

DRAFT

TESTIMONY

By the



For the

Oversight Sub-Committee

Of the

House Committee on Veterans Affairs

June 24, 2010

Presented by:

Darrell Henry

Executive Director

Healthcare Coalition on Emergency Preparedness

www.healthcareprep.org

Introduction

The Healthcare Coalition for Emergency Preparedness was formed in an effort to raise awareness and educate people where two of the most relevant issues facing healthcare providers today intersect—what healthcare facilities have to do to maintain operations during a crisis, such as pandemic, and develop efficient methods to reduce healthcare costs. We call it operational sustainability.

The coalition consists of healthcare facilities, equipment providers, and industry experts stationed across the country.

The coalition believes that a key component of hospital readiness lies in the ability of medical centers to maintain sustainable operations to meet public health needs and a patient surge on health care facilities in all circumstances. Surge capacity is defined as the ability of a healthcare system to adequately care for increased numbers of patients while also having the ability to treat the unusual or highly specialized medical needs produced as a result of surge capacity.

A lot of work has been done on the topic of emergency preparedness and what hospitals and medical centers can and should do. The coalition is looking at questions like, 'What isn't occurring?' 'What are the systemic weaknesses?' 'Where are the vulnerabilities?'

The Coalition is committed to achieving the following goals for its members:

- Highlight vulnerabilities in operational sustainability during a crisis or emergency, including medical waste treatment.
- Promote new best practices to help sustain hospital operations during a pandemic or other crisis situation.
- Provide expertise and education on hospital preparedness and operational sustainability.

With looming threats of pandemic/epidemic, bioterrorism and everyday disease exposure, it is imperative that we utilize today's technology to ensure that our hospitals and healthcare centers have the ability to sustain operations in the event of such a crisis or emergency.

One of the largest hindrances to operational security revolves around transportation constraints to the hospital itself or such impacts on key suppliers and vendors that a hospital relies upon. Transportations constraints not only involve passable road

conditions to access the healthcare facilities and vendor facilities, but they are just as likely to be vendor staffing issues, quarantined facilities, availability of transportation fuels, and other non road related issues. One of the issues we've found that is most often overlooked when dealing with transportation constraints, and emergency preparedness over all, are adequate provisions and planning relating to regulated medical waste.

According to Walter Reed Army Medical Center (WRAMC) regulation, medical waste (aka infectious waste) is any waste that is potentially capable of causing disease in man. Such waste would likely contain pathogens in sufficient quantity to result in disease, including microbiological wastes; blood and blood products; surgical and autopsy wastes; and sharps (i.e. needles). Pathological waste is also a regulated medical waste, but it is treated differently than infectious waste.

After recognizing that so many medical centers, including VA facilities, did not have appropriate processes set up to address the disposal of waste during a crisis and that federal, state and local entities do not adequately address the issue, infectious waste disposal became one of the first issues identified and addressed by the coalition. In addition, the coalition is also looking at supply-chain management and other issues, which are all inter-related.

Background

The H1N1 Swine flu and previous issues, such as SARS, have highlighted the vulnerability our healthcare system faces from serious tests of preparedness in the area of operational sustainability in the time of a crisis. The ability for our private and government run healthcare facilities to maintain operations during times of crisis is a matter of interest for every American and should be a priority for federal and state policy makers.

Paramount to emergency preparedness and pandemic containment is the need for full hospital operational sustainability of hospitals and treatment centers. Creating medical centers that can sustain a surge in the event of a crisis and continue operations must become a priority during a pandemic or other crisis (such as a natural disaster or bio-terrorism incident).

The bipartisan Pandemic and All-Hazards Preparedness Act of 2006 has helped us prepare for the current crisis and deal with future crises. There are many sectors of hospital operational sustainability that desperately need experienced solution management, but we have found the disposal of infectious waste is not being

addressed adequately by healthcare emergency preparedness planning, best practices and guidance, or resources, and have focused our initial efforts on it.

