

NSPA DRILL COMMITTEE
Final Report on Regional Drill Which Occurred on March 30, 2005
Report issued on May 19, 2005

DRILL COMMITTEE MEMBERS

Bonnie Turner, Chair	John O'Shea
Mike Loos	Rick Moorer
Betsy Allbee	Lex Gibson
Carol Reynolds	Kenneth Grachanen
Dave Riddle	B. J. Nipper
David Linkous	Linda Sokos
John Cook	David Chaplin

HOSPITALS AND AGENCIES PARTICIPATING IN THE REGIONAL DRILL

Alleghany Regional Hospital	Danville Regional Medical Center
Bedford Memorial Hospital	Lewis Gale Medical Center
Carilion Franklin Memorial Hospital	Montgomery Regional Hospital
Carilion Giles Memorial Hospital	NSPA RHCC
Carilion New River Valley Medical Center	Pulaski Community Hospital
Carilion Patient Transportation System	Roanoke Regional Airport Commission
Carilion Roanoke Memorial Hospital	Virginia Department of Health
Carilion Roanoke Community Hospital	

The table-top format for this first exercise was meant to allow informal discussion of a simulated emergency with a lowered stress factor and little time pressures. The scenario was meant to be realistic in scope, time, and detail to test plans already in place. The intent was for it to be useful for evaluating plans and procedures, both at the regional level and at participating hospitals and agencies, and for resolving questions of coordination and responsibility.

Prescription of drill activity was intentionally kept to a minimum to allow the widest possible latitude to hospitals and agencies, so that they were able to conduct the drill in a manner that best benefited them. Broad goals and minimum participation levels were established for all participants.

DRILL ABSTRACT

It was determined that a contagious biological agent would be used in this exercise as a means of involving all of the hospitals, public health, the RHCC, the airport, and CPTS. A traveler, returning to Roanoke from an Asian country with 86 other people on an airplane, develops signs and symptoms of SARS and reports to a Salem hospital. This scenario sets into motion a series of events that cannot be managed by any one agency, but requires many different agencies and hospitals to work together within the region to effectively control the infectious agent and provide adequate healthcare.

A “Regional Drill Critique” was held on April 13th, 2005, to gather certain information and comments from participants to formulate an evaluation of the regional drill. Following is a summary of that information and commentary from evaluation sheets. The Drill Committee hopes that this information is both enlightening and useful.

PRESENT AT THE CRITIQUE WERE:

Bonnie Turner, Chair, CRMH	Rick Moorer, VDH	Sandy Emeott, PCH
Mike Loos, LGMC	Lex Gibson, VDH	Kester Dingus, WVEMS
Betsy Allbee, CNRVMC	Kenneth Grachanen, BMH	Steve Davis, VDH
Carol Reynolds, CFMH	B. J. Nipper, RRAC	Linda Sokos, DRMC
Dave Riddle, CH	David Chaplin, NSPA	Mandy Champney, CRMH
David Linkous, MRH	Mike Stater, VDH	Troy Barbour, ARH
John Cook, CPTS	Cheryl Merix, CGMH	
John O’Shea, VDH	Tammy Turpin, CNRVMC	

SUMMARY REPORT OF COMMENTS BY CATEGORY

EDUCATION AND AWARENESS

- Need for more training, awareness, and involvement among upper-level management.
- Need for more trained operators for the EMSsystem, as well as a heightened awareness of this system’s usefulness and utility during emergencies.
- Need to utilize the EMSsystem as one of the primary communications means during emergencies.
- Need more personnel trained in the use of the portable isolation equipment.
- Prior to the drill, meetings were held both in-house and with “outside” agencies to prepare; this indicates the need for these activities to occur routinely in preparation for an actual emergency.
- In-house table-top drill was conducted prior to the regional drill, which was excellent preparation for the drill and for actual emergencies.
- Victims and disaster team members also functioned as evaluators.
- Key management personnel were removed from their customary roles to see how departments would function without them.
- Various emergency management command structures were utilized—from “in-house” to basic Incident Command System to the HEICS model.
- *Note: All recipients of federal grant proceeds will be required to implement basic Incident Command System or HEICS by the end of federal fiscal year 2006. NSPA may soon require using the HEICS model.

