Responding to Psych Facilities to Avoid ED Transport

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Director | Medical Director
Wake County Dept of EMS
Raleigh, NC
Disclosures

- No financial conflicts

- Nearly everything we talk about is off label, not FDA approved, and, therefore, makes clinical sense
Patient In Pain with Beeson
Patient Healed by Myers
Now Faith is the assurance
Of things hoped for
The belief in
Things unseen.

-- Hebrews 11:1
“[Dr] Brenner wasn’t all that interested in costs; he was more interested in helping people who had received bad health care. The people cycling in and out of the hospital were usually the people receiving the worst care.”
The MIHP Concept

• **A mobile integrated healthcare practice** ensures patients receive coordinated care - the right care, at the right place, at the right time, by the right provider, at the right cost.

• Need-matched, time appropriate health resource allocation

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Modern Healthcare, Dec 2013

Mobile Integrated Healthcare Practice: A Healthcare Delivery Strategy to Improve Access, Outcomes, and Value

The U.S. health care system is often described as one that fails to achieve optimal health outcomes while generating exorbitant costs for patients, payers and society. The Institute of Medicine (IOM) estimates that 37% of the U.S. annual health care budget—subjected to unnecessary services, inefficient delivery, excessive administrative costs and prevention failures—wastes our nation’s health care spending. Inefficiencies in patient access, fragmentation of acute and chronic care, ineffective management of chronic disease, and complex, unwieldy reimbursement processes lead patients, physicians and patients frustrated at historic levels. In Summary, the Institute of Medicine (IOM) Committee on the Quality of Health Care in America described an urgent need to redesign the health care system to improve the quality of health care and reduce waste. The committee found that much of the care delivered does not match the actual needs of the patient population. As a result, patients are increasingly visited by hospital emergency departments (EDs) by their healthcare providers, outside of normal business hours, despite an abundance of knowledge that greater use of emergency departments is associated with increased costs and unnecessary care. Further, care gaps such as a lack of post-acute transitional care are present in admissions, a virtual inactivity that is both expensive and disappointing to patients, providers and the health care system.

www.modernhealthcare.com/perspectives_MIHP
The Three R’s

- **Respond:** Critical medical emergencies occur and require an experienced paramedic to mitigate

- **Redirect:** Not all patients need an emergency dept evaluation – experienced paramedics can help with destination decisions

- **Reduce:** Well-person checks for diabetic patients, CHF patients, etc.
Historical Scope of Service

- Respond to 911 Calls
- Treat in difficult environment
- Transport to Hospital E.D.
Desired Scope of Service

Reduce 911 calls in Special Populations
- Repeat users (frequent flyers)
- Diabetes
- Pediatric Asthma
- CHF
- Homeless

Respond to 911 Calls

Treat in difficult environment

Transport to Hospital E.D.

Redirect
- Treat/release from scene
- Refer - get appointment
- Transport elsewhere
Risk-Frequency of EMS Interventions

HIGH RISK
LOW FREQUENCY
Requires very experienced paramedic;
Often requires more than one paramedic

MODERATE RISK - TIME CRITICAL
HIGH FREQUENCY
May be safely handled by a paramedic
with limited experience.

LOW RISK
HIGH FREQUENCY
May not need to go to the hospital at all.
Some risk due to lack of transport.
Optimum Intervention for Critical Patient Condition

Time

Skills

Experience
Ultra-Time Critical

Skills Critical

Experience Critical
Advanced Practice Paramedic

- An “advanced practice paramedic” provides a significantly better match between patient acuity and paramedic experience
- Experienced paramedic with additional training
- Assigned a “district” to cover
  - Respond to critical calls
  - Deliver services to reduce the number of calls
  - Arrange alternative (not ED) health care where appropriate
- Non-transport vehicle
Advanced Practice Paramedic

