Public Health England

Protecting and improving the nation's health

NHS England

Exercise Northern Light
Final Report

24 and 25 May 2016

I&S

About Public Health England

We work with national and local government, industry and the NHS to protect and improve the nation's health and support healthier choices. We address inequalities by focusing on removing barriers to good health.

We were established on 1 April 2013 to bring together public health specialists from more than 70 organisations into a single public health service.

Public Health England
133-155 Waterloo Road
Wellington House
London SE1 8UG
Tel: 020 7654 8000
http://www.gov.uk/phe
@PHE_UK

About the Emergency Response Department

The Emergency Response Department (ERD) works with national and international partners to ensure that healthcare professionals are able to respond to emergencies, including the deliberate or accidental release of chemical, biological, radiological or nuclear substances. Emergency preparedness specialists throughout PHE play an important role in training and exercising the healthcare community.

On behalf of the Department of Health, training courses and exercises are delivered every year throughout England to develop resilience across healthcare organisations. In addition, the team works with the European Commission, the European Centre for Disease Prevention and Control and the World Health Organisation.
For queries relating to this document, please contact: exercises@phe.gov.uk

Exercise Northern Light

Exercise Northern Light was commissioned by NHS England to explore the challenges that are likely to arise for The Newcastle upon Tyne Hospitals NHS Foundation Trust when the Royal Victoria Infirmary (RVI) becomes the UK's main High Level Isolation Unit (HLIU) facility during the period July to August 2016. The Royal Free Hospital's HLIU will be offline for planned refurbishment and upgrade during this period and the intention is that on completion, The Royal Free Hospital will revert to being the UK's main HLIU facility.

The exercise explored the roles and responsibilities of the RVI and key partner organisations in supporting the hospital and the wider health community during the receipt of patients in to the HLIU. The exercise was delivered on 24 and 25 May 2016 supported by NHS England, The Newcastle Upon Tyne Hospitals NHS Foundation Trust and Public Health England.

This report was prepared by Public Health England's Emergency Response Department and was agreed with NHS England.

Personal Data

Name Redacted

Head of Emergency Response Department /
Director of Emergency Preparedness, Resilience and Response
Public Health England

June 2016

Contents

Executive summary

The Royal Free's High Level Isolation Unit (HLIU) is scheduled for capital projects during July and August 2016 and during this period The Royal Victoria Infirmary (RVI) in Newcastle will provide the NHS's first-line HLIU capability.

Exercise Northern Light was designed to assess The Royal Victoria Infirmary's preparedness for and activation of its HLIU capability. The first phase of the exercise was a walk-through of the transfer and admission of a simulated confirmed Ebola Virus Disease case to be treated at the Royal Victoria Infirmary and Day 2 was a table top exercise to discuss and review the broader implications and impact on health and supporting partners.

Participants in this exercise included representation from The Newcastle upon Tyne Hospital NHS Foundation Trust, The Royal Free London NHS Foundation Trust, NHS England, Ambulance Services, Public Health England, Local Authority, Police and the Royal Air Force.

The exercise was considered by the participants to be a valuable opportunity to explore the significant challenges in the command, control and coordination in response to the admission of a confirmed positive Viral Haemorrhagic Fever case in to the HLIU (the chosen scenario for the exercise was Ebola) and to rehearse specific response roles and responsibilities.

The exercise did not identify any immediate risks to staff or patient safety and highlighted the following areas that would improve resilience:

Communications: It was agreed by the participants that there is a lack of a robust communications process to warn and inform members of the public & staff and respond to media enquiries in the activation of the RVI's HLIU.

Staffing levels: The table top exercise explored the staffing levels required to treat an additional confirmed positive VHF case in the RVI's HLIU. With the existing staff levels of appropriately trained staff within the RVI, the hospital would only be able to support the admission of one confirmed positive case and one highly suspected case. If a situation arose where the requirement was for more than one confirmed positive VHF case to be admitted, the surge centres in Liverpool Royal and Sheffield Teaching Hospitals would need to be activated.

NHS HLIU surge centres: Current arrangements with supporting surge centres and partner organisations would benefit from future development in preparedness for multiple VHF cases.

A full list of the agreed actions is included at Appendix A

1. Introduction

The exercise was designed to explore the challenges likely to arise for The Newcastle upon Tyne Hospitals NHS Foundation Trust, the wider health community and multi-agency partners as a result of a confirmed positive VHF case requiring admission to the High Level Isolation Unit at the RVI.

The scope of the exercise did not include an in depth exploration of aspects relating to recovery and the return of services to normal across the health economy. However, the exercise provided participants from both health and multi-agency partners with the opportunity to explore the complex operational and tactical challenges of the receipt of a confirmed positive VHF case in to the High Level Isolation Unit at the RVI.

2. Aim and objectives

2.1 Aim

The aim of the exercise was to exercise and review the Royal Victoria Infirmary's High Level Isolation Unit activation plan.

2.2 Objectives

1. To review the RVI's HLIU activation plan.
2. To exercise the RVI's HLIU patient care pathway including death.
3. To review the RVI's HLIU Hospital Control processes and wider health preparedness and response arrangements including surge capacity.
4. To confirm the processes and arrangements for public messaging.