A 2003 GAO study concluded that many hospitals lack the capacity to respond to large-scale infectious disease outbreaks and most hospitals lack adequate equipment for a patient surge on a medical facility. Further, many reports cite the challenges of medical supply chains, both inbound and outbound, to deal with waste products that will accumulate in a pandemic or natural disaster.

In the mid-90's, new regulations made on-site hospital incinerators uneconomic due to the restrictions placed on them because of the harmful emissions they released in the air. Most hospitals could not afford to keep up with the new standards and thus, out of convenience for a temporary fix, they resorted to hiring contracted service providers who gather waste and truck it off-site to be discarded elsewhere. Unfortunately, this temporary solution is still the way most hospitals discard their infectious medical waste today.

With real threats of pandemics, transporting infectious and contagious medical waste is no longer prudent. There are modern, affordable technologies that can cleanly, safely, and economically sterilize infectious and contagious waste on the premises of healthcare facilities. Treating hazardous materials on site is also a cleaner, greener, less costly, and, most importantly, safer option.

Since the mid-90's, 90% of our hospitals have chosen to export their infectious waste through their local communities and over our roads and highways. However, during an outbreak, infectious waste should not be allowed to leave the realm of the clinical experts of disease control at our nation's hospitals.

Various reports by the Center for Disease Control staff, federal health officials, and other experts have recognized the practice of inactivating amplified cultures and stocks of microorganisms onsite (as a medical waste treatment) is the best practice for emergency preparedness and pandemic response. Taking an on-site sustainability approach helps address this looming issue of hospital preparedness in the case of a pandemic or other crisis. Under such a scenario, the volume of hazardous materials would dramatically increase when a large population suddenly contracted a contagious disease or incurred a disaster and surged a hospital's capacity. Further, because the primary method of controlling the spread of infection and avoiding a pandemic is quarantining, the development of an on-site approach to waste disposal appears to be the most appropriate one.

Our country has begun to apply stringent actions to avoid some catastrophic health threats. The United States Department of Agriculture demands that food waste is sterilized at ports of entry to avoid agriculture contamination. A logical next step in our efforts to polarize waste and keep our country healthy would argue that we should sterilize medical waste at the point of generation as well.

Clearly the operational sustainability advantage is to sterilize the infectious waste on-site, but there are other notable benefits with regards to treating infectious waste on-site--namely, disease prevention, economics, and an environmentally green alternative (including, reduced truck traffic no incineration, and clean energy power). It also provides a safer option than the current practice of hauling medical waste many miles through our neighborhoods and over our nation's roads to be treated off-site, which is particularly dangerous in the instance of a pandemic or other dangerous and exotic disease outbreak, such as H1N1 or the Ebola virus.

Expenditures for on-site treatment of infectious waste are perhaps the only preparedness tool that would begin to pay for itself from the day of installation. Waste treatment systems are custom designed and manufactured for each application. Users range from small clinics, hospitals, to large commercial processing centers. Prices for these systems range from about \$150,000 to \$1M+. Average healthcare clients, 300-400 bed hospitals, will purchase a system that is about \$450,000. This equipment often produces a return on investment (ROI / payback) between 18 and 36 months.

We have also identified that the development of mobile units can give the federal government the tools to eliminate infections or disease at the source and provide the necessary containment to help eliminate pandemic threat and improve public health and safety.

We remain vulnerable in the area of contagious waste management and the threat of pandemics, bioterrorism, and natural disasters are very real. There appears to be no rational logic for hospitals not to sterilize their infectious waste on-site during a pandemic crisis other than the lack of equipment and a lack of incentive to install such equipment. However, we must ensure the burden to implement safer and greener waste disposal options doesn't fall solely on the hospitals.

Pandemic and Medical Waste Issues

Last year, the coalition developed a comprehensive pandemic preparedness plan, and has developed a six point action plan for medical waste sustainability during a pandemic (see attachment). The coalition urged the Department of Health and Human Services to consider this plan as a part of its response to the recent H1N1 swine flu outbreak.

