Community Paramedicine

Daniel Talmage

University of Cincinnati

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Larry Bennett

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Certification Statement

I hereby certify that this paper constitutes my own product, that where the language of others is set forth, quotation marks so indicate, and that appropriate credit is given where I have used the language, ideas, expressions, or writings of another.

Daniel Byron Talmage
Community and Paramedicine

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Abstract

The cost of health care in America is growing, and growing fast. 911 is called more frequently than ever before. Not only is it being called, a significant part of the population, called “frequent flyers”, are responsible for part of the calls. A “frequent flyer” is someone who calls 911 on a regular basis. The reasons for the frequent calls include, but are not limited to, major medical problems, legitimate medical problems that do not require an emergency call, and people abusing the system. It is not uncommon for homeless individuals and alcoholics to use the 911 system, not for medical help, but so they can go to the hospital for a meal and a place to sleep for the night. It is also not uncommon for the medical condition to be a cut finger and the patient simply wants a band aid, believing that calling 911 is an acceptable practice to get one.

It is understood that society has problems with poverty; however, the more frequent use of 911 creates another financial problem. With health professionals noticing a trend in ‘frequent flyers’, they question how it might be possible to reduce the amount of repeat patients. One proposed concept is Community Paramedicine. Community Paramedicine is a throwback to the old days when doctors made house calls. This concept involves sending paramedics and nurses to patients’ residences with recurring 911 calls. This is to identify and treat small problems before they become big problems. This paper is research on this subject that I have done. Due to my research I have determined that the City of Columbus would benefit from a Community Paramedicine program.

Background and Significance
The fire service has challenges to overcome, just as every other profession. One such challenge is the over use of the 911 system. For example, in San Diego, California, a 66-year-old chronic alcoholic has abused the system. He has been transported by ambulance to UC San Diego Medical Center ER 242 times in three years. Most of these transports are due to the patient’s chronic alcohol use and paramedics are not allowed to deny transport. From this one patient alone it has cost the city $537,000 over the three years (Gonzales, 2015, p. 1).

Problems like this exist all over the country. It is not uncommon for frequent flyers to be uninsured. Common medical issues for them are Congestive Heart Failure (CHF), Diabetes, skin infections, Chronic Obstructive Pulmonary Disease, Drug addiction and mental illness. In 2013, Halifax Medical Center in Daytona Beach provided $39.2 million in uncompensated care. According to its numbers, frequent fliers make up 4.5% to 8% of all ED patients, but account for 21%-28% of visits ("Coordinated care keeps frequent fliers from landing in ER," 2014, p. 1).

Washington D.C. has the United States record holder for 911 calls. Martha Rigsby is a resident of Washington D.C. and in 2013 alone she called 911 226 times and took 117 trips to the hospital by ambulance. She is now 60 years old and has been calling 911 regularly since 1977. The city is taking her to court, seeking to assign a guardian for her. One major factor in this case is the psychological wellbeing of the individual. Abayomi Jaji is a psychiatrist with the city’s Department of Behavioral Health. Jaji states that she places herself in danger from repeated falls in her home and in public due to “seizures” and “narcolepsy” of which neither have been medically verified. According to the article, she herself calls from her home about 40% of the time, while the other 60% she is in public and has a passerby call for her. 55% of the time she signs a waiver refusing transport. Jaji has testified that she is not mentally capable of taking care of herself (Brittain, 2013, p. 1).
In Syracuse, NY a man took 140 trips to the ER by ambulance in 2009. Many times he called 911 three times in a single day. The vast majority of the time, the patient was evaluated by a doctor and then released with no medical problems. This individual cost taxpayers $25,760 through Medicaid and cost the ambulance service $37,000 (Groom, 2010, p. 1).

The city of Columbus and the Columbus Division of Fire are no exceptions to this. I have had firsthand experience with these situations. In my career, I have had several ‘frequent flyers’ but one in particular sticks out. Due to HIPPA laws, I will refer to her simply as Patient 1. In 2014 and 2015, I constantly went on calls for her. Most of the calls she was either on a payphone on Parsons Ave. in Columbus, or lying in the street. The vast majority of the time, the patient had been using alcohol and crack cocaine. On several occasions, I was called to her residence where I spoke with her boyfriend and daughter, who is an adult. Both confirmed that she has a drug and alcohol problem. I highly recommended that they need to find a drug and alcohol rehabilitation program. Then I transported her to a hospital, normally Grant Medical Center.