3. Scenario

Day one (Tuesday 24 May)

Case 1 – a fictional confirmed positive EVD case of a UK national working in Sierra Leone and medevac'd back to the RVI Newcastle via RAF Air Transport Isolator (ATI)

Transfer from the ATI to the HLIU at the RVI

Day two (Wednesday 25 May) – The exercise injects explored the impact of the confirmed positive case being admitted and a fictional highly suspected case who was

linked to the confirmed positive case from day one. Then towards the end of the exercise a potential fictional third highly suspected case arrived as a self-presenting casualty in the South of England and who was linked to the first two cases.

A detailed explanation of the scenario is at Appendix B.

4. Exercise format

4.1 Walk through exercise

The exercise was an operational focus around three key elements:

1. Admission with RAF ATI practising three different transfer scenarios
2. Patient management section
3. Patient death, body preparation and removal from the Trexler isolator

A team of expert evaluators from The Royal Free, PHE and the Health and Safety Executive (HSE) were briefed prior to STARTEX and agreed to evaluate areas in line with their area of expertise.

There were debrief sessions after each of the three key sessions, and lessons identified were captured after each session. It was commented by our Subject Matter Expert evaluators that the RVI staff who participated in this exercise along with colleagues from the RAF did so in a professional and very efficient manner.

Participants for day one were from the following organisations:

The Newcastle Upon Tyne Hospitals NHS Foundation Trust
The Royal Air Force

4.2 Table top exercise

The scenario and injects enabled participants to consider their understanding of current procedures, roles and responsibilities and capabilities; to share information; and to highlight potential areas of vulnerability. Each group worked through the issues raised, and captured the main decisions, issues, and areas for improvement. Key action points were fed back during the final action plan plenary session.

Throughout the day participants worked together to tackle the issues raised by the scenario and to explore how the RVI would manage a confirmed VHF (Ebola) case, and the receipt of two highly suspected cases that were linked to the confirmed case.

The outline programme of the day is included at Appendix B.

4.3 Participants

Participants in the exercise included representatives from:

NHS England - local, regional and national teams
The Newcastle Upon Tyne Hospitals NHS Foundation Trust
The Royal Free London NHS Foundation Trust
Newcastle Gateshead CCG
Public Health England North East
North East Ambulance Service
Health and Safety Executive
Northumbria Police
Royal Air Force
Newcastle City Council

Additionally, representatives from the NHS's HLIU surge capacity centres at Sheffield Teaching Hospitals and Royal Liverpool Hospitals were available via phone.

5. Exercise Evaluation

5.1 The evaluation of the exercise was based on the aim and objectives of the exercise and was drawn from the assessment and observations of the evaluators as well as from discussions and feedback from participants collated during the plenary sessions.

5.2 Day one A team of evaluators comprised of individuals with direct experience and knowledge of the HLIU environment (experts from The Royal Free London), PHE North East and the HSE. Evaluators were provided with an evaluation form which focussed on their designated area for the "walk through" exercise.

In total there were three phases for day one:

1. Admission with RAF ATI practicing three transfer scenarios
2. Patient Management section
3. Patient death, body preparation and removal from Trexler section

During each phase the evaluators were looking at the communication channels and the processes involved at each stage, with an evaluator tasked to the following areas of expertise: Medical team; Nursing team; and Waste Disposal team.

At the end of each phase a hot debrief was carried out to identify lessons to be taken forward and these can be found at Appendix A.

5.3 Day two During the final session of the table top exercise on Wednesday 25 May, participants worked within their table groups to highlight key actions for improvement before feeding these back in an Action plan plenary session which was led by Paul Dickens, Regional EPRR Head of EPPR from NHS England North.

The HSE evaluator commented that the exercise had provided the opportunity for all participants to be better informed as to how the RVI HLIU operates and for the RVI's HLIU team to demonstrate their proficiency in caring for a patient in their Trexler facility. The table top exercise encouraged an honest and open assessment of the RVI's HLIU current capability which concluded that, based on The Royal Free's Trexler isolator operating model, that the RVI may not have sufficient staff resources in place to manage a second patient.

There was also some constructive and helpful discussion around the role of the communications team responsibilities based on The Royal Free's experience

A full description of these comments can be found at Appendix E.

5.4 Action Plan

A key outcome for Exercise Northern Light was to establish an action plan to identify key issues that might impede the temporary handover of the HLIU task.
The action plan was designed in consultation with the HSE and the following three priority levels were agreed:

Level	Description
High	Immediate risk to staff or patient, including any engineering risks associated with the operation / integrity of the Trexler unit and HLIU
Medium	Risk to maintaining resilience, (staffing levels, stock levels etc.)
Low	Elements of formalising documentation

At the end of each session on the table top exercise, participants were encouraged to summarise the key actions that were generated following the injects they received.

During the final action plan session participants/organisations were asked to prioritise the top three actions that were generated during the exercise, with the final categorisation agreed by the Regional Head of EPPR NHS England North.