SURGE CAPACITY

- Some long-term care facilities in the community were contacted to determine excess bed capacity.
- Alternate care sites were activated (simulated).
- Triage stations were activated outside of the Emergency Department (simulated).
- Erected decontamination tent for use in triage.

- Drill was oriented toward surge capacity including a full lock-down of the hospital; many problems discovered with lock-down procedure.
- Surgery was evaluated, prioritized, and limited (simulated).
- Realized security was inadequate.
- Realized problems with traffic control.
- Patients were relocated within the hospital (simulated).
- Evaluated negative-pressure and portable ventilator needs.

COORDINATION OF ACTIVITY

- In-house coordination worked well.
- Working with agencies outside the hospital did not work so well.
- No coordinated action on EMS system; personnel didn't consider its use; no one person was responsible for its use.
- Received no alerts from VDH (some did not receive-some did).
- Some did not receive a return call from VDH; put on hold with no answer.
- Security allowed HAM Operator into hospital with no identification.
- Always notify the local emergency manager in your jurisdiction.
- Develop working relationships before emergencies happen.
- Develop a method of tracking infected patients in case they wander around the hospital for some time before being discovered or becoming unconscious (i.e., video cameras).
- Develop plans for when emergencies happen during odd- or late-shifts when there is no security.
- Plan for adequate security forces during emergencies, and know that you can't always rely on public law enforcement or private security—but plan on it.
- Catching infected patients early (when they come in the door) sets things in motion early, and cuts down on contamination and exposure.
- Emergency department needs to work closely with Incident Command, and not work independently.
- Should contact VDH Regional PIO for any public health incidents, especially infectious agents.
- Develop redundant communications methods to “outside” agencies.
- Traffic control and security were a problem.
- Future planning requires early notification to warehouse, materials management, or RHCC for caching of materials or resources.
- Did not have enough N95 masks for our personnel; eventually found some.
- In-house activity was not well coordinated.
- Had good security and traffic control.
- Decide “in-house” who will establish contact with RHCC and coordinate activity.
- “In-house” personnel were a little confused.
- ED staff functioned well even while working with “real” emergencies during the drill.
- Only 3 suspected SARS patients effectively shut down all of the entry/exit access points (because they had wandered around undiscovered and traveled that way).
- Our staff was very creative in finding solutions to problems presented.
- The relocation of patients went very well.

COMMUNICATIONS

- Utilized in-house calling tree, overhead paging system, and pager list to notify personnel of disaster (drill).
- Established communications methods seemed to work well.
- New communications methods, such as, EMSsystem and Nextel Direct Connect phones, were not utilized by many participants.
- Develop and utilize redundant communications methods.
- Some facilities used their own Public Information Officers for dealing with the media; most did not coordinate with the VDH Regional PIO.
- A media plan was developed for the region by the VDH Regional PIO.
- Regional RACES District Emergency Radio Officer failed to muster enough volunteers to operate HAM radios; however, operators were standing by at 3 hospitals.
- Amateur radio operator (HAM Operator) functioned well at one hospital; most of their newly installed equipment functioned properly.
- VDH information and guidance was not received by all of the appropriate personnel at the hospitals.
- The networked EDIS patient tracking system worked well in Carilion facilities.

