Mental Health Follow-up Care Post Inpatient Hospitalization in the Military Health System

Prepared by the Deployment Health Clinical Center

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I. Overview

Description

Outpatient follow-up care with a trained mental health provider is commonly regarded as a critical component of post-discharge planning for patients hospitalized for a mental health condition. Proper follow-up ensures patients continue to build off health gains made during hospitalization, patients are properly supported in their transition to home and/or work, and providers detect early signs of possible preventable re-hospitalizations. Given the importance of proper follow-up care post hospitalization for a mental health condition, a measure of post-discharge follow-up care, heretofore referred to as "HEDIS follow-up measure" was included in the Healthcare Effectiveness Data and Information Set (HEDIS). HEDIS is a list of actionable metrics utilized by more than 90 percent of health plans in the United States, including the Military Health System, to measure performance on important dimensions of health care delivery (1).

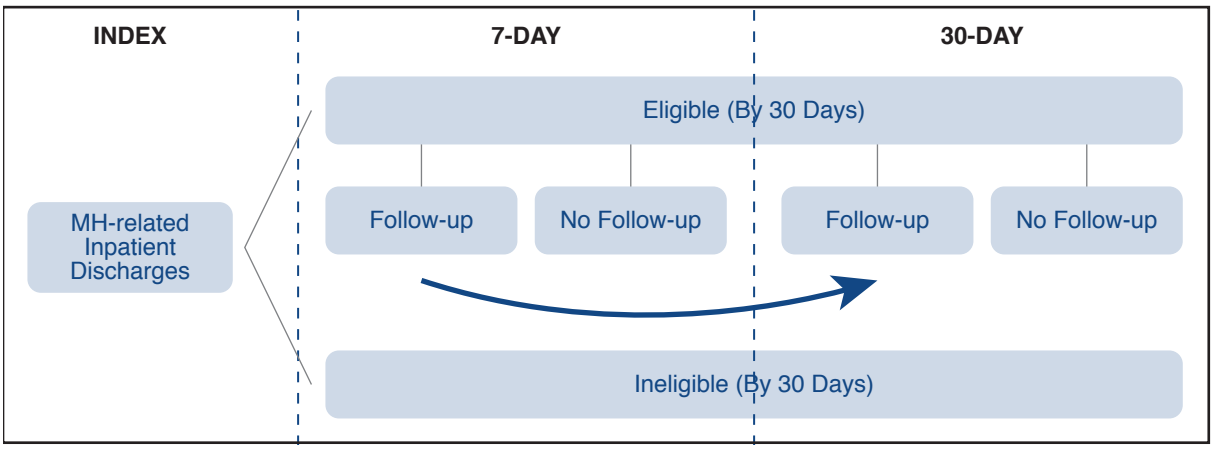
The HEDIS follow-up measure "assesses the percentage of discharges for patients 6 years of age and older who were hospitalized for treatment of selected mental health disorders and who had an outpatient visit, an intensive outpatient service, or a partial hospitalization with a mental health provider within 7 [and/or 30] days of discharge" (2). This measure is comprised of two steps (Figure 1):

Step 1: Determine patient eligibility for follow-up over the entire 30-day period post hospital discharge (heretofore referred to as "Index Discharge"). Eligibility is achieved if, within 30 days of the index discharge, the patient did not:

1. Die
2. Disenroll from Tricare benefits
3. Readmit to the hospital for any reason

Step 2: Among those who are eligible, determine whether an outpatient visit, intensive outpatient service, and/or a partial hospitalization with a mental health provider (heretofore referred to as "follow-up care") occurred within 0–7 days and/or 0–30 days post index discharge date

Figure 1. HEDIS Follow-Up Measure Methodology



**This figure was developed by DHCC and is thus not affiliated with HEDIS or NCQA*

While this measure has proven a valuable resource in tracking proper patient care delivery in the Military Health System (MHS), the Deployment Health Clinical Center (DHCC) of the Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury (DCoE) has identified two issues stemming from the HEDIS follow-up measure methodology:

Issue 1: 7-day eligibility is determined by 30-day eligibility, which ultimately excludes some eligible patients from 7-day follow-up, and thus underestimates the true rate of 7-day follow-up post index discharge. For example, if a patient is admitted to the hospital at 15 days post-discharge, the HEDIS measure deems this patient ineligible for 7-day follow-up. If this patient did in fact have an outpatient mental health follow-up visit, it would not be captured based on their 30-day eligibility.

