Social EM Spotlight: Dr. Kraftin Schreyer An Emergency Department Based Hepatitis A Vaccination Program: A Merge of Social Emergency Medicine and Emergency Medicine Operations



Katie Y. Kwon, BS; Jennifer Rosenbaum, MD; Sara Urquhart, MA RN



V*r.* Kraftin Schreyer is an emergency physician whose innate passion for emergency medicine and quality improvement have led her to become a pioneer in the emerging field of social emergency medicine (EM). Throughout her residency training, her aptitude for identifying and correcting system weaknesses and inefficiencies lead her to a career in operations and administration. She is now the Director of Clinical Operations at Episcopal Hospital and an Assistant Director of Clinical Operations at Temple University Hospital. She had a chance to sit down and talk about her groundbreaking work in addressing a Hepatitis A outbreak in the community.

How has your background in emergency department (ED) administration and quality improvement helped you to spearhead social EM initiatives?

After residency, I invested time in learning about change management and completed a Certification in Medical Quality, both of which are very important concepts for any initiative to be successful. You have to understand what it takes to get people to buy in, gain support, and sustain the initiative. Then, you need a plan to monitor it. To see what kind of impact you're having, you have to choose the correct metrics to evaluate the state before and after the intervention, and to assess your performance, so you can continuously try to improve and build upon what you've done.

You designed a project to administer Hepatitis A vaccines in your community to stop an outbreak. What prompted this idea?

We started seeing an uptick in ED patients with acute hepatitis and that was not the norm for us. At the same time, the news and public health department reported that there was a local Hepatitis A outbreak. It occurred to us that we administer other vaccines like rabies and tetanus in the ED, so why couldn't we provide a Hepatitis A vaccine? We knew that the Hepatitis A vaccine is supposed to be a two-shot series, much

like the COVID vaccine, but the difference is that the first dose of the Hepatitis A vaccine is very effective, and the second dose is really just a small improvement upon that. Early on, we made the decision to not give a second vaccine because it was logistically too challenging to ensure that patients would follow up. The first step was laying the groundwork and getting the appropriate parties involved.

It occurred to us that we administer other vaccines like rabies and tetanus in the ED, so why couldn't we provide a Hepatitis A vaccine?"

Who were the key stakeholders and how did you engage them?

We knew the first step was getting the vaccines supplied, so our first stakeholder was the Philadelphia Department of Public Health (PDPH). Luckily, PDPH was willing to donate the vaccines, which kept the cost of the program at a minimum. We also had to coordinate with PDPH to ensure that we had a consistent vaccine supply. The next phase was to figure out what requirements were needed for storage, which led us to a partnership with our pharmacy to find a large enough storage space. Because of the strict temperature monitoring required for storage, we also had to get the IT team involved to install a new continuous temperature monitoring system that could transmit data to PDPH. Other key stakeholder groups were nurses, who ultimately administered the vaccines, physicians, who signed the orders, and finally, patients, who had to understand the need for the vaccine.

How did you implement the vaccine administration in the ED? How was the project was perceived by hospital administrators, other ED physicians and nurses?

To get buy in from the staff, we had to make sure that we had what we call "innovators" and "early adopters," who were champions of this process from all groups. We made an effort to educate the ED staff on the importance of this initiative not only because there was an outbreak, but also because it was here in [our community]. The other important piece was to make sure that we didn't complicate any existing processes. To keep it as simple as possible, we worked with the [electronic medical

>>



record] team to incorporate a screening question into triage. Nurses were already screening for HIV and Hepatitis C in triage, so we added, "Would you like to get vaccinated for Hepatitis A today?" If the patient said yes, then nursing would click a box that generated an order. When the provider picked up the patient to care for them, they would get a notification that the order had been placed and would just have to sign off on it.

Did you experience any barriers to implementation and how did you overcome them?

Yes, we did. The biggest one was the unexpected need for continuous temperature monitoring. Once we rolled out the program, though, there was very little pushback. Admittedly, we didn't monitor the program too closely in the beginning. Rather, we let it ride to see over time how the process would improve, and we understood that there was going to be some inherent variation as people got used to it. With very little influence from us after going live, the vaccination numbers really took off. In fact, we had given out several hundred vaccines in just a few months. I think a lot of the program success was due to the work we put on the front end to get people to buy in and understand the "why" behind it, and also the effort to make it integrated into our existing workflow.

While some people might not consider vaccination an "emergency," in the setting of a public health outbreak, we felt that it merited an ED visit, and also demonstrated community awareness and acceptance of the program."

What were the benefits to the program? Did the project save money for the hospital, insurance company, provider group, or patients?

We didn't perform a detailed cost analysis on this particular project, but we did look at admissions before and after the vaccination program and there was a decrease in admissions for acute hepatitis. Because PDPH supplied the vaccines at no cost, the hospital saved costs. The only actual inherent cost was the labor that went into administering the vaccine. More important than cost was the benefit of public perception, specifically engagement with the community. While that's a metric that's very difficult to quantify, we got the sense that patients were very happy with this program. We had people that were coming in just for the Hepatitis A vaccine, perhaps because they didn't have access to it any other way. While some people might not consider vaccination an "emergency," in the setting of a public health outbreak, we felt that it merited an ED visit, and also demonstrated community awareness and acceptance of the program.

If you were to re-design the project, what would you do differently or the same?

I wish I had known about some of the hurdles earlier on. Had we anticipated the difficulties with the temperature regulation, we may have been able to plan more up front. That could have been identified through a more detailed stakeholder analysis, to really understand what each party needed in order for the program to proceed. Overall, this program was very successful and a good example of a socially focus ed initiative. We identified the appropriate stakeholders and were in contact with hospital administration throughout the process. We had metrics that we could evaluate before and after the intervention to see if we had an impact. This is something I'm very proud of, very thankful to be involved in, and very happy that our department was able to do it.