not be reimbursed. The case manager does an action “intervention.” She calls and speaks with the consultant and he agrees this can safely

be done after the hospital stay and as an outpatient. In this scenario the case manager saved or prevented a loss of a day and also prevented an unnecessary cost to the hospital as an inpatient.

Details: Progression Of Care - PADs - Overview

Timeframe: 10-01-2009 to 10-01-2010

Date Of Visit	MRN	Encounter	Facility	Area	Obstacle/Res	Source	Days	Savings	DRG	Doctor	Insurance
11/08/2009 22:53	123456	5555	Facility B	ER	Missed Order	Cardiology	1	\$1,400.00	123	Einstein, Albert N.P.	Medicaid
11/15/2009 11:06	23907	56890	Facility A	1234	Incorrect LOC	Cardiology	1	\$1,400.00	313	Da Vinci, Leonardo M.D.	Humana
11/15/2009 11:08	895432	896723	Facility B	ICU	Report Delay	Radiology	4	\$5,800.00	683	Newton, Isaac M.D.	Aetna
11/15/2009 11:11	980123	891256	Facility A	1234	Missed Order	Nursing Service	2	\$2,800.00	872	Einstein, Albert N.P.	Medicare
11/15/2009 11:15	389237	778899	Facility A	FLOOR	No Bed Avail	Post Provider	3	\$4,200.00	291	Einstein, Albert N.P.	BCBS
11/18/2009 09:36	908120	781045	Facility A	1234	Procedure Delay	Radiology	1	\$1,400.00	313	Da Vinci, Leonardo M.D.	BCBS
11/27/2009 00:00	389237	783412	Facility A	1234	Social	Family/Patient	5	\$7,000.00	373	Einstein, Albert N.P.	Aetna
03/14/2010 16:07	123456	9581625	Facility C	ER	Consult Delay	Cardiology	1	\$1,400.00	123	Einstein, Albert N.P.	Medicaid
05/15/2010 14:00	86423	5426	Facility A	FLOOR	No DC Order	Physician Attend	0	\$0.00	313	Hawking, Stephen D.O.	Medicare

Details: Progression Of Care - Resources - Overview

Timeframe: 01-01-2009 to 12-31-2009

Facility: Facility A

Resource: INPT DAY MED

Date Of Visit	MRN	Encounter	Facility	Area	Resource	Unit Cost	Units	Savings	DRG	Doctor	Insurance
01/03/2009 17:49	10384	901189	Facility A	ICU	INPT DAY MED	\$832.00	2	\$1,664.00	481	Hawking, Stephen D.O.	(Unknown)
01/16/2009 07:33	10082	900249	Facility A	PCU	INPT DAY MED	\$832.00	3	\$2,496.00	313	Da Vinci, Leonardo M.D.	Other
02/02/2009 19:21	10333	901034	Facility A	ICU	INPT DAY MED	\$832.00	4	\$3,328.00	628	(Unknown)	(Unknown)
02/07/2009 08:19	10318	900988	Facility A	PCU	INPT DAY MED	\$832.00	1	\$832.00	262	Newton, Isaac M.D.	Medicare
02/11/2009 20:07	10315	900977	Facility A	ICU	INPT DAY MED	\$832.00	1	\$832.00	328	Einstein, Albert N.P.	Humana
02/25/2009 12:16	10181	900557	Facility A	ORTHO	INPT DAY MED	\$832.00	3	\$2,496.00	867	Da Vinci, Leonardo M.D.	Medicare
02/25/2009 12:16	10181	900557	Facility A	ORTHO	INPT DAY MED	\$832.00	4	\$3,328.00	867	Da Vinci, Leonardo M.D.	Medicare
02/25/2009 13:34	10318	900991	Facility A	ORTHO	INPT DAY MED	\$832.00	2	\$1,664.00	62	Einstein, Albert N.P.	Medicaid
02/25/2009 20:07	10208	900642	Facility A	ER	INPT DAY MED	\$832.00	3	\$2,496.00	260	Einstein, Albert N.P.	Non-Citizen
03/01/2009 10:22	10400	901241	Facility A	FLOOR	INPT DAY MED	\$832.00	2	\$1,664.00	565	Einstein, Albert N.P.	(Unknown)
03/08/2009 18:01	10305	900945	Facility A	ICU	INPT DAY MED	\$832.00	2	\$1,664.00	468	Newton, Isaac M.D.	Medicaid
03/08/2009 20:09	10199	900809	Facility A	FLOOR	INPT DAY MED	\$832.00	1	\$832.00	305	Newton, Isaac M.D.	Aetna
03/09/2009 15:11	10277	900871	Facility A	ORTHO	INPT DAY MED	\$832.00	4	\$3,328.00	358	Newton, Isaac M.D.	No Insurance
03/19/2009 19:55	10404	901258	Facility A	PCU	INPT DAY MED	\$832.00	4	\$3,328.00	630	Hawking, Stephen D.O.	Humana
03/31/2009 20:35	10440	901366	Facility A	ICU	INPT DAY MED	\$832.00	2	\$1,664.00	442	(Unknown)	No Insurance
04/02/2009 07:45	10447	901388	Facility A	MED-SURG	INPT DAY MED	\$832.00	1	\$832.00	916	Hawking, Stephen D.O.	Aetna

