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Research Proposal for Developing Best Practices for Promoting Timely Follow Up Care for Patients in Non-rural Settings Discharged from Inpatient Psychiatric Care with Comorbid Chemical Dependency

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Abstract

Increasing the rate of timely follow up care for individuals who have been recently discharged from inpatient psychiatric care has been a goal of the US health care system for some time. Attempts at improving this rate through strategies such as care management, Critical Time Intervention, and comprehensive discharge planning have modestly improved rates, but further improvement should be possible.

A review of previously conducted research in this field indicates the need for a more focused analysis of the determinants of successful follow-up care strategies. Viewing individuals who have been discharged from inpatient psychiatric care as a single population may be an erroneous way of approaching this issue. The population of individuals who have been recently discharged from inpatient psychiatric care is heterogeneous, and strategies for improving continuity of care may be improved by tailoring intervention strategies to the specific characteristics and needs of subgroups of individuals being discharged from inpatient care. As such, this proposed study will focus on a narrower group of patients: those recently discharged from an inpatient psychiatric facility with a co-occurring chemical dependency diagnosis who live in a non-rural setting.

This research proposal suggests a methodology by which to study the potentially complex interactions between patient characteristics and interventions. The intended population is adults who were hospitalized for acute psychiatric care and who have comorbid chemical dependencies. Utilization of Medicaid claims data used with information gathered from insurers and inpatient facilities can provide information about whether or not a Medicaid patient has received timely follow up care. Discharge and post-discharge interventions put into place can be determined through a survey of the facilities regarding discharge procedures. This data can be used to evaluate the comparative effectiveness of the interventions offered at the various settings of care.

Introduction

The provision of timely follow up care for patients who have been discharged from psychiatric

inpatient care has been an issue that the US health care system has struggled with for some time. This

population represents a particularly vulnerable population for whom continuity of care should be an

emphasized priority. Behavioral health providers and managed care organizations have taken these

issues seriously, and improving behavioral health outcomes has been a priority for quality improvement

efforts for some time. The National Committee for Quality Assurance, responsible for accreditation of

Health Plans in the United States, for example, holds the rate of 7 day follow-up after hospitalization as

a core measure for monitoring behavioral health quality.

Reducing the rate of inpatient readmissions is a priority for the American health care system,

both in terms of improving patient outcomes, reducing costs within the system, and reducing the

number of patients currently within a sometimes crowded system of inpatient facilities. The risk of

readmission is highest during the time period immediately post-discharge, and eventually decreases

over time (Appleby, Desai, Luchins, Gibbons, & Hedeker 1993). The 2012 Surgeon General's National

Strategy for Suicide Prevention indicates that death by suicides is more common post-discharge than at

any other point in a patient's treatment, and states that engagement with follow up care can help

reduce death by suicide and suicide attempts (Office of the Surgeon General, 2012).

Continued treatment in an outpatient setting is critical to maintaining the progress the

individual has made while at the inpatient level of care. Patients discharged from an inpatient level of

care will likely be managing their psychiatric disease and comorbid diseases via prescribed medications.

Continued engagement with behavioral health care and other components of the health care system is

crucial to ensuring that the patient adheres to his/her prescribed regimen. If the patient's medication

regimen requires alteration and they are not in regular contact with a professional, they may become

non-adherent with their medication or the effectiveness of the medication may be reduced. Regular monitoring and (if necessary) adjustments to psychiatric medication regimens is good clinical practice, and the ability for the patient to maintain community tenure may be compromised if this does not occur. Losing access to therapy and a prescribing physician can increase the likelihood that the patient readmits to the hospital or other adverse outcomes.

Despite the considerable attention that has been paid to improving post hospitalization continuity of care, no true consensus exists within the professional community regarding best practices and progress towards improving the rate of follow up has been inconsistent. Providers, insurers, and managed care organizations experience many barriers in attempting to improve the rate of follow up after hospitalization, and the continued difficulties suggest that no single intervention is sufficient. Barriers to follow up care are not limited to failures during the discharge planning period, but include a number of social determinants. The inability of the patient to meet the copay, find adequate transportation, and keep track of his or her appointment may serve as barriers to follow up care. A comprehensive case management approach to recently discharged patients could assist with some of these barriers, however this requires both significant resources from health plans and patient compliance.

