Ebola: Returning Scottish Workers and lessons learned

Scottish Microbiology and Virology Network (SMVN)
Scientific Meeting
Friday 27th March 2015
Hilton Grosvenor Hotel, Edinburgh

Dr. Kitty Smith
Medical Lead,
Travel and International Health Team
Health Protection Scotland
Sunday 28th December 2014: 23.30
Heathrow Airport

- Pauline Cafferky, a 39 year old nurse arrived in Heathrow airport, after 6 weeks working in an Ebola hospital in Kerrytown, Sierra Leone
- PC had been screened on her departure from Lungi airport, Freetown, Sierra Leone and was passed as afebrile and well
- She was met and screened at Heathrow as per the protocol for returning workers to the UK
- At Heathrow she was found not to have a temperature but was not feeling well
- She was allowed to catch a flight to Glasgow, her eventual destination and home
Monday 29th December 2014: 04.00
Glasgow

• PC woke in the early hours of the morning with flu-like
  symptoms and felt feverish. She took her temperature: 38°C

• She called NHS 24 and was advised to call an ambulance

• She contacted the Brownlee and told them she was calling an
  ambulance.

• She told the ambulance that she had been in Sierra Leone and
  had direct patient contact but no breach of PPE (personal
  protective equipment)

• A SORT (Special Operations Response Team) ambulance was
  sent with a crew in full PPE (personal protective equipment)
  and she was taken to the designated infectious diseases unit
  under police escort
Monday 29th December 2014: 07.50
The Infectious Diseases Unit

- Pauline was admitted to an isolation room in the Brownlee Centre, Glasgow
- Infection control were alerted
- All medical staff wore high level PPE
- A risk assessment was carried out between the ID consultant and the Imported Fever Service (IFS) in London. She was assessed as having a high probability of Ebola infection based on her history and symptoms
- Public health activities, including contact tracing, were initiated
- A specimen of her blood was taken by Category A transport to the Scottish National Viral Haemorrhagic Fever Test Service (SNVTS) at Edinburgh Royal Infirmary
- She tested negative for malaria and had no evidence of other infectious diseases
Monday 29th December 2014

Communications cascade

- Infectious diseases consultant managing the patient
- Health Protection Team, Greater Glasgow and Clyde Health Board
- Health Protection Scotland (HPS)
- Scottish Government Health Protection Team
- First Minister and Scottish Government Resilience Room (SGoRR) members
- Public Health England (PHE)
- UK Government (Westminster)
Monday 29\textsuperscript{th} December 2104: 17.00
Patient confirmed positive for Ebola Infection

- The SNVTS confirmed that the blood specimen taken from the patient in the Brownlee Centre had tested positive for Ebola Virus Disease (EVD)

- This information was given to the infectious diseases consultant who gave the information to the patient and discussed the next steps in her care

- The information was given to HPS, the First Minister, SGoRR, HPS and the GGC Health Protection Team
Monday 29th December 2014:18.00

Government Response

• SGoRR (Scottish Government Resilience Room) meeting called
• On-call communications teams assembled for GGC, HPS and Scottish Government
• Spokesperson identified from Brownlee (clinical management) Health Protection Scotland (public health) and Scottish Government (First Minister)
• Communication plan in place
• Public communication plan in place
• Public emergency helpline (NHS 24) in place
• Press conference called for 19.00
Monday 29\textsuperscript{th} December 2014: 24.00

Contact tracing

- 75\% of contacts of patients on airplane flight informed by HPS

- NHS 25 Emergency helpline fully operational

- All UK contacts informed by 30/012/14
Tuesday 30th December 2014: 04.00 – 22.00

Patient transferred to High Level Isolation Unit, London

- SGoRR communicated with MOD to supply aircraft, Trexler and crew to transport patient to High Level Isolation Unit, Royal Free Hospital, London

- Patient taken by SORT ambulance to Glasgow airport under police escort

- Ambulance met by RAF plane and crew

- Flown to Brize Norton

- Taken by ambulance to Royal Free HLIU
Ebola nurse: Pauline Cafferkey 'happy to be alive'
The “Torridon Case”

- 58 years old
- Female
- Returned from SL to England 1 week before
- Cat 1
- Travelled to Torridon by car 24 hours before presentation
- Met with group of friends at Youth Hostel
Torridon Case

• Developed upper respiratory tract symptoms and mild fever (38.8) on 29/12/2014
• Reported to HPT
• TC convened 23.30
• Travel to regional ID unit (Grampian HB) planned for 30/12/14
• Patient self-isolated in Youth Hostel
Torridan Patient Transfer by SAS

- Patient transport by special ambulance (SORT) with appropriate PPE and police escort. Not fast. Journey normally about 3.5 hours by road.