Acute Care Case Management Outcomes

Information collected on this intervention can show the days or units prevented (saved). In addition, a dollar amount could be added as the average cost of an inpatient stay, as well as the cost of the test since most hospitals are reimbursed predominately under a DRG

structure or case rate. Utilizing resources helps to maintain a health bottom line. Also, identifying the provider associated with the possible loss or delay allows for quantified data to be shared with providers in order to improve communication and performance.

Details: Admission Reviews - Overview

Timeframe: 01-01-2009 to 12-31-2009

Admission Status: Inpatient

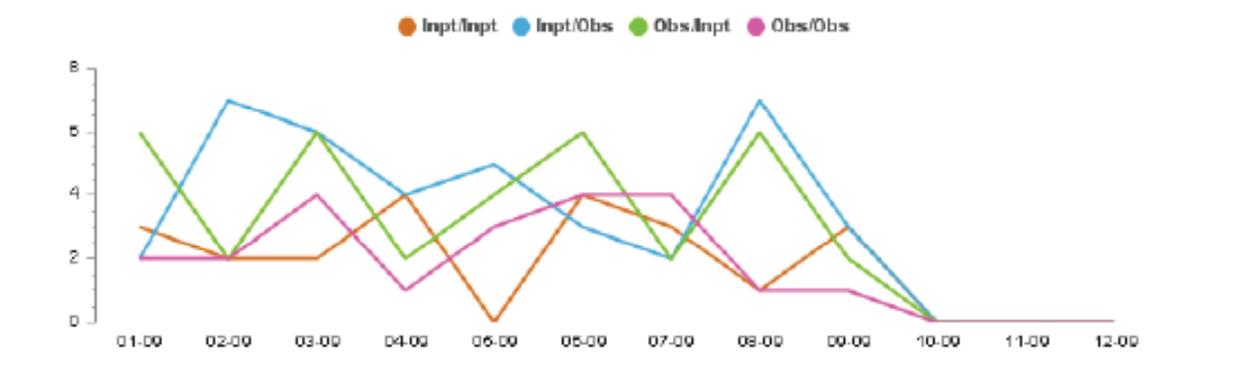
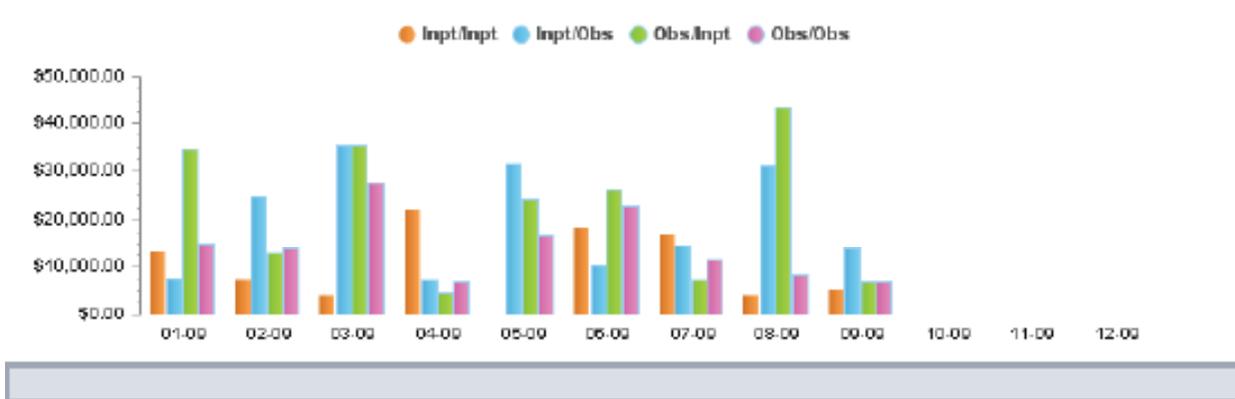
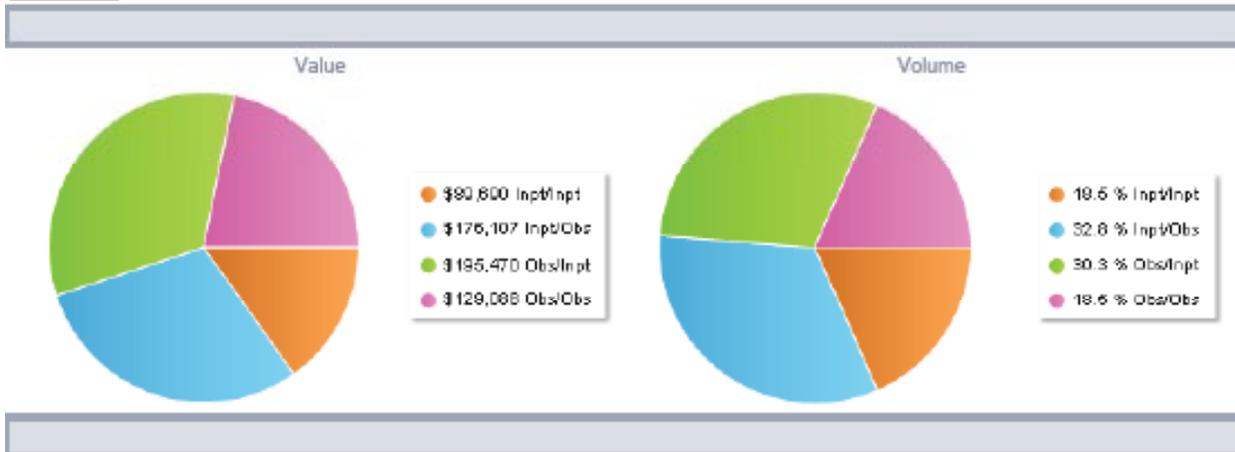
Intervention Status: Observation