Appendix A – Action Plan

Ser	Description of Action	Priority level	Completion
The Newcastle upon Tyne Hospital NHS Foundation Trust			
1	**A dedicated communications team needs to be established to support the activation of the RVI's HLIU to treat a confirmed positive VHF case.**	Medium	w/c 20 June
2	**In the event of a second confirmed positive VHF case to be admitted to the RVI's HLIU, then additional staff would be required.**	Medium	w/c 20 June
NHS England North			
3	**Review Liverpool Royal and Sheffield Teaching Hospitals surge arrangements**	Medium	w/c 20 June
4	Review and update communications plan	Medium	w/c 20 June
5	Communications roles and action cards need re-visiting	Medium	w/c 20 June
6	On call checklist needs to be reviewed	Medium	w/c 20 June
PHE North East			
7	Review local plan around communication cascade	Medium	w/c 20 June
8	Review communications management process to take pressure off the RVI's clinical staff	Medium	w/c 20 June
9	Review death protocol; out of area transfers, arrangements with coroners and funeral directors.	Medium	w/c 20 June
North East Ambulance Service			
10	Review communications process to reduce 999 calls if the RVI's HLIU is activated.	Low	01 July

Ser	Description of Action	Priority level	Completion
Northumbria Police			
11	Review of guidance and SOPs for police escort of positive confirmed VHF case.	Low	01 July
12	Review access points and routes for the RAF's ATI Jumbulance	Medium	w/c 20 June
13	Allocate pool radio to RAF ATI Jumbulance	Low	01 July
14	Review terrorism threat assessment if RVI HLIU is activated	Medium	w/c 20 June
Newcastle City Council			
15	Review death protocols	Medium	w/c 20 June
16	Review pre-death notification mechanisms with the RVI	Medium	w/c 20 June

Summary of Lessons from walk through exercise

Ser	Description of Lessons identified
RAF ATI Transfer	
1	Map of route to the back of the lift required for RAF personnel. SOP required to incorporate comprehensive map from Newcastle airport to the RVI loading lift.
2	Implement messaging service to alert all appropriate staff about admissions
3	Hold activation meeting – this is essential to identify issues prior to patient arrival
4	Nurse to be involved in initial handover from the RAF – at The Royal Free handover is normally done from nurse to nurse
5	Runner to take trolley to transport waste from Jumbulance
6	Longer and more robust ties to be used in the HLIU to improve dexterity
7	ATI decontamination process needs to be agreed with the RAF and RVI
HLIU Patient management	
8	Keep to normal roles e.g. blood taking – if nursing staff are familiar with taking bloods from a central line then they should continue to do so.
9	MDT handovers at each 12 hour shift change
10	Communication within the Trexler is difficult – investigate technologies to improve this
Patient death	
11	Re-confirm processes with Local Authority, funeral directors and PHE NE for management on death
12	Re-confirm arrangements with Bioquell around decontamination

Appendix B – Exercise Programme

Day 1 Tuesday 24 May 2016		
TIME	**SESSIONS**	**PRESENTER/Room**
08.30	Arrival and registration	**NR**
08:45	Welcome and introduction	
09.00	STARTEX	Trexler unit
09.45	RAF arrival	Trexler unit
10.15	1 x dummy patient	Trexler unit
10.45	1 x live self transfer	Trexler unit
11.15	1 x moving patient	Trexler unit
12.15	ATI removed	Trexler unit
12.30	Debrief for AM sessions	Trexler unit
13.00	Lunch	Trexler unit
13.30	NUTH staff commence exercise with Trexler	Trexler unit
	Medical assessment and nursing interventions, including taking blood, giving IV therapy and taking observations	Trexler unit
	Patient vomits	Trexler unit
	Patient has diarrhoea	Trexler unit
	Patient requires washing and bed changed	Trexler unit
	Supply isolator breach	Trexler unit
	Debrief session	Trexler unit
	Management of patient death	Trexler unit
	Debrief session	Trexler unit
15.00	ENDEX	Trexler unit

Day 2 Wednesday 25 May 2016		
TIME	**SESSIONS**	**PRESENTER/Room**
08.30	Arrival and registration	Education Centre
09:30	Welcome and introduction	Paul Dickens/Lecture Theatre
09.35	Look at lessons from Day 1 "Walk through exercise" on 24 May	NR Lecture Theatre
09.45	Introduction to Exercise	NR ecture Theatre
10.00	STARTEX	
	Follow up to Day one Inject - 2nd Patient Inject - CMO Brief	Education Centre
12.15	Lunch	Education Centre
13.15	Media Inject - 3rd patient	Education Centre
14.45	Action plan session Groups identify potential solutions and actions required to address outstanding work, gaps and areas for development	Paul Dickens/Education Centre
16.30	Next steps and closing remarks End of exercise	Education Centre

Exercise Scenario

Day one (Tuesday 24 May) – NHS England phoned the RVI Infectious Disease consultant after being contacted by a consultant at The Royal Free. This was a notification that there is a confirmed +ve Ebola case from Freetown Sierra Leone and they are being medically evacuated by the RAF to Newcastle airport.

