NYC HEALTH+ HOSPITALS

From Ebola to Emerging Infectious Diseases: A Focus on the Frontlines




Syra S. Madad, DHSc, MS, MCP
Senior Director
System-wide Special Pathogens Program

Nicholas V. Cagliuso, Sr., PhD, MPH
Senior Assistant Vice President
Emergency Management

Two Certainties:

Ready or Not…

Incidents will Occur

Patients will Present

NYC HEALTH+ HOSPITALS

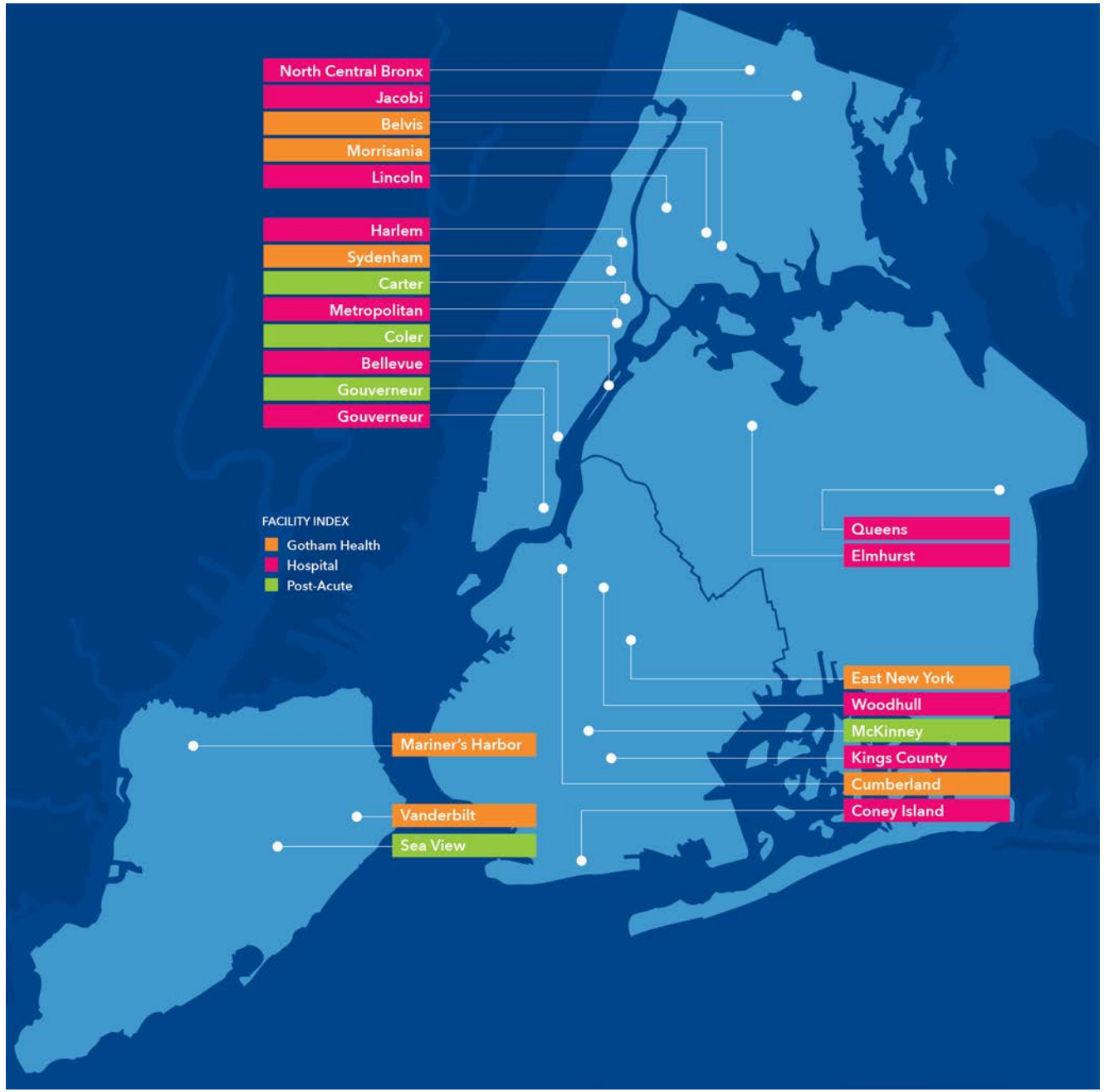
Bottom Line

A large, public, urban, U.S. healthcare delivery system can safely and effectively treat an Ebola patient and myriad persons under investigation directly from its community.

NYC HEALTH+ HOSPITALS

System Overview

- Staffed Beds: 6,684
- Clinic Visits: 4.4 Million
- ED Visits: 1.1 Million
- Discharges: 206,000
- Births: 18,500



Don Emmert, AFP

NYC HEALTH+ HOSPITALS

The Ebola Preparedness & Response Paradox

- Low patient count
- High resource demand
- Low resource capacity
- High risk perception
- No experience

Keys to Success

- Communication
- Coordination
- Collaboration

Communication

NYC HEALTH+ HOSPITALS

A message from
Ross Wilson, MD
Corporate Chief Medical Officer

Ebola Virus Disease (EVD)

August 1, 2014

I am sure that many HHC staff members have been following news about the outbreak of Ebola virus with some concern. I would like to share with you the important facts about this disease.

Ebola Virus Disease (EVD) is an acute viral illness first identified in 1976. Since that time, there have been sporadic outbreaks occurring primarily in remote villages near tropical rainforests in Central and West Africa.

The West African countries of Guinea, Sierra Leone, Liberia, and Nigeria are experiencing an outbreak of EVD that was first reported in March, 2014. So far, there have been 1,323 reported cases of which 729 persons have died. The majority of these deaths have occurred in places without the sophisticated medical facilities that we have here in New York.

EVD is not an airborne disease, so it is not contracted the same way as the flu. Ebola spreads through direct contact with the bodily fluids of infected persons, such as blood, urine, sweat, semen, and breast milk. Symptoms present anywhere from two to 21 days from initial exposure. EVD is characterized by the sudden onset of fever, weakness, muscle pain, headache, and sore throat.Â Strict adherence to infection control isolation measures is critical to prevent spread to healthcare workers and others. There is no specific treatment or vaccine available for EVD.

The Centers for Disease Control and Prevention (CDC) and the World Health Organization (WHO) are working closely with government agencies in West Africa and several international organizations to help investigate and control the spread of EVD. The CDC has determined that at this time, EVD poses little risk to us here in the US.Â But, the CDC has issued a Travel Warning Level 3, urging all U.S. residents to avoid nonessential travel to Sierra Leone, Guinea, and Liberia.

Although we have been informed that the threat to our communities, our patients, and ourselves remains negligible, HHC leadership continues to closely monitor information from all city, state, federal, and international agencies that are involved in the response to this outbreak. Clinical leadership and staff at our facilities have been briefed and have well developed plans for rapidly instituting isolation

Coordination

Central Office Emergency Operations Center

Collaboration

NYC HEALTH+ HOSPITALS

Bellevue Hospital Center

Bio Isolation Transfer Card (BIT)

FDNY Transport to Hospital

Hospital Requirements:

- ☐ Assemble Receiving Team
- ☐ Liaison Report to the Command Post
- ☐ Don PPE to Receive Patient from FDNY
- ☐ Standby at the Transfer Point
- ☐ Prepare 55 Gallon Bio Waste Drums
- ☐ Provide Patient Info to HazTac following Triage

FDNY Requirements:

- ☐ Briefing with Liaison prior to Patient Arrival
- ☐ Confirm Transfer Point
- ☐ Decontamination Corridor Prepared
- ☐ Supervise Patient Transfer to Hospital
- ☐ Supervise HazTac Doffing and Decon
- ☐ Supervise Decon of Ambulance

- *Ensure Decontamination Corridor Prepared*
- *Provide Bi-Directional Responsibility*
- *Secure patient transfer area utilizing Hospital Security*
- *Identified Decontamination area clearly*

Hospital Contacts:

- ☐ Hospital ED:
- ☐ Boyd Dixon
- ☐ William Hicks
- ☐ Hospital EOC:
- ☐ Lt. Keith Franklin
- ☐ Lt. Sharon Rodriguez
- ☐ Administrator on Duty

FDNY Contacts:

- ☐ FDOC:
- ☐ EMS Telemetry:
- ☐ Hazmat Battalion Cell:

Receiving Hospital to Treatment Hospital Transfer

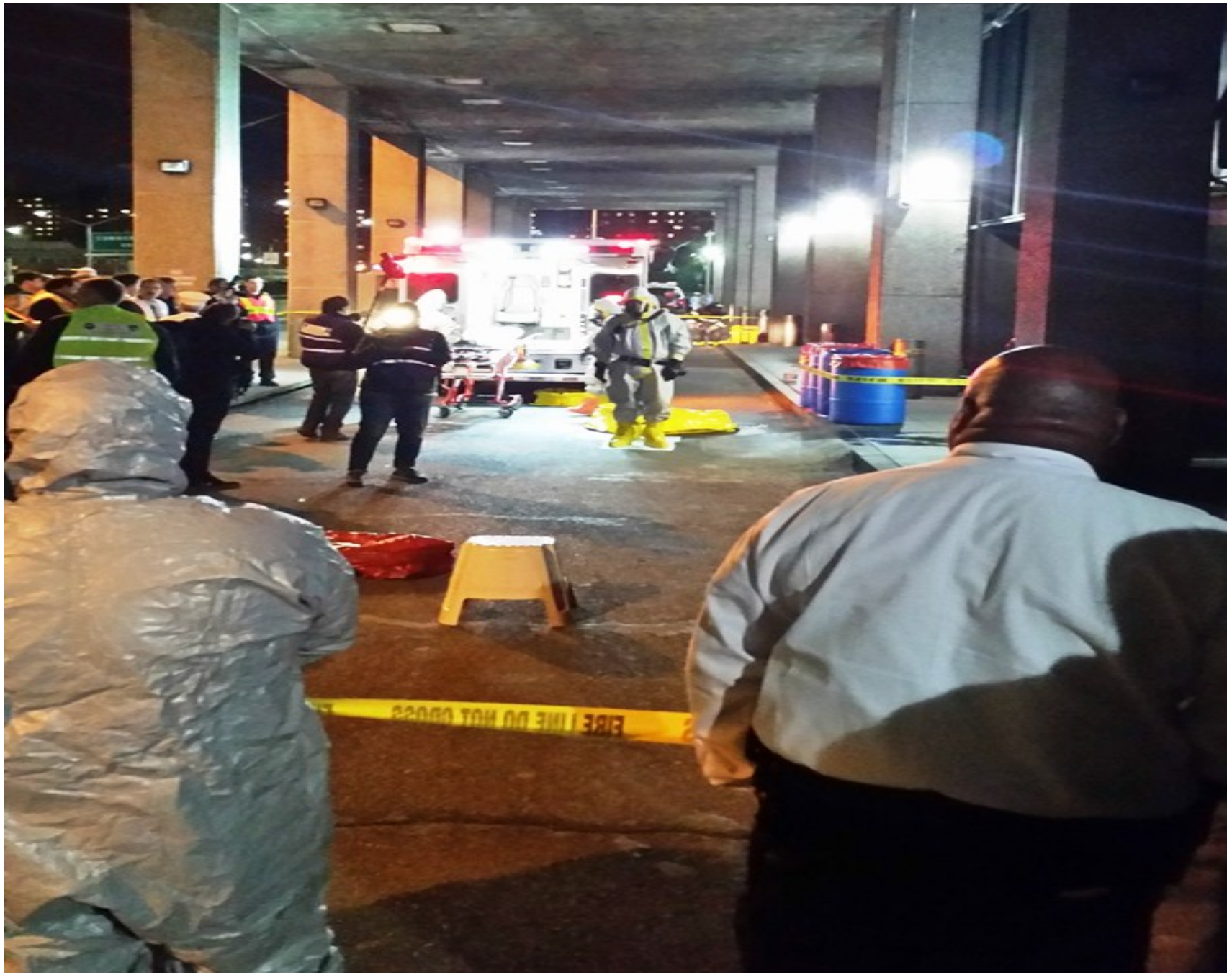
Hospital Requirements:

- ☐ Transfer Team Dons PPE
- ☐ Control of transfer area
- ☐ Liaison reports to the Command Post
- ☐ Identify Transfer Location
- ☐ Await HazTac Personnel to receive Patient
- ☐ HazTac personnel Accepts Patient
- ☐ HazTac Transport Patient

FDNY Requirements:

- ☐ HazTac responds to Receiving Facility
- ☐ HazTac Officer meets Liaison
- ☐ Transfer Point Confirmed with Liaison
- ☐ HazTac Personnel Don PPE
- ☐ HazTac Officer supervises transfer
- ☐ Ensure response of Clean Ambulance
- ☐ Both Ambulances driven by clean personnel ONLY

NYC HEALTH+ HOSPITALS



Alex Tabak / NY Daily News

Maintaining Readiness to EIDs via…

- Supporting an “all infectious hazard” approach
  - Syndromic-based patient screening algorithm
  - Special Pathogen Response Standardization

- Discussion- and Operations-Based Exercises
  - Tabletop
  - Mystery Patient Drills
  - Functional
  - Full-Scale

- Training
  - PPE Refresher
  - Frontline Facility Special Pathogens Training

Drills, Exercises

NYC HEALTH+ HOSPITALS

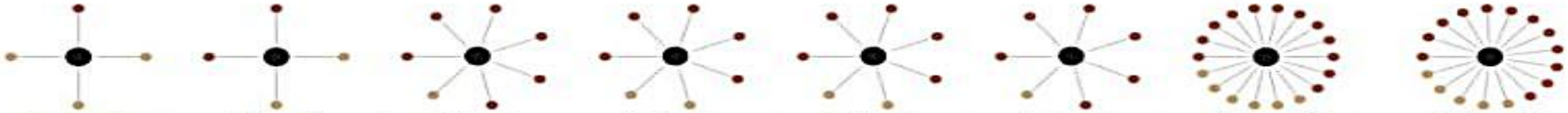
Initial Patient Screening Algorithm: Perspective

How contagious is Ebola?

How the Ebola virus compares with other contagious viruses. The reproduction rate or R_0, calculates the number of people likely to be infected by one person who has a disease.

REPRODUCTION RATE (R_0)

Initial infected patient ● — • Person he or she has infected



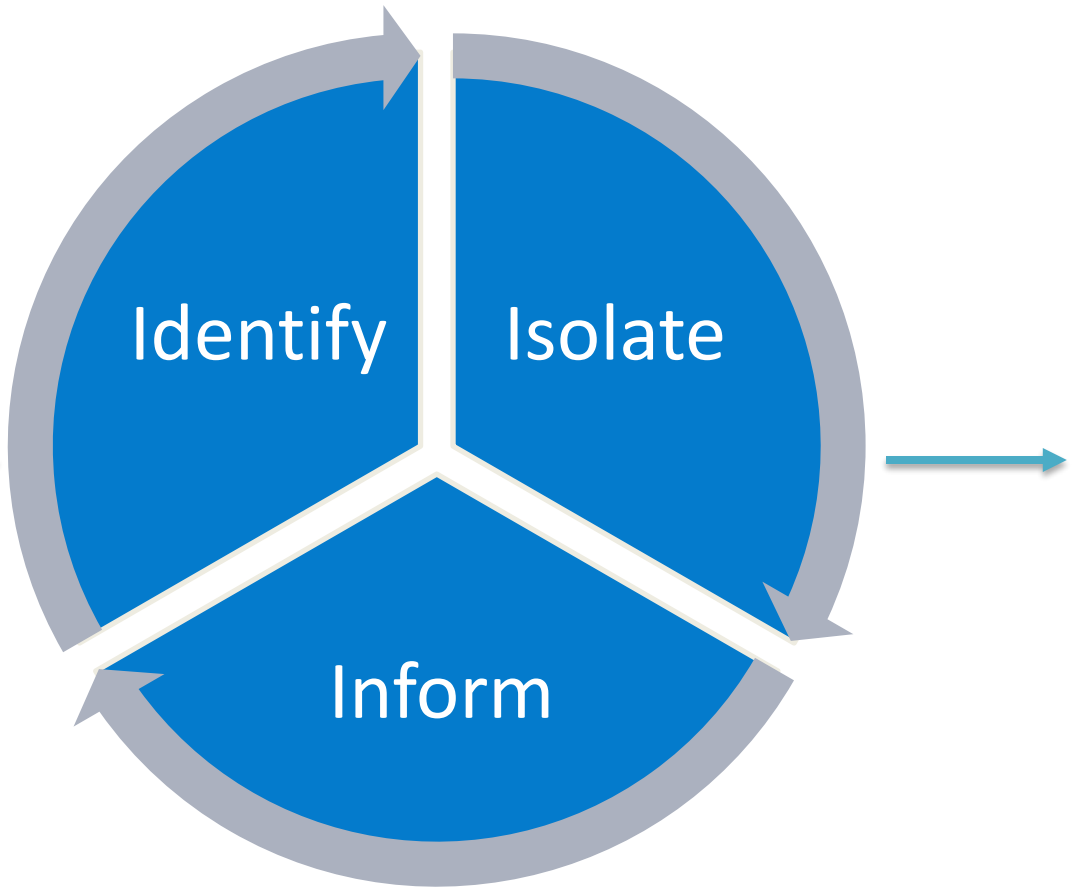
R_0	1 to 4 people	2 to 4	4 to 7	5 to 7	5 to 7	6 to 7	12 to18	12 to 17
DISEASE	Ebola	SARS	Mumps	Polio	Smallpox	Rubella	Measles	Pertussis (Whooping cough)
HOW IT SPREADS	Bodily fluids	Airborne droplets	Airborne droplets	Fecal-oral route	Airborne droplets	Airborne droplets	Airborne	Airborne droplets