- Advanced practice paramedic (APP) – limited number to ensure appropriate annual experience with high-risk patient encounters
- Response time goal of 14:59 at 90th percentile to supervise or performs high risk, low frequency procedures
- Expanded role
  - Alternative transport decisions
  - Preventative measures
  - Advanced pharmacology

JEMS September 2007, p 62-68
What Has Happened Thus Far

- 16 total Advanced Practice Paramedics for 1 million population (8 per shift)
- Goal for response is 14:59 at the 90th percentile – actual is 17:59
- Traditional Paramedic 1 to 2 cardiac arrests per year
- APPs have seen 7 to over 30 per year
Historical Observations of EMS Destinations
Insanity: Doing the same thing Over and over again and Expecting different results

-Albert Einstein
High Risk Refusals

- Called for 167 HRR
- Converted 50% to transports
- Of those not converted:
  - 25 did not perceive themselves to be ill
  - 2 would only go by private car
  - 1 went to jail
  - 50 had “other” issues
- On average, 35 minutes is required for conversion
Non-Transport Follow-Up

- All patients who are not transported after refusal are placed on follow-up list for Advanced Practice Paramedics

- 5200 encounters with no transport were in the database
APP Refusal/Treat and Release Follow-up

Call Date: 12/31/2009
Incident #: [Redacted]
Primary Unit: EMS 33
Primary: Candice Eason
Home Address: [Redacted]
Patient: [Redacted]
Age: 53 Years
Gender: Male
Phone: [Redacted]
Call Dispo: AMA Refused Transport

Narrative:
On scene to find 53 y/o male c/o a/o x 4 to ppts, sitting on tailgate of FR truck. Pt states he was restrained driver in vehicle that ran off the road. Pt states he apparently had a syncopeal episode while driving. Pt states he "woke up" and realized he was off the road. He stopped the truck and called for EMS. Pt states he is not hurt and feels normal.

My Name is: Vince Kauth

Are you still experiencing problems related to your call?

Do you need medical assistance now?

Did emergency responders arrive promptly after your call?

In your opinion, were the ambulance personnel sympathetic to your needs?

Comments: 

Did the ambulance personnel offer you transport to the hospital?

Yes? What influenced your decision not to go?

No? Tell me what happened after the paramedic finished examining or treating

Comments:

Did you seek medical care for the condition that prompted your 911 call?

If yes, what time?

Contact History
Attempts Made:
- First Attempt: 2/2010 12:00:36 PM
- Second Attempt: 2/2010 5:14:22 PM
- Third Attempt: [Redacted]
- Fourth Attempt: [Redacted]
- Efforts Abandoned: [Redacted]

Comments: No answer

www.code3visualdesigns.com
My Name is: Vince Kauth

and I'm a Paramedic with the Wake County EMS System. I'm calling to follow up on the ambulance services that were provided to you on: 12/31/2009

Are you still experiencing problems related to your call?

Do you need medical assistance now?

Did emergency responders arrive promptly after your call?

In your opinion, were the ambulance personnel sympathetic to your needs?

Comments:

Did the ambulance personnel offer you transport to the hospital?

Yes? What influenced your decision not to go?

No? Tell me what happened after the paramedic finished examining or treating

Comments:

Did you seek medical care for the condition that prompted your 911 call?

If yes, what time?

xx/xx/20xx xx:xx:xx PM
Benefits

- Provides community health assistance (vaccines, well-being checks) in collaboration with Wake County Human Services
- Provide pre-planned disaster preparedness assistance (ventilator checks, O₂ delivery)
- Intervene with “hot spot” frequent consumers of EMS (blood glucose checks, alternate destinations)
- Provide meaningful step on career ladder
Community Health

- Substance abuse/mental health (SA/MH)
  - Direct transport to facility for mental health or substance abuse care
- Falls prevention/care
- Hypertension/CHF checks
- Diabetic checks
- Pre-plans (nursing homes, home health)
What Are We Talking About?