The patient details are as follows:
Case 1
Keith Evans – not married
A fictional 35 year old British healthcare worker in Freetown, admitted to Freetown hospital after feeling unwell with a fever on Sunday morning (22 May) having worked in Sierra Leone for two months. He had spent the last month working as a volunteer with Families First in Sierra Leone to help combat the survivors of Ebola transmitting the disease through sexual contact.
Initial blood test results from Freetown hospital are:
Ebola virus RT-PCR (Real Time-Polymerase Chain Reaction) Positive

Ebola virus RT-PCR Positive – Cycle Threshold 21

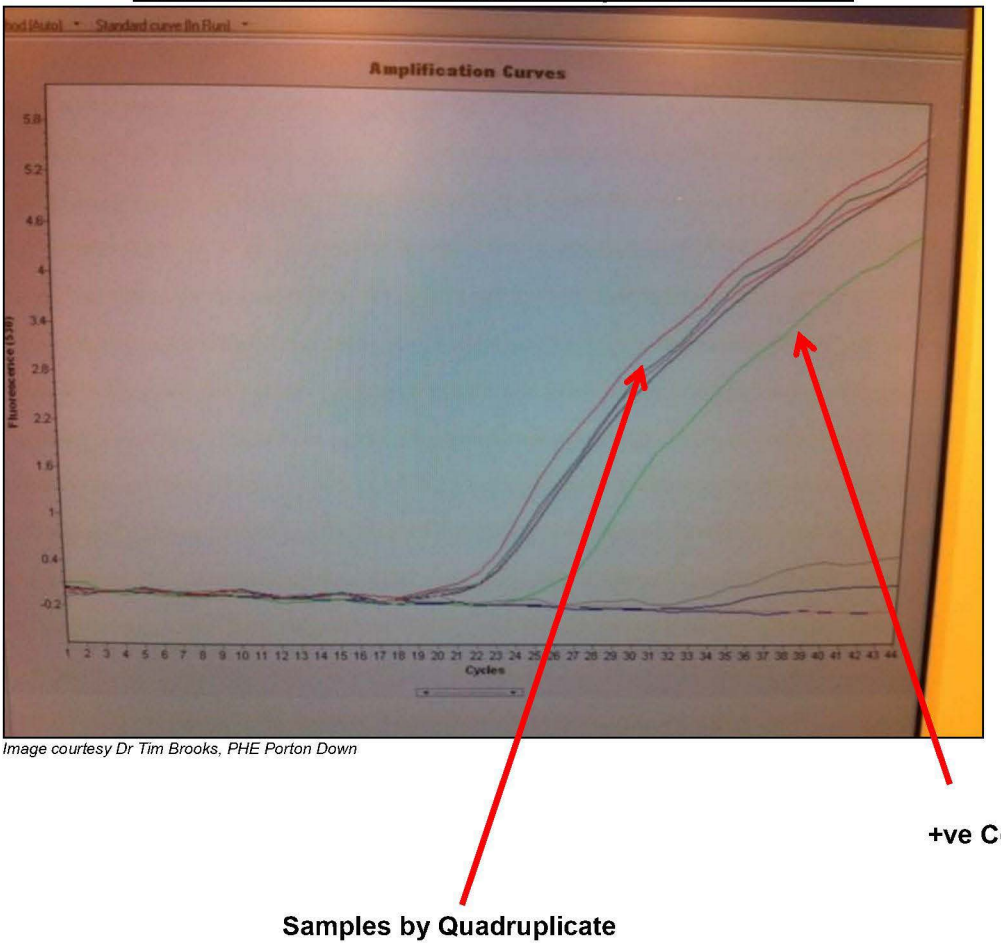


Image courtesy Dr Tim Brooks, PHE Porton Down

Test results from Freetown Hospital for patient Keith Evans, 35 year old British healthcare worker which confirm a +ve test result for Ebola

The RAF used the ATI (Air Transport Isolator) to transfer the patient from Sierra Leone to Newcastle airport in the UK. Upon arrival in the UK the RAF contacted the RVI to inform them of their proposed arrival 15 minutes ahead of schedule. The exercise started when the consultant received the phone call.

Day Two – Wednesday 25 May

Case 2 – patient of interest

Liam Bannister – not married
A 28 year old British healthcare worker, who worked in a laboratory setting in Free Town
A close friend of the Ebola patient in Newcastle Infirmary could now have the disease and is being transferred to the same high level isolation unit today for testing

Risk Category 3 – Laboratory staff in facilities not assured to be operating to UK standards

Case 3 – high risk

Didier Eboue – worked with Keith Evans and Liam Bannister in Freetown
46 year old from Guinea
It is believed the third patient is from Guinea and travelled as a visitor to the UK a week ago. Information supplied suggests that this patient is linked to the two patients hospitalised earlier this week.