This proposed study will seek to identify the various components that comprise the discharge planning process. Through interviews with facility staff and other stakeholders involved in the process of promoting follow up, researchers will be able to determine the extent to which a particular discharge procedure engages in multidisciplinary collaboration between inpatient and outpatient providers to promote a smooth transition of care. For the purposes of this proposed study, the success of the transition of care will be measured by the rate at which discharged patients attend follow-up care with a behavioral health specialist in a timely manner. The metrics this study will focus on will be the rate at which patients attend outpatient behavioral health care appointments within 7 and 30 days. These

metrics are useful proxies for measuring the success of the transition of care, in addition to the fact that timely provision of follow-up care is itself critical to maintaining improvements to the patient's health status that were attained during their inpatient treatment. For methodological reasons that will be discussed later in this section, the population being analyzed will be constrained so as to create a relatively homogenous group. For the purposes of this proposed study, the population to be analyzed will be Medicaid enrollees who have been recently discharged from the inpatient level of care for a psychiatric diagnosis who have a co-morbid diagnosed chemical dependency and who live in a non-rural setting. This population is chosen for two primary reasons: firstly, by focusing on this group we constrain the population so as to reduce the number of potentially confounding factors affecting follow-up rates; secondly, this is a high-risk population for whom developing effective interventions has the potential to reduce adverse outcomes.

Discharge Planning

Discharge planning is conducted while the patient is at the inpatient level of care. The goal of discharge planning is to facilitate the coordination of services such that continuity of care is promoted post-discharge. Backer et al (2007) define discharge planning in the psychiatric context as "a process for identifying and organizing the service and connections a person with mental illness, substance abuse, and other vulnerabilities will need when leaving an institutional or custodial setting and returning to the community". This is necessarily a broad mandate, as the requirements and needs of individuals who have been hospitalized for a psychiatric or substance abuse related problem may be myriad. Unemployment, a lack of stable housing, and limited support from friends and family can be the harsh reality that discharged persons are facing, and these barriers may affect the likelihood of an individual being able to attend follow-up care in the community.

Discharge planning is a requirement for accreditation of behavioral health organizations, but the particular form that the planning take exhibits variance between settings. Common components of discharge planning include engagement with a social worker, engagement with a case manager, medication reconciliation, referrals to social services or shelters, and a thorough evaluation of the patient's current mental and health status.

Transitional Discharge and Case Management

There exist a number of interventions promoting the continuity of care for patients other than traditional discharge planning and evaluation, such as the Transitional Discharge Model and Case Management.

The Transitional Discharge Model can take multiple forms, but most include components by which the patient continues to receive support through pro-active outreach from the staff at the discharging institution as a patient begins the transition back to life in the community. These models include specific strategies for maintaining contact with patients, such as scheduling home visits and facilitating the creation of peer groups for individuals with mental illnesses. The goal of transitional discharge models is for the inpatient staff to maintain patient continuity of care with a provider team until outpatient care can be properly established in a sustainable fashion. (Reynolds, 2004)

Case Management can be a similar approach. Heavy utilizers of psychiatric services (or those who meet other criteria) are offered additional assistance through an insurer, a community mental health organization, or another source. Professional case managers help assess the needs of the patient and attempt to ameliorate barriers that can arise as a result of the illness or from other sources. Case managers assist the patient in establishing contacts with providers and navigating the sometimes complicated behavioral healthcare system. Engagement with a case management program can be triggered by a facility, insurer, or other organization evaluating the patient as high risk. Evaluation of risk

is accomplished through a number of methods, such as analyzing the patient's behavioral health care utilization patterns, demographic factors, or through a referral from a behavioral health provider.

Possible Demographic Risk Factors for Follow-up Care

A review of previously conducted research in this field indicates the need for a more fine-grained analysis of the determinants of successful follow-up care strategies. Viewing individuals who have been discharged from inpatient psychiatric care as a single population may be an erroneous way of approaching this issue. The population of individuals who have been recently discharged from inpatient psychiatric care is massively heterogeneous.

