Responding to Psych Facilities to Avoid ED Transport

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### 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.

## **Atul Gawande Hot Spots**

" [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 <u>mobile integrated</u> <u>healthcare practice</u> 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

Modern Healthcare, Dec 2013



Eric Beck, DO, NREMT-P; Alan Craig, MScPl, ACP; Jeffrey Beeson, DO, RN, EMT-P; Scott Bourn, PhD, RN, EMT-P; Jeffrey Goodloe, MD, NREMT-P; Hawmwan Philip Moy, MD; Brent Myres, MD, JPHF, Edward Racht, MD, David Tan, MD; Lynn White, MS

The U.S. health care system is often described as one that fails to achieve optimal health outcomes while generating exorbitant costs for patients, payors and society. [1] The Institute of Medicine (IOM) estimates that \$750 billion-30% of the U.S. annual health care budget-is wasted on unnecessary services, inefficient delivery, excessive administrative costs and prevention failures. [2] Barriers to patient access, fragmentation of acute and chronic care ineffective management of chronic illness, and complex, outdated reimbursement processes leave patients, clinicians and payors frustrated at historic levels. In Crossing the Quality Chasm, released in 2001, the Institute of Medicine (IOM) Committee on the Ouality of Health Care in America described an urgent need to redesign the healthcare delivery system. The IOM emphasized the need to expand information technology and to create payment policies based on innovation, outcomes and performance improvement, rather than on the delivery of care itself. [3] Renewed focus on bringing healthcare to the

patient, specifically by delivering care outside of traditional settings, has underscored the need for realignment of financial incentives and reimbursement policy. [4]

#### A special problem: 24/7 coordinated out-of-hospital care

The discontinuities of health service are notably evident in the care of patients at home: this is particularly true for the chronically ill, frail elderly and mobility impaired. Multiple single-purpose providers offer niche care and often only during restricted hours of operation, neither of which match the actual needs of this patient population.

As a result, patients are routinely referred to hospital emergency departments (ED) by their healthcare providers, outside of normal business hours, despite the common knowledge that the ED is an imprecise match to their needs. Further, care gaps such as a lack of post-acute transitional care make preventable re-admissions a virtual investibility that is both expensive and disappointing to patients, caregivers and the health care system.

www.modernhealthcare.com/perspectives\_MIHP

## The Three R's

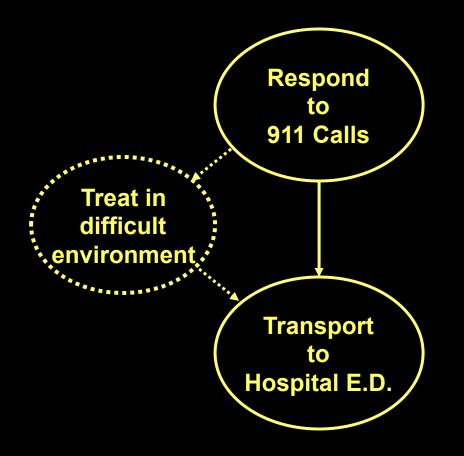
 Respond: Critical medical emergencies occur and require an experienced paramedic to mitigate

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

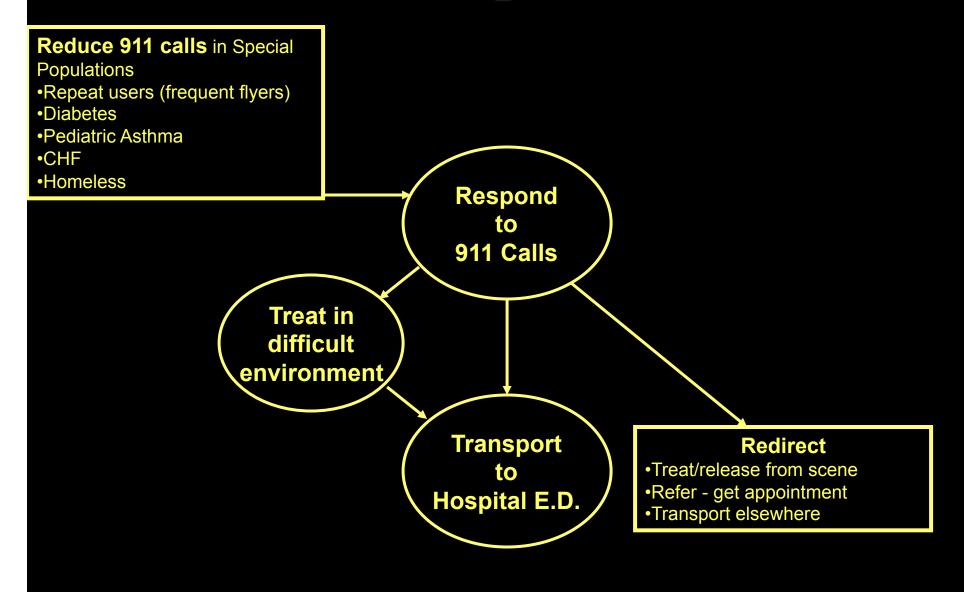
Reduce: Well-person checks for diabetic patients, CHF patients, etc.



