

Detailed Attack Scenario

Day 1.

Dr. Mughal: Without being detected, a terrorist enters the Dartmouth College Sports Coliseum during a football game and activates a spray devise containing a biological agent. The cool evening with very light wind provides an inversion condition that keeps the cloud of biological particles in the stadium for almost one hour. The cloud slowly dissipates from the stadium and touches down several times in the Hanover area before it becomes very dilute and the agent deactivates. The game proceeds and the home team wins. The game was well attended with over 5,000 present, mostly from three surrounding counties of Grafton, Orange and Windsor. The away team has around 300 in attendance. The local people leave in a happy frame of mind.

Day 2.

Dr. Mughal: Business is proceeding as usual.

Day 3.

Dr. Mughal: During the course of the day a total of 35 people report to area doctors offices, clinics and the 3 area hospitals with non-specific, flu-like symptoms. This influx of patients is within the expected levels for the fall of the year when colds and various forms of flu commonly appear.

Day 4.

Dr. Mughal: Between 12:00 midnight and 8:00 a.m.

7 patients with acute illness involving fever, headache, malaise, substantial discomfort, prostration and non-productive cough are taken to hospital emergency rooms by ambulances and family members. In addition, 26 patients walk into emergency rooms complaining of flu like symptoms.

At 8:00 a.m.

Dr. Mughal: The continuous surveillance data reporting system indicates that 7 patients critically ill with infectious disease reported to area emergency rooms and that another 26 patients report with less severe but similar symptoms. The technician that monitors the reported data twice-daily notes that these numbers are over the baseline, particularly for that time of the day. The technician calls Dr. Gougelet, who for the purpose of this workshop represents the public health leaders for the Valley region.

Dr. Gougelet: Upon hearing this information, I immediately call Captain Clark, who for the purpose of this workshop represents the lead emergency managers for the Valley region, and ask him if he is aware of any unusual incidents or accidents in the area.

Captain Clark: Nothing unusual has happened, usual car accidents, but we have had a number of EMS runs during the last 8-hour period.

Dr. Gougelet: Continuous surveillance is showing an unusual influx of people with apparent critical illness as well as others with similar but less severe symptoms. I want to expand surveillance. Please initiate data gathering throughout your response elements and I will have the community medical system polled by public health on an hourly basis. I will be back in touch in 2 hours if not sooner.

Captain Clark: I better call Mr. Reiseberg, who for purposes of this workshop represents the chief elected officials of the Valley communities, and inform him that we are initiating expanded surveillance of a possible infectious disease outbreak.

Mr. Reisenberg: How many patients have reported in so far? When can I get the first results from expanded surveillance?

Captain Clark: 25 have reported and 5 appear critically ill. We will have results from expanded surveillance by 10:00a.m.

Between 8:00 a.m. and 12:00 noon

Dr. Mughal: 152 critically ill report or are taken to emergency rooms and other health care facilities are swamped with less severely ill patients.

By 10:00 a.m.

Dr. Mughal: Expanded surveillance indicates a growing number of both critically ill and less severely ill reporting.

Dr. Gougelet: I have concluded that a public health event is occurring although I do not know the scale or the cause of the disease. As a result I have activated our plans for expedited medical diagnosis and directed that samples be sent to state laboratories. In addition I have activated an epidemiological investigation. I call Captain Clark and advise that a health event is occurring and that we are starting an epidemiological investigation and medical diagnosis along with expanded surveillance. Hospitals are becoming filled up and processing capacity is stretched.

Captain Clark: I direct the local law enforcement team to interface with epidemiological investigation to obtain information on the affected population, and to run down any leads that might relate to a release of a toxic substance. I advise Mr. Reisenberg that a public health event is occurring.

Mr. Reisenberg: What is the count? How big will it get? What is the cause? Do we need outside help yet?

Captain Clark: Several hundred have reported and an additional 50 critically ill have been brought in. I do not know how big it will get but it seems to be growing. We do not know the cause. I have given the State Emergency Management Office a heads up call for possible assistance.

Mr. Reisenberg: Activate the Emergency Operations Center (EOC) and full staff. I will be there at 12:00 noon. I will also call the Governor's office.

At 12:00 noon, In the EOC

Mr. Reisenberg: Let's go around the room and give a status report starting with Public Health.

Dr. Gougelet: A total of 169 people have reported to Valley Hospitals with severe symptoms of an as yet undiagnosed disease and approximately 600 people have reported to doctors offices and hospitals with similar, but less severe illness. A number of the people that initially reported with mild symptoms have returned with severe illness. The beds at the Valley hospitals are filled and they are going on emergency operations to try and accommodate additional patients. Further, lines of symptomatic and apparently worried well are forming at Valley health facilities and the available staff is having trouble keeping up with the influx. A positive diagnosis is not available as yet, but we suspect an infectious bacteria or virus as the cause. We have no indication that it is contagious from person to person but will not be sure until the illness is positively identified. The epidemiological investigation indicates that the cases are spread throughout the Valley region, but there seems to be a concentration in the Hanover area and possibly within the Dartmouth student body.