Within this broad population, individuals could have a number of characteristics that could play a causal role in the effectiveness of follow up interventions:

- The nature and severity of the individual's illness
- The duration of the illness
- The level of support from family and community
- Level of education
- Age
- Language (primary/secondary)
- Socioeconomic status
- Gender, Sex, and Sexuality
- History with the criminal justice system
- Veteran status
- Housing
- Employment
- Religion/Faith/Spirituality
- Prior experience with the Behavioral Health System
- Specific experiences during inpatient care

The above list considers many possible demographic factors that could influence the effectiveness of any individual follow-up promoting intervention, and it is almost certain that many other characteristics

can also affect the success rate of interventions. One can imagine instances where any of the above factors could interact with the individual and the behavioral health system in such a way as to cause the discharged individual to disconnect from the health care system during this crucial time period. Unfortunately, the research surrounding the interactions between these individual features and the likelihood of maintaining continuity of care following discharge is currently inadequate to produce conclusions about best practices.

It is, therefore, my view that strategies for addressing follow up after discharge must be tailored to what is known about the person, and what research has shown about the best way to conduct outreach to someone with the same relevant characteristics. Given the difficulties posed by study of a heterogeneous population of individuals with mental illness, this proposed study will focus on a specific sub-population and will seek to determine the effectiveness of specific interventions on this population's follow up rate. This study will focus on recently discharged patients who were admitted with a mental illness diagnosis but who also have comorbid chemical dependencies. The sample will be selected as to minimize the effects of other potential dependent variables that can affect follow-up rates. Data will be de-identified and will consist of demographic data and claims data pulled from Medicaid insurers. Information regarding which interventions individuals in the sample will be recorded through a combination of interviews with inpatient facilities and insurers who might provide additional interventions such as case management. Claims data submitted to the insurer will serve as proof of the provision of follow-up care, and the time frames to be analyzed will be within the 7 day and 30 day windows. With knowledge of the various interventions and the follow-up outcomes patients experienced, we will be able to compare the effectiveness of intervention bundles for this specific population.

Literature Review

The majority of research in this area correctly views the provision of timely follow-up care as one of many outcomes of interest to be measured following discharge from an inpatient setting. Most individual studies and trials are testing the effectiveness of a single intervention compared to a control group, and not the comparative effectiveness of multiple intervention bundles. Alternately, published literature reviews have a tendency to view processes such as 'discharge planning' as a single intervention.

Two recent reviews of discharge planning literature were discovered. Nurjannah et al. (2013) studied the literature on the differing perspectives on the amount and forms of communication and collaboration that goes into effective discharge planning and the effects that this communication has on patient outcomes. Relevant to this study, Nurjannah (2013) found the literature tentatively supportive of the hypothesis that effective discharge planning can improve the rate of aftercare and reduce readmissions, though no support was found for improvement in patient quality of life after discharge.

Steffen et al (2009) studied the available literature on the efficacy of discharge planning interventions on outcomes, community tenure, and costs within the behavioral health system. This review of the literature found a relative risk reduction of 35% for readmissions, a 25% increase in the likelihood of aftercare adherence, and no significant effect on quality of life. It is the view of the author that these studies are limited in that they treat discharge planning as a single and consistent intervention. The variation in the components and quality of discharge planning may reduce the validity of pooling data from multiple studies to draw conclusions about the aggregate. It is, however, almost certain that *some* level of discharge planning is effective in reducing admission and improving the rate of timely follow-up care.

One review of the literature regarding the broader category of transitional interventions to reduce readmission was found. Vigod (2013) reviewed 15 applicable studies: four included pre-discharge interventions, eight included post-discharge interventions, and three included bridging intervention components. All of the pre-discharge studies found significant decreases in the rate of readmission. Three of the four post-discharge, and two of the six bridging intervention studies showed statistically significant reductions in the rate of discharge.

Hanrahan et al (2014) piloted a transitional care model involving a nurse practitioner providing patients with services for 90 days after discharge. Significantly higher continuity with primary care was observed for the intervention group, though they were observed to have a higher rate of readmission to the hospital. Reynolds et al (2004) conducted a randomized control trial on 19 subjects in Finland using a transitional discharge model. Symptom severity was similar for the experimental and control groups, though the experimental group showed roughly half the rate of readmissions. This study was limited by its small sample size.

Jensen et al (2010) studied a discharge planning model in Canada in which the discharge planner was based in a community service and visited the inpatient facility to assist the patients with discharge related services. This discharge model reduced the readmission rate in the sample by 40% in comparison to the prior year. The community based discharge planner continued to provide the patients with assistance after they were discharged and the discharge planner was based in the same agency that provided case management, housing advocacy, and other social services.

