The Well-Person Check

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Life is far too important
A thing to talk
Seriously about.

-Oscar Wilde
A Proposed Model

Not all EMS requests for service are the same
- Some could be prevented
- Some do not need an emergency department
- Some require a “maximum response” for good outcome

Different clinical and physical resources are needed for different patient conditions

Achieving a balance between speed and experience is the challenge – “the paramedic paradox”
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.
Summary of Proposed Response

- BLS first response in 4:59 at 90th percentile
  - Defibrillation
  - Compression
  - Trauma preparation
- ALS ambulance in 11:59 at 90th percentile
  - CPAP
  - IO access
  - IV medications
  - Initial cardiac arrest care
- Advanced Practice Paramedic in 14:59 at 90th percentile
  - RSI/advanced airway supervision
  - Referrals and alternate destinations
  - Hypothermia
  - Complex cases (cardiac arrest and others)
Community Health

- Falls prevention
- Hypertension/CHF checks
- Diabetic checks
- Substance abuse
  - Direct transfer to alcohol treatment center (CIT program modeled after Memphis)
  - Checks at homeless shelters
- Pre-plans (nursing homes, home health)
Where Are We?

- Applications sought for 14 positions
- 20 article reading packet with 30 days to study for qualifying exam
- 44 took packet, 39 tested
- Top 30 then had oral presentation, interview, and in-ambulance simulation of critical patient with treatment in progress with initial paramedic/EMT
- 19 entered academy, 17 completed
Where Are We?

- 7 week academy
- Critical encounters
- Public health
- Alternative destinations

Clinical rotations: OB/GYN, Infectious disease, cardiac cath, ED, ATC, Behavioral Health, Follow-up RN, Peds, 9-1-1 center, Wake EMS PI
APP Response Vehicle
Media loved this
So Far:

- APPs went in service January 6, 2009:
  - Referrals from EMS crews:
    - 36 well-person visits
    - Additionally, substance abuse, FF, CHF, and high risk refusals
  - First cardiac arrest save less than 4 hours after program began
  - Unique source for referral – Medicaid/indigent collaborative
Hospital D/C follow-ups

- All patients in the Medicaid database are referred for case worker follow-up after hospital discharge.
- Pediatric asthma, diabetics, CHF, and falls risk patients will receive a combined visit with a case worker and an APP.
- More to come.
Current Protocols

- Diabetic Follow-up
- Well-Person Check
- Emergency Department Referral
- Capital Care Collaborative (in process)
The Numbers – First 5 weeks

- 2309 total dispatches
- Unconscious, chest pain, seizure, MVC, and falls are top five 9-1-1 based dispatches
- 54 well-checks completed
- 99 Cardiac Arrest calls
Times

- Average response time = 9:06
- 90\textsuperscript{th} percentile response time = 15:39
- Average time on well-person visit = 39 minutes
- Average time on 9-1-1 call = 27 minutes
- Well-person visits per patient range from 1 to 6
Case Report #1

- 60s year old diabetic male
- In the 4 weeks prior implementation of the program, patient called EMS 3 times (70 calls in 5 years)
- Homes visits were scheduled
- On first visit, the patient’s hypoglycemic episodes were all noted to be in the late afternoon
- Subsequent visits thus timed
Case Report #1

- 2nd home visit – patient was found alone in the home, disoriented, with a blood glucose of 28
- No ambulance was needed
- APP started IV, remedied blood glucose, and evaluated the patient's medication
- Follow-up visit with PMD scheduled
Case Report #1

- Medications were adjusted

- Patient has not called for 9-1-1 in 28 days

- UHUs returned to the system = 6
Case Report #2

✦ Cardiac Arrest – APP arrived and “ran the list”
✦ EtCO2 was noted to be low
✦ ETT was removed, BIAD was placed
✦ EtCO2 moved from <10 to 35
✦ ROSC was achieved within minutes
✦ Final outcome as yet unknown
Case #3

- 30s female attending a conference at a downtown hotel
- Experienced a “spell” (outside of North Carolina = psychotic episode)
- CIT trained APP summoned to the scene
- Haldol/versed avoided
Case #3

- Patient transported directly to psychiatric hospital as opposed to emergency department
- Average hold in our largest emergency department for psychiatric hold is 14 hours
- One event opened an ED bed for 14 hours
Summary

- We’re attempting to assure the citizens an experienced, highly qualified paramedic for “red zone” calls
  - Average years experience = 8
  - Average number of patient encounters = 6500
- We’re also attempting to prevent the red zone calls in the first place
Now Faith is the assurance
Of things hoped for
The belief in
Things unseen.

-- Hebrews 11:1