Effectiveness of a Progress Note on Quality Care Indicators in a Get With the Guidelines Hospital

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Appendix G

Effectiveness of a Progress Note on Quality of Care Indicators in a Get with the Guidelines Hospital

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LEHIGH VALLEY HOSPITAL AND HEALTH NETWORK

INTRODUCTION:

Lehigh Valley Hospital and Health Network (LVHHN) admits and treats over 1,400 CHF patients and 1,200 AMI patients each year, and these numbers continue to grow. Although LVHHN has always done well managing the treatment of patients with these diagnoses, we are attempting to consistently utilize evidence-based secondary prevention guidelines, therefore improving the Core Measure data reported to JCAHO and improving our institution's performance on the treatment and outcomes of patients treated for the diagnoses of CHF and AMI.

OBJECTIVES:

- To develop a set of process and outcome indicators that will allow a measure of clinical outcome (the right intervention, by the right staff, at the right time and the right place) and the capacity for ongoing quality improvement processes.
- To improve our clinical outcomes for AMI and CHF patients.
- To utilize American Heart Association's (AHA) Get with the Guidelines. Get With the Guidelines (GWTG) was developed and piloted by the AHA to reduce the gap in the application of secondary prevention guidelines in Hospitalized cardiovascular disease patients. The Cardiac Core Measure Progress Note (CCM Progress Note) was developed using quality measures derived from the AHA / American College of Cardiology secondary prevention guidelines.
- To improve multidisciplinary communication and help to educate attending medical staff, residents, nurses and patients on the value of practicing evidence-based medicine guidelines for AMI and CHF.
- To improve performance on JCAHO Core Measures for AMI and CHF, and to ensure compliance with public reporting.

Percentage AMI Patients with JCAHO Core Measures Appropriately Received

Indicators	Patients without CCM Progress Note n	%	Patients with CCM Progress Note n	%	Percent Difference	p value
Beta Blocker within 24 hours of admission	44	84.1%	54	96.3%	12.2%	0.041
Beta Blocker ordered on discharge	92	88.0%	77	93.5%	5.5%	0.227
Aspirin within 24 hours of admission	65	92.3%	62	98.4%	6.1%	0.115
Aspirin ordered on discharge	77	97.4%	70	100%	2.6%	0.273
ACE-I ordered where appropriate	20	85.0%	16	93.8%	8.8%	0.392
Smoking Cessation counseling	30	96.7%	21	100%	3.3%	0.588
Inpatient Mortality	85	7.1%	80	2.5%	4.6%	0.159

METHODS:

- Two Cardiac Quality Nurses were hired to intervene on patients that do not meet the evidence-based secondary prevention guidelines for AMI and CHF. Quality of care indicators were: Aspirin given in the first 24 hours of admission and ordered for discharge, Beta Blocker (BB) given in the first 24 hours of admission, and ordered for discharge, ACE-I ordered if LVEF was less than 40%, smoking cessation advised for patient if current or recent tobacco user.
- CCM Progress Note was developed to ensure that there is a consistent place in the chart for physicians to document contraindications, and to act as a prompt for appropriate interventions.
- Cardiac Quality Nurses utilize a database report that pulls laboratory and medication data to identify patients that may not meet the Core Measures reported to JCAHO. Patient charts are then reviewed and the Cardiac Quality Nurses communicate with physicians and nurses to ensure that the CCM Progress Note has been initiated.
- Appropriate documentation of why the patient did not receive a certain medication or treatment is the key to showing the quality of care given at LVHHN. Because of this fact, the Cardiac Quality Nurses reinforce the use of the CCM Progress Note to physicians and nurses during the patient's stay.
- This study compares those patients who had a CCM Progress Note against those who did not. While the Get with the Guidelines program at LVHHN will last a year, this abstract contains the first six weeks of outcome data from this study. GWTG eligible patients were enrolled for the first six weeks of the program from (August 15, 2004 through September 30, 2004).
- Chi-square and Fishers exact test were used to examine the data.

RESULTS:

Results indicated that the CCM Progress Note implemented as an intervention was effective in several key areas:

- Administration of Beta Blockers within 24 hours of admission increased by 12.2% ($p=0.041$), and at discharge increased by 5.5% but is not yet significant ($p=0.227$).
- Discharge instructions, and home advisors given to patients increased by more than 50% ($p<0.001$).

Other indicators indicating positive findings which were not yet significant were:

- Administration of aspirin within 24 hours of admission increased by 6.1%.
- Administration of aspirin at discharge increased by 2.6%
- ACE-I orders increased by 8.8% for AMI patients and 16.6% for CHF patients
- Smoking cessation counseling increased by 3.3% in AMI patients and 37.5% in CHF patients.