## **Historical Scope of Service**



## **Desired Scope of Service**



### **Risk-Frequency of EMS Interventions**

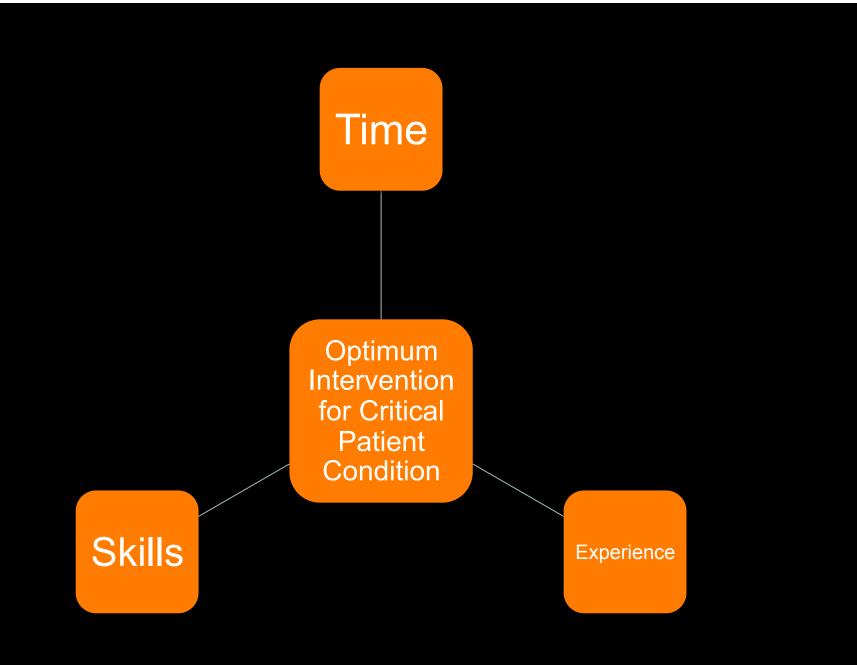
### HIGH RISK LOW FREQUENCY

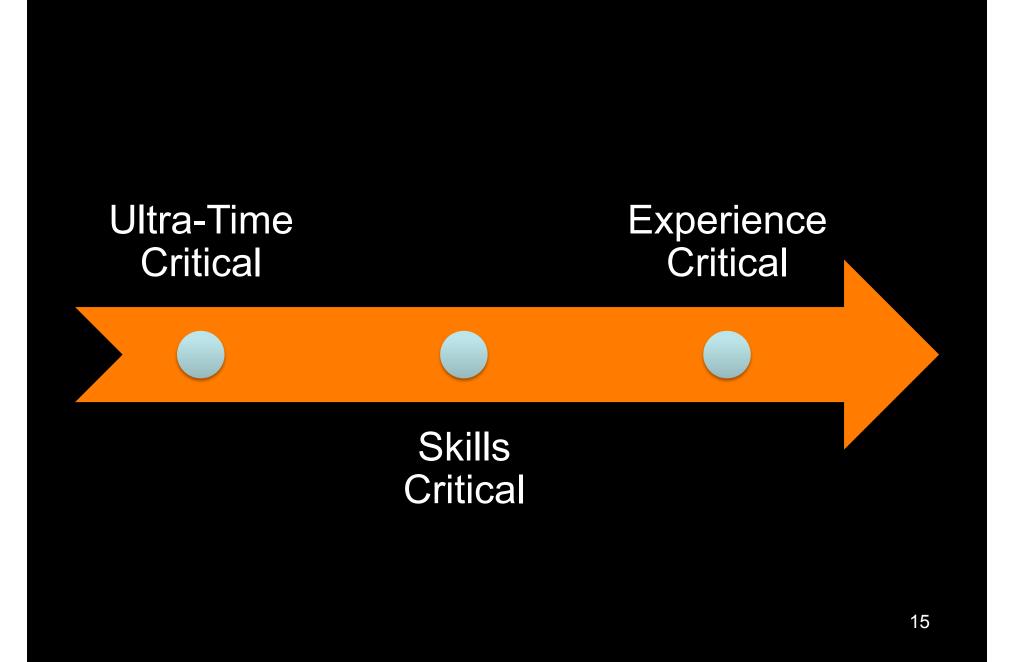
Requires very experienced paramedic; Often requires more than one paramedic