Issue 2: 7-day and 30-day follow-ups are not calculated in exclusive categories. Therefore, 7-day follow-ups are also automatically counted as 30-day follow-ups, making it impossible to determine if the 30-day follow-up occurred within 0–7 days or 8–30 days post index discharge. As individuals who receive follow-up care between 0–7 days may systematically

differ from individuals who receive follow-up care between 8–30 days, this lack of granularity may prevent the identification of important distinctions between groups.

To address these issues, DHCC developed a new measure based upon the HEDIS follow-up metric. This measure is comprised of four steps (Figure 2):

Step 1: Determine patient eligibility for follow-up at 7 days of index discharge. Eligibility is achieved if, within 7 days of the index discharge, the patient did not:

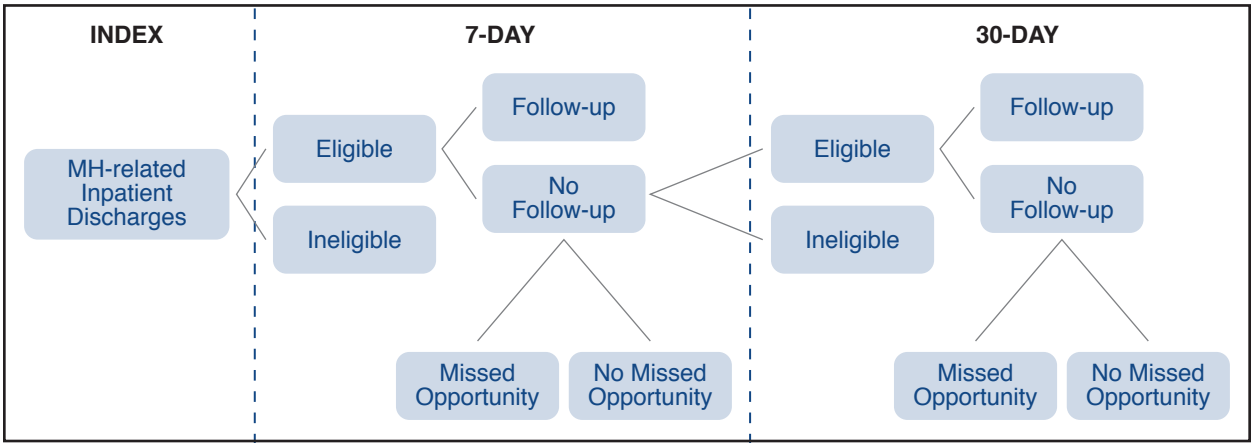
1. Die
2. Dis-enroll from Tricare benefits
3. Readmit to the hospital for any reason

Step 2: Among those patients who are eligible at 7 days, assess if follow-up occurred within 0–7 days of index discharge.

Step 3: Among patients who did not receive proper follow-up within 7 days, assess missed opportunities for follow-up care within 0–7 days of index discharge.

Step 4: Repeat steps 1–3 using the 8–30 day timeframe post discharge for index discharges in which patients were not followed up within 0–7 days.

Figure 2. DHCC Follow-Up Measure Methodology



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DHCC identifies two benefits of this alternative HEDIS metric:

1. The metric provides a more granular rate of follow-up care because 7-day eligibility is not determined by 30-day eligibility and thus follow-up rates are not cumulative.
2. The metric is more actionable as it identifies missed opportunities for follow-up care within both the 0–7 and 8–30 day timeframes.

Methodology

DHCC utilized administrative data within the Military Health System Data Repository (MDR) to develop the aforementioned alternative HEDIS metric, heretofore referred to as "DHCC Follow-up Metric". This metric was designed and coded flexibly, enabling analysts to identify follow-up and missed opportunity rates:

1. Among the MHS as a whole, within military services, and at individual military treatment facilities (MTFs)
2. Among different MHS subpopulations of interest (e.g. active duty service members, dependents)
3. For different mental health diagnoses of interest (e.g. hospitalizations for anxiety, PTSD, or depression)
4. Within a given fiscal year or across multiple fiscal years

For the present analysis, DHCC identified follow-up and missed opportunity rates across the entire MHS among active duty service members (ADSMs), not including active Guard and reserves, who were diagnosed with any mental health condition during fiscal year 2015.

Data for this analysis were identified from the following MDR data tables:

- **Index Mental Health Inpatient Hospitalizations**
  - Direct Care Inpatient (SIDR) data table
- **MHS Eligibility**
  - Direct Care Inpatient (SIDR) data table
  - Purchased Care Inpatient (TEDI) data table
  - DEERS Enrollment data table
- **Mental Health Follow-Up Visits**
  - Direct Care Outpatient (CAPER) data table
  - Purchased Care Outpatient (TEDNI) data table
- **Missed Opportunities**
  - Direct Care Outpatient (CAPER) data table

Date of data pull: July, 2016

Limitations

As with all health care administrative data used primarily for billing purposes, data accuracy depends on provider coding practices. Therefore, proper follow-up may not be accurately reflected in the data if health care providers did not code the correct combination of Procedure Code(s), Clinic Type(s) and or Provider Type(s) to meet the appropriate follow-up case definitions.