Alternative Destination
- Mental Health and Substance Abuse

Alternative Treatment
- Falls in Assisted Living Facilities

Alternative Transport
- Low acuity patients in cab/other vehicle
Well Person Check

History:
- Patient presents requesting "blood pressure check"
- EMS responders to "assist invalid"
- Other situation in which patient does not have a medical complaint or obvious injury

Signs and Symptoms:
- Assess for medical complaint
- For patients with hypertension, particularly check for chest pain, shortness of breath, and/or neurologic changes
- For assist invalid calls, particularly check for syncope, trauma from fall, or inability to ambulate

Differential:
- Hypertensive urgency
- Hypertensive emergency
- Syncope
- Cardiac ischemia
- Cardiac dysrhythmia
- Fracture
- Head trauma

Legend:
- EMT
- EMT-I
- EMT-P
- P
- MC Order

Universal Patient Care Protocol

Patient has medical complaint or obvious trauma

Yes → Go to appropriate protocol and recommend transport

No → Obtain pulse, blood pressure, and pulse ox

Pulse >110, SBP >200, DBP >120, or Pulse ox <94%?

Yes → Recommend transport for evaluation. Have patient sign refusal if transport declined.

No → Confirm patient has no medical complaint. Provide patient with vital sign results and have them contact their doctor to report results.

Advising patient to call 9-1-1 if they develop any symptoms. Complete PCR and document elements of this protocol.

Pearls:
- This protocol pertains to ALL responders
- Patients who are denying more severe symptoms may initially present for a "routine check". Please confirm with the patient at least twice that they have no medical complaints.
- All persons who request service or meet the definition of a patient shall have an PCR completed.
- For patients in this category, the PCR may be brief but must include vital signs and documentation of the lack of a medical complaint. Additionally, patient’s with a potential mechanism for trauma should have a trauma exam completed.
Universal Patient Care Protocol

Patient has medical complaint or obvious trauma

- Yes: Go to appropriate protocol and recommend transport
- No: Obtain pulse, blood pressure, and pulse ox

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Advise patient to call 9-1-1 if they develop any symptoms. Complete PCR and document elements of this protocol.
## Screening Form

<table>
<thead>
<tr>
<th>Reason for call:</th>
<th>Was force used? Yes (☐) No (☐) If yes, explain in narrative section of this form.</th>
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</thead>
<tbody>
<tr>
<td>☐ 911 call</td>
<td>Patient Injuries:</td>
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<tr>
<td>☐ Involuntary Pick up</td>
<td>(☐) None</td>
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<tr>
<td>☐ Wellness check - follow up</td>
<td>(☐) Prior to EMS arrival</td>
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<tr>
<td>☐ Other</td>
<td>(☐) During EMS/LEO encounter</td>
</tr>
</tbody>
</table>

| Paramedic/LEO Injuries: | |
|--------------------------| |
| (☐) None                | |
| (☐) Slight              | |
| (☐) Severe              | |

<table>
<thead>
<tr>
<th>Vital Signs: Time:</th>
<th>B/P:</th>
<th>Pulse:</th>
<th>Respirations:</th>
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<tbody>
<tr>
<td>BAC:</td>
<td>Temp:</td>
<td>Glucose:</td>
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</table>


<table>
<thead>
<tr>
<th>Patient's Status: [Check all that apply]</th>
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</thead>
<tbody>
<tr>
<td>[ ] Current mental health patient.</td>
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<tr>
<td>[ ] New mental health patient.</td>
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<tr>
<td>[ ] Patient is homeless.</td>
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<tr>
<td>[ ] Unknown or other</td>
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</table>

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<tr>
<th>Medication Utilization Screening</th>
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<tr>
<td>[ ] No medication use exceeding prescribed dose or OTC label</td>
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<tr>
<td>[ ] Poison control center case created based on candidates med use</td>
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</table>