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.





### **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 90<sup>th</sup> 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* 

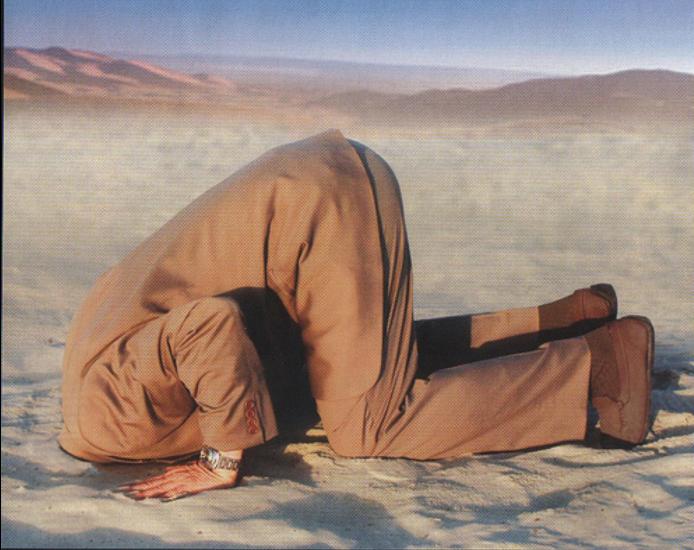


### What Has Happened Thus Far

 + 16 total Advanced Practice Paramedics for 1 million population (8 per shift)
 + Goal for response is 14:59 at the 90<sup>th</sup> 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: 4 25 did not perceive themselves to be ill 2 would only go by private car 1 went to jail 4 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



| ۲   | Call Date:                             | 12/31/2009   |   |             | My Name is   | Vince Kauth          | ¥   |   |   |
|---|--|--|---|-------------|--|----------------------|---|---|---|
| 1.  | Incident #:<br>Primary Unit:           | EMS 33   |   |             |  | on the ambulance s   | unty EMS System. I'n<br>ervices that were<br>/31/2009   | n |   |
|   | Primary:                               | Candice Eason  |   |             |  |                      |   |   |   |
|   | Home Address:                          |  |   |             | Are you still experie  | encing problems rela | ted to your call?   | ~ |   |
|   | Patient:                               |  |   |             | Do you need medic  | al assistance now?   |   |   |   |
|   | Age:                                   | 53   | Years   |             |  |                      |   | * |   |
|   | Gender:                                | Male   |   |             | Did emergency resp   | oonders arrive promp | otly after your call?   |   |   |
|   | Phone:                                 |  |   |             |  |                      |   | ~ |   |
|   | Call Dispo:                            | AMA Refused Trans  | port  |             |  | re the ambulance pe  | ersonnel sympathetic  |   |   |
| 1   | Narrative:                             |  |   |             | to your needs?   |                      |   | Y | ٢ |
| On scene to find 53 y/o male c/a/o x 4 to ppte, sitting on tailgate of FR<br>truck. Pt states he was restrained driver in vehicle that ran off the road. Pt |  |  |   |             |  |                      |   |   |   |
|   | "woke up" and rea<br>called for EMS. P | tly had a syncopal epi<br>alized he was off the r<br>t states he is not hurt o<br>ind to vehicle is to front | oad. He stopped the<br>and feels normal.<br>humper. No airban | e truck and | Did the ambulance<br>Yes? What<br>influenced your<br>decision not to go? |                      | transport to the hosp<br>No? Tell me what<br>happened after the<br>paramedic finished<br>examining or treatin |   |   |
|   | Attempts Mac                           | Contact.   | History   |             |  | ~                    |   | ~ | , |
|   | First Atte                             |  | 0:36 PM   |             | Comments:  |                      | 1   | - |   |
|   | Second /                               | -  |   |             |  | al care for the cond | lition that promoted  |   |   |
|   | Third Atte                             | empt   |   | Г           | your 911 call?   |                      | ndon that prompted  |   |   |
| 1   | Fourth At                              | ttempt:  |   |             |  |                      |   | V | ٢ |
|   | Efforts A                              | bandoned:  |   |             | If yes, what time?   |                      |   |   |   |
|   |  |  |   |             | xx/xx/20xx xx:xx:xx  | PM                   |   |   |   |
|   | Comments:                              | No answer  |   |             |  |                      |   | P |   |