Sources: Michigan Center for Public Health; WHO; Transmission Dynamics and Control of Severe Acute Respiratory Syndrome, Nature; Understanding the Dynamics of Ebola Epidemics, National Institute of Health

M. Murray, M. Weber, 3/10/2014

REUTERS

NYC HEALTH+ HOSPITALS



Applies to an All-Infectious Disease Approach

Initial Patient Screening Algorithm for Infectious Diseases for EDs

NYC HEALTH+ HOSPITALS

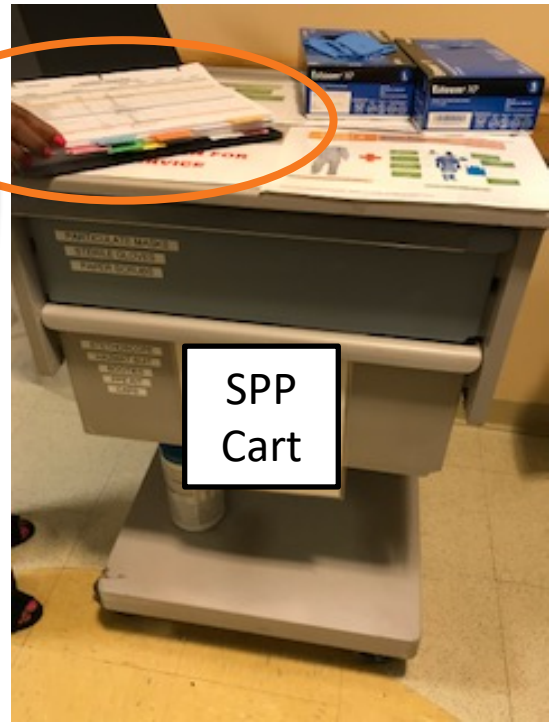
LOCATION	ROLE	ACTIVITY	NOTES
Registration Desk	Greeter/ Triage RN	1. Ask patient: in the past week have you had fever, have you had a cough, have you had a rash? YES → Give patient surgical mask and ask to use alcohol-based hand sanitizer NO → Stop screening process, and proceed with patient registration 2. Ask patient: have you traveled outside the country within the past 30 days OR had contact with someone that has traveled and is sick within the past 30 days?" ? YES NO → Stop screening process, and proceed with patient registration 3. Notify Triage RN to report travel/symptoms	Instruct patient how to put on mask If patient has yes to any fever, cough or rash escort patient to private room if available and continue patient assessment
Triage/Clinic	RN/ Provider	4. Conduct initial assessment and travel history: ask what country(s) patient has traveled to OR had contact with someone that has traveled and is sick in the past 30 days? YES NO 5. Go to Infectious Disease Dashboard (found on special pathogen intranet page). Type disease or country(s) traveled. If positive for travel areas with active highly infectious disease transmission YES NO 6. Escort patient with surgical mask on to isolation room keeping a distance of 3 feet away of patient. 7. Post "Screening in Progress" sign on door, place Special Pathogen Cart outside room and, notify provider of travel/symptom(s) Stop screening process and continue patient assessment per appropriate procedures	Recommended triage PPE: mask & gloves Special Pathogen Intranet page: http://hhcinsider.nychhc.org/corpoffices/Special-Pathogens/Pages/Index.aspx Note: highly infectious diseases may be considered even in the absence of specific travel alerts and consider domestic infectious disease outbreaks. If available, contact your facility infectious disease/ infection control department(s) for guidance. Recommended escort PPE: mask & gloves
Patient Room	Provider	8. Provider to put on appropriate PPE ensemble if entering patient's room or perform evaluation remotely 9. Conduct patient assessment and determine exposure risk. Is there a concern for a highly infectious disease? YES NO → Stop screening process and continue patient assessment per appropriate procedures 10. Notify infection control to discuss case 11. Document evaluation in EMR 12. Call NYCDOHMH Provider Access Line: 866-692-3641 to discuss case. After consultation with NYCDOHMH if patient is suspected to have a special pathogen and is classified as a person under investigation (PUI) immediately notify Facility's Medical Director & Central Office Special Pathogens Program: 646-864-5442	Special Pathogen Level 1 PPE: N95, 2 pairs of gloves, impermeable gown, face shield Special Pathogen Level 2 Viral Hemorrhagic Fever (VHF) : N95, face shield, coverall, 2 pairs of gloves, hood, shoe cover, apron (level 2 for all VHF suspected cases) Refer to special pathogen intranet page for additional guidance Call to NYCDOHMH Be prepared to provide patient demographic information, travel and symptom information (e.g., dates and locations of travel, date of symptom onset), comorbidities, and any additional epidemiological linkages

NYC HEALTH+ HOSPITALS

Infectious Disease Dashboard

Special Pathogens Cart

- 2 Levels of PPE for Special Pathogens (VHF and respiratory diseases)
- Point-of-care equipment and supplies
- Special Pathogens Response Matrix



Disease	Causative Agent	Initial Signs/Symptoms	Isolation Precautions‡	Personal Protective Equipment (PPE)	Notification to Hospital AOD/Attending/ Med. Director	Notification to local Department of Health Provider Access Line: 866-692-3641	Notification to Central Office Special Pathogens	Activation of Hospital Incident Command Syst	Transfer to Speciality Hospital	i-STAT Testing	Infected Tissues	Packaging & Shipping of Specimen	Division 6.2 Infectious Substances Category: A or	Notes
Ebola	*Ebola virus (filovirus)*	Fever, Severe headache Muscle pain, Weakness Fatigue, Diarrhea, Vomiting, Abdominal (stomach) pain, unexplained hemorrhage (bleeding or bruising)	Standard, Contact, and Airborne	SP Level 2 VHF	Yes	Yes	Yes	Yes	Yes	Consult IPAC, ID-on call and NYC DOHMH	Blood, body fluids	Packaged by certified staff; Specimen packaged in basic triple packaging system; Sent to NYC DOHMH	Category A	
Lassa Fever	*Lassa fever virus (arenavirus)*	slight fever, general malaise and weakness, and headache	Standard, Contact, and Airborne	SP Level 2 VHF	Yes	Yes	Yes	Yes	Yes	Consult IPAC, ID-on call and NYC DOHMH	Blood, body fluids	Packaged by certified staff; Specimen packaged in basic triple packaging system; Sent to NYC DOHMH	Category A	
Marburg	*Marburg virus (filovirus)*	fever, chills, headache, and myalgia	Standard, Contact, and Airborne	SP Level 2 VHF	Yes	Yes	Yes	Yes	Yes	Consult IPAC, ID-on call and NYC DOHMH	Blood, body fluids	Packaged by certified staff; Specimen packaged in basic triple packaging system; Sent to NYC DOHMH	Category A	
Crimean-Congo Hemorrhagic Fever	*Nairovirus*	headache, high fever, back pain, joint pain, stomach pain, vomiting, red eyes, flushed face, red throat, petechiae (red spots) on the palate	Standard, Contact, and Airborne	SP Level 2 VHF	Yes	Yes	Yes	Yes	Yes	Consult IPAC, ID-on call and NYC DOHMH	Blood, body fluids	Packaged by certified staff; Specimen packaged in basic triple packaging system; Sent to NYC DOHMH	Category A	
Lujo Hemorrhagic Fever (South Africa)	*Lujo virus (arenavirus)*	a morbilliform rash of the face and trunk, face and neck swelling, pharyngitis (sore throat), diarrhea	Standard, Contact, and Airborne	SP Level 2 VHF	Yes	Yes	Yes	Yes	Yes	Consult IPAC, ID-on call and NYC DOHMH	Blood, body fluids	Packaged by certified staff; Specimen packaged in basic triple packaging system; Sent to NYC DOHMH	Category A	
S. American Hemorragic Fever's (Machupo, Junin)	*Machupo virus, Junin virus*	fever, headache, fatigue, myalgia, arthralgia	Standard, Contact, and Airborne	SP Level 2 VHF	Yes	Yes	Yes	Yes	Yes	Consult IPAC, ID-on call and NYC DOHMH	Blood, body fluids	Packaged by certified staff; Specimen packaged in basic triple packaging system; Sent to NYC DOHMH	Category A	
SARS-CoV	*Corona virus*	fever, headache, fatigue, myalgia	Standard, Contact, and Airborne	SP Level 1	Yes	Yes	Yes	Yes	Yes	CG8+, Chem8+, PT/INR, Influenza Testing	Respiratory secretions	Packaged by certified staff; Specimen packaged in basic triple packaging system; Sent to NYC DOHMH	Category B	
Smallpox	*Variola virus*	fever, head and body aches, vomiting, rash	Standard, Contact, and Airborne	SP Level 1	Yes	Yes	Yes	Yes	Yes	Consult IPAC, ID-on call and NYC DOHMH	Respiratory secretions, skin/mucosal lesions	Packaged by certified staff; Specimen packaged in basic triple packaging system; Sent to NYC DOHMH	Category A	
Monkeypox	*monkeypox virus*	Fever, Headache, Muscle aches, Backache, Swollen lymph nodes, Chills, Exhaustion, rash	Standard, Contact, and Airborne	SP Level 1	Yes	Yes	Yes	Yes	case-by-case basis	Consult IPAC, ID-on call and NYC DOHMH	Skin lesions, respiratory secretions	Packaged by certified staff; Specimen packaged in basic triple packaging system; Sent to NYC DOHMH	Category A	
MERS-CoV	*Corona virus*	fever, cough, shortness of breath	Standard, Contact, and Airborne	SP Level 1	Yes	Yes	Yes	Yes	case-by-case basis	CG8+, Chem8+, PT/INR, Influenza Testing	Respiratory secretions	Packaged by certified staff; Specimen packaged in basic triple packaging system; Sent to NYC DOHMH	Category B	