Insurance: Medicare

<u>Date Of Visit</u>	<u>MRN</u>	<u>Encounter</u>	<u>Facility</u>	<u>Area</u>	<u>Adm Stat</u>	<u>Int Stat</u>	<u>Value</u>	<u>DRG</u>	<u>Doctor</u>	<u>Insurance</u>
02/25/2009 21:23	10370 901149	Facility B	Facility B	ORTHO	Inpatient	Observation	\$1,586.00	774	Einstein, Albert N.P.	Medicare
03/24/2009 16:00	10273 900860	Facility C	Facility C	ICU	Inpatient	Observation	\$8,162.00	950	(Unknown)	Medicare
04/26/2009 11:36	10350 901095	Facility A	Facility A	MED-SURG	Inpatient	Observation	\$2,934.00	822	Hawking, Stephen D.O.	Medicare
04/27/2009 12:19	123456 1234567	Facility A	Facility A	ER	Inpatient	Observation	\$0.00	293	(Unknown)	Medicare
05/14/2009 19:48	10461 901434	Facility B	Facility B	MED-SURG	Inpatient	Observation	\$6,349.00	73	Newton, Isaac M.D.	Medicare
05/29/2009 17:37	10169 900522	Facility A	Facility A	FLOOR	Inpatient	Observation	\$4,012.00	115	(Unknown)	Medicare
06/05/2009 09:20	501222333 523523	Facility A	Facility A	ER	Inpatient	Observation	\$0.00	313	Einstein, Albert N.P.	Medicare
06/18/2009 14:06	10235 900733	Facility C	Facility C	ORTHO	Inpatient	Observation	\$7,037.00	222	Hawking, Stephen D.O.	Medicare
07/21/2009 04:56	10443 901374	Facility B	Facility B	ER	Inpatient	Observation	\$4,875.00	539	Einstein, Albert N.P.	Medicare
08/01/2009 19:55	10379 901170	Facility C	Facility C	ORTHO	Inpatient	Observation	\$5,984.00	307	(Unknown)	Medicare
08/06/2009 09:05	67890 67890	Facility A	Facility A	1234	Inpatient	Observation	\$3,000.00	282	Da Vinci, Leonardo M.D.	Medicare
08/21/2009 13:15	35678 25678	Facility B	Facility B	ER	Inpatient	Observation	\$0.00	282	Einstein, Albert N.P.	Medicare
09/10/2009 22:14	10317 900986	Facility B	Facility B	ORTHO	Inpatient	Observation	\$2,390.00	29	Hawking, Stephen D.O.	Medicare

Admission Reviews - Outcomes

Timeframe: 01-01-2009 to 12-31-2009



In another example, the case manager assigned to the ED is tasked in reviewing patients who may be admitted for the appropriateness of the inpatient stay. With healthcare reform and the inception of RAC auditing, the opportunity for loss of revenue is huge with respect to determining those patients who would meet observation status or an inpatient admission. The case manager utilizes criteria in the determination as to inpatient or observation and conveys that information to the appropriate provider.

Then the patient is placed in the appropriate status. In many cases, the review is done after admission; patients are in the hospital setting in an observation status that could qualify as an inpatient or vice versa. The intervention related to the review and the correction should be identified and attributed in most part to the activity of the case manager.

This correction has a direct result on the bottom line, such as decreasing the number of denials for payment,

decreasing the time and cost of appeals, and ensuring regulatory compliance. It is customary that statistics are collected in hospitals on number of denials and also loss of revenue, but impacting or correcting the issue after the fact is difficult at best. With this in mind, what data can we collect regarding this issue that demonstrates the activity of the case manager's intervention and provides information for improvement by identifying the specifics about the process?

In another activity, the documentation specialist is tasked with reviewing charts to identify lack of documentation

to support the correct reimbursement. This activity may include providing a query to the physician to document information that is not clear for the coder to appropriately code the case. Communication regarding the "intervention" related to completed documentation along with the difference of revenue between the current diagnosis and the outcome diagnosis results in appropriate reimbursement. Providing outcomes related to this activity demonstrates the value of the activity and also provides avenues for improvement with respect to identification of those physicians, diagnosis and processes.

