No Deaths Associated with Patient Refusal of Transport After Naloxone-Reversed Opioid Overdose

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Abstract

INTRODUCTION:
Naloxone is widely used in the treatment and reversal of opioid overdose. Most emergency medical services (EMS) systems administer naloxone by standing order, and titrate only to reverse respiratory depression without fully reversing sedation. Some EMS systems routinely administer sufficient naloxone to fully reverse the effects of opioid overdose. Frequently patients refuse further medical evaluation or intervention, including transport.

OBJECTIVES:
The purpose of this study was to evaluate the safety of this practice and determine whether increased mortality is associated with full reversal of opioids. As a component of a comprehensive quality assurance initiative, we assessed mortality during the 48 hours after patients received naloxone to reverse opioid overdose followed by patient-initiated refusal of transportation.

METHODS:
The setting was a large urban fire-based EMS system. Investigators provided the Bexar County Medical Examiner’s Office (MEO) with a list of patients who were treated by the San Antonio Fire Department with naloxone, and not transported. Inclusion criteria were administration of naloxone and patient-initiated refusal. Patient dispositions also included aid only, referral to the MEO, or referral to law enforcement. The list was then compared with the MEO database. A chart review was completed on all patients treated and subsequently presented to the MEO within two days. A secondary time period of 30 days was also assessed.
RESULTS:
The list identified 592 patients treated with naloxone and not transported to the emergency department. Five-hundred fifty-two patients received naloxone and refused transport or were not transported. The remaining 40 patients all presented to EMS in cardiac arrest, naloxone was administered during the course of resuscitation, and subsequent efforts were terminated in the field. None of the patients receiving naloxone with a subsequent patient-initiated refusal were examined at the MEO within the two-day endpoint. The 30-day assessment revealed that nine individuals were treated with naloxone and subsequently died, but the shortest time interval between date of service and date of death was four days.

CONCLUSION:
The primary outcome was that no patients who were treated with naloxone for opioid overdose and then refused care were examined by the MEO within a 48-hour time frame.

Take Home Points
1. Not all patients with opiod overdose must be transported to the Emergency Department
2. Death was not reported in over 500 patients treated with intramuscular and intravenous narcan
3. Unknown if long acting opiates can be safely treated with intranasal administration of narcan and subsequently released
Total patients receiving naloxone during 20 month period - 1700

1124 Transported

592 not Transported

40 received Narcan during the course of resuscitation and then efforts ceased

552 Refused Further Treatment

16 individuals treated/refused more than once
Table 2. Patients presenting to the MEO after naloxone treatment and patient initiated refusal within the study period.

<table>
<thead>
<tr>
<th>EMS Disposition</th>
<th>Time (days) between service and death</th>
<th>Cause of Death</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refusal</td>
<td>372</td>
<td>heroin</td>
</tr>
<tr>
<td>Refusal</td>
<td>54</td>
<td>heroin</td>
</tr>
<tr>
<td>Refusal</td>
<td>4</td>
<td>cocaine and heroin</td>
</tr>
<tr>
<td>Refusal</td>
<td>327</td>
<td>cirrhosis</td>
</tr>
<tr>
<td>Aid only</td>
<td>250</td>
<td>HTN, CAD</td>
</tr>
<tr>
<td>Refusal</td>
<td>234</td>
<td>GSW</td>
</tr>
<tr>
<td>Refusal</td>
<td>247</td>
<td>pending</td>
</tr>
<tr>
<td>Refusal</td>
<td>7</td>
<td>GSW</td>
</tr>
</tbody>
</table>

References


6. www.census.gov