Risk Category 3 – Laboratory staff in facilities not assured to be operating to UK standards

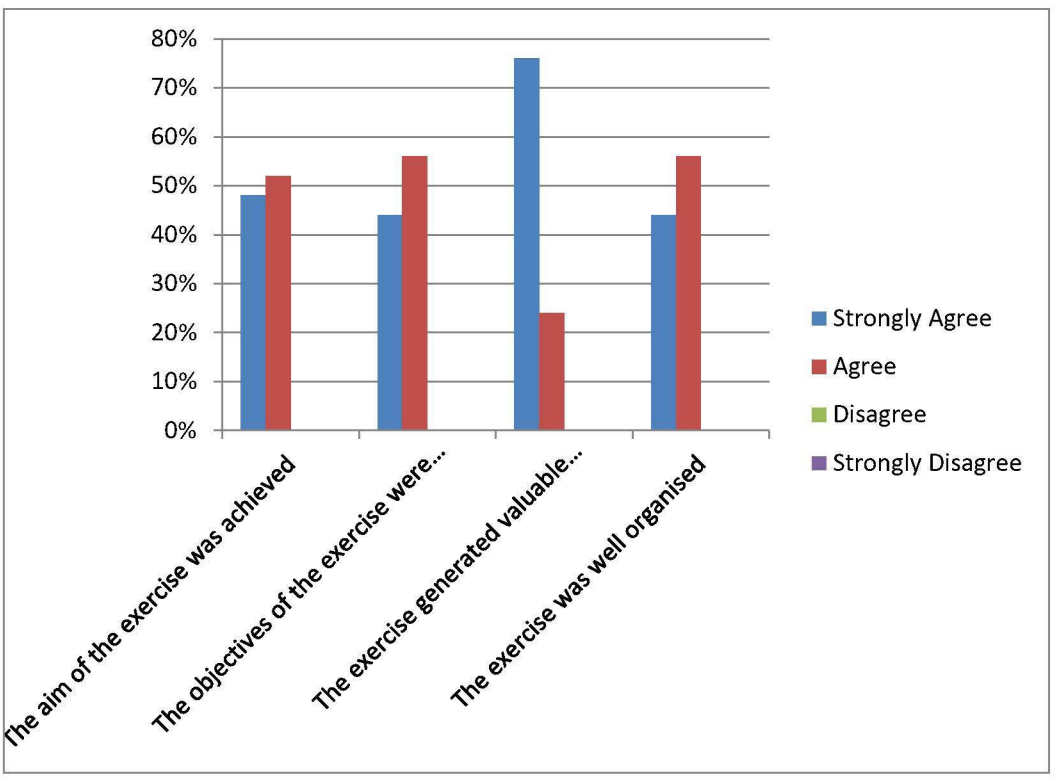
Appendix C - Participant feedback on the exercise

There were 46 attendees at the exercise. This comprised 31 participants, 10 Evaluators, and 5 members of Exercise Control. Feedback on the exercise was received from 25 participants and is displayed below. 100% of responding participants Strongly Agreed or Agreed that the aim of the exercise was achieved and 100% Strongly Agreed or Agreed that the objectives were met.

Feedback from participants confirmed they felt the exercise was a valuable experience and the two exercises combined allowed participants to work through operational elements as well as to inform useful areas for discussion. From the 31 participants who attended the exercise 25 completed and returned participant evaluation forms (81% return). From these 100% of responses strongly agreed or agreed that the aim of the exercise was achieved; 100% strongly agreed or agreed that the objectives were met; and 100% of responses strongly agreed or agreed that the exercise generated valuable discussions and highlighted important areas for development.

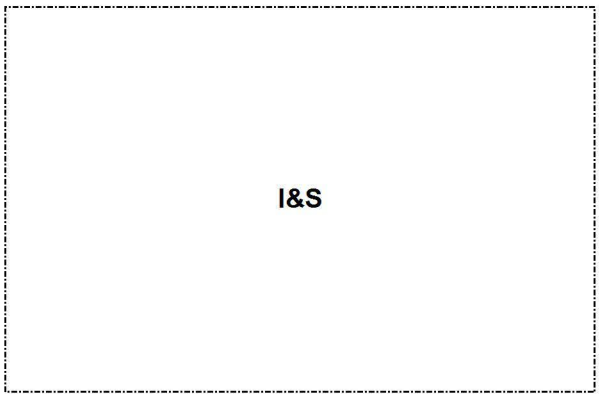
All responding participants Strongly Agreed or Agreed that the exercise generated valuable discussion and also highlighted important areas for development.

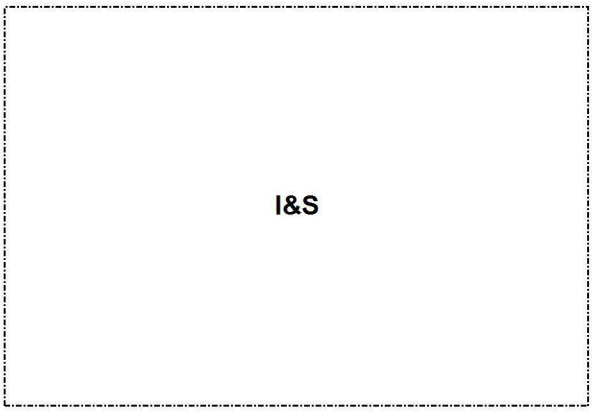
	Strongly Agree	Agree	Disagree	Strongly Disagree	Did Not Answer
The aim of the exercise was achieved	48%	52%	0%	0%	0%
The objectives of the exercise were achieved	44%	56%	0%	0%	0%
The exercise generated valuable discussions and highlighted key points for the action plan	76%	24%	0%	0%	0%
The exercise was well organised	44%	56%	0%	0%	0%