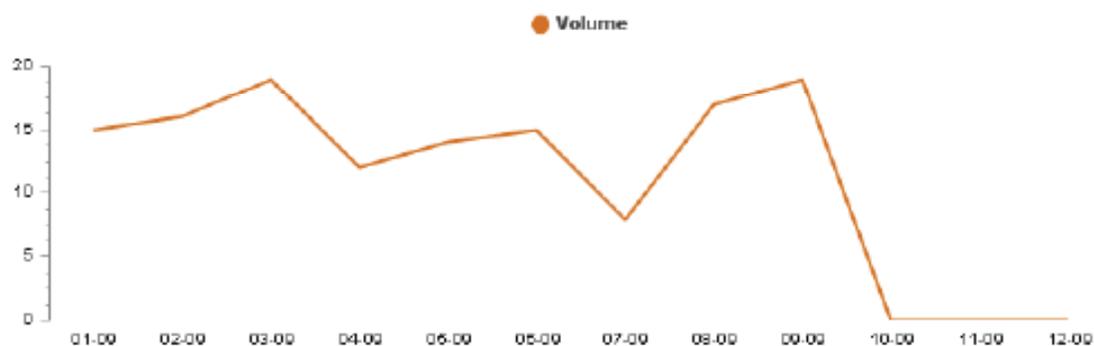
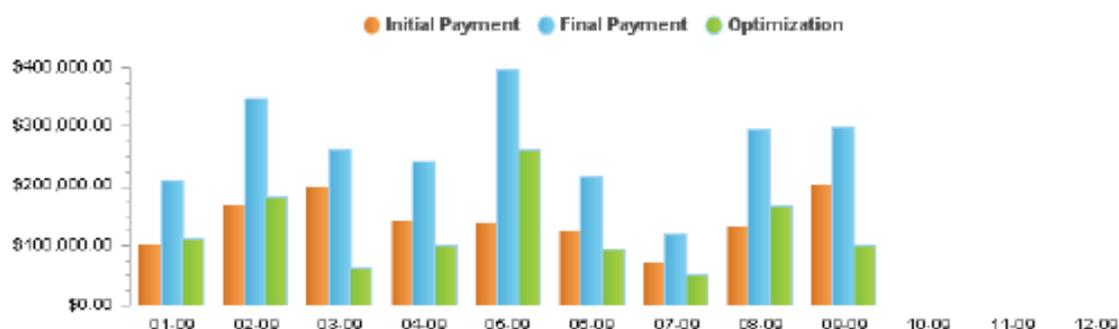
Details: Documentation Reviews - Overview