- 0805hrs SAS eastern SORT team ready to board plane from Edinburgh to Inverness from where they will take prepared ambulance to Torridon ETA 1100 – 1200hrs

- From Torridon first crew change Inverness, second Elgin then onwards to ARI ETA mid afternoon (actual 18.00)

- Blood taken at Raigmore Hospital, Inverness, helicopter to Regional Infectious Diseases Unit, Lothian

- Edinburgh lab aware. Depending on arrival times at ARI, sample transport takes 2.5hr, test up to 6 hr, result probably before midnight today
Torridon Case: 30/12/14

- IMT called
- SGoRR meeting held
- Press conference with First Minister
- Negative result for Ebola infection
PHE Returning Workers Scheme

• Most Scottish healthcare workers, miners, engineers, aid workers, oil and gas employees and others are registered with the PHE Returning Workers Scheme

• They are assessed pre-deployment by their employer and a form sent to HPS which is forwarded to their local HPT – with planned date of return

• They are screened on exit from the Ebola-affected country, categorised and a form sent to HPS which is forwarded to their HPT
## Public health recommendations for returning workers who are asymptomatic contacts of Ebola virus disease

<table>
<thead>
<tr>
<th>Category</th>
<th>Job roles</th>
<th>Asymptomatic returnees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category 0 (in the last 21 days, no known contact with Ebola case, no laboratory contact, or travel to area of Ebola transmission)</td>
<td></td>
<td>Applies to those returning from countries NOT affected by Ebola</td>
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<tr>
<td></td>
<td></td>
<td>• reassure</td>
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<td>• information</td>
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<tr>
<td>Category 1 (no direct contact in the last 21 days)</td>
<td>May also include logistics and operational support workers</td>
<td>Applies to those returning from Ebola affected countries</td>
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<tr>
<td>UK MoD/NHS Aeromed staff undertaking a controlled patient transfer under extant SOPs OR Laboratory staff in a Level 4 laboratory assured to be operating to UK standards OR A person who has visited an Ebola affected area, but had no direct contact with an Ebola case (or body fluids)</td>
<td></td>
<td>• reassure (very low risk of exposure)</td>
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<td>• information sheet</td>
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<td></td>
<td>• normal activities (no restrictions)</td>
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<td>• any accommodation</td>
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<td></td>
<td>• if feeling ill (within 21 days of leaving Ebola affected country), take temperature and if 37.5°C or higher (temperature to be taken before taking any medicine with an antipyretic, including aspirin, paracetamol or ibuprofen), or have other symptoms suggestive of Ebola, phone 111 for other healthcare services (GP, 999 etc) and state recent return from an Ebola affected area</td>
</tr>
<tr>
<td>Category 2 (direct contact in the last 21 days – low risk of exposure)</td>
<td>This includes among others: water, sanitation and hygiene (WASH) staff (including coordinators, water engineers, hygienists and laundry staff) epidemiologists (especially in the community) health advisors (in Ebola treatment centres (ETCs) or the community) contact tracers in the community</td>
<td>Applies to those returning from Ebola affected countries</td>
</tr>
<tr>
<td>Direct (close) contact with Ebola cases or their body fluids (but DID NOT provide direct physical contact as part of clinical care), trained and wore appropriate protective equipment/clothing (PPE) with no known breaches (Note that this only includes roles for which the job description has been seen and signed off by PHE)</td>
<td></td>
<td>• reassure (low risk of exposure)</td>
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<td>• information (Category 2 factsheet)</td>
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<td>And for 21 days after returning from an Ebola affected country</td>
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<td>• self-monitor temperature x2 daily (temperature to be taken before taking any medicine with an antipyretic, including aspirin, paracetamol or ibuprofen) and report to PHE designated contact if 37.5°C or higher or feeling unwell</td>
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<td>• any accommodation</td>
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<td>• travel – no restrictions</td>
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<td>• normal activities except:</td>
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<td>- work: return to work but, if healthcare worker, no exposure prone procedures for 21 days</td>
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<td></td>
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<td>- do not share toothbrushes or razors</td>
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<td>- use barrier contraception or avoid unprotected sex for 21 days</td>
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<td>- postpone any non-essential medical or dental treatment; inform healthcare provider of travel and work if any essential treatment needed</td>
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<td>• if unwilling to comply with public health recommendations, consider actions on a case-by-case basis</td>
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| Category 3 (direct contact in the last 21 days – high risk of exposure) | This includes:  
  - healthcare workers providing patient care  
  - morgue workers  
  - burial teams  
|                                                                                       | Applies to those returning from Ebola affected countries:  
  - inform about risk (high risk of exposure)  
  - information (Category 3 factsheet)  
|                                                                                       | And for 21 days after returning from an Ebola affected country:  
  - private accommodation only, unless an alternative has been explicitly agreed between the deploying organisation and PHE  
  - self-monitor and record temperature and symptoms by phone daily (temperature to be taken before taking any medicine with an antipyretic, including aspirin, paracetamol or ibuprofen). Report to designated person by telephone daily at a time to be agreed. If there is inability to take temperature a face-to-face arrangement will be made with relevant health services  
  - if feeling ill between reporting to the designated person, take temperature, and if >37.5°C or have other symptoms suggestive of Ebola make contact with designated person by telephone immediately  
  - if any delay in making contact phone 111 reporting recent work in an Ebola affected area. If seriously ill, dial 999, again reporting recent work in an Ebola affected area  
|                                                                                       | Travel after arrival home, while no symptoms:  
  - any length of trip by private car within the UK is permitted  
  - local travel of up to two hours on local commuter/public transport is permitted, principally for work. Such trips should be as short as possible  
  - air travel during this period within the UK is not acceptable*  
|                                                                                       | If willing to comply with public health recommendations, normal activities (while no symptoms) except:  
  - if a healthcare worker, no patient contact for 21 days  
  - postpone any non-essential medical or dental treatment: inform healthcare provider of travel and work if any essential treatment needed  
  - do not share toothbrushes or razors  
  - use barrier contraception or avoid unprotected sex for 21 days  
  - avoid situations where they may be unable to extricate themselves quickly if they become ill, in particular crowded public places such as sports grounds  
  - if unwilling to comply with public health recommendations, consider actions on a case-by-case basis  
|                                                                                       |  
|                                                                                       | * Clinical staff who are essential to the Ebola response and who are on a short break in the UK before returning to West Africa will be cleared to return to West Africa, provided they undergo appropriate exit screening before departure (a ‘clear to return to West Africa’ certificate)
Returning Scottish Workers

