The Revolving Door: A Look at Factors Effecting Readmission to Inpatient Psychiatry

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Illustration by Andrew Villegas/istockphoto
Objectives

Why does readmission matter?  
What contributes to readmission?  
Is there anything we can do to reduce readmission?  
What are the next steps?
Background

- Era of healthcare reform has led to increasing concern about rates of patient readmissions following hospitalization.
- Readmission within 30 days is a well-established behavioral health system performance measure.
- Readmission within 30 days has been linked to quality of inpatient hospital care and access to community-based aftercare services.
- High costs associated with additional inpatient care
- Patient effects—aim towards outpatient focused treatment
  * Institutionalization?
  * May have negative effects on view of treatment and progress
Background

- Reduction in number of long-term care/state hospital beds

- Increased pressure to discharge patients faster on acute inpatient units
  - Reduction in number of inpatient beds
  - Declining revenues for psychiatric inpatient services
    - Payers developed more stringent criteria for admission and continued stay, as well as lower reimbursement rates.

- Reduction in structured day treatment programs
Figure 1. Initial Admissions\textsuperscript{1} At Risk for a Potentially Preventable Readmission by Admission Group: New York State Medicaid Program, 2007

New York State Department of Health Division of Quality and Evaluation Office of Health Insurance Programs (8)
Figure 2. Thirty Day Potentially Preventable Readmission (PPR) Rate\(^1\) by Initial Admission Group: New York State Medicaid Program, 2007

- Behavioral Health: 17.4%
- Medical: 9.5%
- Surgical: 9.0%

MH + substance abuse diagnosis

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New York State Department of Health Division of Quality and Evaluation Office of Health Insurance Programs (8)
All 30 day Potentially Preventable Readmission (PPR): New York State Medicaid Program, 2007

- Behavioral Health: 48.6%
- Medical: 40.7%
- Surgical: 10.7%

New York State Department of Health Division of Quality and Evaluation Office of Health Insurance Programs (8)
Total and Average Costs Associated with Potentially Preventable Readmissions (PPR) by Medicaid Recipient Health Condition, and Medicaid Payment Category:

### New York State Fee-for-Service

<table>
<thead>
<tr>
<th>Recipient Health Condition</th>
<th>Total PPR Cost</th>
<th>Average Cost per PPR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mental Health</td>
<td>$152,829,147</td>
<td>$13,570</td>
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<tr>
<td>Substance Abuse</td>
<td>$65,448,222</td>
<td>$10,802</td>
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<td>Mental Health and Substance Abuse</td>
<td>$292,811,253</td>
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<tr>
<td>All Others</td>
<td>$88,804,233</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$599,892,856</strong></td>
<td><strong>$11,503</strong></td>
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### New York State Managed Care

<table>
<thead>
<tr>
<th>Recipient Health Condition</th>
<th>Total PPR Cost</th>
<th>Average Cost per PPR</th>
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<td>Mental Health</td>
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<tr>
<td>Substance Abuse</td>
<td>$25,266,767</td>
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<tr>
<td>Mental Health and Substance Abuse</td>
<td>$77,461,400</td>
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<tr>
<td>All Others</td>
<td>$60,312,253</td>
<td>$12,828</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$213,053.390</strong></td>
<td><strong>$13,445</strong></td>
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</table>
Costs Associated with Potentially Preventable Readmissions (PPR) by Region, Medicaid Recipient Health Condition, and Medicaid Payment Category:

$813 Million Medicaid dollars were spent in NYS on total Behavioral Health PPR in 2007
→ $153 Million for Mental Health diagnosis
→ $293 Million for Mental Health and Substance Abuse Co-morbid Diagnosis

Average cost per PPR $10,457-$13,570

* Majority of PPR occur in NYC (69-81%) compared with rest of NYS
Affordable Care Act

- Starting in October 2012, hospitals with higher than expected rates of readmissions of Medicare beneficiaries (for certain medical conditions) within 30 days have been subject to financial penalties.
- The federal Hospital Readmission Reduction Program determined (through the Centers for Medicare and Medicaid Services) for each eligible US hospital, whether their readmission rates were higher than would be predicted by CMS models based on their case mix.
- Some evidence suggests large hospitals, teaching hospitals, and “safety-net hospitals” are more likely to receive payment cuts under HRRP. 