| My Name is  | Vince Kauth        | ×   |          |
|---|--------------------|---|----------|
|   | on the ambulance   | County EMS System.<br>ce services that were<br>12/31/2009                     | ľm       |
| Are you still experie                               | encing problems    | related to your call?   |          |
| Do you need media                                   | cal assistance no  | w?  | *        |
|   |                    |   | Y        |
| Did emergency res                                   | ponders arrive pr  | omptly after your call?   | •        |
|   |                    |   | ×        |
| to your needs?                                      | re (ne ambulanci   | e personnel sympathe  |          |
| Comments:   |                    |   |          |
| Did the ambulance                                   | personnel offer y  | you transport to the he   | ospital? |
| Yes? What<br>influenced your<br>decision not to go? | ,                  | No? Tell me wha<br>happened after t<br>paramedic finishe<br>examining or trea | he<br>ed |
|   | ¥                  |   | ×        |
| Comments:   |                    |   |          |
| Did you seek medie<br>your 911 call?                | cal care for the c | ondition that prompted  | d        |
|   |                    |   | *        |
| If yes, what time?                                  |                    |   |          |
| xx/xx/20xx xx:xx:x                                  | K 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, O<sub>2</sub> 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)



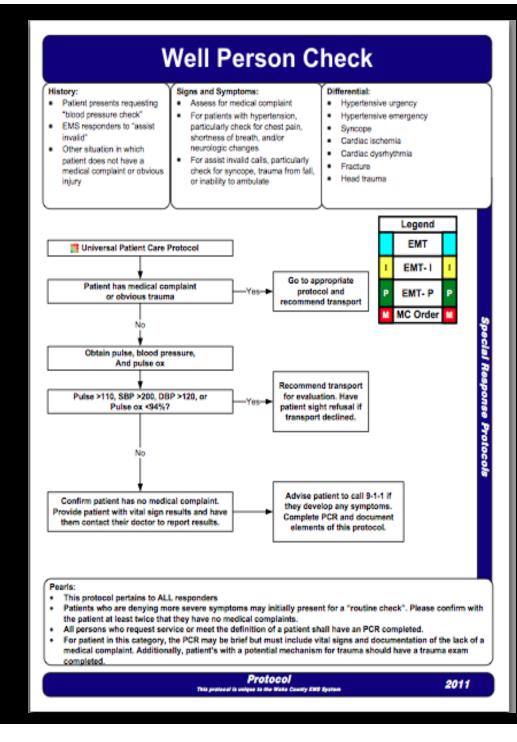
### What Are We Talking About?