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<tr>
<th>Poison Control Center Information:</th>
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<tr>
<td>Time of contact: ________(24 hr)</td>
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<tr>
<td>PCC Case/Reference Number</td>
</tr>
<tr>
<td>Emergency Department Evaluation Recommended? (☐) Yes (☐) No</td>
</tr>
<tr>
<td>Poison control instructions:</td>
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<td></td>
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</tbody>
</table>
### Medical Screening of Appropriateness for Admission:

<table>
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<tr>
<th>No.</th>
<th>Description</th>
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<tr>
<td>01</td>
<td>(□) No acute medical issues/traumatic injuries are present. <em>(Wounds requiring closure or bleeding are not allowed)</em></td>
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<tr>
<td>02</td>
<td>(□) No unexplained mental status change(s) persist or intermittently recurred during encounter.</td>
</tr>
<tr>
<td>03</td>
<td>(□) BAC is less than 0.35 and candidate can tolerate oral fluids.</td>
</tr>
<tr>
<td>04</td>
<td>(□) Pulse is less than 120.</td>
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<td>05</td>
<td>(□) Candidate compliant with medicines for chronic medical issues, or knows meds and doses and will take.</td>
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<tr>
<td>06</td>
<td>(□) Candidate has not taken medications outside normal dose <em>or</em> poison control did not recommend ED eval.</td>
</tr>
<tr>
<td>07</td>
<td>(□) No poison control consult was required <em>or</em> poison control recommendation and case info recorded above</td>
</tr>
<tr>
<td>08</td>
<td>(□) Candidate has no history of diabetes <em>or</em> BGL &lt;300 with no evidence of ketoacidosis.</td>
</tr>
<tr>
<td>09</td>
<td>(□) Candidate performs daily living activities independently</td>
</tr>
<tr>
<td>10</td>
<td>(□) ALL Boxes (1-9) are checked <em>or</em> name of receiving facility staff member contacted who agrees to accept is recorded to right ___________________________</td>
</tr>
</tbody>
</table>
Direct Transport for SA/MH

- Patient has primary mental health crisis and/or substance abuse
- Patient does not require sedation or demonstrate agitation
- APP will then contact alternative site and evaluate the patient for potential placement
Exclusion Criteria

- Acute medical issue or trauma with bleeding, need for wound repair
- BAC >0.35 or patient too intoxicated to take po
- Pulse >120
- Unexplained alteration in mental status
- Unable/unwilling to take medications for pre-existing conditions
Exclusion Criteria

- Has taken medication outside of prescription/recommended dose and cannot be cleared by poison center
- Can perform ADLs independently
- Blood glucose < 300 with no evidence of DKA
E.R. Costs for Mentally Ill Soar, And Hospitals Seek Better Way

By JULIE CRESWELL

RALEIGH, N.C. — As darkness fell on a Friday evening over downtown Raleigh, N.C., Michael Lyons, a paramedic supervisor for Wake County Emergency Medical Services, slowly approached the tall, lanky man who was swaying back and forth in a gentle rhythm.

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. Lyons, 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.

Nationally, more than 64 million visits to emergency rooms in 2010, or about 5 percent of total visits, involved patients whose

Continued on Page B4
The Rest of the Story

-The majority of patients who present for mental health crisis walk in rather than arrive by EMS

-Despite all of our efforts, we still respond over 300 times a year to transport patients away for various things:
  -“medical clearance”
  -“potential OD”
Alternative Destination

- 204 patients in a 12 month period were placed
- Mental health patients consume 14 ED bed hours on average (2,448 hours)
- Chest pain patients consume 3 ED bed hours on average
- Thus, we opened beds for 816 chest pain patients in the 12 month period
- This also saved ~$350,000 in total healthcare costs for this population
The Ask

- **EMS reimbursement tied to care provided rather than only to transport to the hospital emergency department**

- **Options:**
  - Modification of current Medicaid payment
  - Pilot funding for certain projects
  - Per member per month or other payment not based on episodes of care
Alternative Treatment: Falls In Assisted Living Facilities