Percentage CHF Patients with JCAHO Core Measures Appropriately Received

Indicators	Patients without CCM Progress Note n	%	Patients with CCM Progress Note n	%	Percent Difference	p value
Discharge Instructions Given	106	42.5%	42	92.9%	50.4%	<0.001
ACE-I ordered where appropriate	50	68.0%	26	84.6%	16.6%	.097
Smoking Cessation counseling	8	62.5%	8	100%	37.5%	0.100
LVF Assessment Completed	119	92.2%	60	93.3	1.1%	.526

LEHIGH VALLEY HOSPITAL ALLENTOWN, PA
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CARDIAC CORE MEASURE PROGRESS NOTE

DATE: ______

- ☐ Acute Myocardial Infarction - complete form
- ☐ Congestive Heart Failure - complete form
- ☐ Comfort Measures only
- ☐ N/A

I. Acute Myocardial Infarction

1. Aspirin given in first 24 hours of admission ☐ Yes ☐ No - contraindication: ___ ☐ Patient on Coumadin
2. Aspirin ordered for discharge ☐ Yes ☐ No - contraindication:
3. Beta Blocker given in first 24 hours of admission ☐ Yes ☐ No - contraindication: ___
4. Beta Blocker ordered for discharge ☐ Yes ☐ No - contraindication: ___
5. Assessment of LV Function ☐ Yes - LVEF = ___ % ☐ No
6. ACEI / ARB ordered. ☐ Yes ☐ No - contraindication, ___ ☐ N/A if LVEF greater than 40%
7. Lipid lowering agent ordered if LDL greater than 100 ☐ Yes ☐ No - contraindication:
8. Smoking cessation advised for patient if current/recent tobacco user ☐ Yes ☐ No ☐ N/A
9. Heart Attack Home Advisor given to patient ☐ Yes ☐ No

II. Congestive Heart Failure

1. Assessment of left ventricular function performed this admission or within last 6 months ☐ Yes - LVEF = ___ % ☐ No
2. ACEI / ARB ordered. ☐ Yes ☐ No - contraindication: ☐ N/A if LVEF greater than 40%
3. Heart Failure Home Advisor given to patient. ☐ Yes ☐ No Written discharge instructions given to patient. ☐ Yes ☐ No
4. Smoking cessation advised for patient if current/recent tobacco user ☐ Yes ☐ No ☐ N/A

III. Contraindications

A. Allergy/Sensitivity
B. Angioedema
C. Aortic Stenosis - Moderate to Severe
D. Arrhythmia
E. Asthma/Reactive Airway Disease
F. Bilateral Renal Artery Stenosis
G. Bleeding
H. Bradycardia (HR less than 60 bpm)
I. Cough
J. Creatinine greater than 3
K. Depression
L. Dizziness or Lightheadedness
M. Elevated Liver Function Test
N. Fatigue
O. GI Intolerance
P. Heart Block 2nd or 3rd Degree without pacemaker
Q. Heart Failure
R. Hyperkalemia (K+ greater than 5.5 mEq/L)
S. Hypotension (SBP less than 90 mmHg)
T. Impotence
U. Myalgias
V. Pregnancy
W. Rash
X. Renal Insufficiency
Y. Shock
Z. Wheezing

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DISCUSSION:

- Intervention methodology suggests that process indicators and outcomes be monitored early and often within program implementation so that adjustments can be made to the program as needed.
- Using Information Services (IS) to develop a system to identify those patients that do not have the appropriate medication ordered as indicated by evidence-based medicine allowed nurses to intervene on patients in "real time" in order to have an effect on patient care during their hospital stay.
- Efforts consistently concentrated with one unit, one champion or one physician practice, showed more improvement with the JCAHO Core Measures and staff compliance.
- Constant reinforcement and education on the Core Measures and use of the CCM Progress Note are necessary for this cardiac quality initiative to be the most effective.
- Initially, not many physicians were using the CCM Progress Note, often because it was not on the patient's chart. Although the number of physicians utilizing the CCM Progress Note continues to improve, the ultimate goal is for 100% of patients to have a completed CCM Progress Note at the conclusion of their stay.
- The GWTG process and use of the CCM Progress Note has increased the quality of care for CHF and AMI patients. This study focuses on only the first six weeks of the year long program, but results are already promising.

NEXT STEPS:

- One barrier has been physician and staff compliance and attitudes concerning the initiative and their role in making it a success. Constant reinforcement, education, positive feedback, and intervention have been found to improve the reception of the project. Cardiac Quality Nurses plan to continue this approach and identify more champions within physician groups and nursing floors to assist in this process.
- Revisions to the CCM Progress Note have been requested by both the Cardiac Quality staff and the LVHHN clinical staff, which have resulted in the improved tool presented here.
- Results for AMI patients have been consistently higher than those for CHF patients at LVHHN. This discrepancy stems from the inherent difficulty with the diagnosis of CHF, and identification of all CHF patients that need intervention continues to be an issue. Future initiatives may also be necessary to address the difficult nature of this disease.
- Improved follow-up on each patient would improve the chances of the provider's compliance to JCAHO Core Measures. Follow-up remains difficult due to patient volumes and multiple hospital sites.
- This quality improvement initiative is proving to be an effective implementation of the JCAHO Core Measures for AMI and CHF. It is likely that this model could be replicated at other institutions.