Gerson and Rose (2012) conducted a qualitative study of the needs of persons with Serious Mental Illness on their perceived needs after discharge. The patients contacted were mostly satisfied with their discharge planning, specifically with its focus on medication management. Families of these

patients, however, often replied that they were hoping for more comprehensive discharge planning than what was provided. Noseworthy et al (2014) studied the perceptions of Canadian behavioral healthcare professionals experience with discharge and transition planning. Many of the healthcare providers reported being frustrated by the lack of human resources in the community to accommodate the patients being discharged. They also expressed frustration with barriers to information sharing with outpatient providers and the lack of familiarity with providers of behavioral healthcare in the community setting.

Marino et al (2015) conducted a study on the predictors of follow-up in Medicaid-enrolled young adults in Maryland. In this sample, roughly half of the patients did not receive outpatient follow up care within 30 days of discharge. Variables correlated with non-attendance of follow up care included ethnicity, a comorbid chemical dependency, and a lack of a pre-established relationship with an outpatient provider. In this sample, nearly half of the patients did not have a previous connection to healthcare in the outpatient setting.

Stein et al. (2007) investigated the predictors of timely follow up care in the adult Medicaid population. In the sample from a Mid-Atlantic state in 2004, 30% of the discharged population received follow up care in the 7 day timeframe and 49% within 30 days. The strongest predictor of follow up care was previous contact with a behavioral health provider prior to admission. Risk factors for failure to attend included comorbid chemical dependency, involuntary admission to the inpatient level of care, and individuals who were discharged AMA.

Research Methods

Overview

This study proposes to evaluate intervention bundles (a set of interventions, such as case management paired with telephone follow-ups from case managers) by their effectiveness in promoting timely outpatient follow up care among adults with psychiatric inpatient care who also have comorbid chemical dependency. This study will be retrospective in design, looking back at medical records of care provided by inpatient and outpatient providers. The population to be analyzed will be the Medicaid population in a state where the organizations that administer the program would be willing to cooperate in the gathering of intervention data.

Study Population and Period

The study will consist of adults ≥18 years of age with comorbid mental illness and chemical dependencies who were hospitalized with mental illness as the primary diagnosis within the year prior to the start date of this study, and for whom Medicaid was the primary payor for the hospital care. Individuals who were discharged against medical advice will be excluded, as they can be assumed to have not received the associated follow-up interventions.

Eligible individuals will be identified using Medicaid claims data (below). A psychiatric inpatient admission will be identified using inpatient claims with a primary diagnosis of ICD-9-CM codes listed in **Appendix A**; this will refer to only the diagnosis listed at the time of inpatient admission. Comorbid chemical dependency will be identified using the set of ICD-9-CM codes listed in **Appendix B**; prior diagnosis within the past 2 years will be considered acceptable to establish a co-morbid chemical dependency and therefore eligibility for this proposed study.

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The overall sample size will need to be sufficiently large to attain statistical significance.   A rough estimate of the size can be attained through analysis of data pertaining to the number of inpatient psychiatric hospitalizations that occurred in a state in the previous year. Nationally, in 2010 there were a total of 1.54 million discharges for which the primary diagnosis was related to psychosis (CDC. 2010) . Expansion to multiple states may be required to engage with a sufficiently large sample size. Prospective states may be selected with a focus on stats with large non-rural populations, such as New York, California, Florida, or Texas. If expansion into multiple states is necessary, a preference should be shown for those that are geographically near other states under study.

Study Data Sources

Medicaid Claims Data

One potentially rich source of data could be the claims or authorization data provided by Medicaid administering insurers. The payment of a claim can be used as proof the patient attended a follow-up appointment. Additional public sector claims data such as those that could be provided by the VA (Veterans Authority) could also be used to determine whether or not an individual attended a follow-up appointment.

The claims data submitted to the insurer would be used to constitute proof of the patient's stay in the inpatient facility and subsequent visit to the outpatient provider. This data also serves to demonstrate the timeliness of the follow-up care. The date of the outpatient provider's claim can be compared to the date of the inpatient facility's discharge record to determine timeliness. This Medicaid claims data is therefore able to be used to not only identify eligible patients, but also to identify the subsequent events that this study seeks to track such as outpatient follow-up care and readmissions.