We called for the newly confirmed Secretary Kathleen Sebelius to adopt on-site sterilization capacity as a best practice as a part of health care facility operational sustainability in a crisis and dedicate the resources necessary to improve on-site infectious waste treatment capacity.

We have learned a lot from the SARS outbreak on how hospitals adopt Universal Precautions regarding infectious waste classification at hospitals. Studies showed that during the SARS outbreak infectious waste volumes increase by as much as 500% due to the reclassification of “infectious” waste.

Joint Commission’s new mandate for hospitals to be free-standing entities for a minimum of 96 hours does not address a pandemic, which could last up to 18 months. The only viable solution is to treat infectious waste on-site with equipment that has the surge capacity to function in a Universal Precautions work environment.

During the last pandemic in 1968, medical waste management was not an issue since nearly all hospitals were treating on-site (incineration) and were already commingling the medical and solid waste streams. It is a shame to think that this is one area (infectious waste management) of hospital preparedness where we have actually made our hospitals more vulnerable compared to just 15 years ago.

If the scope of the pandemic threat is truly global, an outbreak would dwarf our already strained resources, which is why it should be a priority for the federal government to address common-sense solutions and resources for on-site infectious waste treatment now in order to help ensure the health and safety of every community throughout the nation.

Federal Support for Healthcare Emergency Preparedness

In particular, the coalition stresses the vital role of federal funding. We are trying to make sure congress continues to allocate funding to support hospital preparedness programs.

For the private sector, the current Hospital Preparedness Program (HPP), which was funded at \$375 million in FY09, provides a ready-made avenue to offer the financial incentive for medical facilities to transition over to on-site methods of infectious medical waste treatment. The HPP awards competitive grants or cooperative agreements to the states to enable eligible entities to improve surge capacity and enhance community and hospital preparedness for public health emergencies.

Currently disaster relief operations lack efficient means to dispose of infectious medical waste, including most VA facilities. The federal government should look at research,

development, and deployment of mobile sterilization units capable of being deployed to areas affected by a pandemic, natural disaster or bio-terrorism attacks.

The recently released FY10 Hospital Preparedness Program Funding Opportunity Announcement clarified on-site waste treatment as an appropriate project for HPP funding, which was prompted in part by the House Appropriations Committee's FY-10 report language to mandate US Department of Health and Human Services (HSS) look at on-site medical waste treatment procedures. This guidance is a major victory for hospitals that would like to use this grant to help fund this type of capital equipment.

VA Emergency Preparedness

We know that the VA has worked to be in compliance with the Homeland Security Presidential Directive, The Joint Commission, the National Incident Management System, National Fire Protection Association, and other recognized standards, guidance and procedures as well as federal laws such as the Pandemic and All-Hazards Preparedness Act (PAHPA). The VA's progress and plans can be reviewed in the VA's updated emergency management guidebook.

While our testimony highlight's our findings and work with private hospitals, the principles and findings we've discuss in this testimony must also be considered for VA facilities. One of the VA's missions is to serve as a safety net when DoD, public health facilities, and private hospitals fail or are overburdened. The impacts to private hospitals and critical supplies due to such events would likely spillover to the VA – especially if we are talking about a serious medical surge event or transportation constraint. In such an event, it is easy to assume that VA facilities would experience similar disruptions in medical waste removal and other services whether or not it is providing mutual aid.

We believe it is important that the VA evaluate each facilities management of medical waste and what plans and procedures are in place for a crisis and any accompanied disruption in waste management services. A simple review of the VA's Pandemic Influenza Plan shows that hospitals should plan for transportation difficulties and be prepared for alternative routes for additional staff and supplies. In regard to supplies, they should have alternative vendors or have established agreements in case of emergency, but it don't address their supplier's transportation issues. The plans says to handle medical waste as it normally would (via the WRAMC policy), but they don't deal with contingencies of increased volumes of medical waste, the costs of such an increase, staffing shortages, and the many other vulnerabilities we've identified in this testimony. We are merely using this example to point out that there are a few key points missed in this plan and pandemic preparedness could easily be improved by adding on-site sterilization equipment.

