Threats in flying?

Step 1

Summer 2014 is come to a close when Lester walks into Martha's office. Martha is Lester's family doctor but also a friend. The patient contact her in the morning, apparently very anxious to arrange an appointment as soon as possible.
"Hi Lester, how are you doing?" asks Martha
"Well, I must say that I'm a bit concerned," replies Lester.
"I guessed as much. You sounded quite worried on the phone. What's the matter?"
Lester nervously plays with one of Dr Martha's pens and then says: "Here is what happened: last week I was in Paris for work and I flew back yesterday. On the plane, I was sitting close to a man". Lester pauses, looking a bit awkward. "The point is that we chatted , so I discovered that the day before he had arrived in Paris from Tunisia . Before that, he had been to Nigeria to see some relatives. During the flight, he sneezed a few times and ever since then I have been thinking that maybe he was suffering from Ebola. What if I caught the virus too? Nigeria is one of the affected countries, isn't it?"

Q1 – Why is Lester worried about Ebola?

1. Because he was sitting close to a man who sneezed.
2. Because he was sitting close to a man who came from a country where an outbreak was ongoing.
3. Because he is a racist.
4. Because he is hypochondriac.

Source: Dossier– Ebola virus disease.
1.1. Epidemiology
The outbreak started in Guinea in December 2013 but was only detected in March 2014. Since then, it spread in Liberia and Sierra Leone. In July an infected traveller brought the disease in Nigeria and, by the end of August, a single case was reported in Senegal (a 21-year-old male who recently arrived from Guinea). On October 20th WHO declared Nigeria free of EVD, since no virus transmission had been recorded for 42 days, due to the prompt containment of the disease. No local transmission of EVD was reported in Senegal, therefore the country is currently not among the list of affected countries as far as November 5th.
4.4. At risk group
In popular perception, infectious disease epidemics have often been linked to groups of individuals of a particular origin,…

Step 2

Now that he has explained his problem, Lester looks even more worried than before. The doctor has kept herself up-to-date on the Ebola outbreak in West Africa and she already has a good idea about Lester's actual risk. However, she decides to ask him a few more questions.
"Lester, can you give me more details about this man, just to understand if there is a risk of infection. For instance, did he say anything about those sneezes and his health in general? Did he complain about any other symptoms?"

Q2 – Is Martha facing Lester's concerns in a proper way?

1. Yes, because she is listening to her patient, allowing him to express his concerns and actively involving him in the conversation.

2. Yes, because she is asking for more details, really worried about a possible infection.
3. No, because she should have immediately given him some medication.
4. No, because she should have told him that it was very unlikely that he could have been infected.

Source: Dossier– Ebola virus disease.

3.2 The Approach

The communication flow should not be one-directional: as suggested by TELL ME project framework model for public health communication, members of the community are not a passive receivers and the public sphere is in our focus. It is important for health professionals to listen, since people may express concerns and beliefs that need to be considered.

Risk communication has to be tuned on the perception of the risk itself. According to Peter Sandman, perception of risk by people does not depend only on the actual hazard, but also, and even more, on the outrage linked to it. This depends on the danger being domestic or exotic, coerced or voluntary, chronic or acute, and so on. The studies on factors influencing risk perception highlight that this is basically related to emotional factors to such an extent that a series of components corresponding to the "perceived offence" (outrage), more than the real hazard that is the cause of the hazard itself, contribute to determine the perceived risk. Healthcare professional, as well as institutions, must receive and "actively listen" to people's worries (especially those of the weakest categories such as, for example, children and pregnant women or socio-economic disadvantaged people) and be aware of offence "determinants" characterizing the perceived risk, so as to have greater opportunities to understand the origin of perception and be able to deal with it.

Step 3

Lester retraces the steps of the flight and of the conversation he had with the other passenger.
"Well, I asked him if he was sick and he said it was just a cold, with no fever. He said it had been the air conditioning, back in Paris. I don't know, it may or may not have been true. Maybe he was trying to conceal his health condition. I know this may happen, if one is afraid of being stigmatized".

Q3 – Which stigmatization issue is Lester referring to?