Special Pathogens PPE Standardization

Special Pathogen Level 2 VHF

Special Pathogen Level 1

NYC HEALTH+ HOSPITALS

Checklist for Donning and Doffing

SP Levels 1 and SP Level 2 VHF

Level 1 DONNING CHECKLIST

Step #	Task	Criteria	Completed
1.	Gather PPE in proper sizes	• Isolation gown • N95 respirator mask • Nitrile gloves, extended cuff (1 pr.) • Face shield	❑ Yes ❑ No
2.	Prepare to don PPE	• Trained observer present with checklist • OUTSIDE of the patient's room • Remove watches, jewelry, and dangling items that could interfere with integrity of PPE • Secure eyeglasses with a tie • Hydrate and attend to personal hygiene	❑ Yes ❑ No
3.	Inspect PPE	• Inspect PPE for serviceability (e.g., not torn or ripped) and proper size	❑ Yes ❑ No
4.	Perform hand hygiene	• Perform hand hygiene with alcohol-based hand sanitizer	❑ Yes ❑ No
5.	Don isolation gown	• Fully covers torso from neck to knees; arms to end of wrists • Fastens at the back of neck; ties at waist • Do not tie inside ties • Ensures no trip hazard exists	❑ Yes ❑ No
6.	Don N95 respirator	• Don N95 mask and check for seal	❑ Yes ❑ No
7.	Don nitrile gloves	• Extends to cover the sleeves or cuffs of the isolation gown • Tuck excess material at sleeve into cuff	❑ Yes ❑ No
8.	Don face shield	• Positions shield above eyebrows and mid-forehead to cover eyes	❑ Yes ❑ No

9.	Inspection	• Extends arms and verifies integrity of PPE with observer:
		  • Bends at waist
		  • Squats and returns to standing position
		  • Slowly turns in circle for final inspection
		• Observer to mark suit with wearer's name and time donned
			❑ Yes
			❑ No

10.	Reminder	• Hands are to be kept away from all mucous membranes / Review hand signals	❑ Yes ❑ No

Level 1 DOFFING CHECKLIST

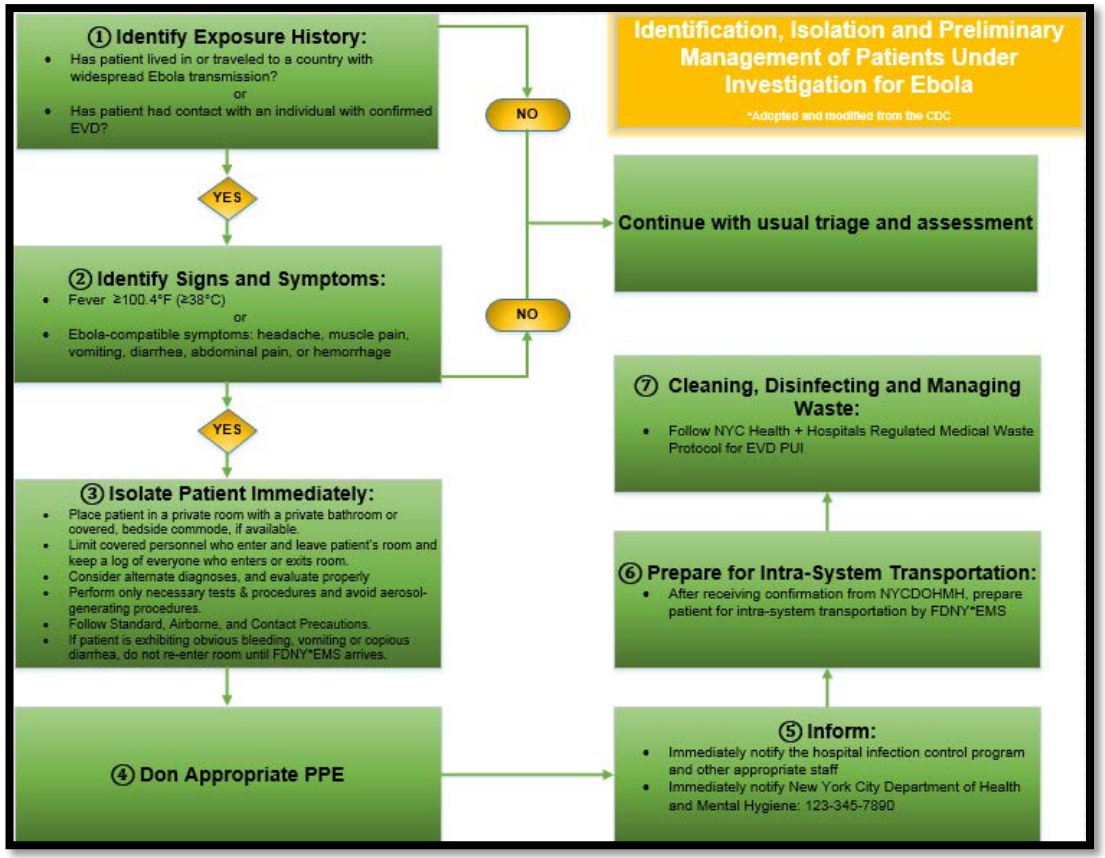
Step #	Task	Criteria	Completed
1.	Trained Observer	• Engage the trained observer outside patient room with the checklist • Determine contact time requirement for disinfectant wipe per product label	❑ Yes ❑ No
2.	Inspect PPE	***In patient room;*** • Inspect PPE for soiling or breaches • If PPE is visibly contaminated, disinfect by using an EPA-registered disinfectant wipe (allow contact time per product label)	❑ Yes ❑ No
3.	Perform hand hygiene	• Perform hand hygiene by using an EPA-registered disinfectant wipe (allow contact time per product label) or with alcohol-based hand sanitizer	❑ Yes ❑ No
4.	Doff glov	1. Using gloved hand, grasp the palm area of the other gloved hand and peel off first glove 2. Hold the removed glove in the opposite, gloved	
5.	Hand hy		
6.	Don nitri gloves		
7.	Doff face shield		
8.	Hand hy		
9.	Doff isol gown		