Timeframe: 01-01-2009 to 12-31-2009
Insurance: Medicare

<u>Date Of Visit</u>	<u>MRN</u>	<u>Encounter</u>	<u>Facility</u>	<u>Area</u>	<u>Initial DRG</u>	<u>Initial Pay</u>	<u>Final DRG</u>	<u>Final Pay</u>	<u>Optimization</u>	<u>Doctor</u>	<u>Insurance</u>
01/19/2009 06:36	10009	900026	Facility A	ORTHO	804	\$9,055.40	24	\$26,293.72	\$17,238.32	Da Vinci, Leonardo M.D.	Medicare
01/31/2009 18:18	10260	900817	Facility A	MED-SURG	69	\$5,439.32	765	\$8,007.36	\$2,568.04	Da Vinci, Leonardo M.D.	Medicare
02/01/2009 22:42	10338	901053	Facility C	FLOOR	254	\$11,723.76	477	\$24,913.56	\$13,189.80	Newton, Isaac M.D.	Medicare
02/07/2009 09:19	10318	900888	Facility A	PCU	262	\$7,715.52	582	\$7,333.24	(\$382.28)	Newton, Isaac M.D.	Medicare
02/25/2009 21:23	10370	901149	Facility B	ORTHO	774	\$4,948.36	395	\$5,141.40	\$193.04	Einstein, Albert N.P.	Medicare
03/07/2009 02:45	10459	901430	Facility C	PCU	91	\$11,967.72	148	\$8,236.56	(\$5,731.16)	Einstein, Albert N.P.	Medicare
03/26/2009 07:35	10391	901215	Facility C	ER	517	\$10,102.68	91	\$11,967.72	\$1,865.04	(Unknown)	Medicare
04/26/2009 11:36	10350	901095	Facility A	MED-SURG	822	\$9,380.68	420	\$31,226.12	\$21,845.44	Hawking, Stephen D.O.	Medicare
04/27/2009 12:19	123456	1234567	Facility A	ER	293	\$5,487.20	292	\$7,652.44	\$2,165.24	(Unknown)	Medicare
05/09/2009 19:58	10005	900018	Facility B	ORTHO	445	\$7,895.64	813	\$10,284.32	\$2,388.68	Da Vinci, Leonardo M.D.	Medicare
06/05/2009 09:20	501222333	523523	Facility A	ER	313	\$4,038.64	281	\$9,281.88	\$5,243.24	Einstein, Albert N.P.	Medicare