This will be a retrospective study, and therefore claims data will represent the time period of one year prior to the beginning of this study.

The following fields will be abstracted from the provided claims data:

- Date of discharge from inpatient level of care

- Name and location of discharging inpatient facility

- Name of insurer (if Medicaid is subcontracted)

- Primary Diagnosis for admission to inpatient level of care

- Date of first behavioral healthcare appointment following discharge

Hospital Surveys

Facilities and insurers will be identified by through their inclusion in the above claims data. Researchers will work with the inpatient facility and the insurer to determine what interventions are in place for patients who are admitted to the facility and what additional services are offered by the health plan or managed care organization following discharge. Researchers would identify key individuals within the facility who work with and understand the standard procedure for discharge and follow-up planning. Researchers would then collect data on these procedures through an interview with these individuals, gathering data that would be collected in a tool such as the one attached to **Appendix C**. The development of this tool was influenced by Arbaje et al (2008) in which features of the post-discharge environment and socioeconomic factors were measured for a population of recently discharged Medicare beneficiaries.

Through an investigation of what the standard practices are for each facility and insurer, researchers would be able to estimate what interventions the patient received. Researchers would also take care to ensure that the interventions explained by the facility apply to the entirety of the period of time being studied, so as to ensure that the interventions were consistent in the data being analyzed. This methodology of this study depends on there was a reliable and successful operationalization of the various interventions that patients might receive; it will not be sufficient to say that a patient received 'discharge planning services' as an intervention prior to discharge, as that category of intervention can contain a number of differing services and levels of service. Individual interventions will be recorded and analyzed for their effects on the follow up rate, but this study will focus primarily on the cumulative effect of multiple components of the discharge and follow-up planning. The total number of intervention components will be recorded on the tool and analyzed to determine if there is a correlation between a greater number of discharge planning and follow-up interventions and a higher rate of follow-up care being received within a 7 or 30 day window.

Demographic and Structural Data

Data on patient demographics can be attained through cooperation with insurers. The patient's zip code can be used to determine rural or urban status, and to exclude those patients who do not meet the parameters of the study. Diagnosis information can similarly be provided by the insurer to determine patient eligibility as having a dual diagnosis of both a mental illness and a comorbid chemical dependency. Information regarding the reason for the patient's admission to the inpatient facility can be gathered through analysis of the claims data coming to the insurer from the facility. Inclusion in this study would require a primary admitting diagnosis of mental illness.

Measures

Primary Dependent Variable:

This study will track the 7 and 30 day rate of follow up for patients who have been discharged form an inpatient psychiatric facility. A determination of the date and time of discharge as well as the date of the follow up appointment will be collected from claims data submitted to the insurer by the provider and the inpatient facility. If the patient is seen by a behavioral healthcare provider within 7 days post-discharge, this will be recorded as a success for the 7 day and 30 days measure. If the patient is seen by a behavioral healthcare provider within 8-30 days, this will be recorded as a success *only* for the 30 day measure.

Readmissions will be tracked insofar as they affect the primary dependent variable: If claims data provides evidence of a readmission to the inpatient level of care within 7 days, this will be recorded as a failure for the 7 and 30 day measures. If the claims data provides evidence of a readmission within 30 days, this will be recorded as a failure for *only* the 30 day measure, provided that the subject received outpatient care within 7 days.

Independent Variables:

The independent variables to be studied are the interventions put into place either during the discharge process or during the post-discharge period. Researchers will use a tool similar to the tool developed and attached to Appendix C to determine what interventions have been put into practice. The number of elements of discharge and follow-up planning in place at the facility will be calculated as a measure of the thoroughness of the follow-up promoting interventions in place at the facility.

Data Management

       Claims and demographic data will be collected from insurers and reviewed by the researchers to ensure the accuracy and appropriateness of the data. Data that includes missing fields or uninterpretable coding will be excluded from the analysis; missing data may affect the analysis of whether or not follow up care was received in a timely basis, or it may contain details about the patient that could disqualify them from inclusion within the sample.

