Mobile Crisis Outreach Team Pilot Program

Wake County EMS Alliance Health Therapeutic Alternatives
Wake EMS System Overview

• Population over 1 million, 860 square miles

• >100,000 EMS responses per year

• 45 Ambulances

• 6 Advanced Practice Paramedic Units

• 8 District Chief Units
Background

- Mental health complaints represent a large source of calls for EMS.
- These patients are transported to the emergency department for evaluation despite having no medical complaint.
- Some EMS agencies have successfully trained medics to triage mental health calls and bypass the ED before definitive psychiatric treatment.
Inpatient Psychiatric Capacity

- State & County Psych Hospitals
- Private Psychiatric Hosp
- General Hospital with Separate Psych Units
- VA Medical Centers
- RTCs
- Other (Inpatient & Residential Treatment beds)

Number of Residents in Inpatient and Other 24-Hour Mental Health Beds, end of year

Year:
- 1970
- 1972
- 1974
- 1976
- 1978
- 1980
- 1982
- 1984
- 1986
- 1988
- 1990
- 1992
- 1994
- 1996
- 1998
- 2000
- 2002
- 2004
- 2006
- 2008
- 2010
- 2012
- 2014
Wake County EMS APP Program

The Three R’s

**Respond:** Critical medical emergencies require an experienced paramedic

**Redirect:** Not all patients need an emergency dept. evaluation

**Reduce:** Well-person checks for diabetic patients, CHF patients, etc.
Current System Delivery

Mental Health Crisis

911 EMS Request

APP evaluation

Wake Brook

Emergency Department
E.R. Costs for Mentally Ill Soar, And Hospitals Seek Better Way

By JULIE CRESWELL

RALEIGH, N.C. — At dusk last week on a Friday evening near downtown Raleigh, N.C., Michael Lynes, a paramedic supervisor for Wake County Emergency Medical Services, slowly approached the tall, lanky man who was staggering back and forth in a gentle rhythm.

In answer to Mr. Lynes's questions, the man, wearing a red shirt that dwarfed his thin frame, said he was bipolar, schizophrenic and homeless. He was looking for help because he did not think his prescription medication was working.

In the past, paramedics would have taken the man to the closest hospital emergency room — most likely the nearby WakeMed Health and Hospitals, one of the largest centers in the region. But instead, under a pilot program, paramedics ushered him through the doors of Holly Hill Hospital, a commercial psychiatric facility.

"He doesn't have a medical complaint," he's just a mental health patient living on the street who is looking for some help," said Mr. Lynes, pulling his van back into traffic. "The good news is that he's not going to an E.R. That's saving the hospital money and getting the patient to the most appropriate place for him," he added.

The experiment in Raleigh is being closely watched by other cities desperate to find a way to help mentally ill patients without admitting them to emergency rooms, where the cost of treatment is high — and unnecessary.

While there is evidence that other types of health care costs might be declining slightly, the cost of emergency room care for the mentally ill shows no sign of ebbing.

Nationwide, more than 6.4 million visits to emergency rooms in 2013, or about 5 percent of total visits, involved patients whose

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Retrospective cohort of patients diverted by EMS from August 2013-July 2014 (N=226)

- Median age 38 years, 55% (Male), 58% (White), and 38% were uninsured
- The most common chief complaints were
  - suicidal ideation or self-harm (46%) and substance abuse (19%)
- The most common diagnoses:
  - Substance-related and addictive disorders (42%),
  - Depressive disorders (32%),
  - Schizophrenia and Psychotic disorders (22%).
- Median LOS at WakeBrook prior to disposition was 12.0 hr (IQR 5.4-21.6)
Ten percent of all EMS encounters were for involuntary psychiatric holds. With an EMS-directed screening protocol, 41% of all such patient encounters resulted in direct transport of the patient to the psychiatric emergency service, bypassing medical clearance in the ED. Overall, only 0.3% of these patients required retransport to a medical ED within 12 hours of arrival to psychiatric emergency services.
Distribution of Patients, Encounters, and Involuntary Holds (IVHs)

- 24% of encounters were for IVH patients.
- 39% of all involuntary holds were placed on 1,907 (0.7%) unique patients.

A. Total EMS Encounters (N=541,731)
B. Total Unique Patients (N=257,625)
C. ≥ 1 Hold(s): IVH Patients (N=26,283)
D. IVH Encounters (N=53,887)
Psychiatric and OD calls not evaluated by APP 3rd Qtr 2017

- 1203 Overdose and Psychiatric calls
- 1117 Had an APP dispatched
- 738 Had an APP arrive and evaluate the patient

NOTE: There were 379 calls where the APP did not arrive on-scene. Multiple reasons exist for this, evaluation is ongoing.
Temporal Demand Analysis

