

# Emergency Medical Dispatch

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# Traditional Medical Team

- Pre-hospital life support (basic and advanced)
- Emergency Department personnel
- In hospital personnel

# What is EMD?

- Can select appropriate response
- Unsafe situations can be identified
- Provides directions to the caller about what to do and what not to do
- Allows to focus clearly on each situation, eliminating inconsistency and vagueness through a ***standard, precise approach to each call.***

# Response Times

- 2 minutes before anyone calls for help
- 60-90 seconds for call processing time
- 5-10 minutes average response time
- 60-90 seconds for the crew to get to the patient's side

# Response Times

- Thus, even in ideal circumstances, the patient goes without any medical care for in excess of 8 minutes.

# Zero-Minute Response

- Goal is to eliminate the time a patient goes without care.
- EMD plays a critical role
- Willing bystanders can provide first aid/CPR via telephone instructions

# Safety

- Lights and siren to a sprained ankle?
- What can happen?









# Sharron Rose Frieburg

- 18 year old cheerleader and honors student
- Struck by an ambulance responding lights and siren in Bloomington, IL
- Sustained severe and permanent injuries
- City settled for \$5 million for her injuries

# Emergency Vehicle Collisions

- Sharron's story is not unique
- 1990 - National Academy of EMD
  - Through press-clipping service
    - 298 emergency vehicle collisions
    - 537 injuries
    - 62 fatalities
      - One death every 5.9 days.
- This does not account for “wake-effect” collisions

# Top Four Excuses

- “The caller is too upset to respond accurately”
- “The caller doesn’t know the required information”
- “The dispatcher is too busy to ask questions, give instructions or flip through card files”
- “Phone information from dispatchers cannot help victims and may even be dangerous”

# “The caller is too upset to respond accurately”

- Patient’s usually thought of as “hysterical” and “uncooperative.”
- Most callers (96%) of callers are able to work effectively with EMD.
- Some callers may need help calming down, but a professional EMD knows the telecommunication tactics to achieve this.
- Campfire story syndrome

# “The caller doesn’t know the required information”

- Most callers know at least some, if not all of the information required by EMD.
- 70% of callers are first- or second-party callers.
- Even some 30% of third party callers can provide some critical information.

“The dispatcher is too busy to ask questions, give instructions or flip through card files”

- Information can be obtained in the same or *less time* than the freestyle method
- Los Angeles (1988)
  - Implemented EMD
  - Before implementation, call process time 72 sec
  - Implementation, call process time 80 sec
  - 1 week post implementation, 72 sec
  - **Number of EMDs required remained the same!!**



“Phone information from dispatchers cannot help victims and may even be dangerous”

- The fact is that dozens of lawsuits have been filed against dispatch centers.
- However, an increasing number of these are for “dispatcher abandonment” for NOT provided pre-arrival instructions.

# THE LAY PUBLIC'S EXPECTATIONS OF PREARRIVAL INSTRUCTIONS WHEN DIALING 9-1-1

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## ABSTRACT

**Objective.** To determine whether the lay public expects public safety answering points (PSAPs) to provide prearrival instructions. **Methods.** Two thousand telephone numbers were randomly generated from all listed residential numbers in a county containing urban, suburban, and rural communities served by 26 enhanced 9-1-1 PSAPs. Only a minority of the PSAPs provided prearrival instructions. Research assistants made two attempts to contact an individual at each telephone number. A survey was administered to any person who answered the telephone provided the person was at least 18 years of age and gave verbal consent. The respondents were asked their age, level of education, and gender. They were also asked what number they would call for first aid or an ambulance and whether they would expect telephone instructions from the dispatcher if a close relative was choking, not breathing, bleeding, or giving birth. **Results.** One thousand twenty-four individuals were successfully contacted; and 524 (51%) were at least 18 years of age and agreed to participate. The respondents' mean age was 50 (standard deviation 19 years). Sixty-five percent of the respondents were female; and 90% had at least a high school diploma. Only 37% had previously called 9-1-1 (nine-one-one) for an emergency. Ninety-seven percent said they would dial either 9-1-1 (85%) or 9-11 (nine-eleven) (12%) in an emergency. Seventy-six percent (95% CI: 73%–80%) expected prearrival instructions for all four medical conditions. Specifically, prearrival instructions were expected by: 88% for choking (95% CI: 85%–90%), 87% for not breathing (95% CI: 84%–90%), 89% for bleeding (95% CI: 86%–91%), and 88% for childbirth (95% CI: 86%–91%). Ninety-nine of 117 respondents (81%) served by a PSAP that did not provide prearrival instructions expected to receive phone instructions for all four emergencies. Logistic regression revealed that knowing to dial 9-1-1 or 9-11 in an emergency was the only significant predictor of prearrival instruction

expectation [ $p < 0.03$ , odds ratio 3.4 (95% CI: 1.16–9.78)]. Age, gender, service by a PSAP providing prearrival instructions, and level of education were not predictive. **Conclusion.** The lay public expects prearrival instructions when calling 9-1-1, although they may not currently receive this service. **Key words:** emergency medical services; emergency medical communications; public; prearrival instructions.