Proposed Analysis

The primary analysis will be to determine if a greater number of interventions and assessments conducted by the facility and the insurer correlate with a higher rate of success in the 7 and 30 day follow-up measures. The working hypothesis is that as the number of intervention components rises (the dependent variable), so will the rate at which the patients achieve timely access to follow up care (the independent variable). The number of interventions will be derived from the questionnaire (Appendix C). The draft tool has 23 intervention criteria. For the purposes of this analysis, this will be reduced to a number of ranges: those facilities reporting 'Yes' on 0-9 criteria, 10-15, 15-19, and 20-23. The association between the number of assessments/interventions and the rate of follow up care will be assessed via a chi-square test.

Researchers may also wish to investigate the effect that 'bundles' of interventions have on the rate of follow up care. While the aggregate number of interventions is a useful measure for assessing the extent to which discharge and follow up planning occurs, there may be interaction effects between certain components of the discharge process that promote or reduce the effectiveness of these interventions. Assuming a sufficient sample size, this may be studied by grouping together patients who have received similar sets of interventions and comparing the rates at which these groups successfully access timely follow-up care.

The data collected in the course of this proposed study could be employed in a number of other possible ways. One alternative possible analysis would be to see if there were disparities in the follow-up rate for individuals who were hospitalized in an urban setting, but who have a rural setting as their primary location, and vice versa. Four subsets could be analyzed using the data already gathered: those who both live and are discharged in an urban setting; those who both live and are discharged in a rural setting; those who live in a rural setting but are discharged in an urban location; and those who live in a rural area but are discharged in an urban location. One potential hypothesis is that when there is a

mismatch between the setting of the hospitalization and the locale in which the individual lives, the

effectiveness of the discharge interventions may decrease. We would hypothesize that when analyzing

patients discharged from a particular facility, the rates of timely follow-up may be lower for those who

are discharged in a different type of setting than where they live. A strength of this study is that the data

being collected may yield interesting insights into the complex interactions between interventions

applied to a patient (or a population of patients) and the rate at which the patients are able to

successfully attain care within the community post-discharge.

Strengths and Weaknesses

Claims data is ideally available to researchers. Not all players in the Behavioral Healthcare system have access to this data, as it is Protected Health Information and is closely regulated under HIPPA. Insurers may be extremely reluctant to work with outside researchers in analyzing this data, as the potential for security breaches and information leaks is high. Health data is particularly closely monitored when it relates to the mental health of the patient. This could be problematic for the researchers, as it would reduce the incentive for insurers to cooperate with the researchers. Because many insurers see the follow up after hospitalization rate as a key quality metric, they may be willing to cooperate with researchers in the hopes of determining effective interventions for their population.

Due to the intentional constraints placed on the population under study, the results of this research are not by themselves generalizable to the larger population of all individuals who have been discharged from inpatient psychiatric care. However, the population under study is not an insignificant one and comprises many of the individuals most prone to negative outcomes such as homelessness, readmission, and suicide. While the results are not directly generalizable due to the constrained population, it may well be the case that the design of this study overestimates the effect of demographic factors on individual response to follow-up promoting interventions. Future studies could be designed to test similar intervention bundles with other populations to determine effectiveness.

Ethical Considerations

One advantage of the retrospective design is that it avoids the potential ethical problems encountered through selectively providing and withholding interventions that could improve patient outcomes. At the time that the researchers are investigating the data, the interventions have already occurred or have not occurred, and there is no possibility of patients being put at risk by the actions of the researchers. Data obtained from insurers and facilities will be de-identified to protect patient privacy and to comply with regulations pertaining to health data. Non-rural status will be determined by zip code, and therefore there will be no need for patient addresses to be included in the data set. If the data is properly de-identified, there would be nearly no risk posed towards either the privacy of well-being of the individuals who have been studied. Because this study seeks to evaluate the effectiveness of interventions and not the specific efforts of facilities or insurers, there is additionally no need to identify which facility engages in which particular bundle of interventions. Properly conducted, this study poses almost no risk from the perspectives of patient safety, privacy, or liability.