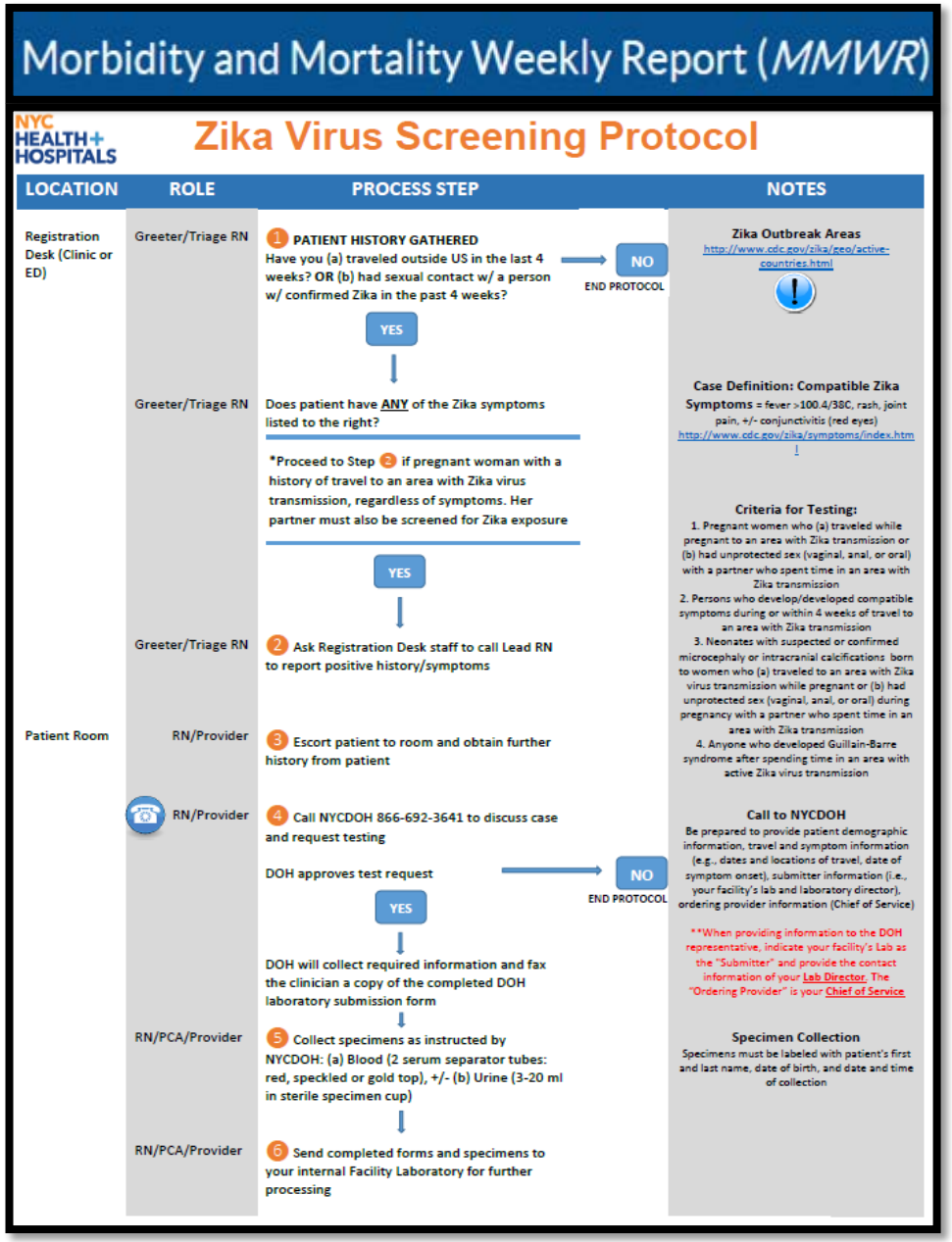
Level 1 DOFFING CHECKLIST

Step #	Task	Criteria	Completed
10.	Perform hand hygiene	• Perform hand hygiene by using an EPA-registered disinfectant wipe (allow contact time per product label) or with alcohol-based hand sanitizer	❑ Yes ❑ No
11.	Doff gloves	1. Using gloved hand, grasp the palm area of the other gloved hand and peel off first glove 2. Hold the removed glove in the opposite, gloved hand 3. Slide fingers of the ungloved hand under the remaining glove at the wrist and peel off the remaining outer glove over the first glove 4. Discard both outer gloves in the infectious waste container	❑ Yes ❑ No
12.	Hand hygiene	• Clean hands with alcohol-based hand sanitizer	❑ Yes ❑ No
13.	Don nitrile gloves	• Don a new pair of nitrile gloves	❑ Yes ❑ No
14.	Relocate	• Move to designated doffing area	❑ Yes ❑ No
15.	Remove N95 respirator	• Remove N95 respirator from the back to front and discard in the infectious waste container	❑ Yes ❑ No
16.	Doff final gloves	• Remove gloves using same procedure as first two pairs	❑ Yes ❑ No
17.	Hand Hygiene	• Wash or clean hands with an alcohol-based hand sanitizer; hands completely dry before exiting the area	❑ Yes ❑ No
18.	Inspect	• Inspect for any contamination of the clothing worn under the PPE. If there is contamination, shower immediately.	❑ Yes ❑ No
19.	Follow Up	• Perform staff rehab, medical monitoring, documentation, and behavioral wellness check as indicated	❑ Yes ❑ No

NYC HEALTH+ HOSPITALS

Disease-specific Screening





Self-Identification

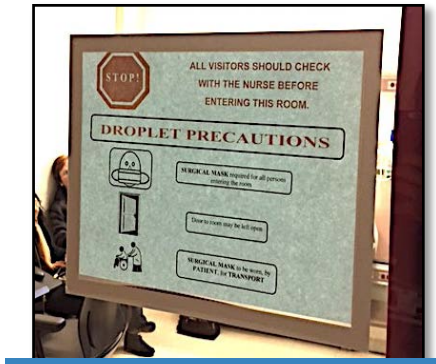
Universal Travel Screening Posters and Signage

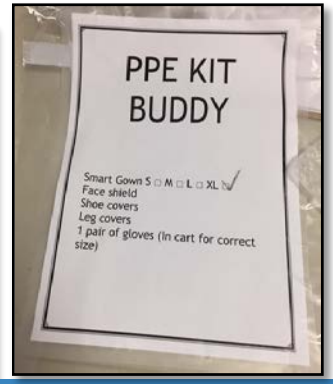
Disease-Specific Travel Screening Posters and Signage

