

Changing Case Mix Index through Physician Documentation Optimization in Inpatient Rehabilitation

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Background: Hospitals get paid by Medicare through a Prospective Payment System, essentially getting the payment process started even before the patient has left the facility in some cases. Hospitals get a small increase in the payment depending on how sick the patient is (how many comorbidities a patient has). The idea is that a patient with an illness (i.e. end stage renal disease) will, with all things being equal, cost the hospital more money in an encounter. Medicare pays rehabilitation hospitals based on a tool called the the IRF-PAI (Inpatient Rehabilitation Facility Patient Assessment Instrument), which is filled out by billing and coding professionals based on physician documentation [1]. Healthcare is complex and comorbidities can be described in a wide variety of ways. Billers and coders may not know the nuances of complex medical issues that are documented but they are still responsible for filing the IRF-PAI. Hospitals nationwide run on an operating margin of 2.6%, which are razor thin margins [2]. Patients with serious illness require complex care, which gets expensive. The goal of this study was to try to ensure the acuity of the patients was appropriately documented and compensated for the hospital.

Purpose: To ensure the acuity and illness of patients admitted to the inpatient rehabilitation unit is appropriately reflected in physician documentation and eventually the rehabilitation hospital's case mix index, which serves as an indicator of illness of the patients admitted.

Hypothesis: If physicians document all of a patient's comorbidities, then the case mix index and complexity of comorbidity tier will increase.

Design: The intervention took place in a large, 58 bed inpatient rehabilitation facility associated with a large academic quaternary care center. This is an ongoing before and after comparison study. After an initial document review of every history and physical admission note completed from October 2016 to December 2016, the most common comorbidities for the hospital's patient population were identified. After reviewing Medicare's language on how regarding the definition of those medical comorbidities, smartphrases were created through the electronic medical record system, Allscripts Sunrise. The intervention consisted of a multi-pronged approach. The first was to educate the inpatient rehabilitation attending physicians and resident physicians on identifying common comorbidities and how to use the smartphrases. The second part included sharing the smartphrases and the goal of our project with the billing and coding team, specifically the coder assigned to the rehabilitation hospital. The third piece included screening of admission history and physical documents by one of the inpatient rehabilitation attending physicians. During every rotation switch for resident physicians, the authors of the study educated new residents on how to use smartphrases and identify comorbidities.

Results: The data from that was used for this project was ascertained from Good Shepherd Penn Partners Administration, in particular, the administrator of the rehabilitation hospital and the Prospective Payment System Coordinator. The baseline data (pre-intervention) was from fiscal year (FY) 2015, based on a total of 1184 total encounters and was accessed using UDS (Uniform Data System), which calculates a final CMI (case mix index) and final percentages of comorbidity tiers based on the CMG (Case Mix Group) and RIC (Rehabilitation Impairment Category) filed on the IRF-PAI (Inpatient Rehabilitation Facility Patient Assessment Instrument). The post-intervention data includes Q4 2016 data, based on a total of 291 encounters. Tier A (0), which means there is no comorbidity that has been billed for that encounter, dropped from 72% pre-intervention to 28.9% post-intervention (a 59% drop). Tier D (3), which represents “low complexity” comorbidities such as diabetes, stable heart failure increased from 18.8% pre-intervention to 48.8% post-intervention (159% increase in Tier D). Tier C (2), which is a “moderate complexity” comorbidity such *Clostridium difficile* colitis, increased from 2.3% pre-intervention to 10.7% post-intervention (365% increase). Finally, Tier B (1), which is a “high complexity” comorbidity, such as end stage renal disease requiring hemodialysis, increased from 6.9% pre-intervention to 11.7% post-intervention (a 69% increase).

Conclusion: Though the initial metric was to measure change in Case Mix Index, the percentage of patients with documented comorbidities changed the most. The intervention seemed to serve as a vital bridge of communication between the billing/coding department and the physicians. Physicians address important comorbidities in their history and physical admission document but they often do not use language that the billing and coding team is familiar or comfortable with. By reducing the variation in the way physicians describe a particular comorbidity in their documentation, the billers and coders become more comfortable with coding comorbidities.

This intervention has large financial implications on the facility as well. Rehabilitation hospitals nationwide run on razor thin margins. Small interventions like this ensure that the facility gets what it is owed for taking care of ill patients in need of care.

References:

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