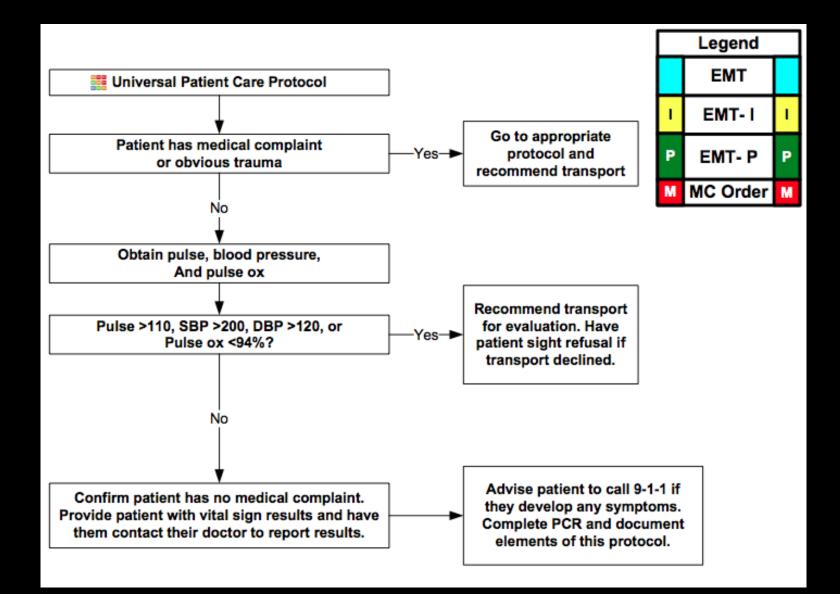
Alternative Destination
 Mental Health and Substance Abuse

Alternative Treatment
 Falls in Assisted Living Facilities

Alternative Transport
Low acuity patients in cab/other vehicle.







|                            | Screening Form  |
|----------------------------|---|
| Reason for call:           | Was force used? Yes ( ) No ( ) If yes, explain in narrative section of this form. |
| 911 call                   | Patient Injuries: Paramedic/LEO Injuries:   |
| Involuntary Pick up        | $(\Box)$ None $(\Box)$ None   |
| Wellness check - follow up | (□) Prior to EMS arrival  |
| Other                      | ( ) During EMS/LEO encounter ( ) Severe   |
| Vital Signs: Time:         | B/P: Pulse: Respirations:   |
|                            | BAC: Temp: Glucose:   |
|                            |   |

| Patient's Status:[Check all that apply]  | Medication Utilization Screening<br>( ) No medication use exceeding prescribed dose or OTC label<br>( ) Poison control center case created based on candidates med use                  |  |
|--|---|--|
| <ul> <li>(□) Current mental health patient.</li> <li>(□) New mental health patient.</li> <li>(□) Patient is homeless.</li> <li>(□) Unknown or other</li> </ul> | Poison Control Center Information: Time of contact: (24 hr)<br>PCC Case/Reference Number<br>Emergency Department Evaluation Recommended? ( ) Yes ( ) No<br>Poison control instructions: |  |

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

### **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



"All the News That's Fit to Print" The New York Times

#### Late Edition

Today, clouds and some sun, a flurry, not as cold, high 40. Tonight, clearing skies, low 30. Tomorrow, mostly sunny and chilly, high 38. Weather map appears on Page B8.

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NEW YORK, THURSDAY, DECEMBER 26, 2013



### The New York Times "All the News That's Fit to Print" Graft Scandal | U.S. SENDS ARMS Is Approaching TO AID IRAQ FIGHT Turkey Premier WITH EXTREMISTS der Faces Pres as 3 Ministers Quit 75 HELLFIRE MISSILES Getting Out of Discount Game, E.R. Costs for Mentally Ill Soar, And Hospitals Seek Better Way Small Colleges Lower the Price New Tests for Brain Trauma n a Car-Culture Clash, It's the Los Angeles Police vs. Pedestrian Create Hope, and Skepticis

### 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 answer to Mr. Lyons'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 prescribed 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. 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 6.4 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

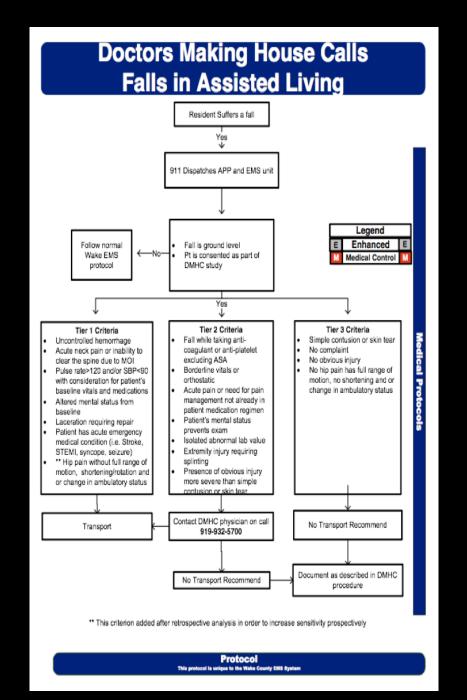


**Alternative Treatment: Falls In Assisted Living Facilities** 1 to 5 transports per day for our EMS system Majority are patients who are "found down" with no obvious injury or complaint Risk management strategy for the facility is to summon EMS for transport to the emergency department