- 81 registered workers have returned to Scotland - excludes MOD category 1 workers as not monitored by HPTs
  - Cat 1: 48
  - Cat 2: 6
  - Cat 3: 19
  - Cat 4: 2 (one of whom was previously recorded as a 3)
  - No category recorded on sheet: 6

- All have been monitored by their local HPT
- 12 have been tested for Ebola of whom majority are HCWs
- One has been diagnosed with Ebola virus disease (EVD)
Lesson Learned - Did we..

- Protect the health of the patient and possible cases?
- Protect the health of staff involved in caring for the patient?
- Protect the health of the population by preventing onward transmission?
- Avoid unnecessary anxiety and concern by the public?
Debriefs

• Formal debrief and lessons learned took place after the positive case, and included three other possible cases investigated between 29/12/14 and 6/1/2015

• Involved Scottish Government, Health Protection Scotland, relevant Health Boards, Scottish Ambulance Service, NHS24, Scottish National Viral Haemorrhagic Fever Test Service (SNVTS)

• Three additional formal debriefs:
  - Scottish Government
  - Health Boards
  - National Partners (NHS England, Cabinet office)

• Health Protection Scotland debrief
“the Scottish response to the first confirmed EVD case in the UK was generally viewed as very successful”
Formal Debrief

• Clarification of scope of PAG (Problem Assessment Group)
• Who leads when more than one Health Board involved?
• Who decides on Category of specimen transport?
• Meetings
• Contact tracing – need for passenger manifests in timely manner
Patient Journey

- Screening on entry
- Scottish Ambulance Service transfer
- Specimen for Ebola testing to lab
- Lab response
- Communicating the result
- Transfer to Royal Free
- Patient confidentiality
Transport

• Specimen transport can introduce delays
• Specimen transport category (A/B) to be decided by IFS
• Consider use of SAS to transport specimens
• Consider taking blood before transfer or en route
Protecting Staff

• Infection control
• Isolation
• Staff contacts
• Environmental
• PPE – appropriate, available, accessible
• PPE - training
Protecting the Public – Reducing Transmission Risk

- Immediate actions: isolation of patient, contact with infectious diseases consultant, risk assessment, discussion with Imported Fever Service
- Clarification of scope of PAG (Problem Assessment Group)
- Who leads when more than one Health Board involved?
- Contact tracing
- Public communications
Contact Tracing

- Review, report and updated SOP
- Clarification of risk and risk assessment
- Contact with airlines
- Accessing the passenger manifest
- Communicating messages to possible contacts
- Public helpline
- Use and availability of monitoring kits
Communications

• PAGs should include comms representatives

• Consider forming a Public Communications Group under Resilience Partnership arrangements

• Include NHS 24 early – dedicated helpline available

• Cabinet Office to set up national helpline for England, Wales and N. Ireland

• Ensure that internal and external communication cascades are functional and appropriate

• Ensure that need for communications / meetings does not interfere with patient care /infection control / public health actions
Changes made / in progress

- Review of border screening
- Review of PHE returning workers scheme (antipyretics, remote areas)
- Clarification of patient pathway – SG “Mini guide”
- Clarification of role of IFS in risk assessment
- Expansion of UK isolation facilities – Newcastle
- Offer of training in PPE for staff
Changes made / in progress

• Clarification on PAG
• Updated aircraft contact tracing SOP in HPS
• International discussion on airline passenger manifests
• Review of HPS VHF guidance
• Survey on HB preparedness