We'd also like to point out that installing on-site sterilization of medical waste at VA facilities would also provide ancillary and immediate benefits for the VA beyond

emergency preparedness, including cost savings and carbon emission reductions. In regard to cost saving, we estimate that on-site waste treatment using sterilization equipment can provide an average cost savings of \$1.63 million per hospital, which would equate to \$190.71 million if installed at all 117 VA medical center hospitals that are currently relying upon off site vendors to haul and treat their waste. Further, regarding the VA's ability to comply with Executive Order #13514, the coalition has developed a carbon footprint calculator that can calculate the savings, in real numbers of reductions in x pounds of CO2 emissions each year, for those facilities with on-site waste processing and estimate the savings for those facilities who switch from off-site to on-site processing.

We have constructively urged that onsite sterilization capabilities should be added to the VA's list of best standards and practices as well as a mission critical component to their emergency management plan. Currently, twenty four VA facilities process their waste onsite. We know that other facilities would like to add this component to their capital budgets, but have thus far not done so.

We do not intend to be critical of the VA in this testimony, as we haven't audited individual hospital preparedness plans. We do know that there are groups within the VA looking at this very issue and recognize that on-site medical waste treatment could benefit VA facilities from an everyday operational aspect as well as for emergency preparedness.

Additional VA Emergency Preparedness Considerations

As the one of the missions of the VA is to provide assistance to other federal, state, and local agencies as outlined in the Department of Homeland Securities National Response Plan, issues that affect private hospitals may also impact the VA. In addition to the medical waste issues we've discussed in this testimony, here are other several areas of concerns of healthcare emergency preparedness that have been identified by the coalition.

Vaccines – currently only one of the five companies producing vaccines used in the U.S. for the H1N1 virus are domestically located. The majority of vaccines used are produced overseas and then shipped to the U.S. The H1N1 virus has helped to unveil severe issues with vaccination production and distribution issues inherent with needing to ship in vaccines. The Issue of production and distribution of vaccines has drawn attention at the federal level, prompting a hearing in the House Energy and Commerce, Subcommittee for Oversight and Investigation. While the issues facing the production and supply of the H1N1 are important, they only serve to highlight an even more severe unpreparedness for a greater virus requiring even more vaccine.

Surge Capacity – In March of 2008 the House Oversight Committee performed a survey of surge capacity in the event of a terrorist attack like the commuter train attacks in Madrid, Spain in 2004 that injured over 2000 people. The survey was conducted for a similar event in seven cities most likely to experience a terrorist attack: New York City, Los Angeles, Washington D.C, Houston, Chicago, Denver and Minneapolis. Results of these surveys demonstrated that none of the hospitals surveyed had sufficient emergency capacity to absorb a surge of that magnitude. The survey results showed that the average emergency room in each hospital was operating at 115% capacity. Surge sustainability is a key component of emergency preparedness, terrorist attacks and epidemics are examples of an unexpected surge in emergency room need.

The tragedy that took place in New York on September 11, 2001, the collapsing of the overpass in Minnesota, the flooding in North Dakota, the hurricanes in Louisiana and Mississippi, and now, the current H1N1 pandemic are realities of unexpected events we must always be expecting. None of the areas surrounding these events were logistically prepared to handle the surge capacity or long term sustainability needed. These are the sort of unpredictable event that we must prepare our healthcare community to be able to withstand in all areas of the country. Protections must be instituted to be able to respond to any event in a moment's notice or be equipped to handle long term sustainability needs if needed.