Chief Nick Giaconne (For purposes of the exercise represents the Valley law enforcement agencies): We checked with the regional FBI office regarding any increased threats. We are interfacing with the epidemiological investigation to see if a focus of the disease can be identified. We have prepared a list of events in the Valley over the past week that involved crowd concentrations. These include:

Dartmouth football game on Nov xx in the evening with 5,500 present

The Hanover high school football game on Nov yy in the evening with 900 present.

The Lebanon high school football game on Nov zz in the afternoon with 1,100 present.

And several other smaller events with less than 500 present.

This afternoon my agents will inspect each event site and interview organizers about unusual observations. In addition, I will contact my counterparts in the away team towns and have them determine if similar illness is occurring in their football teams. Anything I learn will be passed to the epidemiological investigation.

Captain Clark: That sums up what we know. We have given an alert for possible request for aid to the States of NH and VT.

Mr. Reisenberg: Dr. Gougelet, how are the critically ill and others reporting being treated at this time? What is your recommendation on treatment given that we do not have a diagnosis? Do we have medications to meet the demand? With the hospitals at capacity, can you project the numbers of ill that we may expect to see? Do you think that this outbreak is the result of a purposeful act? Should we be activating the Valley Emergency Medical System and associated response elements immediately?

Dr. Gougelet: The critically ill and most of the symptomatic are being given broad-spectrum oral antibiotics. Advice includes bed rest, drink plenty of fluids and take Tylenol as directed. My recommendation is that broad-spectrum antibiotics be given to the critically ill and all those reporting to the health system. On-hand antibiotics throughout the Valley may be depleted by tomorrow morning. We still cannot predict how many people are involved and we cannot rule out a contagious disease at this time. We should have a preliminary diagnosis within 12 hours. The outbreak looks suspicious because of the numbers infected, and the rapidity with which they are reporting, which makes it look like they were all infected at about the same time. With hospitals at capacity and the uncertainties involved, I recommend that we activate the Valley Emergency Medical System immediately and call for outside aid in accordance with our plans, and request the CDC National Pharmaceutical Stockpile. My concern is that we can not keep up with the inflow of patients over the next 24 hours as we get emergency help centers and acute care centers set up, and there is the issue of isolation should the disease be found to be contagious.

Captain Clark: I agree with Dr. Gougelet that we need to immediately activate the Valley Emergency Medical System and ask for State assistance and the National Pharmaceutical Stockpile. I also recommend that we issue a public announcement regarding the steps being taken, advise everyone not critically ill to remain at home until we can activate the emergency help centers and determine if the disease is contagious. Also, I suggest we initiate community outreach in parallel with opening the centers to encourage people to stay at home in the event that the disease is found to be contagious.

Mr. Reisenberg: Captain Clark, please proceed to implement the Valley Emergency Medical System anticipating that up to 5,000 may be infected. Activate the help and care centers along with community outreach. Implement other elements of our biological response plan. Continue to press criminal investigation on the assumption that we have had a biological attack. Prepare a press release and TV announcement within an hour.

Between 12:00 noon and 6:00 p.m.

Dr. Mughal: The Valley Emergency Medical System is activated anticipating 5,000 infected. Neighborhood emergency help centers to process the walking casualties and acute care centers for the critically ill are opening with skeleton local staffing. The Valley region is sectorized and community outreach initiated with local resources. Requests for regional, State and Federal assistance are passed to the two States. A state of local emergency is proclaimed. A press release is issued and updated every 4 hours. A call-in hot line is set up. Other response elements of the Valley BW response plan are implemented.

Dr. Mughal: During the period an additional 152 critically ill are taken to the Valley health care facilities and 600 more call in or report to health care facilities indicating illness.

Dr. Gougelet: At 3:00 p.m. we have a preliminary diagnosis of the disease as pulmonary tularemia, a non-contagious but approximately 35% lethal disease if untreated. The treatment of ill and prophylaxis of those possibly exposed is as follows: Casualties in hospitals and acute care facilities – Streptomycin (15 mg/kg IM twice daily) or Gentamicin (2.5 mg/kg IM or IV 3 times daily); Casualties reporting to neighborhood emergency health centers or treated through community outreach – Doxycycline (100 mg orally twice daily) or Ciprofloxacin (500 mg orally twice daily). Other treatments for children and pregnant women are in the June 6, 2001 JAMA article. We will open 5 acute care centers at the Dartmouth College arena and gymnasium (200 beds each) and at 3 high schools in Hanover, Lebanon, and Hartford (200 beds each) for a total of 1,000 beds. We will open 5 neighborhood emergency help centers: 3 in the firehouses of Hanover, Lebanon and Hartford, 1 in the Dartmouth student health clinic and 1 in the county health clinic in Hanover. We will also initiate community outreach through out the Valley region anticipating that the numbers of critically ill will exceed the capacity of the acute care facilities. The medical response will be implemented and controlled through the medical branch of the Emergency Operations Center.

This represents a very aggressive response. Our job now will be to see how we can resource and control this response.