- 1 to 5 transports per day for our EMS system
- Majority are patients who are “found down” with no obvious injury or complaint
- Risk management strategy for the facility is to summon EMS for transport to the emergency department
Alternative Treatment: Falls in Assisted Living Facilities

Retrospective study complete:
- 644 falls in assisted living were reviewed
- 197 of these patients had a time-sensitive medical emergency
- Protocol would have identified 190 of the 197

Sensitivity then is 97% (93-98%, 95% CI)

Bachman M et al. PEC 2013;17(1):111 [abstract]
Falls in Assisted Living Facilities

- Prospective evaluation had been underway for several months
- Public/private partnership with Doctors Making Housecalls (DMH)
- 400 + patients enrolled; over 150 falls with $\frac{1}{2}$ remaining in the facility
- Common medical record with DMH
- On-going evaluation of safety and costs
Alternative Transport: Low Acuity Callers

- Data Driven triage score
  - 1 very ill/injured
  - 2 and 3 need prompt evaluation
  - 4 and 5 – can safely go to the waiting room

- We are working to implement this scoring mechanism

- ~20% of our transports are level 4 and 5
  (~$3.5 million in transport charges per year)
Metrics

- Patient satisfaction
- Safety
  - 48 hour return to emergency department
  - Adverse patient outcomes
- Cost avoidance
Summary

- Hot spots that are amenable to intervention in the EMS population exist
- The Advanced Practice Paramedic program is one method to improve care while reducing cost to the healthcare system
- Standardized measures to evaluate performance are the next challenge
New Protocol

Medical Clearance for WakeBrook

Patient evaluated with standard APP screen (Policy 3)

Patient is medically cleared for psych evaluation

Patient is medically cleared for psych evaluation

Possible ingestion: determine substances

Determine time of ingestion

Orient:
- Basic Metabolic Panel (BMP)
- EKG
- APAP level
- ASA level

Any lab value outside of reference range, CONTACT MEDICAL CONTROL

If EKG has QRS > 11 or Q > 0.05, CONTACT MEDICAL CONTROL

If EKG has intervals within range, and lab values are within reference range, Patient is medically cleared

If Pulse rate greater than 120 and/or EKG is > 20:

Provide 1 Liter of IV Fluid

Obtain:
- EMP
- EKG

Any lab value outside of reference range, CONTACT MEDICAL CONTROL

If EKG demonstrates any rhythm other than sinus rhythm, CONTACT MEDICAL CONTROL

If heart rate does not decrease below 120 after 1 Litter of IV Fluid, CONTACT MEDICAL CONTROL

If heart rate improves to below 120, the EKG demonstrates sinus rhythm, and all lab values within reference range, Patient is medically cleared

Blood Pressure out of range:
- SBP > 200, or DBP > 120

Confirm patient has no headache, no neurological complaint, no chest pain, and no shortness of breath

Obtain:
- BMP

Any lab value outside of reference range, CONTACT MEDICAL CONTROL

If patient remains asymptomatic and lab values are within reference range, Patient is medically cleared. Instruct staff to have patient follow-up with rounding WakeBrook MD for blood pressure management

Protocol

This protocol is subject to the WakeBrook DOB System

See officers on the next page for further instructions and clarifications.
Asymptomatic Possible OD

1. Determine time of ingestion
2. Obtain:
   - Basic Metabolic Panel (BMP)
   - EKG
   - APAP level
   - ASA level
3. Any lab value outside of reference range, CONTACT MEDICAL CONTROL
4. If EKG has QRS>0.11 or QTc>500, CONTACT MEDICAL CONTROL
5. If EKG has intervals within range, and lab values are within reference range, Patient is medically cleared
BAC or Pulse Too High

Obtain:
- BMP
- EKG

Any lab value outside of reference range, CONTACT MEDICAL CONTROL

If EKG demonstrates any rhythm other than sinus rhythm, CONTACT MEDICAL CONTROL

If heart rate does not decrease below 120 after 1 Liter of IV fluid, CONTACT MEDICAL CONTROL