**Alternative Treatment: Falls** in Assisted Living Facilities Retrospective study complete: 4 644 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) [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 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)



Patient satisfaction

Safety
 48 hour return to emergency department
 Adverse patient outcomes





www.code3visualdesigns.com

# Summary

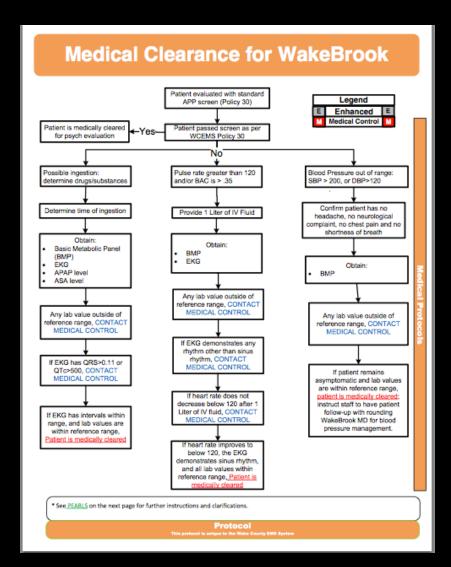
- Hot spots that are amenable to intervention in the EMS population exist
- The Advanced Practice Paramedic program is one method to improve care while reducing cost to the healthcare

## system

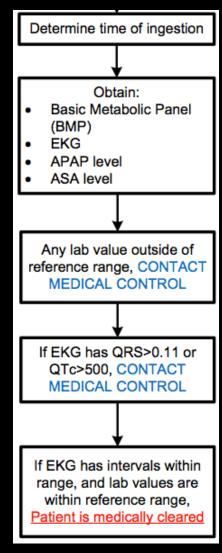
Standardized measures to evaluate performance are the next challenge



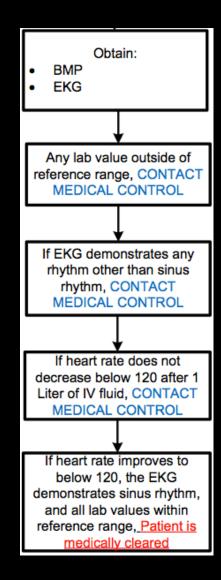
# **New Protocol**



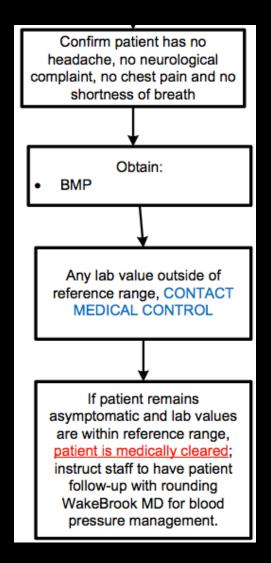
# **Asymptomatic Possible OD**



# **BAC or Pulse Too High**



# **Isolated Elevated BP**



## Conclusion

Alternative destination is now meeting alternative treatment
 Let's not make this complicated
 Thank you