06/21/2009 22:19	10148	900454	Facility B	ER	894	\$2,947.28	137	\$9,590.44	\$8,643.16	Einstein, Albert N.P.	Medicare
06/26/2009 02:53	10364	901134	Facility C	ORTHO	728	\$5,277.44	838	\$22,371.36	\$17,093.92	(Unknown)	Medicare
07/18/2009 07:07	10469	901455	Facility A	MED-SURG	559	\$12,961.04	977	\$8,325.04	(\$4,636.00)	Da Vinci, Leonardo M.D.	Medicare
07/26/2009 08:07	10486	901511	Facility C	ICU	727	\$9,801.72	656	\$24,914.32	\$15,112.60	Hawking, Stephen D.O.	Medicare
08/01/2009 19:55	10379	901170	Facility C	ORTHO	307	\$5,701.52	699	\$7,391.00	\$1,689.48	(Unknown)	Medicare

Documentation Reviews - Overview

Timeframe: 01-01-2009 to 12-31-2009



Summary

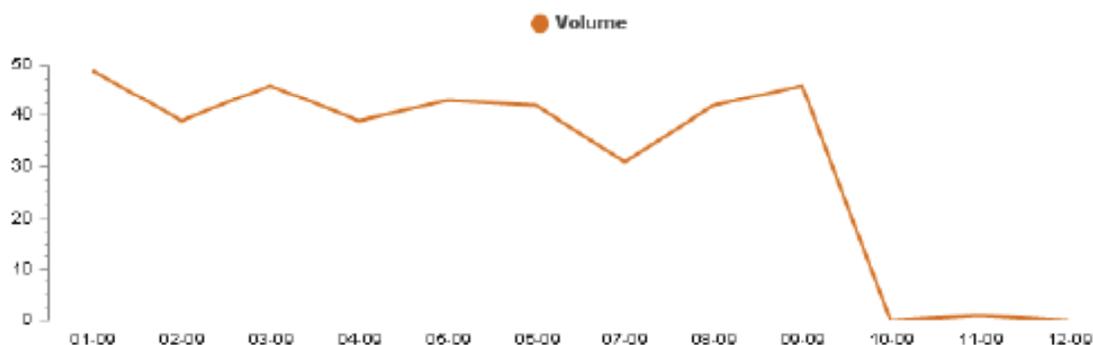
Date	Initial Payment	Final Payment	Optimization	Volume
01-2009	\$100,555.60	\$209,891.48	\$109,335.88	15
02-2009	\$166,627.72	\$347,143.68	\$180,515.96	16
03-2009	\$199,684.68	\$261,852.68	\$62,168.00	19
04-2009	\$141,252.08	\$239,816.48	\$98,564.40	12
05-2009	\$137,923.28	\$398,095.60	\$260,172.32	14
06-2009	\$121,953.40	\$214,560.92	\$92,607.52	15
07-2009	\$69,907.08	\$119,855.80	\$49,948.72	8
08-2009	\$129,418.12	\$295,991.88	\$166,573.76	17
09-2009	\$200,041.88	\$299,273.56	\$99,231.68	19
10-2009	\$0.00	\$0.00	\$0.00	0
11-2009	\$0.00	\$0.00	\$0.00	0
12-2009	\$0.00	\$0.00	\$0.00	0
Total	\$1,267,363.84	\$2,386,482.08	\$1,119,118.24	135

Finally, it is essential to understand case management practice patterns and how case managers in hospitals are practicing in relation to accepted standards of practice.