If heart rate improves to below 120, the EKG demonstrates sinus rhythm, and all lab values within reference range, Patient is medically cleared.
Isolated Elevated BP

1. Confirm patient has no headache, no neurological complaint, no chest pain and no shortness of breath

2. Obtain:
   - BMP

3. Any lab value outside of reference range, CONTACT MEDICAL CONTROL

4. If patient remains asymptomatic and lab values are within reference range, patient is medically cleared; instruct staff to have patient follow-up with rounding WakeBrook MD for blood pressure management.
Conclusion

- Dr. Myers’ patients are happier than Dr. Beeson’s
- Alternative destination is now meeting alternative treatment
- Let’s not make this complicated
- Thank you
MIHP
Mobile Integrated Healthcare in Chicago
Eric Beck, DO, NREMT-P
University of Chicago Target Population

Readmissions
- CHF
- Sickle Cell
- Pediatric Asthma
Interprofessional Team
• Physician
  • EM, EMS, Cards, IM
• Nursing
  • HH, UR, Case Mgt
• Pharmacy
  • Hospital, Home
• Social Work
  • Hospital, HH
• EMS

Interventions
• Home assessment
• Telemonitoring
• Interception
• Transportation
• Home delivery pharmacy
• Home Health
• 24/7 access to care team
CARDIOMOD
COMMANDER FLEX™

CONNECTING PATIENTS USING ADVANCED WIRELESS AND CELLULAR TECHNOLOGY.

Improved care, decreased hospital admissions, and better quality of life. Commander FLEX is the most sophisticated, interactive home telehealth device using Bluetooth and cellular technology.
CHF Home Assessment Form – DRAFT

Once completed please email this form to samira.qadeer@pnhospitals.edu

Patient Name and Information:
- Last: [Blank]
- First: [Blank]
- MI: [Blank]
- Date of Discharge: [Blank]
- MRN: [Blank]
- Insurance: [Blank]

Crew Name: 1. [Blank] 2. [Blank]

At University of Chicago Medicine:
- Yes No
  - Collect discharge packet from nurse (check for AVS)
  - Obtain list of medications from nurse
  - Collect patient belongings
  - Ensure patient has a key or other access to residence
  - Review patient to process

Perform an overall environmental scan of patient home:
- Yes No
  - Patient is able to move around to bathroom, bedroom, and kitchen without barriers (ensure patient in a wheelchair does not have to use stairs)
  - Patient has electricity, water, heat, and access to a working phone
  - There is evidence of rodents
  - Check for any fall or tripping hazards
  - The house is relatively clean
  - **If patient cannot be left at residence contact UCM Community Health Services (773) 702-0013 and discuss plan with UCM EMS

Assess surroundings for environmental factors that may aggregate heart failure (i.e. smoking):
- Yes No
  - Are there smokers in the house (e.g. where there is oxygen)
  - Provide smoking recommendations

Risks for Readmissions:
- Yes No
  - Follow-up appointment
  - Prescriptions unavailable
  - Unable to afford medications
  - Medications not filled by pharmacy
  - Non-compliance with diet
  - Unable to understand discharge instructions
  - Other:

- Yes No
  - Highlight medium content on nutrition label in patient education packet

Oxygen:
- Yes No
  - This patient is on oxygen
  - There is enough oxygen in the tank
  - The tank is mobile
  - If there are issues regarding O2, please call (312) 604-3740 to report immediately

Mobility:
- Yes No
  - Patient is able to ambulate independently
  - Patient can get in and out of bed
  - Patient can ambulate without assistance

Medications:
- Yes No
  - Ask/have the patient gather all medications in the house (prescription and non-prescription)
  - Separate active vs. inactive or expired medications
  - Put all the active medication into a bag and explain to the patient that the home health nurse will go over the medications during their first visit
  - Place all active medications in an area that is easy to access