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The universal emergency access number 9-1-1 (nine-one-one) was introduced in the United States in the early 1970s.<sup>1</sup> Today, this public safety advancement allows individuals to dial an easy-to-remember ubiquitous number to request medical, fire, or police assistance. Previously, callers had to either memorize or quickly obtain a seven-digit emergency number unique to their locale. Often these stressed individuals would dial 0 and then be routed by telephone company operators to their local public safety answering point (PSAP). Expansion of 9-1-1 service has continued; and currently approximately 93% of the U.S. population has 9-1-1 service (personal communication, Bill Stanton, Executive Director, National Emergency Number Association, 1999).

Technological advancements have led to the introduction of enhanced 9-1-1 (E911) in many municipalities. Enhanced 9-1-1 provides public safety telecommunicators with the caller's location and callback number as well as with other vital information. This important breakthrough permits dispatchers to send help to callers who do not know their location, cannot speak, get disconnected, or otherwise cannot verbally provide necessary information. The Federal Communication Commission has required extension of this 8

# National Association of EMS Physicians

## **POSITION PAPER**

### **EMERGENCY MEDICAL DISPATCH**

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# National Association of EMS Physicians

- “Further training to the level of emergency medical dispatcher should be required for all personnel who receive calls for medical assistance and/or dispatch those resources.”
- “Governments should approve statutes or regulations that require EMDs to be certified/licensed in accordance with nationally accepted standards for EMD.”

# American College of Emergency Physicians

- “Responsibility for the medical care of the patient begins with the initial request for care. The EMD program is an integral and critical component of the EMS system . . . .”

 **Wisconsin**

Wisconsin faces a number of wide-ranging challenges in improving its emergency care environment, particularly in the areas of *Public Health and Injury Prevention*, the *Quality and Patient Safety Environment*, and *Access to Emergency Care*.

**Strengths.** Wisconsin’s strong performance in *Disaster Preparedness* is due in part to the planning and infrastructure in place to respond to a disaster event. The state has an ESF-8 plan or all-hazards medical plan that is shared with all EMS and essential hospital personnel, as well as a written plan for special needs patients. The state also supports a relatively high bed surge capacity, has a statewide patient tracking system, and a real-time or near real-time syndromic surveillance system.

While Wisconsin’s grade for the *Medical Liability Environment* could see significant improvement, the state has made some progress in instituting medical liability reforms. In 2006, the state implemented a \$750,000 medical liability cap on non-economic damages after the \$350,000 cap was declared unconstitutional in 2005. Wisconsin also is one of only five states that require periodic payments of malpractice awards.

Despite its near average grade with regard

to 2004 to 2007. Access to mental health and substance abuse treatment may also be of particular concern in Wisconsin. While the state has an average rate of psychiatric care beds (29.3 per 100,000 people), there is a significant shortage of mental health providers throughout the state. Specifically, Wisconsin needs an additional 82.8 full-time equivalent mental health providers for its underserved population. The state also has the nation’s highest percentage of people needing and wanting substance abuse treatment but unable to receive it (10.2 percent).

Nearly 25 percent of Wisconsin adults are binge drinkers, the highest of any state, and a correspondingly high percentage of traffic fatalities are alcohol related (50.0 percent). The state also ranks 50<sup>th</sup> for unintentional fall-related fatal injuries (14.6 per 100,000 people).

Wisconsin’s poor performance in the *Quality and Patient Safety Environment* was affected by a lack of reporting requirements, such as adverse event and hospital-based infections reporting, and the lack of a uniform system for providing pre-arrival instructions.

**Recommendations.** Access to medical care is one of the biggest challenges facing Wis-

	RANK	GRADE
<b>ACCESS TO EMERGENCY CARE</b>	26	C-
<b>QUALITY &amp; PATIENT SAFETY ENVIRONMENT</b>	34	D+
<b>MEDICAL LIABILITY ENVIRONMENT</b>	15	C+
<b>PUBLIC HEALTH &amp; INJURY PREVENTION</b>	31	D+
<b>DISASTER PREPAREDNESS</b>	17	B
<b>OVERALL</b>	27	C

instituting reporting requirements and considering the development of a STEMI system of care. Wisconsin patients could also benefit from the implementation of a uniform system for providing pre-arrival instructions.

# Funding

- Capital costs
- Operating costs
- What is the cost to NOT implement EMD?

# Summary

- We need standards for EMD
- Public expects EMD
- National organizations recommend EMD
- Cost is frequently overestimated and undervalued



Questions?