(1,3)
OMH

- Recurrent admission to the psychiatric hospital has often been viewed as not only avoidable and excessively expensive but also as undesirable for the care of patients as well as for the system of care.
- The federal Substance Abuse and Mental Health Services Administration has selected decreased inpatient hospitalizations for mental health treatment as one of ten performance measures targeted by its State Outcomes Measurement and Management System.
- Reducing psychiatric re-hospitalizations is an important outcome in helping individuals to achieve success in community living.
- As OMH psychiatric centers transform to more acute, shorter stay facilities, the 30 day readmission rate may be expected to rise somewhat, and this may not be an indicator of poor performance.
- Data will have to be monitored and the environments of individual hospitals assessed in order to adjust expectations and target values in the future.
Factors: Multifactorial

- Patient characteristics
- Inpatient Treatment Provided
- After Care Compliance
- Social and Demographic Factors
- System Factors
Patient characteristics

- Diagnosis of Schizophrenia, Schizoaffective disorder or other psychotic disorder (2,18,20,22,24) and increased illness severity demonstrated with higher PANSS scores (11)

- Diagnosis of Major Depressive Disorder (15) and other nonbipolar mood disorders (24)

- Diagnosis of Bipolar Disorder found in geriatric population (25)

- Bizarre behavior as chief complaint on admission (7). Other specific symptoms (such as SI) have been less consistent (30).

- Being prescribed an antipsychotic (in men), (25) or a mood stabilizer (11)
Patient characteristics

- Secondary diagnosis of personality disorder (19) or psychopathalogy scores (13) was shown in some studies but not others (24)

- Race has been an inconsistent factor: black (19) or Hispanic (7) showed increased risk in some studies, others have demonstrated no relationship (30)

- Male gender has been associated in some studies (10) but not others (30) and differences appear to diminish within 1 year.

- Self-referral (19) and voluntary admission (vs. involuntary)(26)

- Higher BMI (20) and medical comorbidities (12,32)

- History of alcohol or substance abuse (2,11,12,17,22,24,32)
Inpatient Treatment Provided

- typical vs. atypical antipsychotic medication (15)
- Clozapine treatment (20)
- medication nonprescription (14)
- premature (crisis) discharge (11)
- instability of clinical condition at discharge
  -> especially mood symptoms (14)
  -> scores on the thought disorder factor and self-neglect question on the BPRS at discharge (31)
- absence of family meeting with inpatient staff (15)
- shorter length of stay (20, 31, 32), including those restricted by utilization management (29)
After Care Compliance

- Lack of aftercare attendance (1,30)
  *multiple studies have demonstrated lower readmission rates for those who attend at least one follow up appointment post discharge however intensity of services appears less consistently related.

- medication discontinuation/noncompliance (14,17,30)
Social Factors

- less education has been identified as a collinear variable (22,26) but has not been consistently shown as an independent factor (30,22)
- single relationship status was demonstrated in geriatric population (25) but in broader samples, there does not appear to be a consistent relationship (30)
- chronic unemployment (19,22,28)*
- homelessness (12,28,30)
- smaller social network and/or higher percentage of conflictual relationships in an individual’s network (30)
- legal problems (24)
Social Factors

In Dually Diagnosed Patients:

- returning home vs. an institutional setting after discharge
- residing in an area with high vacant housing rate
- residing in an area far from an AA meeting location*
- residing in close proximity to NA meeting location *
System Factors

- previous psychiatric hospital admissions (2, 6, 7, 13, 15, 19, 22, 24, 27, 30, 31)
  *the most consistent predictive factor for readmission across multiple studies.
- case management alone did not decrease readmission (in fact these individuals tended to have higher readmission rates) possibly due to increased surveillance and/or illness severity (16) however Assertive community treatment (ACT) has been found in some studies to be more effective at reducing readmission that conventional aftercare programs and more effective than case management. (30) CTI and BCTI have also been shown to reduce readmission. (33)

- receiving a pass off the unit (6)
- In patients with Schizophrenia, history of jail time (23)
Some Identified Protective Factors

- Depot medications in patients diagnosed with Schizophrenia and Schizoaffective Disorder (11)
- ECT treatment (20)
- Supported housing (18)
- Residing in an area with higher educational attainment in dually diagnosed patients (7)
- Court-ordered admission vs. voluntary admission (26) which may be related to longer length of stay (26)
- Educational and behavioral interventions aimed at families of patients with Schizophrenia (30)
- Initial contact with aftercare or community-based treatment (30)
- Aftercare services provided directly in client’s neighborhood resulted in a larger number of aftercare contacts and lower readmission rates (30)
- Employment is theorized (22, 28)
Discussion

◦ It may be helpful to identify potential patients at increased risk for readmission based on patient characteristics for further intervention strategies.