Definitions

Active Duty Service Member (ASDM)
ADSM was defined as any individual in the active component (not including National Guard and reserves) of the Army, Navy, Air Force, and Marine Corps on the date of encounter in which they received the relevant mental health diagnosis.

Fiscal Year
Fiscal year of interest (e.g. fiscal year 2010 spans from Oct. 1, 2009, through Sep. 30, 2010).

Index Discharge
Any inpatient hospitalization where a patient was treated for any mental health disorder as identified via ICD-9/ICD-10 code strings within the administrative data (*see Appendix A for case definition*).

Follow-up
Any mental health outpatient visit, intensive outpatient service and/or a partial hospitalization with a HEDIS-qualifying combination of provider codes, clinic type codes, and procedure codes (*see Appendix A for case definitions*).

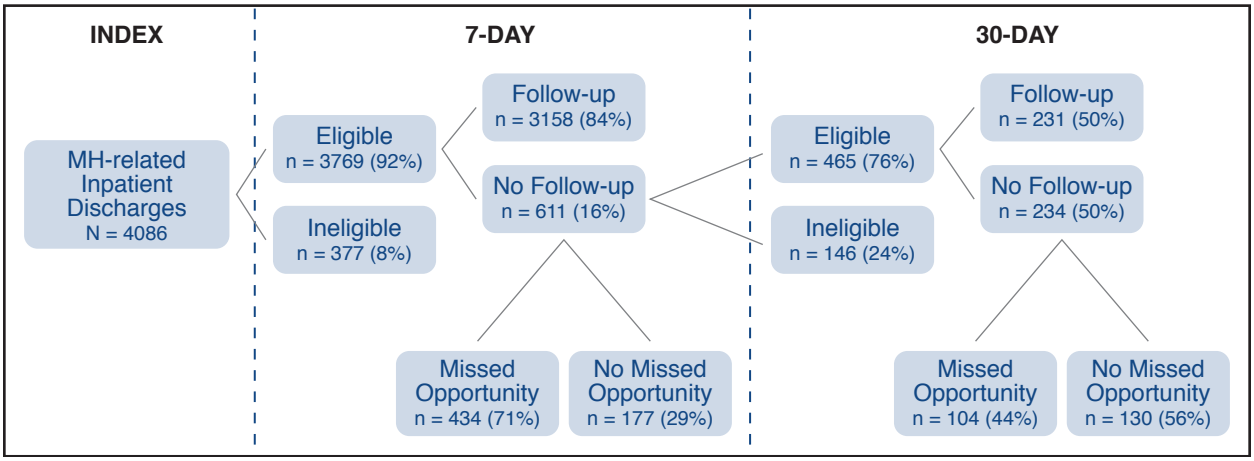
Missed Opportunity
Among patients who did not have proper follow-up in the specified timeframe, any outpatient visit that occurred in a non-mental health care setting OR any outpatient visit in a mental health care setting that did not meet the follow-up case definition for either an outpatient visit, intensive outpatient service, or partial hospitalization (*see Appendix A*).

II. Results

In review, DHCC developed a metric to identify both the rate of follow-up care and missed opportunities for follow-up among ADSM patients who had been discharged from a hospital for a mental health condition. This metric first identifies the number of index discharges, and among these index discharges identifies eligibility, follow-up, and missed opportunities between 0–7 days post-discharge. There were 4,086 mental health-related inpatient discharges among ADSMs across the entire Military Health System in fiscal year 2015. Of these discharges, 3,769 (92 percent) were eligible for follow-up within 7 days of the discharge date. Of these discharges eligible for follow-up, 3,158 (84 percent) actually received proper follow-up care within 7 days. Despite this relatively high rate of follow-up, 611 (16 percent) of these hospital discharges were not associated with a 7-day follow-up visit. Of the 611 discharges in which the patient did not have a 7-day follow-up visit, 434 (71 percent) had at least one missed opportunity for follow-up within 7 days of discharge.

In addition to identifying the rate of 7-day follow-up and missed opportunities, DHCC's metric also assesses eligibility, follow-up, and missed opportunities between 8–30 days post-discharge among patients who were not followed up within 7 days. Among the 611 discharges in which the patient was not followed up within 7 days, 465 (76 percent) remained eligible for follow-up between 8–30 days. Of this eligible population, 234 (50 percent) did not receive proper follow-up between 8–30 days, of which 104 (44 percent) had at least one missed opportunity for follow-up within this timeframe.