Supply and Services – a key component of maintaining emergency preparedness at all times is ensuring that hospitals have enough supply capability on hand to withstand a major surge and also sustain an extended lapse in re-supply availability. Most hospitals and medical centers across the country lack sufficient supplies or systems to enable them to handle a sustained surge in patients like would be seen in the event of a crisis. A shocking example of hospitals dependence on off-site aid can be seen in the fact that most hospitals do not even treat their own laundry on the hospital grounds. It is a common practice for hospitals to outsource laundry services creating an unnecessary vulnerability.

Gap Analysis – one of the most common suggestions for healthcare organizations is to perform a complete "Gap Analysis" as part of their Emergency Management Program (EMP). There are four major components to a thorough Gap Analysis: (1) Identification of planning scenarios along with the number of anticipated casualties for each planning scenario; (2) Requirements development; (3) A listing of current resources and capabilities; and (4) Identification and forwarding to the next higher support agency, the gap between current resources and capabilities and the total requirements needed for each planning scenario.

With a well-defined Gap Analyses, VA can then analyze, plan, program, budget, procure and pre-position additional resources and capabilities needed to close Gaps and sustain and fortify the VAMC's hospitals during future emergencies and disasters requiring Federal support. Further, gap analysis at the VA should consider needs and planning done with DOD, and local and state Emergency Management Agencies so it can program for the entire array of "unmet requirements" including mobile medical units, as well as a full complement of staffing by facilities and vendors, medical and non-medical supplies, equipment and services required to support state/territory and local governments during future disasters and public health emergencies.

It is imperative that the VA emergency managers work extraordinarily closely in identification of all gaps in resources and capabilities and forward the appropriate unmet requirement gaps up the support chain in order to ensure the healthcare and public health needs of veterans and communities reliant on VA support are met.

Conclusions

Our nation remains vulnerable in the area of contagious waste management during a pandemic or crises and we need to highlight the benefits of prudent alternatives, such as on-site sterilization capacity, as a best practice for emergency preparedness and health care facility operational sustainability and be considered a mission critical system for hospitals.

The coalition believes that it is imperative that we use technology to ensure dangerous medical waste is disposed of in a safe and sanitary way. Organizations need to implement more responsible programs that address on-site waste disposal. This is important because although emergencies and outbreaks are the most hectic periods for healthcare providers, they're also the periods that typically produce the most waste.

Congress should direct the current federal funding to help cover the initial installation costs of implementing on-site technology. Offering federal funding for the implementation of a more common sense approach to dealing with infectious waste and set a precedent for private hospitals that will be far more effective than compelling hospitals and medical centers to comply through mandate and regulation.

These funds within the HPP would be dedicated to the establishment of a federal grant, available only to hospitals or medical facilities transitioning to on-site medical waste treatment in preparation for pandemic or other emergency preparedness. Providing funding assistance to medical facilities is a key first step to waste treatment, converting to on-site treatment, and containment of infectious waste.

Furthermore, congress shall appropriate sufficient funding for the research, development, and deployment of mobile sterilization units capable of being deployed to

areas affected by a pandemic, natural disaster or bio-terrorism attacks. Currently disaster relief operations lack efficient means to dispose of infectious medical waste.

Simple legislative approaches provide multiple avenues to help improve the methods and best practices by which infectious medical waste is handled in this country.

Attachment 1

6 Point Action Plan:

1. The federal government should encourage hospitals to have the capacity to treat infectious medical waste on site in a pandemic or bioterrorism emergency.
2. The federal government should guide Hospital Preparedness Program (HPP) grant funding and other HHS Public Health Program, DHS/FEMA emergency preparedness and VA funding to aide medical facilities in the purchase of such on-site treatment capacity.
3. Federal medical facilities, such as military and veterans hospitals, should install on-site sterilization or other methods of on-site infectious waste treatment.
4. The federal government should immediately develop and deploy sterilization units to be sent to **affected** medical facilities and areas that do not currently have on-site waste treatment capacity.
5. In the event of a declared emergency, on-site sterilization or other methods of on-site infectious waste treatment should be used by medical facilities.
6. The federal government should provide a green technology tax credits for new equipment.