MH-SU Calls by Hour of the Day

Number of Calls

Hour of Day

2017
# APP Alternate Destination

<table>
<thead>
<tr>
<th></th>
<th>No Transport</th>
<th>Transport to ED</th>
<th>Transport to Alternative Location</th>
<th>Transported to Psychiatric Hospital</th>
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</thead>
<tbody>
<tr>
<td><strong>3Q2016 n=341</strong></td>
<td>74</td>
<td>176</td>
<td>66</td>
<td>59</td>
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<tr>
<td><strong>4Q2016 n=285</strong></td>
<td>74</td>
<td>119</td>
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<td>74</td>
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<td><strong>2Q2017 n=310</strong></td>
<td>74</td>
<td>155</td>
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<tr>
<td><strong>3Q2017 n=382</strong></td>
<td>74</td>
<td>190</td>
<td>73</td>
<td>54</td>
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<tr>
<td><strong>4Q2017 n=313</strong></td>
<td>74</td>
<td>149</td>
<td>73</td>
<td>37</td>
</tr>
</tbody>
</table>
4th Quarter 2017 Alternate Destination Reason for ED Transport

- Medical Clearance: 57%
- Medical Emergency: 22%
- Patient Chose ED: 10%
- Psychiatric Acuity: 7%
- Center Capacity: 4%
Mental Health System of Care

EMS Systems are on the front lines responding to the inevitable crises that afflict community members with untreated Serious Mental Illness.

EMS Systems have limited options to manage patients with a mental health crisis.

Transport to the Emergency Department

Emergency Departments (ED) are overburdened with patients experiencing acute mental health crises.
Austin/Travis County Emergency Medical Services

Expanded Mobile Crisis Outreach Team (EMCOT)

- Since 2013, EMCOT has effectively served 6,859 individuals and successfully diverted individuals from emergency rooms, jail and involuntary commitments.

<table>
<thead>
<tr>
<th>911 Call Center Referrals</th>
<th>Diversion</th>
<th>Number of Referrals</th>
<th>Number Diverted</th>
<th>Diversion Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Law Enforcement (5/2014 – 10/2017)</td>
<td>Emergency Detention</td>
<td>Net: 2660</td>
<td>2311</td>
<td>&gt;86%</td>
</tr>
</tbody>
</table>

Law Enforcement includes: APD, Pflugerville, & Westlake Hills PD, TCSO, Capitol DPS, ACC District Police, ABIA Police.
Can we improve our system of care for patients that access the EMS System with a mental health crisis?
Essential Questions Worth Asking

• What is the need?

• What resources already exist?

• How can a prehospital provider integrate with mobile crisis?

• What is the impact of the intervention?
The Opportunity

• Need for a more integrated system for patients with an acute mental health crisis

• Mobile Crisis services provide access to immediate evaluation, risk assessment and access to treatment
  • Right Patient, Right Resource, Right Time

• Alliance provides services in partnership with Therapeutic Alternatives
Aim: To provide timely and quality psychiatric crisis services at the physical location of the person’s crisis
New System Delivery

Mental Health Crisis

911 EMS Request

APP evaluation

Mobile Crisis Evaluation

Wake Brook

Emergency Department

Other Mental Health Resource

Home

Response Time < 30 minutes

- Risk Assessment
- Determine need for Transport
Proposal

• Implement a 2-year pilot program that will integrate mobile crisis services as part of the EMS System

• Provide daily 16 unit/hour coverage of Mobile Crisis Services in Wake County

• Evaluate the impact of this model and determine scalability
Criteria for Mobile Crisis Activation

• Mental Health Crisis/Primary Complaint
  • Medical Screening for Alternative Destination
  • Non-violent and cooperative
  • Suicidal Thoughts/Ideation
Scope of Services

• **On-Scene risk assessment**
  • Safety and care plans
  • Identify patients not in need for IVC

• **Mental Health Services**
  • Access to a prescriber for medication optimization and reconciliation (Future)
  • 30-day follow-up

• **Link to long-term community resources**
APP – Mobile Crisis

APP Assessment
Patient has an ACT Plan in place

Yes
Follow their current plan and contact current provider

No

Tier 1
C-SSRS
Yes to 4 or 5
Or
APP/LEO determine patient meets emergency custody criteria

If patient meets tier 1 but refuses all transport

Transport to most appropriate facility. Crisis facility preferred

Tier 2
C-SSRS
Yes to 3 or 6 (if #6 < 3 months)
APP will wait for Mobile Crisis arrival

Mobile Crisis Provider will respond within 30 minutes

Tier 3
C-SSRS
Yes to 1 or 2 or 6 (if #6 < 3 months)
Or patient is in crisis but is not suicidal
APP and Mobile Crisis provider will decide if APP can depart or should wait for their arrival

Mobile Crisis Provider will respond within 30 minutes (early phase of program APP will always wait)

Patient is followed up by Mobile Crisis or referred to other services
Potential Disposition Pathways

Example of South Carolina Protocol

- Involuntary Hospital Admission
  - Therapeutic Transport (CCSO) takes patient to destination
  - Treated, Transported by Law Enforcement

- Voluntary Hospital Admission

- Mental Health Center (Immediate)
  - Family/friend, self, community partner transport to destination
  - Treated, Transported by Other Means

- Follow-up appointment
Outcome Measures

• **Diversion Rate** - Percentage of calls that meet criteria that don’t get transported

• **Descriptive Statistics – Patient Population**
  • Number of incidents, basic demographics
  • Response times
  • Process measures

• **Percentage of Transports**
• **Patient satisfaction**
• **Missed opportunities**
Questions?