Infection Control and Prevention

Special Pathogen Mystery Patient Drills

1. Actor Briefing



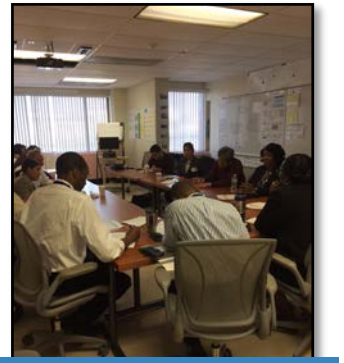


2. Assessment

0 minutes

60 minutes

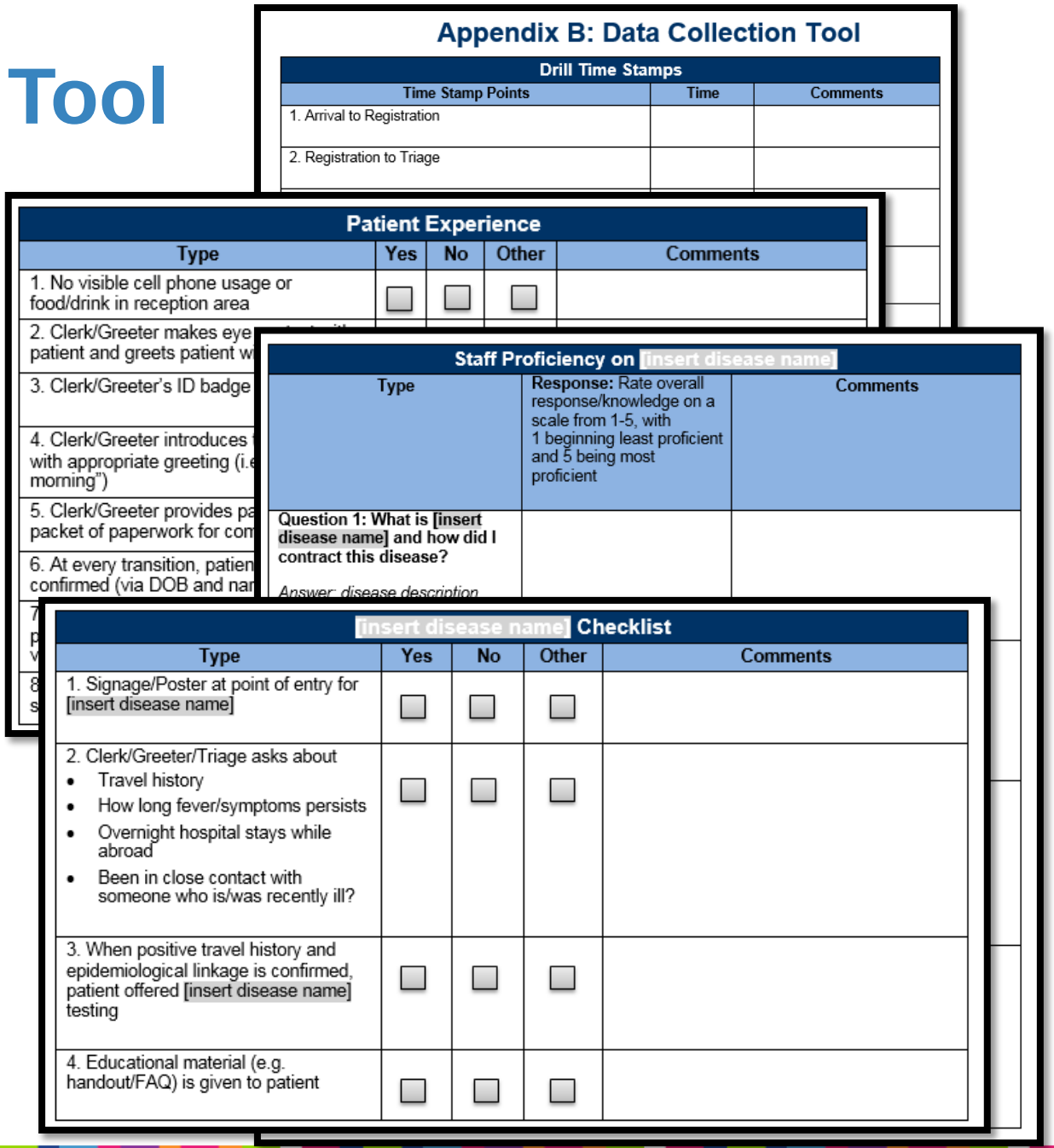
3. Transport



4. Hotwash

Data Collection Tool

- Drill Time Stamps
- Patient Experience
- Disease-specific Checklist
- Staff Proficiency on “x” Disease



Appendix B: Data Collection Tool

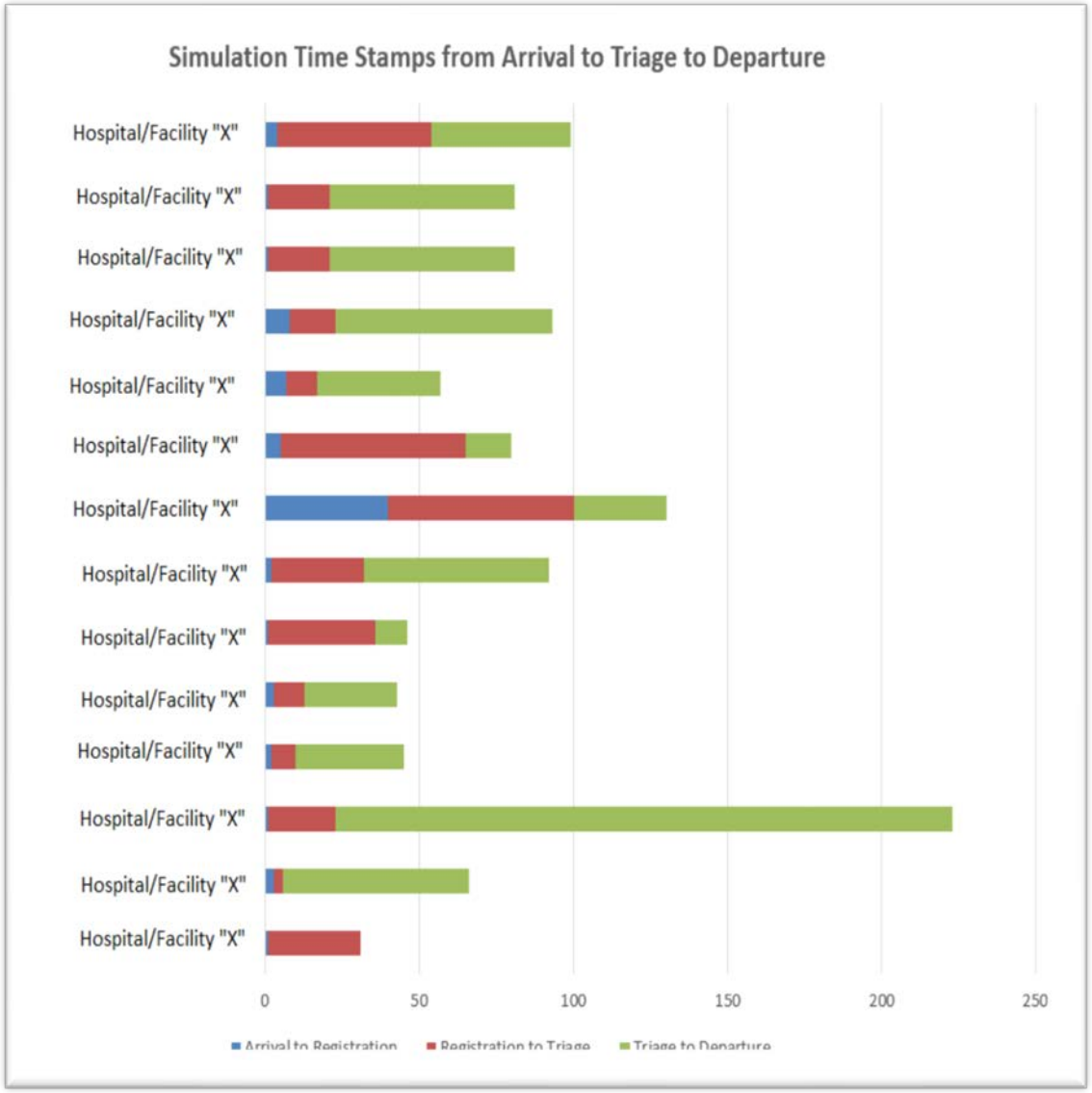
Drill Time Stamps		
Time Stamp Points	Time	Comments
1. Arrival to Registration		
2. Registration to Triage		

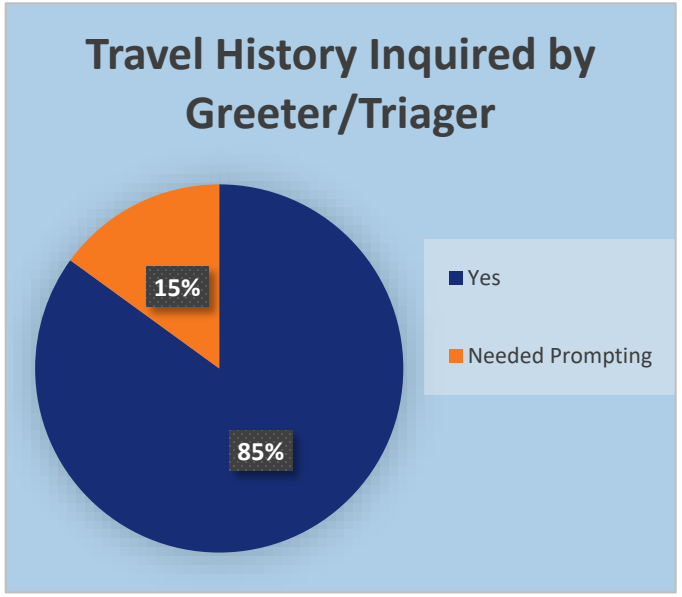
Patient Experience				
Type	Yes	No	Other	Comments
1. No visible cell phone usage or food/drink in reception area	☐	☐	☐	

