Public Health investigation seeks people who may have been exposed to extensively drug resistant tuberculosis (XDR TB) infected person

COMPLETE TEXT OF CDC BRIEFING

DR. JULIE DR. GERBERDING, DIRECTOR, CDC: Good afternoon, and thank you for joining us for this press conference. I'm here today to describe a situation that has involved many public health officials from around the world who acted together to protect people’s health in a circumstance where an individual with drug resistant tuberculosis may have served as a source of exposure.

The facts of the case are very straightforward. On May 13 a patient arrived in Paris and had departed on Air France flight 385 from Atlanta. The patient returned to the United States on Czech Air flight 0104 and then entered the United States by car.

During these two long flights, the patient may have been a source of infection to the passengers. The passengers most likely to be at risk would be the passengers who were seated in seats immediately close to the patient.

And consistent with the World Health Organization guidelines, CDC is recommending that those passengers be notified by their health officials in their responsible country or state, and that such persons then have a test for tuberculosis to determine whether or not they were in fact exposed.

We also recognize that other passengers on these two long air trips might be worried about the possibility of exposure, and so we will also be requesting that they be notified, but we don’t think, from past scientific investigation, that their risk is high. We want to offer them the opportunity to be evaluated and tested also.

What is unusual about this circumstance is that this patient's tuberculosis organism was extremely resistant to the TB drugs that we would normally use to treat infection. We know that there's an emerging problem on a global basis and from time to time it does occur.

Normally, when someone has tuberculosis, we influence them through a covenant of
trust so that they don't put themselves in situations where they could potentially expose others. In this case, the patient had compelling personal reasons for traveling and made the decision to go ahead and meet those personal responsibilities.

We recognized, after the patient had left the jurisdiction, that the tuberculosis organism was extremely drug resistant and we felt that it was important at that point in time to take our responsibility to protect the public to the ultimate limit and issue a federal order of isolation under the Public Health Service Act that gives us statutory responsibility for issuing quarantine orders.

What this means is that this patient was ordered to be in isolation and is required to stay in isolation until the responsible public health official deems that he is no longer infectious to others.

The patient currently is in a situation where he is isolated. He is undergoing medical evaluation and we anticipate that we will be able to provide the best technical expertise in designing a treatment regimen that would be best suited for his organism.

We are well aware of the fact that taking a measure such as issuing an order of isolation is unusual. In fact, people at CDC don't recall us doing this since 1963. So we always want to balance personal liberties with the requirement to protect people's health.

But in this situation, a precocious organism is so potentially serious and could cause such serious harm to people, especially those that have other medical conditions that would reduce their immunity, we felt that it was our responsibility to err on the side of abundant caution and issue the isolation order to assure that we were doing everything possible to protect people's health in avoiding any additional potential for exposure.

I want to emphasize for the passengers on these two flights again that was Air France flight 385 that left Atlanta on May 12th and Czech Air flight 0104 that departed from Prague on May 24th.

That we have no suspicion that this patient was highly infectious, in fact medical evidence would suggest that his potential for transmission would be on the low side, but we know it isn't viral.

And so we are considering not only his own ability to transmit, but also the seriousness of this organism and the chance that some passenger on this plane could be one that was at a special risk for serious tuberculosis on the basis on their own personal medical history.

So we are encouraging these passengers to cooperate with the advice from their health authorities for testing and whatever medical follow up is indicated. It's also important to recognize that we're early in the process of investigating these situations.
We have great cooperation from the affected airlines and certainly from the health ministers around the world who will be reaching out to their citizens to assist in the assessment and the evaluation, but this is going to take some time.

We can't manage these things any faster than the information becomes available, is checked and then we reach to travelers that sometimes are difficult to track down to give them the best possible medical advice.

We also want to reassure people who weren't on these flights that their risk of exposure on a random air flight is extremely low and we're not concerned about a generic threat to travelers. We're focusing in on these two airlines because they were long trips, because our science indicates that if there is a risk these are the kinds of trips that could pose a risk of transmission.