REGIONAL HOSPITAL COORDINATION CENTER

- Only one person on the RHCC Call List was available to command the incident.
- There was some confusion with RHCC activation procedure.
- Having a dedicated EMSsystem operator was a big advantage.
- Having a dedicated Call Taker would have been a big advantage.
- Having a dedicated Recorder to record activity was a big advantage.
- Having a VDH representative was a big advantage.
- Got off to a slow start; somewhat disorganized, but recovered nicely; began using forms to record activity.
- Initially, made contact, sent out notice, developed status report, but received no requests.
- Requests began to come in after first operational period (1 hour).
- EMSsystem utilized well by RHCC, but received little response (4 hospitals).
- Need to establish a dedicated toll-free telephone number for RHCC.
- Need to establish a dedicated email address for RHCC.
- Need to develop current contact information for disciplines (e.g., Security, Infection Control, Safety, Physical Plant, etc.), departments (e.g., Emergency Departments, Admin Office, Hospital Command Centers, Physical Plant, Security, Etc.), Public Health (Districts, Directors, Epidemiologists, Planners, etc.), VIP's, etc.
- Nextel Direct Connect communications were used, but not answered.

GENERAL IMPRESSIONS OF THE REGIONAL DRILL

- We appreciated the RHCC support (knowing that we are not alone in the emergency or the region).
- This exercise helped with JCAHO requirements.
- "Good Drill"

FUTURE DRILLS AND EXERCISES

- Get local police, fire, and EMS agencies to participate.
- Develop relationships with “outside” agencies before the next emergency.
- Conduct drills on odd-shifts (other than 8~5 days, M~F).
- Conduct drills once-a-month on all shifts (different shift each month).
- Utilize other departments in the hospital, and not just ED.
- Get publicity for the drill; notify media and make them a player/partner.

Evaluation Form Summary Completed by Participants

What went well?

- ED performance
- Made us aware of available resources
- Magnitude of possible event
- Ham Radio Activities
 - Able to access three repeaters in Roanoke that could have been used. All three yielded good signal reports.
 - Able to access two amateur repeaters in Roanoke that are used for Sky Warn activities. These repeaters are used to obtain and pass weather-related messages.
 - Able to establish communications with the Lynchburg General Hospital and the Lynchburg Emergency Operations Center using a repeater in Bedford County and another system in the City of Lynchburg. Message traffic could have been passed without any problems to both locations.
 - Able to access one of two repeaters in Amherst County
 - Able to establish communications with Lexington, VA to be able to pass messages into that area.
 - Operators had additional hands-on experience with the radio equipment, increasing their confidence level.
- Neither ED nor Communications would give information to a "reporter" who continued to call for information
- Communication with and support from RHCC
- All supplies that were needed in the ED were available
- Proper response from hospital staff on where to go, what to do during the Code Yellow
- After the first patient, patient flow went smoothly.
- Registration and ER staff performed exceptionally well.
- Registration clerk acted per policy and recognized first SARS patient for what it was
 - prevented increased exposure
- Good communication with VHD and RHCC
- Good planning by hospital management team to prevent going on "divert".
- Incident Command - Section Chiefs (first attempt - worked well.)
- Article from CDC on SARS very helpful

- Alternate triage location - original plan tested and revised as needed based on drill experience.
- ICP assigned to ER for liaison with Command Center
- Communication between ER and Command Center was frequent.
- Staff knew what PPE to put on and how to work the isolation rooms, contacting the appropriate people.
- Staff at home were contacted and had a good response to come in.
- Staff in ED acted quickly and correctly to patient care needs.
- ED very busy at that time, Med/Surg staff reported to ED to help with ED patients.
- Tested surge capacity of hospital and Long Term Care facilities.
- Communication among departments
- Imaging staff reviewed what response needed to take place
- Good ideas
- General first response was good/correct, staff knew their roles
- Good information, plan is ready to be put immediately into action
- Overview of disaster plan
- Going department to department to review responsibilities, opportunity to ask questions X 2
- Communication or trailer contents
- Communication - Brainstorm
- Response

What did not go well?