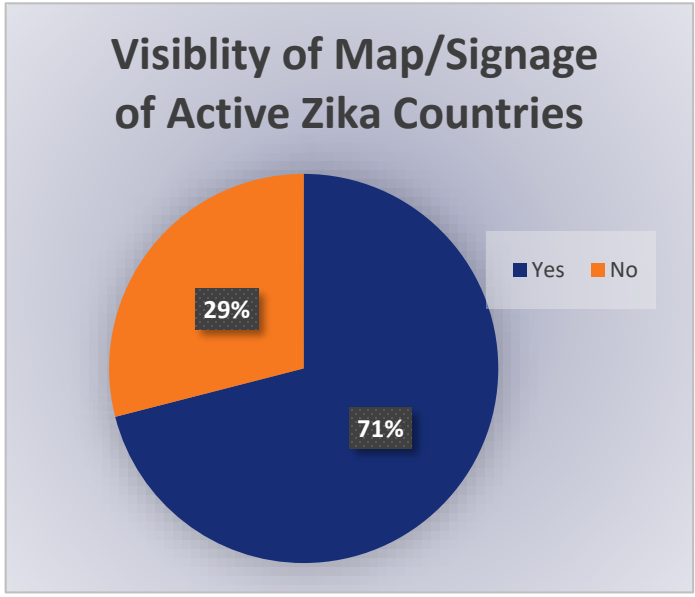
Staff Proficiency on [insert disease name]		
Type	**Response:** Rate overall response/knowledge on a scale from 1-5, with 1 beginning least proficient and 5 being most proficient	Comments
Question 1: What is [insert disease name] and how did I contract this disease? *Answer: disease description*		

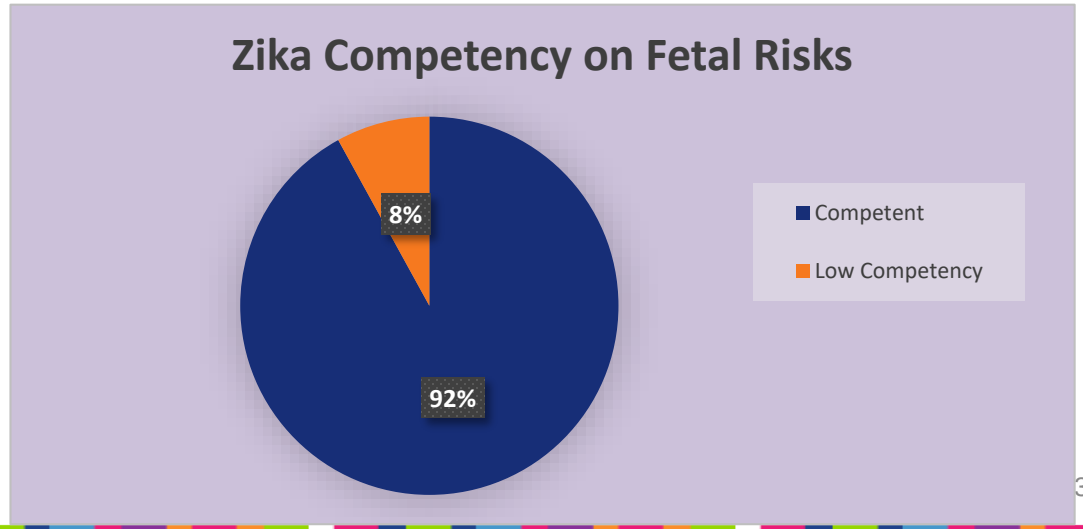
[insert disease name] Checklist				
Type	Yes	No	Other	Comments
1. Signage/Poster at point of entry for [insert disease name]	☐	☐	☐	
2. Clerk/Greeter/Triage asks about • Travel history • How long fever/symptoms persists • Overnight hospital stays while abroad • Been in close contact with someone who is/was recently ill?	☐	☐	☐	
3. When positive travel history and epidemiological linkage is confirmed, patient offered [insert disease name] testing	☐	☐	☐	
4. Educational material (e.g. handout/FAQ) is given to patient	☐	☐	☐	

Example: Mystery Patient Drills for Zika









Evidence-based Decisions via Zika MPD

- Partner question asked in EMR along with travel question
- Distributed more Zika educational information to sites with low competency
- Worked with Media and Communications Department to strategically place signage

NYC HEALTH+ HOSPITALS

"Challenges to Implementation of an Incognito Embedded Patient Simulation Program to Improve System-Wide Public Health Threat Preparedness"

ISSN: 2573-9506

Research Article

International Journal of Women's Health Care

Challenges to Implementation of an Incognito Embedded Patient Simulation Program to Improve System-Wide Public Health Threat Preparedness

Komal Bajaj[1], Syra S.Madad[2*], Adrienne Birnbaum[3], Jessica Pohlman[4], Juan R.Cruz[5], Katie Walker[6] and Michael Meguerdichian[7]

[1]Associate Professor, Reproductive Geneticist, NYC Health, Hospitals/Jacobi Clinical Director, NYC Health + Hospitals Simulation Center Albert Einstein College of Medicine

[2]Director, System-wide Special Pathogens Program, NYC Health + Hospitals, Assistant Professor, Biotechnology/BioDefense Graduate Program, University of Maryland University College

[3]Professor, Emergency Medicine, NYC Health + Hospitals/Jacobi, Albert Einstein College of Medicine

[4]Director of Operations, NYC Health + Hospitals Simulation Center

[5]Education Manager, NYC Health Hospitals Simulation Center

[6]Director, NYC Health + Hospitals Simulation Center

[7]Assistant Professor, Emergency Medicine, NYC Health + Hospitals/ Harlem Clinical Director, NYC Health + Hospitals Simulation Center, Columbia University School of Medicine

*Corresponding author
Syra Madad, Director, System-wide Special Pathogens Program, NYC Health + Hospitals, Assistant Professor, Biotechnology/BioDefense Graduate Program, University of Maryland University College

Submitted: 16 Nov 2017; Accepted: 23 Nov 2017; Published: 06 Dec 2017

Abstract

Introduction: Preparing a healthcare system for a special pathogen such as Zika Virus requires that frontline staff be trained to screen, test, educate and counsel at risk patients. The purpose of this manuscript is to describe an innovative intervention that includes an incognito embedded patient simulation and highlight solutions to challenges encountered during implementation.

Methods: Incognito embedded patient simulations focusing on Zika preparedness were performed throughout 14 different institutions within one urban healthcare system that provide prenatal care. Challenges to safely and efficiently deploy the program were cataloged.

Results
Several key challenges were identified:
1) Creation of a patient within electronic health record
2) Ensuring proper patient identification
3) Securing the correct type of patient appointment
4) Patient testing congruent with patient condition
5) Data collection during simulation
6) Maintaining psychological safety before, during, and after a simulated event.

Conclusions: This manuscript provides practical solutions to pitfalls encountered while conducting multiple incognito embedded patient simulations to a large, diverse healthcare system.

Keywords: Zika, Special Pathogens, Hospital Preparedness, Healthcare System, Incognito Patient, Mystery Patient Drill.

Introduction

Zika virus, which is spread mostly through the bite of an Aedes species mosquito, has emerged as a global health threat. With causal link to microcephaly and other abnormalities of the central nervous system in neonates, obstetric settings must be able to effectively screen for and test affected communities to limit and prevent its impact. As 80% of patients who are infected with Zika have no

NYC HEALTH+ HOSPITALS

Maintaining Readiness via…

- Discussion- and Operations-Based Exercises

- *By end of 2018 = 41 operations-based exercises
  - Emerging / Re-emerging Infectious Diseases including SPDs

Exercise	Date	Location
PanX – Executive Level Pandemic Response Workshop	2018	System-wide
MERS Mystery Patient Drills	2018	11 Hospitals 6 Ambulatory 5 Post-Acutes
Seasonal Influenza Mystery Patient Drills	2018	11 Hospitals 6 Ambulatory
Lassa Fever Full-Scale Exercise	2018	1 Hospital
Unknown Special Pathogen Full-Scale Exercise	2017	3 Hospitals 1 Ambulatory
Lassa Fever Mystery Patient Drills	2017	1 Ambulatory, 2 Hospitals
MERS-CoV Mystery Patient Drills	2017	1 Ambulatory, 2 Hospitals
Zika Mystery Patient Drills	2016 – 2017	3 Ambulatory, 11 Hospitals (14 prenatal clinics)
Ebola Tabletop Exercise	2016	11 Hospitals 6 Ambulatory 5 Post-Acutes
Ebola Mystery Patient Drills	2014 – 2015	11 Hospitals

NYC Health + Hospitals Leads Multi-Site, Multi-Agency Drill on Infectious Special Pathogens

Real-world simulation assesses New York City's readiness to care for patients with Lassa fever and MERS

Apr 05, 2017

New York, NY

See all News →

"The scope and complexity of today's exercise gave participants an added layer of realism," said Stanley Brezenoff, interim president and chief executive officer

"Involving multiple city and state agencies and beginning with identification in a clinical setting by providers who don't know to expect this are two of the reasons that national and international observers are coming to watch and learn." Syra S. Madad, DHSc, MSc, MCP, director of the System-wide Special Pathogens Program


F.D.N.Y.