- Yes No
  - **If there are urgent issues regarding Medications please call (312) 604-3740 to report immediately

Weight Monitoring:
- Yes No
  - Find a mutually agreeable place to put the patient’s weight monitoring sheet
  - Monitor weight and record on sheet
  - Record where monitoring sheet is placed

Follow-Up:
- Yes No
  - Check to see if patient has a follow-up appointment and is able to make this appointment (i.e. transportation issues etc.)
  - Patient is aware of provider contact information in case of questions/concerns
  - Emergency contact numbers are listed and accessible

Patient Satisfaction:

How helpful did the patient find the advanced discharge process?

- Very helpful
- A little helpful
- Not helpful
- Unable to ask patient

<table>
<thead>
<tr>
<th>CHF Integrated Health Pilot</th>
<th>Week 1</th>
<th>Week 2</th>
<th>Week 3</th>
<th>Week 4</th>
<th>Month 1</th>
<th>Week 5</th>
<th>Week 6</th>
<th>Week 7</th>
<th>Week 8</th>
<th>Month 2</th>
<th>Week 9</th>
<th>Week 10</th>
<th>Week 11</th>
<th>Week 12</th>
<th>Month 3</th>
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<td>CHF 30-day Readmission Rate</td>
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<td>Percent of advanced discharge patients readmitted within 7 days</td>
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<td>Percent of advanced discharge patients readmitted within 30 days</td>
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<td>Number of ED visits 30 days post discharge</td>
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Titled: Mobile Integrated Healthcare Practice for Transitions of Care and Readmission Reduction: A Feasible Model for Implementation and Development

**Background and Purpose**
- Effective transition of care between healthcare settings is increasingly recognized as a critical component of high quality healthcare.
- Mobile Integrated Healthcare Practice (MIHP) is an emerging practice model for improving transition from the inpatient setting by positioning Emergency Medical Services (EMS) providers as the cornerstone of care coordination.
- EMS uniquely impacts care transitions because of its role at the intersection of the inpatient, outpatient, and home environments.
- This poster describes the process for development of an MIHP for an urban congestive heart failure (CHF) population.

**Methods**
- Patients with CHF at a single urban academic center were identified as a population that could benefit from optimized transition care based upon historic readmission rates.
- An interprofessional working group, including EMS, conducted a nine-month needs assessment. The team identified previously validated interventions that had been offered with limited integration and bundled these interventions into a comprehensive care program led by EMS.
- EMS integrates services provided by home health, pharmacy, social work, cardiology, hospitalist, emergency medicine, and hospital administration.

**Results**
- Under this model, EMS performs an in-home assessment for readmission risks, patient mobility limitations, and home medications/oxygen.
- EMS also initiates home telemonitoring and reviews the follow-up care plan and discharge instructions with the patient.
- If any element is deemed inadequate by EMS, a centralized call center mobilizes need-matched resources to the patient in a time-appropriate interval.
- Specific members of the interprofessional team then address a patient’s individual needs.

**Conclusions**
- An interprofessional care team with EMS as a lead stakeholder can integrate best practices for transitions of care to develop a MIHP pilot for the care of CHF patients at an urban academic medical center.
- Coordinated interprofessional involvement in the development of a bundle of validated interventions leads to need-matched resource allocation, as identified by EMS providers.
- This abstract describes a feasible model for the development of a coordinated care transition program with EMS as a lead partner.

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**Figure**
- Conceptual flow diagram of MIHP implementation process.
Telephonic Support
Social Services
Mobile Nurses
In-Home Care
MD/DO/APN/PA
Medic Specialists
Remote Monitoring
Medical Command Center
Operational Staffing and Workflow

- Clinical Pharmacist
- Social Worker

Need-matched

Frontline
- Nurse Navigator
- Nurse Manager

Escalation
- Nurse Practitioner
- Physician