1. The connection between the geographic origin of the disease and the skin colour of the passenger.
2. The socio-economic status of the African countries hit by the outbreak.
3. The distrust towards foreigners and migrants.
4. The fact that some stigmatized groups are less likely to seek healthcare when needed.

Source: Dossier– Ebola virus disease.

4.1 Negative effects of Stigmatisation

Stigmatisation can create and exacerbate healthcare inequalities. This is because stigmatised individuals can often act differently in seeking healthcare than others. Such behaviour often results from the negative self - judgment that these individuals have made as a result of their stigmatisation and could lead them not to seek help.2 For instance, an individual with a particular diagnosis – typically of an infectious disease – could be scared by the expected social reaction that is likely to result from his/her condition and could thus feel the need to hide such condition from not only the public but also health care professionals.

4.2 Stigmatisation during epidemics or pandemics

In the context of epidemics, groups that are prone to stigmatisation include people that have a perceived connection with the geographic and/or animal origin of the outbreak, healthcare professionals, those who are part of pre-stigmatised groups and those individuals who actually

become infected themselves. It is important to note that stigmatisation can occur even where there is no actual discrimination occurring.

Step 4

"You are right. Someone could lie about their health" acknowledges Dr Martha. "Did he sneeze on you?"
"No, no, he sneezed in his handkerchief or on the other side . He sat close to the window".
"And did he look very ill? Did he seem feverish? Did he use the toilet often during the travel?".
"Mmh, no, I would say none of these…".
"You know, Ebola is not such a light disease. In its early phases it can be confused with malaria or flu, but not really with a common cold…It's hard to believe he had the disease just for some sneezes. Moreover, Nigeria is a very large country and there were only few cases there… I think you can relax, it is highly unlikely you caught Ebola."

Q4 – Why is Martha quite sure that Lester was not infected by Ebola?

1. Because Ebola cannot be transmitted from human to human.
2. Because the man said he had no fever.
3. Because it is very unlikely the other passenger had Ebola.
4. Because, if Lester was infected, now he should have shown some symptoms.

Source: Dossier– Ebola virus disease.

1.3 Clinical information

Ebola is one of the world's most virulent and lethal diseases. It provokes haemorrhagic fever and may lead to liver and kidney failures, with internal and external bleeding. Death may occur in 7-16 (with an average of 8-9) days after the appearance of the first symptoms and is caused by multiple organ dysfunction syndrome. Mortality rate ranges between 25 and 90 percent, according to virus characteristics, patient's comorbidities, individual immune response, timing and intensity of medical support.

EVD main symptoms are:

- fever
- severe headache
- muscle pain
- diarrhoea
- vomiting
- abdominal (stomach) pain
- unexplained bleeding and/or bruising.

[…]

The evolution of the disease usually goes through 3 phases:

I. onset is in most cases similar to a **flu-like illness**, with sudden fever, malaise, muscle and joint pains and headache, followed by progressive weakness, anorexia , diarrhoea (sometimes containing blood and mucus), nausea and vomiting. This prodromal phase can last up to 10 days
II. […]

Step 5

"Are you sure?" cried out Lester. "What if I accidentally touched something he had sneezed on? It could have happened".
"In fact, if this was a confirmed or probable case you should self-monitor for 21 days, but I quite sure he wasn't suffering for the disease. Did he tell you how long he had spent in Tunisia after having arrived from Nigeria?"
"Well, let me think" says Lester, frowning while trying to remember. "He said he had spent three weeks in Tunisia".
"Very well. We can be sure, then, that you haven't taken Ebola from him. At most, he passed you a cold".

Q5 – What do you think about Martha answer?

1. It is an attempt to reassure Lester, even if the time the black man has spent in Tunisia has nothing to do with Ebola.
2. Martha knows that there is no evidence of an Ebola outbreak in Tunisia.
3. Ebola human-to-human transmission may only occur in the symptomatic phase, which should be evident by 21 days since contagion.
4. Martha run out of arguments and said something wrong.

Source: Dossier– Ebola virus disease.

1.2 Transmission

Those afflicted with Ebola are contagious only during the symptomatic phase of the disease, the risk for transmission being considered low in the early phase of human disease (prodromal phase).

1.3 Clinical information

The incubation period ranges from 2 to 21 days, with an average of 8-10 days before the onset of the symptoms.