In early 2015, Patient 1 was still continuing this lifestyle. I contacted my EMS coordinator and we arranged for a social worker to contact her. We were informed from the social worker that she spoke to Patient 1, and that Patient 1 had NO intention of seeking help. After receiving this information, I tried to establish a 911 abuse case for Patient 1. We had records that Patient 1 had been to Grant Medical Center 79 times in 2014. However, Patient 1 also has a medical condition called hypertension. Even though the vast majority of her transports where due to drugs and alcohol, the fact that she has an underlying medical condition, complicates the process of getting a 911 abuse case established for her. My EMS coordinator recommended I start a log documenting trips for her. I coordinated with the other two units to use the log when they ran on her. The log included the incident number, so we could track each
incident and the facts behind it. The log for 2015 shows around 30 runs in May of 2015, when the runs stop. I do not know what happened to Patient 1, but I can only assume she moved out of my district (S. Herold, personal communication, 01/01/2015, 2015).

**Literature Review**

Community Paramedicine is a new concept, but many places in the United States have started to implement forms of it. The City of San Diego has adapted a new nationwide program called, “Health Care 911”. This program is aimed at dealing with patients before they have to call 911. San Diego adopted the program 3 years ago. In that time, San Diego has seen its calls for frequent flyers decrease from 17.3% to 11.6%. That is a reduction in calls of 5.7% over the last three years (Gonzales, 2015, p. 1).

Cipher Health has established a program that is commonly used in the United States. This program deals with reducing repeat visits by following up with patients after they are discharged. The program contains four parts, which are: Patient Education, Patient Engagement, Care Team Intervention, and Executive Reporting. The patient education is done before the patient leaves the hospital. Here, a medical professional goes over exactly what medical condition he has. They also go over the specifics of the condition, along with the meds and why they are prescribed. They also answer any questions the patient has about the condition. After the patient is discharged, the staff does patient engagement. Here they will call and keep in contact with the patient, ensuring he has had his meds filled and is taking them. They help the patient through any problems or questions and encourage him to stay active during the process. The next step is care team intervention, done when the patient calls with problems and concerns. This could include, but is not limited to, when the patient has run out of meds and needs a refill. The professional can then help the patient get help he needs before he calls 911. The last step is executive
reporting, or essentially in-depth reports tracking all of the procedures to see if the program is actually working (CHF, 2015, p. 1).

In this program, one academic urban hospital was able to identify 5 very effective follow-up questions to ask patients with CHF. These were: Review diet, Review fluid intake, Order scale through clinic program, Review discharge instruction orders, and Identify barriers for obtaining meds. In a three year period, they called 5,158 released CHF patients. Of those called, 3,691 patients were reached and 1,857 issues were resolved over the phone. 95% of the patients found the phone call to be helpful. In another case, a small urban hospital reduced its readmission rate in CHF patients from 26.9% in January to 0% in July. A large urban hospital saw a 14% drop in CHF and a 30% drop in pneumonia revisits (CHF, 2015, p. 1).

Due to the same type of problems, the cities of Milwaukee and Madison in Wisconsin, have adopted a community paramedicine program. In 2014, the city of Milwaukee had 62,763 EMS 911 calls. 4,288 (7%) were for the same 100 people. The new program the two cities are working on has taken 30 of their paramedics for this training. The training was scheduled to finish in September of 2015 with a planned start in October 2015. The plan begins by targeting the 100 patients who make up 7% of the calls. Then they call and ask if the patients want to participate with no cost involved. If they participate, then the first attempts will be over the phone to work with the patients to meet their needs. If that is not helping a particular patient, then one of the paramedics will be assigned to the patient to make regular house call checkups. The cities are hoping that this project will save money and improve the patients’ health by eliminating problems before they call 911. Given that the program has only been operating for a month or two, there is no data yet about its effectiveness (Herzog & Luthern, 2015, p. 1).
As of right now, CFD has no official Community Paramedicine program. We have one program where a paramedic of ours teaches new parents safe sleep practices for newborns. Even though there is no program yet, CFD is working on one currently. Right now there is a study going on with CFD and an area hospital. I have been asked to keep the name of the hospital private for security reasons. This program was first started in 2010, when the Affordable Care Act was passed. In this act, Medicare and Medicaid Services would reduce payments to hospitals for patients readmitted in the last 90 days. An internal study concluded that nearly 50% of the hospital’s patients were discharged without significant treatment. This opened the hospital’s eyes and so contacted CFD about starting a program. In the first phase, 6 cardiac patients were chosen and accepted to participate in a treatment program. Within 24-72 hours after their release from the hospital, a 30 minute wellbeing checkup at their residences was performed. 5 of the 6 were successful in preventing a repeat visit (J. Davis, personal communication, November 6, 2015).

