Socioeconomic Predictors of Readmission in OPAT Patients

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Introduction

• Outpatient Parenteral Antimicrobial Therapy (OPAT) is a convenient way for completion of IV antibiotics course outside the hospital setting, leading to shorter duration of hospitalization and reduced healthcare expenditure.
• Risks associated with OPAT include complications due to: underlying infection, line related, adverse drug reactions, and comorbidities.
• Few studies looked at predictors of readmission among OPAT patients.
• Previously identified risk factors include: treatment at a SNF, low availability of labs, adverse drug reactions, longer duration of therapy, not having a PCP, cardiac or renal failure, and higher comorbidity index score (Charlson Index).
• The objectives of this study were to identify risk factors for unplanned readmission among patients discharged on OPAT Therapy at Washington University in St. Louis, and, in doing so, ascertain targets for quality improvement in the OPAT program.

Methods

Retrospective review of 412 OPAT patients monitored by the ID OPAT service from September 2016-March 2017. Patients were identified via query to the RedCap OPAT database maintained by the OPAT program. OPAT related demographic, clinical, and laboratory data was collected. The at risk period for readmission was defined as duration of OPAT plus 7 days.

Exclusion: OPAT as an outpatient or >2nd course of OPAT

Statistical Analysis:

• Patients were divided into two groups, unplanned readmission vs no readmission (or planned readmission), for comparison.
• Descriptive analysis of patient demographics, baseline characteristics, care related measures, and OPAT related measures was performed.
• Univariate analysis of baseline characteristics and care related variables was performed and factors found to be significant were included in multivariate analysis.

Results

Table 1: Baseline Characteristics

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<thead>
<tr>
<th>Table 2: Socioeconomic Factors</th>
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<tbody>
<tr>
<td>Financial status</td>
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<tr>
<td>Medicare</td>
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<tr>
<td>Medicaid</td>
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<tr>
<td>Uninsured</td>
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Table 3: Factors Associated with Readmission (Multivariate Analysis)

<table>
<thead>
<tr>
<th>Odds Ratio (95% CI)</th>
<th>P-value</th>
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<tbody>
<tr>
<td>Hospitalization</td>
<td>1.02 (0.99-1.06)</td>
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<tr>
<td>Length of hospital stay (days)</td>
<td>0.44 (0.25-0.78)</td>
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<tr>
<td>ICU admission</td>
<td>0.75 (0.39-1.48)</td>
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Conclusion

Age, race, insurance status, and prior hospitalizations were found to be associated with unplanned hospital readmission among OPAT patients.

Socioeconomic factors are associated with unplanned hospital readmission and should be included when identifying high risk patients for targeted risk reduction interventions.

Authors of this presentation have nothing to disclose concerning possible financial or personal relationships with commercial entities that may have been a direct or indirect interest in the subject matter of this presentation.

References

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