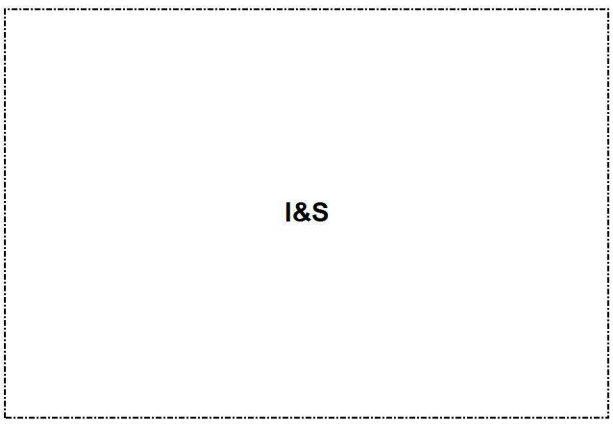


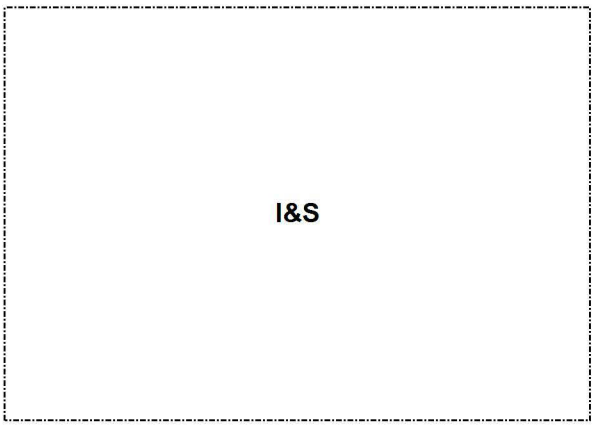
Appendix D – Photographs

The following photographic images are included to demonstrate the operational elements to the walk through exercise on day one, and provide a clearer understanding of how the HLIU operates.

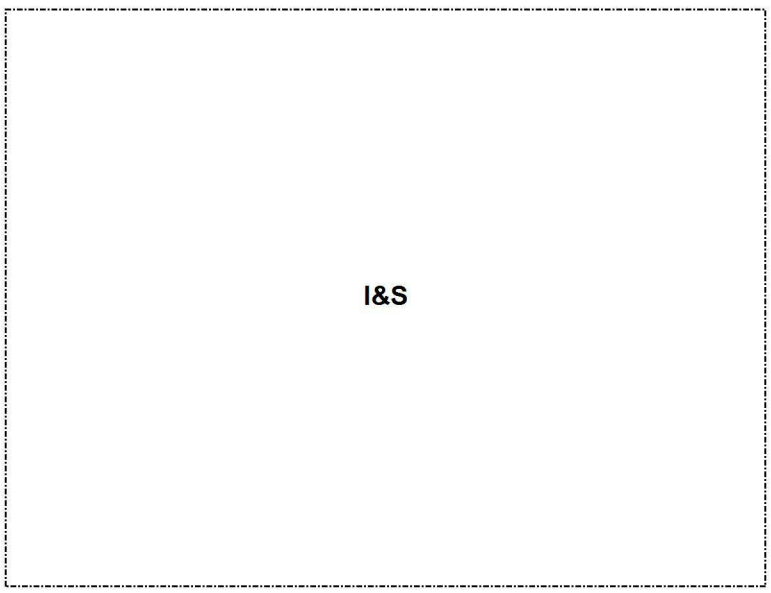








The following photographs show the final action plan session:



Appendix E – Subject Matter Expert feedback

Feedback from Health and Safety Executive subject matter expert who attended the exercise:

"Exercise Northern Light gave me and those observing a unique insight as to how the unit operates and was an ideal opportunity for the team at the RVI to really showcase their ability to work as an effective team in managing a patient in a Trexler facility. Though the event was simulated it gave staff the ideal opportunity to practice their skills and undertake unfamiliar procedures under the intense spotlight of onlookers - in my opinion they did a commendable job and showed immense professionalism in this undertaking. The feedback from assessors was both positive and constructive and will only serve to enhance and develop the overall preparedness of the team in the event of a real admission.

The table top exercise on the second day was a useful exercise for the RVI; it gave the team an opportunity to make an honest and open assessment of the current capability of the unit if faced with the scenario of multiple patient admission. The current numbers of trained clinical and nursing staff in the HLIU was closely scrutinised and based on The Royal Free Trexler model the current RVI staffing is not the same.

A suggestion that additional staff support could be drawn from The Royal Free London in the event of a second admission was explored. Whilst the Royal Free agreed to provide an advisory role to the RVI - the movement of staff from The Royal Free to a largely unfamiliar site (with its own variations in protocols and procedures) at the RVI would need a period of training in the RVI to ensure that The Royal Free staff were safe to operate within the HLIU.

Following discussion with HSE, NHS England and RVI it was agreed that whilst The Royal Free is off line the RVI would accept a single patient who would be managed in the Trexler facility. A second admission to the hospital would be assessed at the RVI and then transferred to one of the surge facilities at either Sheffield or Liverpool if necessary.