Appendix A

ICD-9-CM codes for Identifying Individuals Eligible for Study

293.81 - 293.89 Psychotic disorder with delusions in conditions classified elsewhere - other Specified transient mental disorders due to conditions classified elsewhere, other

293.9 Unspecified transient mental disorder in conditions classified elsewhere

294.11 Dementia in conditions classified elsewhere with behavioral disturbance

295.01 - 295.04 Simple type schizophrenia subchronic state - simple type schizophrenia chronic state with acute exacerbation

295.11 - 295.14 Disorganized type schizophrenia subchronic state - disorganized type schizophrenia chronic state with acute exacerbation

295.21 - 295.24 Catatonic type schizophrenia subchronic state - catatonic type schizophrenia chronic state with acute exacerbation

295.31 - 295.34 Paranoid type schizophrenia subchronic state - paranoid type schizophrenia chronic state with acute exacerbation

295.41 - 295.44 Schizophreniform disorder, subchronic - schizophreniform disorder, chronic with acute exacerbation

295.71 - 295.74 Schizoaffective disorder, subchronic - schizoaffective disorder, chronic with acute exacerbation

296.01 - 296.05 Bipolar I disorder, single manic episode, mild - bipolar I disorder, single manic episode, in partial or unspecified remission

296.21 - 296.25 Major depressive affective disorder single episode mild degree - major depressive affective disorder single episode in partial or unspecified remission

296.31 - 296.35 Major depressive affective disorder recurrent episode mild degree - major depressive affective disorder recurrent episode in partial or unspecified remission

296.41 - 296.45 Bipolar I disorder, most recent episode (or current) manic, mild - bipolar I disorder, most recent episode (or current) manic, in partial or unspecified remission

296.51 - 296.55 Bipolar I disorder, most recent episode (or current) depressed, mild - bipolar I disorder, most recent episode (or current) depressed, in partial or unspecified remission

296.61 - 296.65 Bipolar I disorder, most recent episode (or current) mixed, mild - bipolar I disorder, most recent episode (or current) mixed, in partial or unspecified remission

296.7 Bipolar I disorder, most recent episode (or current) unspecified

296.80 Bipolar disorder, unspecified

296.89 Other and unspecified bipolar disorders, other

296.90 Unspecified episodic mood disorder

297.1 Delusional disorder

297.3 Shared psychotic disorder

298.8 Other and unspecified reactive psychosis

298.9 Unspecified psychosis

299.00 Autistic disorder, current or active state

299.10 Childhood disintegrative disorder, current or active state

299.80 Other specified pervasive developmental disorders, current or active state 299.90 Unspecified pervasive developmental disorder, current or active state

300.01 Panic disorder without agoraphobia

300.21 Agoraphobia with panic disorder

300.3 Obsessive-compulsive disorders

301.83 Borderline personality disorder

303.90 Other and unspecified alcohol dependence unspecified drinking behavior 307.1 Anorexia nervosa

307.51 Bulimia nervosa

308.3 Other acute reactions to stress

309.24 Adjustment disorder with anxiety

309.0 Adjustment Disorder with depressed mood

309.28 Adjustment disorder with mixed anxiety and depressed mood

309.3 Adjustment disorder with disturbance of conduct

309.4 Adjustment disorder with mixed disturbance of emotions and conduct

309.81 Posttraumatic stress disorder

311 Depressive disorder not elsewhere classified

312.34 Intermittent explosive disorder

780.09 Alteration of consciousness other

V62.84 Suicidal Ideation

Appendix B

ICD-9-CM codes for Identifying Chemical Dependency

304.0 opioid type dependence

304.1 sedative, hypnotic, or anxiolytic dependence

304.2 cocaine dependence

304.3 cannabis dependence

304.4 amphetamine and other psychostimulant dependence

304.5 hallucinogen dependence

304.6 other specified drug dependence

303.0 alcohol dependence

Appendix C

Draft Facility Survey Questionnaire

Date of Interview:

Facility Name:

	Y/N	Description
Schedule Follow-Up Appointment prior to discharge		
Assessment of Physical Health Status		
Interventions Offered		
Assessment of Health Literacy		
Interventions Offered		
Assessment of Financial Need		
Interventions Offered		
Assessment of Transportation Needs		
Interventions Offered		
Assessment of Physical Disability		
Interventions Offered		
Assessment of Unmet Functional Needs		
Interventions Offered		

Assessment of Housing		
Interventions Offered		
Assessment of Self-Management Ability		
Interventions Offered		
Assessment of Family/Friends Support		
Maintain Contact w. Patient post-discharge		
Allow patient to contact facility providers post-discharge		
Provide Education on Available Social Services		
Provide Education on Available Financial Resources		
Provide Assistance with Attaining Case Management Services		

# of fields marked Y: ___ / 23

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