Capturing the primary outcome of a case and collecting data over time shows what issue we are focusing on and what can we do better.

Quality Of Care - Overview

Timeframe: 01-01-2009 to 12-31-2009



Summary

Date	Volume	Intervention (Most Frequent)	Intervention (Least Frequent)
01-2009	49	Decreased fragmentation of care Enhanced collaboration among healthcare members	Provided appropriate resource utilization Psycho-Social counseling/patient family Referral to appropriate setting/level of care
02-2009	39	Improved provider/payer relations Maximized health outcomes Psycho-Social counseling/patient family	Education related to patient, family Improved patient satisfaction, patient/family part of decision making Provided appropriate resource utilization Provided post discharge services
03-2009	46	Provided post discharge services	Decreased fragmentation of care Referral to appropriate setting/level of care
04-2009	39	Improved provider/payer relations	Referral to appropriate setting/level of care
05-2009	43	Decreased fragmentation of care Improved provider/payer relations	Improved patient satisfaction, patient/family part of decision making
06-2009	42	Provided appropriate resource utilization	Improved provider/payer relations
07-2009	31	Referral to appropriate setting/level of care	Provided appropriate resource utilization
08-2009	42	Provided appropriate resource utilization Referral to appropriate setting/level of care	Provided post discharge services
09-2009	46	Provided post discharge services	Improved provider/payer relations Maximized health outcomes Psycho-Social counseling/patient family
10-2009	0		
11-2009	1	Provided appropriate resource utilization	
12-2009	0		
	378		

So how can we demonstrate the above activities in a format that provides the important information that is needed to identify “what’s going right”? What do we need to improve upon? And what is the value associated with the activities?

Slide (ADM #1) details activities related to admission status intervention

Slide (ADM #2) provides a summary of admission status interventions

(Attachment ADM, information is from Case Manager Care Demo Software, not related to any hospital)

Admission status information from screen print can provide information such as:

- These cases came in as inpatient, the case manager intervention resulted in the correction therefore prevented the loss of revenue associated with the case listed.
- Identify the payer, Medicare correction supports compliance with appropriate status and also may prevent loss of revenue.
- Identifier shows the physician associated with intervention, provides opportunity for education for improvement.
- DRG is identified is there a pattern with the same DRG showing up over time and a particular physician associated with the DRG provides opportunity for improvement.

Slide (DOCU #1) details of documentation intervention by specialist

Slide (Docu Sum) summary of documentation interventions and value associated with.

Documentation review results in outcomes that provide appropriate reimbursement

- Slide #1 provides information that identifies the payer, DRG, physician and value
- Information shown identifies the value of the interventions.
- The information identifies particular diagnosis, over time patterns will develop which further assists in identifying particular diagnosis and educational opportunities.

Slide (Quality Outcomes)

- Information identifies case management practice and assists in understanding primary outcomes of practice.
- What intervention related to standards of practice for case management does the team engage in, what is the primary focus.
- Is the team effort focused more on resources? Are we providing education? How or what area can the team improve upon?

To summarize, case managers in hospital provide services daily that support the patient and the family, support the bottom line, provide interventions that provide opportunities for performance improvement among team members and ensure compliance with regulatory agencies. Capturing this information and providing outcome information assists the hospital and the case management department in meeting the demands of a health care today and the future.