As a regulatory body HSE's primary focus is on health and safety in the workplace; and the overarching systems in place to ensure the safety of the staff in this instance those managing a HCID patient in the Trexler unit in the HLIU. It is clear from the open and frank discussions held during Exercise Northern Light that there is a shortfall in the number of trained staff available to manage more than one patient in the facility at any one time. Staff safety is paramount and stretching the limited staff resources in order to manage a second patient would not be advisable under the current circumstances. The Ebola crisis served to highlight the importance of having suitable trained staff and safe systems of work and unfortunately reported cases where staff became exposed in other countries emphasised the importance of properly managing the risk."

Dr NR from the NUTH briefed the RVI staff on his findings from discussions with staff at The Royal Free around the role and responsibilities of their communications team when treating a confirmed positive VHF case and the key points are below:

Director of Comms takes overall responsibility for all interaction with media as well as information sharing with staff, patients and family of patients.

- Attend daily 1pm operational meeting for daily update on all logistical aspects of isolation unit running and any upcoming significant VHF events (i.e. news of potential extra cases etc).
- Also attended by PHE and NHS England representatives

Internal Communications

- On admission of confirmed case; provide brief information and advice for all hospital staff members and every in-patient within the hospital. They physically walked round all wards and distributed information leaflets and gave advice at the bedside.
- Information along the lines of "a patient with confirmed VHF has been admitted to our high level isolation unit. That unit is specifically designed and set-up to managed patients with illnesses such as Ebola. All staff who work within the unit are highly trained to ensure the safety of the patient in the unit and to maintain the strictest isolation of the patient to prevent any escape of contaminated material. The rest of the hospital outside the high level isolation unit is continuing to run all normal activities…"
- They will act as a source of advice and support for hospital staff and patients as required.
- They provided the necessary pastoral care for the patients family and close relatives such as finding suitable hotel accommodation, advice on how to manage any media interest, how to deal with questions arising from children's schools or social contacts regarding continued integration of the family in the community.
- The team also discussed directly with the patient (having donned PPE) what their wishes would be regarding disclosure of medical information about them, and if necessary obtained consent to divulge certain aspects of their condition to the media. They gave advice to the patient on dealing with media attention post hospital discharge.

External Communications.

- Team take responsibility for managing all interaction with the media and outside agencies.
- Set up and manage any media conferences.
- Avoid any one to one medical staff; journalist interviews.
- The Royal Free only held 2 live press conferences during the whole outbreak. Both were closely stage-managed, well planned with rules for Q+A session agreed with press before the start.
- They deliberately stated at the start of the process that they would not be giving daily updates on clinical condition of the patient but also made it clear that if there were any significant changes they would notify the Press (after CMO, NHS England, PHE etc were made aware). That measure was considered very necessary so that it prepared the ground for any serious even leading to death so that would not be such a headline. "significant deterioration" was defined by unit medical staff.

- Comms team trained all medical staff who might be involved with the media and provided plenty of coaching immediately before any interviews or media statements (Director of Comms at The Royal Free is an ex-journalist so well practiced in all methods that might be used to get extra info).

Communications regarding the generic aspects of Ebola ie infectivity, transmission, local outbreaks, risk of attending hospital with EVD patient in it etc was all dealt with by PHE, NHSE, DH Comms team or CMO office, RF did not take any part in that.

Communication with Chief Medical Officer (CMO)

- Managed by lead clinician in direct contact with CMO. Immediate notification when first and any subsequent patient admitted (or high risk identified).
- Notify by direct discussion of any significant changes in clinical condition before any other agencies notified and well before any Press release.
- All updates to CMO instigated by Lead Clinician.

Other important aspects of Comms

- Likely to get great pressure from politicians not directly involved with DoH, military personnel in particular senior medical officers as well as Press. All staff involved in the care of the patient need to be advised / trained in refusing to give any information and to refer all such inquiries to the communications team. Useful to give all staff the appropriate phone number to direct enquiries to.
- Direct discussions between NUTH team and The Royal Free Communications Director is a clear need for advice on minimum standards and staffing levels needed as well as specifics of communications for EVD from their experience.
- The Royal Free has a large Comms team (7 staff?) already in place to manage all aspects of hospital media relations.

Appendix F – Participants

The Newcastle Upon Tyne Hospital NHS Foundation Trust		
	Name	**Email address**
1.	NR	@nuth.nhs.uk
2.	NR	@nuth.nhs.uk
3	NR	@nuth.nhs.uk
4.	NR	@nuth.nhs.uk
5.	NR	@nuth.nhs.uk
6.	NR	@nuth.nhs.uk
7.	NR	@nuth.nhs.uk
8.	NR	@nuth.nhs.uk
9.	NR	@nuth.nhs.uk
10.	NR	@nuth.nhs.uk
11.	NR	@nuth.nhs.uk
12.	NR	@nuth.net
13.	NR	@nuth.nhs.uk
14.	NR	@nuth.nhs.uk
15.	NR	@nuth.nhs.uk
16.	NR	@nuth.nhs.uk
NHS England North		
17.	NR	@nhs.uk
18.	NR	@nuth.nhs.uk
19.	NR	@nhs.net
20.	Paul Dickens	p.dickens@nhs.net
21.	NR	@nhs.net
22.	NR	@nhs.net
23.	NR	@nhs.net
24.	NR	@nhs.net
25.	NR	@nhs.net
26.	NR	@nhs.net

