

King County Emergency Medical Services



SPHERE Goes Live

SPHERE (Supporting Public Health with Emergency Responders) was launched in January. I thank the fire department training officers and the King County EMTs who support this innovative program. SPHERE targets two massive public health problems: Hypertension and diabetes. It helps identify new cases of each disease as well as identifies patients whose hypertension or diabetes is out of control. The following questions and answers may help in the implementation of SPHERE.

Who is eligible to receive the cards?

Anyone except the following: paramedic transported patients, nursing home patients, and unstable or chaotic medical or trauma situations (use your best judgment).

Who specifically should receive the Alert cards?

Anyone with the following:

Blood pressure ≥ 160 systolic or ≥ 100 diastolic

Blood sugar in a diabetic: ≥ 300

Blood sugar in a non diabetic: ≥ 175

How will you follow up with patients who receive the Alert cards?

During the year my office will call approximately 1000 patients who receive Alert cards to determine the actions they took. All that we learn about the impact of the program will be shared with the fire departments. **Thus it is crucial to confirm the patient's phone number.**

How will you know the patient received an Alert card?

From the boxes on the MIRF and from the electronic records completed by EMTs

Will we learn how many Alerts we distribute?

In a short while the EMS Online web site will have a SPHERE link that will allow you to track the Alerts from your department.

Should I test everyone for high blood glucose?

I encourage you to screen all reasonable patients for diabetes. We know that risk factors for diabetes are overweight, older, and having a first degree relative with diabetes. Currently 20 million Americans have diabetes (85% are type II diabetes). This is 7% of the population. It is estimated that an additional 2% (another 6-7 million) have type II diabetes and do not know it. That is a lot of diabetes!

Do I need to get informed consent from the patient to check the glucose?

If the glucose determination is part of your regular evaluation of the presenting problem you do not need informed consent. But if it is being offered as a service you should say something like the following before testing: "_____ Fire Department is conducting free health screening for diabetes. While we are here would it be okay if we checked you for diabetes? It will only take a minute."

Is a random glucose of 175 in a non diabetic diagnostic of diabetes?

No, but it certainly is suggestive of the disease and deserves follow up.

Is a random glucose of 300 in a diabetic suggestive of the need for tighter blood sugar control?

Yes.

How many new cases of hypertension am I likely to find?

Our pilot data indicate that 80% of patients identified with blood pressure ≥ 160 or ≥ 100 already knew they had hypertension. But these patients clearly are not in good blood pressure control and need to see their doctor for better control. Thus of the eligible patients approximately 20% may be new cases. We should have a handle on the number of new cases by the end of the year.

How many new cases of diabetes am I likely to find?

We don't know the answer to this at this time, but should by the end of the year.

Can I hand out Alert cards to patients who walk into the station for a blood pressure or glucose check?

Absolutely. There is no need to fill out a MIRF for walk in patients.

What if a relative at the scene asks me to check his blood pressure or blood sugar?

I hope you will say yes and give out an Alert card if indicated.

Does SPHERE work?

Information from pilot studies in King County indicates that 65% of patients who receive alert cards follow up with a health care provider. 95% of patients appreciated the fire fighters for giving them the alert card. EMS sees almost 10% of the population in any given year. This is a golden opportunity to reach out and help identify and control the major public health diseases of hypertension and diabetes. Furthermore EMS provides services to a disproportionate share of the underinsured population, people who may not have good access to medical screening.

What if the patient has no health insurance?

Soon I will have referral phone numbers to refer patients to community health clinics that are willing to see patients on a sliding scale. I will also establish an Alert question phone number within the EMS Division. This information will be shared as soon as I have the green light from the clinics.

Thank you for your support of SPHERE. Please call or email if you have any questions.

Mickey Eisenberg, MD, PhD
King County EMS Medical Program Director
206 2964553
gingy@u.washington.edu