Nurse Call Center
Referral Option for 911 Requests For EMS Care

Arthur H. Yancey, II, M.D., M.P.H.
Deputy Director of Health for EMS
Fulton County Department of Health and Wellness
Atlanta, Georgia
“While EMS systems are frequently organized to address major traumas and serious medical emergencies that are an important part of EMS, they often overlook the fact that the overwhelming majority of EMS patients have relatively minor complaints.

More effectively managing the entire spectrum of complaints that result in an EMS response could make the system more patient-centered.”

-IOM: Future of Emergency Care: Emergency Medical Care at the Crossroads
Today’s Objectives

- To impart the goals of referring a defined subset of 911 medical calls to an Advice Nurse Call Center (ANCC) for disposition
- To describe information relevant to initiating the project:
  - demographic data
  - Medical Priority Dispatch (MPD) subset descriptors
  - protocol exceptions
  - continuous quality improvement (CQI) indices
  - financial analytical methodology
Goals of ANCC Referral Program

- **Caller**
  - Link callers to definitive treatment services (clinics) thru ANCC
  - Enroll callers in primary care program
  - Arrange transportation to point of service, as needed

- **EMS System**
  - Match EMS expertise and resources to 911 calls for which those on-scene skills are required
  - Decrease response time of EMS to calls for which timely on-scene care and hospital transport are vital
  - Promote disaster readiness by offering paths to medical care independent of on-scene EMS response or emergency depts.

- **Finances**
  - Achieve savings to an EMS system subsidized by the public
Demographic Data

- Fulton County population: 900,000
- 911 medical calls to Fulton County Emergency Communications Center:
  - 126,157 (2005) \(\div\) 137,149 (2006, projected)
- Medical Priority Dispatch (MPD) “Sick Person-Alpha” category call burden to EMS:
  - 5,169 (Mar – Aug, 2006) \(\div\) 10,338/year (projected)
  - \(\sim\) 30 per day
  - 10,338/131,657 = \(\sim\)8% of all 911 EMS calls
MPD’s “SICK PERSON-ALPHA” Subset Descriptors

Top 8 complaints:
- Defecation/diarrhea
- Object stuck (nose, ear, vagina, rectum)
- Earache
- Wound infected (focal or surface)
- Cramps/spasms/joint pain (extremities & no trauma)
- Constipation
- Toothache (w/o jaw pain)
- Can’t urinate (w/o abdominal pain)
MPD’s “SICK PERSON-ALPHA”
Subset Descriptors

Others:
- No priority symptoms
- Boils
- Bumps (non-traumatic)
- Can’t sleep
- Catheter (in/out w/o hemorrhaging)
- Cut off ring request
- Deafness
- Enema
- Gout
- Hemorrhoids/piles
- Hepatitis
- Hiccups
- Hungry
- Nervous
- Penis problems/pain
- Rash/skin disorder (w/o DIB or dysphagia)
- Sexually transmitted disease
- Sore throat (w/o DIB or dysphagia)
- Transportation only
Protocol Exceptions

- 65 years old and greater
- Paraplegic, quadriplegic
- Third, Fourth party callers
- Repeat callers with same complaint
Feasibility

- Additional ANCC call takers needed

Enabling Technology:
- Additional phone lines into ANCC identifiable as 911 for service prioritization
- Dedicated phone (ring down) no. into 911 from ANCC
Continuous Quality Improvement (CQI) Indices – Planned

- 911 call taker performance
  - “SICK PERSON-ALPHA” Calls classification accuracy based on caller information given
    - 1 mo. review of all “SICK PERSON-ALPHA” calls = 99.97%
    - Evaluation of all 911 calls returned to 911 from ANCC

- Sample survey of caller satisfaction
  - Resolution of illness/injury
  - Timeframe of resolution
  - Satisfaction with protocol

- Tracked EMS response time changes
- Financial savings
Calculation of Savings

- EMS savings = (cost of BLS level run x 10,338 runs) – EMS revenue on 10,338 runs
- ANCC expenses = additional phones + computers + desks + ANCC staff salary + benefits
- Total savings to county budget = EMS savings - ANCC expenses
FULTON 911 – ANCC Initiative

Conclusions

- Public access to emergency medical dispatch is an essential component of the EMS system.
- Alternative care services appropriate to callers’ needs and provided through specialty call centers are components of the EMS system:
  - Poison centers
  - Emergency mental health services
  - Advice nurse call centers
- Medical direction is crucial to all components of the EMS system for efficient, safe, ethical service.
- Substantial financial, operational, medical, and emergency preparedness benefits are expected.