Outcomes of Patients Who Inject Drugs Receiving Treatment for Serious Infections: A Chart Review

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Main findings

Patients with infectious complications of IV drug injection present challenges in the hospital setting:
- Many did not have stable housing and relied on Medicaid.
- About half of patients readmitted for same infection; more patients relapsed than were cured.
- Several patients left against medical advice for various reasons.
- Discharge addiction treatment was often not discussed or left to patient’s initiative.
- Few patients discharged with PICC lines, but none had suspected outpatient misuse or adverse events.
- Baseline data analysis informs interventions in proposed and pursued in a new care model.

Overview

- The opioid epidemic has increased the need for better care models.
- Infectious Disease at DHMC is creating a new care model to provide individualized, multidisciplinary treatment for treating addiction and serious infections secondary to intravenous drug use (IDU) in an outpatient setting.
- Patients who inject drugs (PWIDs) are often excluded from outpatient IV antibiotic therapy (OPAT) programs largely due to theoretical concerns of misuse of venous access catheters.
- To establish a baseline understanding of health outcomes, we conducted a chart review of PWIDs.
- Baseline data on health outcomes will inform the new care model.

Selected Results

Overview

- 22 patients, 40 events
- Average age: 39 years old (22 – 66)
- Females: 8, Males: 14
- Race: White (n=21, one unspecified)
- Employment: 18 experienced job insecurity or were unemployed (n=11)
- Education: Available for 6 records (not beyond ‘Some college’)
- Housing: 12 were chronically homeless or unstably housed; 8 had permanent housing
- Insurance: AmherstHealth(5), Beacon Health Strategies (6), Medicaid/Medicare (12), Correctional Facility (1)

Reason for hospital admission

Variables | N = x
--- | ---
Chest pain | 5
Fever | 10
Chills | 9
Back pain | 10
Cough | 5
Pain (other) | 12

Reason for hospital admission

- Mean: 15
- Median: 10
- Range: 1 – 58 days

What infection type is being treated?

<table>
<thead>
<tr>
<th>Infection Type</th>
<th>Counts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bacteremia</td>
<td>18</td>
</tr>
<tr>
<td>Other</td>
<td>13</td>
</tr>
<tr>
<td>Osteomyelitis</td>
<td>11</td>
</tr>
<tr>
<td>Endocarditis</td>
<td>13, 33.3%</td>
</tr>
<tr>
<td>Muscular &amp; soft tissue abscess</td>
<td>11 (4, 15.4%)</td>
</tr>
<tr>
<td>Septic arthritis</td>
<td>10</td>
</tr>
<tr>
<td>Discitis</td>
<td>6</td>
</tr>
<tr>
<td>Spinal epidural abscess</td>
<td>4</td>
</tr>
<tr>
<td>Septic...</td>
<td>2</td>
</tr>
<tr>
<td>Cellulitis</td>
<td>0</td>
</tr>
</tbody>
</table>

Medical conditions experienced by patient other than substance use disorder:

- Additional psychiatric conditions:
  - Depression: NOS (17, 42.5%), Anxiety NOS (15, 37.5%), Other (10, 25.0%), ADHD (9, 22.5%)
  - Hypertension: 22.5%)
  - None (9, 22.5%)
  - Post-traumatic stress disorder (6, 15.0%), Bipolar disorder (1, 2.5%)

Did the patient leave against medical advice (AMA)?

29% patients left AMA for various reasons:
- Wanted to smoke outside
- Had “things to take care of”
- Experienced anxiety
- Felt uncomfortable
- Felt unsafe and anxious
- No clear reason (4)

Discharge Location

<table>
<thead>
<tr>
<th>Location</th>
<th>Counts</th>
</tr>
</thead>
<tbody>
<tr>
<td>SNF/ICF</td>
<td>19</td>
</tr>
<tr>
<td>Home w/ oral</td>
<td>13</td>
</tr>
<tr>
<td>Home with HHC</td>
<td>12</td>
</tr>
<tr>
<td>Home with oral w/ Abx</td>
<td>11</td>
</tr>
<tr>
<td>Home with daily</td>
<td>10</td>
</tr>
<tr>
<td>Home w. oral antibiotics</td>
<td>7</td>
</tr>
<tr>
<td>Home w. Abx</td>
<td>4</td>
</tr>
<tr>
<td>Home w/ weekly infusion (5, 12.5%)</td>
<td>5</td>
</tr>
<tr>
<td>Home w. daily infusion (1, 2.5%)</td>
<td>1</td>
</tr>
</tbody>
</table>

Naloxone prescribed only during one of the discharges

<table>
<thead>
<tr>
<th>Outcome of infection treatment</th>
<th>Counts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reinfection</td>
<td>2</td>
</tr>
<tr>
<td>Unresolved</td>
<td>4</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
</tr>
<tr>
<td>Cured</td>
<td>2</td>
</tr>
<tr>
<td>Lost to follow-up</td>
<td>11</td>
</tr>
<tr>
<td>Relapse/Readmission</td>
<td>11</td>
</tr>
</tbody>
</table>

Was the patient readmitted after discharge?

About half of patients were readmitted after discharge. Next readmission occurred within:
- Mean: 54 days
- Median: 29 days
- Range: 0 – 290 days

Acknowledgements

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