Figure 3. Follow-up and Missed Opportunity Rates among ADSMs in Fiscal Year 2015



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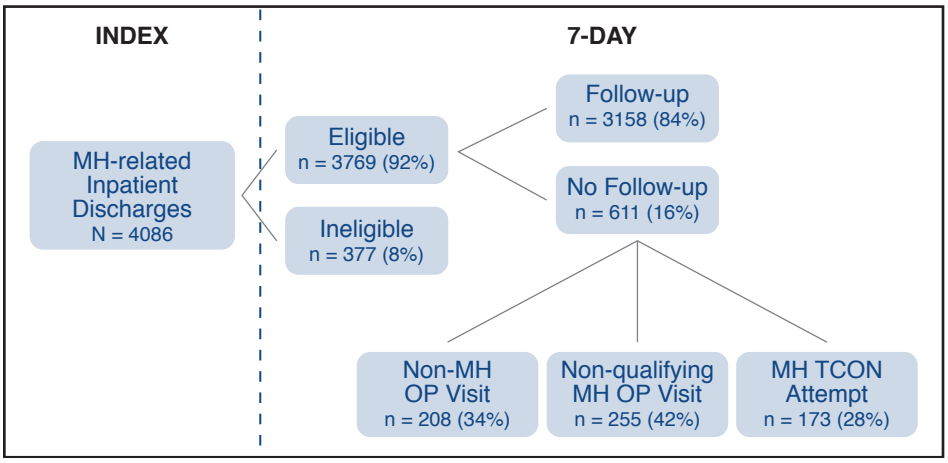
7-day missed opportunities were further broken down into three categories:

1. Those that occurred in a non-mental health care setting
2. Those that occurred in a mental health care setting but did not meet the definition for either an outpatient visit, intensive outpatient service, or partial hospitalization
3. Teleconference attempt within a mental health setting

These categories were not mutually exclusive, as a patient could have both types of visits within the specified timeframe (e.g. 0–7 days of discharge). In addition, the underlying data was coded in a manner in which it was not possible to differentiate between completed and non-completed teleconference attempts. Given these caveats, within 7 days of discharge there were 208 indexes with a missed opportunity that occurred within a non-mental health care setting, 255 indexes with a missed opportunity that occurred in a mental health care setting but did not meet the appropriate definitions for follow-up care, and 173 indexes with a teleconference attempt within a mental health setting.

Figure 4. Missed Opportunities for Follow-up Care among ADSMs in Fiscal Year 2015



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III. Discussion

The Military Health System achieved an 84 percent rate of 7-day follow-up among active duty service members hospitalized with a mental health condition in fiscal year 2015. Despite this relatively high rate of follow-up, 16 percent of discharges were not followed up within 7 days. A majority of these patients that did not receive proper follow-up care were in fact seen in an outpatient setting during the follow-up period. In order to develop effective interventions that help route patients with missed opportunities to proper follow-up care, further investigation is needed to determine potential causes of lack of follow-up. Since follow-up visits and missed opportunities are identified using administrative billing data, this metric cannot distinguish between inadequate care and improper administrative coding of adequate care. That said, this metric was built flexibly to identify follow-up and missed opportunity rates at individual treatment facilities and among various patient populations. Given this granularity, DHCC's metric could be leveraged to conduct further investigation into the true causes of non-follow-up and missed opportunities.

V. References

1. Health Indicators Data Warehouse. Healthcare Effectiveness Data and Information Set (HEDIS). Retrieved from: http://www.healthindicators.gov/Resources/DataSources/HEDIS_56/Profile
2. Agency for Healthcare Research and Quality, National Committee for Quality Assurance. Follow-up after hospitalization for mental illness: percentage of discharges for patients 6 years of age and older who were hospitalized for treatment of selected mental health disorders and who had an outpatient visit, an intensive outpatient service, or partial hospitalization with a mental health provider within 7 days of discharge. November 2014. Retrieved from: https://www.qualitymeasures.ahrq.gov/content.aspx?id=48842

Appendix A: Case Definitions

This analysis utilized case definitions from the Military Health Service Population Health Portal (MHSPHP) operating within the Military Health System Carepoint environment to identify index hospital discharges as well as proper mental health follow-up care. Case definitions were comprised of ICD-9, CPT, HCPCS, POS and UB Revenue strings, which have been deemed proprietary by MHSPHP. Government personnel and contractors operating within the Military Health System may request access to Carepoint and the MHSPHP for further inquiry at http://carepoint.afms.mil/.