NYC HEALTH+ HOSPITALS | EMERGENCY MANAGEMENT

NYC HEALTH+ HOSPITALS | SPECIAL PATHOGENS PROGRAM

Frontline Facility Special Pathogens Training Course

- Identify/Isolate/Inform of suspected special pathogen disease cases
  - Viral Hemorrhagic Fevers (e.g., Ebola, Lassa Fever)
  - Severe Respiratory Special Pathogens (e.g., MERS-CoV, SARS-CoV)
- Live donning and doffing Special Pathogen Level 1 & Special Pathogen Level 2 VHF with considerations for airborne and non-airborne special pathogens
- Hands-on clinical simulations with focus on safety precautions while in PPE
- Special considerations for pediatric, geriatric, behavioral health

Attendance
The course is open to all frontline healthcare workers/covered personnel in frontline hospitals, ambulatory/outpatient care sites and long-term facilities in NY, NJ, PR, VI (Region 2)

Registration
There is **no cost** for this course. Please register for the course date that suits your schedule. Do not book travel until a registration confirmation email is received

Course Materials
All course materials will be provided on the day of the course

Course Type
Didactic, immersive simulation with equipment, live donning/doffing technique and exercise on patient transfer and transport scenarios

Course Location: TBD

Course Time: 8am - 4pm




***Note: Students will be in PPE for a minimum of 4 hours during the course.**

For more information, please contact Dr. Syra Madad, Director, System-wide Special Pathogens Program, NYC Health + Hospitals / Office: 212-323-2521 / Syra.Madad@nychhc.org

NYC HEALTH+ HOSPITALS | EMERGENCY MANAGEMENT

NYC HEALTH+ HOSPITALS | SPECIAL PATHOGENS PROGRAM

Course Agenda

Time	*Duration*	*Topic*
8:00 AM	0:10	Welcome and Introductions
8:10 - 9:10 AM	1:00	Module 1: Identify/Isolate/Inform & Infection Control 101
9:10 – 9:20 AM	0:10	Break
9:20 – 10:05 AM	0:45	Module 2: PPE Donning Technique for SP Level 1 PPE Ensemble
10:05 – 10:50 AM	0:45	Clinical Simulation 1: MERS Work Up
10:50 – 11:35 AM	0:45	Module 2: PPE Doffing Technique for SP Level 1 PPE Ensemble
11:35 – 12:20 PM	0:45	Lunch
12:20 – 1:20 PM	1:00	Module 3: PPE Donning Technique for SP Level 2 VHF PPE Ensemble
1:20 – 2:20 PM	1:00	Clinical Simulations 2 & 3: Spill Remediation, Patient Transfer
2:20 – 3:20 PM	1:00	Module 3: PPE Doffing Technique for SP Level 2 VHF PPE Ensemble
3:20 – 3:30 PM	0:10	Break
3:30 – 4:00 PM	0:30	Course Debrief and Evaluations

Course Description

The didactic portion of the course will be a guided discussion of best practices/core principles on identification, isolation, internal/external notification and preliminarily managing persons with suspected ebola or other special pathogens from initial presentation through patient transport to a specialty hospital for definitive treatment. Special considerations for behavioral support, pediatric and geriatric patients will be discussed. Live donning and doffing technique will be demonstrated with NYC Health + Hospitals Special Pathogens Level 1 PPE Ensemble and Special Pathogens Level 2 VHF PPE Ensemble. The immersive simulation will be with the use of a simulation mannequin on MERS laboratory specimen collection and immediate spill remediation. The exercise portion of this course will include a series of patient transfer scenarios using enhanced infection control precautions/procedures.

NYC HEALTH+ HOSPITALS

NYC HEALTH+ HOSPITALS | EMERGENCY MANAGEMENT

NYC HEALTH+ HOSPITALS | SPECIAL PATHOGENS PROGRAM

Frontline Facility Special Pathogens Training
1 day, 8am to 4pm Simulation Course

Course Calendar

Course #:	Date:	Location:	Registration Link
1.	October 11, 2018	Jacobi/IMSAL	https://www.surveymonkey.com/r/SR7CXPL
2.	October 25, 2018	Jacobi/IMSAL	https://www.surveymonkey.com/r/SGBDDMV
3.	November 8, 2018	Harlem	https://www.surveymonkey.com/r/JVZQ2D9
4.	November 15, 2018	Harlem	https://www.surveymonkey.com/r/3M8DLZV
5.	December 13, 2018	Gouverneur	https://www.surveymonkey.com/r/XS62YCB
6.	January 10, 2019	Metropolitan	https://www.surveymonkey.com/r/SPX2LMM
7.	January 24, 2018	Metropolitan	https://www.surveymonkey.com/r/S6XDGTC
8.	February 7, 2019	Woodhull	https://www.surveymonkey.com/r/RYTC282
9.	February 14, 2019	Woodhull	https://www.surveymonkey.com/r/X7CMWFJ
10.	February 21, 2019	Elmhurst	https://www.surveymonkey.com/r/XDYY9QJ
11.	February 28, 2019	Elmhurst	https://www.surveymonkey.com/r/XD3NPMJ
12.	March 14, 2019	Kings County	https://www.surveymonkey.com/r/X2GDVQW
13.	March 28, 2019	Kings County	https://www.surveymonkey.com/r/XC2L8X5
14.	April 4, 2019	Seaview	https://www.surveymonkey.com/r/GKHNYYF
15.	April 11, 2019	Coney Island	https://www.surveymonkey.com/r/HKY6W8J
16.	April 18, 2019	Coney Island	https://www.surveymonkey.com/r/H89ZWYQ
17.	May 2, 2019	Lincoln	https://www.surveymonkey.com/r/6LTPCG7
18.	May 23, 2019	Lincoln	https://www.surveymonkey.com/r/6VJLKSG
19.	June 6, 2019	North Central Bronx	https://www.surveymonkey.com/r/XJZLVQV
20.	June 20, 2019	North Central Bronx	https://www.surveymonkey.com/r/XQNJVQK

Course in Action

System Special Pathogen Monthly Meeting

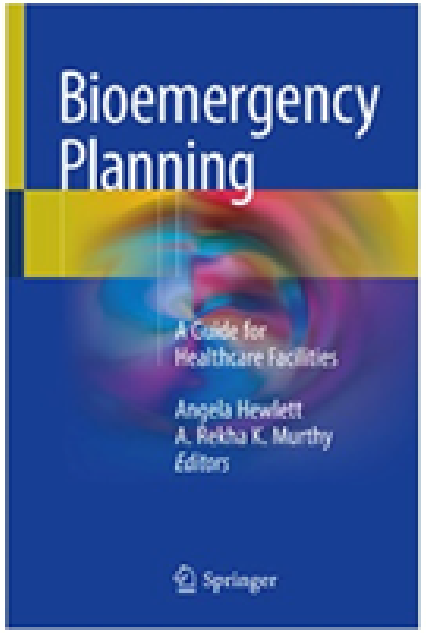
- Brings together clinicians and non-clinicians from all 3 service lines
  - 200+ in attendance
  - Includes 6 public health agencies from city, state and national PH.

- Cover pressing infectious disease outbreaks from local, state, national and international

What we learned along the way

A systematic approach to an unfamiliar challenge:

1. Communication / Coordination / Collaboration
2. Emergency Management / All Hazards Centered Approach
3. Focus on the Frontlines
4. Tools and Resources to the Frontlines
5. Developed Internal and External Partnerships
6. Standardize, Standardize, Standardize !
7. Continuous cycles of improvement
8. “Steal shamelessly and share selflessly”



Bioemergency Planning: A Guide for Healthcare Facilities

1st Edition

ISBN-13: 978-3319770314

"As the first book to exclusively explore infectious emergencies, the text begins by reviewing potential pathogens and the clinical issues that may threaten hospital safety before delving into the best operational guidelines for commanding a staff under extreme circumstances, including incident command, communication, transport, maintenance, and a myriad of other topics that can remain manageable with proper protocol. Written by experts in the field, this text is the only one that offers the most effective clinical responses to a crisis at every level of care, including special population, laboratory techniques, care of the deceased, behavioral support, and medical documentation. The text concludes by focusing on the reality of care by introducing true examples from the field and the lessons gained from these cases."

Contact Information

Dr. Syra Madad
Syra.Madad@nychhc.org

Dr. Nicholas Cagliuso
Nicholas.Cagliuso@nychhc.org