# 

Mobile Integrated Healthcare in Chicago

Eric Beck, DO, NREMT-P

University of Chicago Target Population

## <u>Readmissions</u>

- CHF
- 🔸 Sickle Cell
- Pediatric Asthma



# AT THE FOREFRONT



A publication of the University of Chicago Medicine and Biological Sciences

## AUGUST 2013

## SAFETY & QUALITY: EMS

## EMS Techs to Serve As Care Coordinators

## 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

## **ADVANCING OUR MISSIONS**



## 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  |   |          |          |         |        |        | After Visit Summary:  |   |  |  |           |                          |             |                        |                  |                  |                   |                           |
|---|---|----------|----------|---------|--------|--------|---|---|--|--|-----------|--------------------------|-------------|------------------------|------------------|------------------|-------------------|---------------------------|
| Once completed please email this form to samira.qadir@uchospitals.edu           Patient Name and Information:         First:         MEDICINE   |   |          |          |         |        |        |   | leview an   | y support  | After Visit<br>ing educat<br>documento   | ional mat | y (AVS)<br>erial         |             |                        |                  |                  |                   |                           |
| Date of Discharge:  | MRN: In:  | surance: |          | 11      |        |        |   | ľ   | Oxygen:  |  |           |                          |             |                        | Mobility         | r:               |                   |                           |
| / /            Crew Name: 1.         Ambulance Run #:   |   |          |          |         |        |        |   | Yes No     Image: This patient is on oxygen       Image: This patient is on oxygen     Image: This patient is able to amb       Image: The tank is mobile OR there is sufficient tubing     Walker/Cane are in good of accessible       Solution: Solution: The tank is mobile OR there is sufficient tubing     Solution: So |  |  |           |                          |             |                        |                  |                  |                   |                           |
| 2.  |   |          |          |         |        |        |   |   |  | how patie  | nts where | to call fo               | r O2 issues |                        | Access<br>Notes: | sible            |                   |                           |
| At University of Chicago Medicine:  |   |          |          |         |        |        |   |   |  | ** If there are issues regarding 02 please call (312) 604-<br>3740 to report immediately |           |                          |             |                        |                  |                  |                   |                           |
| Yes       No         Collect discharge packet from nurse (check for AVS)         Obtain final list of medications from nurse         Collect patient belongings         Ensure patient has a key or other access to residence         Re-orient patient to process  |   |          |          |         |        |        |   | L   | Medications:         Yes       No         Ask/help the patient gather all the medications in the house (prescription and non-prescription)         Separate active vs. inactive or expired medications         Put all the inactive medication into a bag and explain to the patient that the home health nurse will get   |  |           |                          |             |                        |                  |                  | non-prescription) |                           |
| Perform an overall environmental scan of patient home:  |   |          |          |         |        |        |   |   | over the medications during their first visit     Place all active medications in an place that's easily accessible  |  |           |                          |             |                        |                  |                  |                   | the neuron number with go |
| 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 Call Center (773) 702-0015 and discuss plan with UCM EMS         Notes: |   |          |          |         |        |        | **If there are urgent issues regarding Medications please call (312) 604-3740 to report immed   |   |  |  |           |                          |             |                        | t immediately    |                  |                   |                           |
|   |   |          |          |         |        |        |   |   | Weight Monitoring:   |  |           |                          |             |                        |                  |                  |                   |                           |
|   |   |          |          |         |        |        |   |   | Yes       No         Image: |  |           |                          |             |                        |                  |                  |                   |                           |
| Yes         No           Assess surroundings for environmental factors that may         Highlight sodium content on   |   |          |          |         |        |        |   |   | Follow-Up:   |  |           |                          |             |                        |                  |                  |                   |                           |
| aggregate heart failure (i.e. smoking) nutrition labels in patient education  |   |          |          |         |        |        |   | Yes No  |  |  |           |                          |             |                        |                  |                  |                   |                           |
| oxygen) Provide smoking recommendations   |   |          |          |         |        |        | Patient is aware about date/time of home health provider visit     Check to see if patient has a follow up appointment and is able to make this appointment (i.e. |   |  |  |           |                          |             |                        |                  |                  |                   |                           |
| Risks for Readmission:  |   |          |          |         |        |        |   |   | Creck to see in 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  |  |           |                          |             |                        |                  |                  |                   |                           |
| Yes No<br>No Follow Up Appointment  |   |          |          |         |        |        |   |   | Notes:   |  |           |                          |             |                        |                  |                  |                   |                           |
| Prescriptions unavailable   |   |          |          |         |        |        |   | ľ   | Patient Satisfaction   |  |           |                          |             |                        |                  |                  |                   |                           |