◦ In certain patient populations (e.g. psychotic illness) consider depot medication or atypical antipsychotic vs. typical (may improve compliance) or ECT if appropriate.

◦ In dual diagnosis population, address substance abuse diagnosis as well as mental health diagnosis

◦ Enlist all available supports for the patient
  -> family meeting prior to discharge

◦ Ideally aim for higher clinical stability, avoid premature discharge if possible.
  *clearly there are limitations in this area secondary to utilization management and bed availability
Discussion

◦ Discuss barriers to treatment compliance and aim to reduce these if possible (e.g. arrange for close proximity to outpatient clinic, fill medications prior to discharge, assure insurance will cover prescription)

◦ Consider social factors not just clinical factors
  -> housing considerations (supportive if possible/appropriate)
  -> educational or vocational programs
  -> consider more or less structured programs (day treatment, PHP, ACT, CTI/BCTI) depending on patient needs

◦ Consider System Issues
  -> communicate with outpatient providers/case managers
  -> identify high utilizers, attempt to identify specific factors that may be contributing to repeated admission, develop individualized plan
OMH: Reducing Behavioral Health Readmissions

Psychiatric Services and Clinical Knowledge Enhancement System (PSYCKES)

- A HIPAA-compliant, web-based portfolio of tools designed to support quality improvement and clinical decision-making in the New York State (NYS) Medicaid population
- A portfolio of quality indicator reports at the state, region, county, agency, site, program, and client level to review performance, identify individuals who could benefit from clinical review, and inform treatment planning.
- PSYCKES uses administrative data from the NYS Medicaid claims database to generate quality indicators and summarize treatment histories. This administrative data is collected when providers bill Medicaid for services. All states are required by the Federal Government to monitor the quality of their Medicaid programs.

(4)
OMH: Reducing Behavioral Health Readmissions

1. Emergency Room
   a. Identify high utilizers and potential readmissions
   b. Consultation before readmitting
   c. Care coordination and diversion planning during and after ER visit

2. On Admission/During Inpatient Stay
   a. Ensure access to medication post discharge
      ◦ Verify insurance formulary
      ◦ Obtain and verify prior authorization
      ◦ Ideally, fill prescriptions at discharge
   b. "Warm Hand-Off"
   c. Assertive outreach to families/caregivers
   d. Provide discharge instructions modeled on Project RED After-Hospital Care Plan.
   e. Use Teach-Back method
   f. Integrated Dual Diagnosis Treatment: Identify and Treat
   g. Identify readmission/high utilizers, and conduct in depth review or case conference.
OMH: Reducing Behavioral Health Readmissions

3. After Discharge/Outpatient
   a. Follow-up phone call to client/caregiver
   b. Follow-up phone call to provider
   c. Active short-term case management
   d. Address concrete needs
   e. Build/practice/test skills
   f. Increase Community Support

4. Outpatient
   a. ”Warm hand-off”
   b. Identify and flag clients referred from inpatient
   c. Follow-up appointments with after care mental health provider within 3-5 days of discharge
   d. Reminder Phone calls
   e. Develop strategies for crisis management
Special Thanks:

S.K. Park, MD
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Sergio Hernandez, MD

THANK YOU!


4. https://www.omh.ny.gov/omhweb/psyckes_medicaid/about/


4b. NYS OMH, Definition of Measures, management objective: Reduce or maintain the rate of psychiatric inpatient readmissions to ANY hospital within 30 days after discharge from State-operated adult civil psychiatric facilities. http://bi.omh.ny.gov/scorecard/measures


References

10. Risk Factors for Inpatient Psychiatric Readmission: Are There Gender Differences? 


13. Factors contributing to frequent use of psychiatric inpatient services by schizophrenia patients.

14. Rapid versus delayed readmission in first-admission psychosis: quality indicators for managed care? 

References