- EM System was not utilized to full extent
- No use of Nextel phones
- Ham Operator Activities
 - Unable to access one Amherst County repeater which would have given coverage into Nelson County
 - Unable to access repeaters in Altavista or Danville.
 - Unable to provide direct (simplex) communications with Lynchburg General Hospital in case of a repeater failure. The system did provide simplex coverage to the EOC (LynCom) in Lynchburg.
 - Unable to test the digital packet system of the radio
- ED Staff allowed "HAM" radio operator in with no credentials
- Made error in EM System's status change
- No notification from Health Department
- First patient got out of triage room into ER before being triaged. Fortunately, he did have a mask on.
- Could not get in touch with the Command Center (RHCC) in Roanoke
- ED phones should be blocked from outside calls during a Code Yellow and they weren't.
- Fan out list had some bad pager numbers on it.
- We never received a call from the Health Department about the breakout. It was only via email. (What if IC had been out sick, on vacation, etc.)
- When the local Health Department was called, they acted like they did not know we were having a drill.

- When PR Department called to speak with the PR representative from VHD, the local Health Department did not know who to refer her to.
- Confusion between RHCC and ER vs. Command Center
- Contact with HRCC at first (long delay in answering)
- Computer equipment in Command Center did not work well.
- Failed to provide "whole house" communication to staff.
- Health Department should have contacted us with appropriate treatment or ask us what we were treating with to make sure we are using the same standard of care across the region.
- Information in e-mail misread resulting in perception that drill had been cancelled. Delayed beginning of drill.
- ICP was not notified.
- VDH, RHCC was not notified
- EM System was not utilized
- Isolation of fast track from rest of ED
- Need to train other managers in Incident Command
- Still some glitches in people getting decisions made on who does what
- Childcare issues in the event of actual Code Green
- Not enough negative pressure supplies
- Actual beds and staffing issues
- Need to make sure we have enough people trained to set up negative pressure units
- Minor confusion about "table top", how much does staff do like in a live drill versus just discussing at the table top
- Lots of interruptions
- Infection Control Department was not notified
- Didn't know who administrator on call was and no backup X 2
- Appropriate personnel did not know where Nextel and security radios were located

Recommendations to Region for the next drill:

- Time compression - look at alternatives - maybe play one or two days each hospital for a multi-day scenario
- Off Shift Drill
- Include more departments like radiology, laboratory, and med/surg floors so we can see how things would have gone out in the facility.
- More complex and challenging
- Realistic drill scenario with individual facility freedom to role out drill as needed to meet the facilities needs
- Health Department to communicate back to the hospitals
- Design a drill to perform a full drill to include the use of ECU's, utilize more departments, ensure air handling unit to ER is turned off, utilize decon tent, PAPRs, hazMat suits, HazMat team, local outside agencies.
- Give hospitals an information sheet for what RHCC is used for
- Emphasize the importance of the EM System and how it can be utilized.

Recommendations from one hospital for their in-house drill:

- Moving CCU to a different location and allowing the existing CCU to become a SARS unit in the event of a SARS outbreak
- Schedule a follow-up meeting to build in accountability for taking care of issues identified
- More frequent drill
- More education
- Connection to EMS System
- Live drill
- Focus more on drill itself and hold a review afterwards
- Have all administrator attend all drills to observe

Comments:

- Very good opportunity for community cooperation.
- Many facilities seemed to take training and drill seriously
- Good drill, realistic scenario
- Best drill of the last few. Staff seemed to take it seriously.
- Good way to train on biological.
- Good drill, good response to phone tree, EM System worked well
- Good review covered many topics and issues, made us think through process
- Went very well
- Imaging had adequate staff
- Good Drill
- Many good comments, suggestions, ideas
- Well done, addressed valid concerns
- Very informative
- Inquiry about Physicians role during discharge of inhouse patients
- Need Clear back-up for administrator on call
- Need to address medical needs of staff in the event of disaster
- Need to actually set up negative pressure tents in ED and on units as needed
- Potential for great benefit in becoming prepared for a disaster
- Excellent effort by all participating departments.

Problems that need to be addressed:

- Ham Radio Activities
 - Radio antenna needs to be raised above the roof line and moved away from building for better coverage.
 - Radio power was limited to 10 watts due to antenna proximity to ICU equipment and personnel.
- Updating fan out list with accurate numbers
- Investigate getting a keypad lock on the triage room
- We need a procedure on how to enter comments in the EM System
- Train Security and maintenance how to install and use the negative pressure units