| Unable to afford medications     Medications not yet received from pharmacy   |   |          |          |         |        |        |   |   | How helpful did the patient find the advanced discharge process?   |  |           |                          |             |                        |                  |                  |                   |                           |
| Noncompliance with diet     Unable to understand discharge instructions   |   |          |          |         |        |        |   |   |  | lpful did t<br>helpful   |           | t find the<br>le helpful |             | discharge<br>t helpful |                  | ?<br>nable to as | k nationt         |                           |
|   |   |          |          |         |        |        | very  | neiprai   |  | ie neiprai   |           | eneipiui                 |             | lable to a.            | ik patient       |                  |                   |                           |
|   | CHF Integrated Health Pilot   |          | Week 1 W | eek 2 V | Neek 3 | Week 4 | Month 1   | Week 5  | Week 6   | Week 7   | Week 8    | Month 2                  | Week 9      | Week 10                | Week 11          | Week 12          | Month 3           |                           |
|   | Readmissions & Encounters   |          | 1 1      |         |        |        |   |   | 1  |  |           |                          |             |                        |                  | 1                |                   |                           |
|   | CHF 30-day Readmission Rate   |          |          |         |        |        |   |   |  |  |           |                          |             |                        |                  |                  |                   |                           |
|   | Number of advanced discharge patients r<br>Number of advanced discharge patients r                |          |          |         |        |        |   |   |  |  |           |                          |             |                        |                  |                  |                   |                           |
|   | Percent of advanced discharge patients readmitted within 7 days                                   |          |          |         |        |        |   |   |  |  |           |                          |             |                        |                  |                  |                   |                           |
|   | Percent of advanced discharge patients readmitted within 30 days                                  |          |          |         |        |        |   |   |  |  |           |                          |             |                        |                  |                  |                   |                           |
|   | Number of ED visits 30 days post discharge  |          |          |         |        |        |   |   |  |  |           |                          |             |                        |                  |                  |                   |                           |
| Patient   |   |          |          |         |        |        |   |   | 1  | 1  | -         |                          |             |                        |                  |                  |                   |                           |
|   | Number of patients discharged from Cardiology service   |          |          |         |        |        |   |   |  |  |           |                          |             |                        |                  |                  |                   |                           |
|   | Number of patients using CHF advanced discharge from Cardiology<br>service                        |          |          |         |        |        |   |   |  |  |           |                          |             |                        |                  |                  |                   |                           |
|   | Total number of patients using CHF advanced discharge Percent of patients approached who accepted |          |          |         |        |        |   |   |  |  |           |                          |             |                        |                  |                  |                   |                           |
|   | Percent of patients approached who accepted Percent of patients who accepted pharmacy             |          |          |         |        |        |   |   |  |  |           |                          |             |                        |                  |                  |                   |                           |
| M.I.H.P. Process Outcomes   |   |          |          |         |        |        |   |   |  |  |           |                          |             |                        |                  |                  |                   |                           |
|   | Number of times UCM EMS provider contacted  |          |          |         |        |        |   |   |  |  |           |                          |             |                        |                  |                  |                   |                           |
|   | Number of times HRS live line contacted?  |          |          |         |        |        |   |   |  |  |           |                          |             |                        |                  |                  |                   |                           |
|   | Average time to resolve issues  |          | +        |         |        |        |   |   |  |  |           |                          |             |                        |                  |                  |                   |                           |
| Number of time patient transported to short stay  |   |          |          |         |        |        |   |   |  |  |           |                          |             |                        |                  |                  |                   |                           |
|   | Number of times patient transported to E  | U        | 1        |         |        |        |   |   | 1  |  | 1         |                          |             |                        | 1                | 1                |                   |                           |









Advocate Illinois Masonic Medical Center



## Mobile Integrated Healthcare Practice for Transitions of Care and Readmission Reduction: A Feasible Model for Implementation and Development

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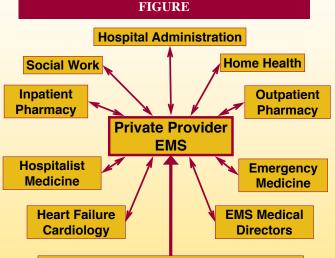
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#### BACKGROUND AND PURPOSE

- 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.



#### **Bundled Interventions**

- In-home Safety, Fall, and Mobility Assessments
- Medication Reconciliation
- Home Oxygen Needs
- Review of Discharge Instructions
- Confirmation of Follow-up Appointments
- Outpatient Telemonitoring
- Real-Time Need-Matched Response if Deficiency Identified by EMS

#### **Population Needs Assessment**

Figure: Conceptual flow diagram of MIHP implementation process.

#### 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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# Medical Command Center

**Operational Staffing and Workflow** 