PHE North East		
27.	Rachel Boynes	rachel.boynes@phe.gov.uk
28.	Kirsty Foster	Kirsty.foster@phe.gov.uk
North East Ambulance Service		
29.	Marianne Ellison	Marianne.ellison@neas.nhs.uk
NORTHUMBRIA POLICE		
30.	Jamie Bell	Jamie.bell@nrthumbria.pnn.police.uk
31.	Michelle Brooks	Michelle.brooks@northumbria.pnn.police.uk
32.	Paula Shepherd	paula.shepherd.3673@northumbria.pnn.police.uk
NEWCASTLE GATESHEAD CCG		
33.	NR	@nhs.net
NEWCASTLE CITY COUNCIL		
34.	Craig Blundred	craig.blundred@newcastle.gov.uk
35.	Lyndsey Potts	lyndsey.potts@newcastle.gov.uk
HSE		
36.	Vin Poran	vin.poran@hse.gov.uk
37.	Lee Wilson	b lee.wilson@hse.gov.uk
THE ROYAL FREE HOSPITAL		
38.	NR	@nhs.net
39.	Mike Jacobs	michael.jacobs@ucl.ac.uk
40.	NR	@nhs.net
41.	NR	@nhs.net
EXERCISE STAFF		
42.	Vanessa Middlemiss	vanessa.middlemiss@phe.gov.uk

43.	Steve North	steve.north@phe.gov.uk
44.	Charles Turner	charles.turner@phe.gov.uk
45.	Lorna Wyatt	lorna.wyatt@phe.gov.uk
46.	Elena Skryabina	Elena.Skryabina@phe.gov.uk

Glossary

ACDP	Advisory Committee for Dangerous Pathogens
ATI	Air Transport Isolator
CCG	Clinical Commissioning Group
EPRR	Emergency Preparedness, Resilience and Response
ERD	Emergency Response Department
EVD	Ebola Virus Disease
HART	Hazardous Area Response Team
HLIU	High Level Isolation Unit
NEAS	North East Ambulance Service
NHS	National Health Service
NHS England CNE	National Health Service England Cumbria and North East
NUTH	Newcastle upon Tyne Hospitals NHS Foundation Trust
PHE	Public Health England
PHE NE	Public Health England North East
RAF	Royal Air Force
RVI	Royal Victoria Infirmary

References

- Department of Health: Management of Hazard Group 4 viral haemorrhagic fevers and similar human infectious diseases of high consequence (November 2015)

- The Newcastle upon Tyne Hospitals NHS Foundation Trust Viral Haemorrhagic Fever (VHF) Patient Management Policy (with focus on Ebola Virus Disease (EVD)) – Version 1.1 (07 March 2016)

- The Newcastle upon Tyne Hospitals NHS Foundation Trust Trexler Isolation Unit (TIU) Policy (Version 1.0 - 28 April 2015)

Exercise Northern Light - Planning Team:

Planning Team	Organisation
Steve North	PHE, ERD
Lorna Wyatt	PHE, ERD
Paul Dickens	NHS England North
NR	NHS England North
	NHS England North Cumbria and the North East
	NHS England Cumbria and the North East
	The Newcastle Upon Tyne Hospitals NHS FT
	The Newcastle Upon Tyne Hospitals NHS FT
	The Newcastle Upon Tyne Hospitals NHS FT
Vin Poran	Health and Safety Executive
John Newbold	Health and Safety Executive
Jacqueline McKinnon	Royal Air Force
Jon Vollam	Royal Air Force
Craig Staniforth	Royal Air force
Sara Hall	Royal Air Force
Simon Swallow	North East Ambulance Service
Mike Jacobs	The Royal Free London
Evaluator	**Organisation**
Stephen Mepham	The Royal Free London
Breda Athan	The Royal Free London
Nikki Williams	The Royal Free London
Kirsty Foster	Public Health England North East
Rachel Boynes	Public Health England North East

Many people contributed to the planning, delivery and evaluation of this exercise. The exercise planning group would like to thank them for their time and efforts, with particular thanks to the participants.

Disclaimer

The exercise scenario is entirely fictional and is intended for training and exercise purposes only. The exercise report is provided by Public Health England and is subject to

This report has been compiled from the comments made by the participants during the exercises and the observations of facilitators and note takers. The report's author has tried to assimilate this information in an impartial and unbiased manner to draw out the key themes and lessons: the report is not a verbatim account of the exercise. The report has been quality checked by the senior management within PHE's Emergency Response Department before being released to the commissioning organisation.

The lessons identified in the report are not therefore necessarily PHE's corporate position; they are evidenced on the information gathered at the exercise and interpreted in the context of ERD's experience and judgement. It is suggested that the lessons identified are reviewed by the appropriate organisations to assess if any further action is required.