With the initial success of the program, the hospital and CFD have chosen to expand the program. The mission statement of the program is, “to optimize the quality of life for patients with heart failure”. The idea is to start with cardiac patients and, if successful, move on to other medical problems. The current study is for 18 months and goes from August 1, 2014 to January 31, 2016. Everyone willing to participate will be involved. Considering prior numbers, it is expected that about 40% will participate. These patients will be visited 1-2 times a week by the new CFD mobile healthcare team. There are four criteria a patient must make to be in the program. A patient must be 18 years or older, clinically diagnosed with heart failure, Consent to the mobile healthcare team in-home visit, and have had multiple visits to the ER. The official statistics will not be released until the program is over, but it is believed that the program will reduce many repeat 911 calls. After the program is over, CFD will look at the results of the
program. From there it will decide if CFD should or should not implement its own program. If it chooses to implement one, then they will base the criteria of the program on the results of the study. (J. Davis, personal communication, November 6, 2015).

**Discussion**

After researching and reviewing other departments that have gone to a Community Paramedicine program, I do believe that the City of Columbus would benefit from it. As stated earlier, this problem is shared in every state in America. Even though this concept is very new, and is in its experimental stages, it has been shown to work in other communities. In my research I was not able to find an example anywhere of a system adopted like this, that didn’t produce results.

As stated earlier, I work with frequent flyers on a regular basis. I mentioned one in particular who is an example of 911 abuse with drugs and alcohol. However, there are several individuals that I run on frequently. Not all of them have drug and alcohol problems, most have real medically diagnosed problems. There are different types of problems within this type. The district I serve is below the social-economic line. Some of the patients don’t realize that when their meds run out, they need to get them refilled. Some might go to the store with only $20, but instead of buying their meds, they buy a 12 pack of beer and cigarettes. Others are completely competent, yet have fallen on hard times or have a major medical problem, such as stage four cancer. Regardless of the reason for the problem, a program like this would help reduce the amount of calls. Having someone go out once a week to visit people in these predicaments and make sure they have and are taking their meds, following their discharge orders, and handling any other problems would help. It would solve potential problems early, when it is easy instead of waiting until the situation is so bad that they need to call 911. I believe that the financial
savings, along with helping the quality of life for our citizens from a program like this, would far outweigh the initial cost.

**Recommendations**

My recommendations for this program are as follows:

1. CFD and Ohio Health partner together to form this program. The program will run Monday-Friday from 8a.m. to 4p.m. The program will have five paramedics from CFD, five RN’s from Ohio Health, and one Doctor to oversee the program. These individuals will be assigned this role and off regular shift rotation so they can become familiar with each individual. Manpower can be adjusted to meet the needs of the program.

2. The first step will be to call the discharged patients who have been flagged as frequent flyers. From there, the team will establish a rapport with the patient and make contact once a week. For those instances where this step is successful, there is no need to take any further action.

3. For those patients who do not answer the phone, or are still having multiple visits, in home consultations will be attempted. This will consist of one paramedic and one RN going to a residence once a week to check on the patient. There will be two for safety and integrity in case the patient makes false accusations towards the healthcare providers.

4. For patients who still frequent the hospital despite the home visits, there will be an individualized plan made up from the paramedic, RN, and Doctor overseeing the program. Note, this step is also for those that are trying and willing to work with the system to get better.
5. The last option is for the patients who refuse to cooperate and are knowingly abusing the system-- Legally prosecuting these individuals for 911 abuse. As stated, this will only happen after multiple attempts to try and have the patient cooperate. If the patient still choses to abuse the system, a well-kept log should be in place including how many times the patient has visited and what the patient is really there for. Also to be noted is how often the patient has drugs and or alcohol in his system.

**Conclusions**

In conclusion, I believe that a Community Paramedicine program would be very beneficial to the City of Columbus. In my research, as well as my personal experience, there is a need for one. My research shows that it is not only economically reasonable, that if done right it should save money and health in the long run. Cities such as San Diego have made it work, and Milwaukee appears to be making it work. This program would be a valuable asset to the citizens of Columbus, Ohio.
References


Personal Interview: Deputy Chief James Davis. November 6, 2015

Personal Interview: Lieutenant Steven Herold. January 1, 2015