And again because this is an unusual TB organism, one that's very, very difficult to treat and we want to make sure that we have done everything we possibly can to identify people who could be at risk. So we're balancing both the need to protect individual's freedoms as well as the right the responsibility to protect the public.

And at the same time we're balancing information that people would want to know about their own health hazards with the reassurance that generally speaking that this is not going to pose a serious risk to vast majority of people who were flying that day.

So let me stop there and address any questions that you might have and I'll start with a question in the room.

UNIDENTIFIED FEMALE: Hi Dr. Gerberding. Thanks, I have a couple questions. Number one, did this passenger know he had TB before he got on these flights? And also how can you enforce that people get tested, especially if he was being exposed to other people after the fact. It seems that you indicated that he went back to his family. So who all has to be tested and can you enforce it? And can these other countries enforce it as well?

DR. GERBERDING: Our understanding from the county health officials who were responsible for managing the patient when he initially presented with tuberculosis that he was aware of his diagnosis but at the time that he departed he may not have been aware of the fact that he had extensively drug resistant tuberculosis.

In terms of compelling testing of people who may have been exposed, I don't think we would compel people to be tested because this is a part of a personal decision about their own health risk assessment.

But we would strongly recommend that those people seated next to the passenger, two rows behind him and two rows in front of him be followed for a baseline skin test to make sure they weren't infected in the past and then re-tested in several weeks to make sure that they don't have signs of an incubating TB infection.

One thing important to understand about tuberculosis is that it takes a long time for the disease to evolve. So there is time for people to get these tests done before
they would pose hazards to others, and so we're not concerned about the passengers posing a risk to other people at this point in time.

We're just concerned for their own sake that they be assessed and either reassured or asked to participate in the longer follow up.

UNIDENTIFIED FEMALE: And how many cases of this particular, resistant TP are in the United States?

DR. GERBERDING: I'd like Dr. Castro who is - or Admiral Castro who is our Tuberculosis Chief here at CDC to address this question. And while he is coming to the podium, I would just mention that DRTB is a problem that happens anytime we treat tuberculosis and we do have evidence, in parts of the world, that it is an emerging health threat, and Ken, maybe you can give some domestic and international perspective on that.

ADMIRAL KEN CASTRO, TUBERCULOSIS CHIEF, CENTER FOR DISEASE CONTROL

Thank you. Again, my name is Ken Castro. In the United States we've looked back at reports received by CDC since 1993. We have information on the drug resistance patterns of persons. From 1993 through 2006, there were 49 persons who met the definition for extensively drug resistant tuberculosis.

We know that in other parts of the world, wherever we've looked for it, we have found it. In collaboration with the World Health Organization, and the network of the super national reference laboratories that exist throughout Europe, South Africa, United States, Canada and South America.

What they did was between 2004 and 2005, upon defining this new entity, we think it may have existed before it's (INAUDIBLE), which commonly happens. When they looked they found it in every single continent of the world.

DR. GERBERDING: We'll take a telephone question please.

OPERATOR: Thank you Dr. Gerberding. As a reminder, if you would like to ask a question, please press star followed by one. Helen Branswell from the Canadian Press, your line is now open.

HELLEN BRANSWELL, CANADIAN PRESS: Thank you very much. Dr. Gerberding, thanks for doing this. I believe you said check air flight 0104, that flight travels into Montreal, I believe. Can you tell us something about this individual's exposure in Canada?

DR. GERBERDING: I can't comment on the situation in Canada. I would refer you to the Canadian health officials for those details. But I do want to follow up on one particular element of the risk. It's been reported, and discussed that the patient is something called smear negative, which is a jargon term used to describe the amount of bacteria in the sputum of a person with tuberculosis.

When we take a sample of the patient's respiratory secretions and look at it under the microscope, if we don't see under the microscope the bacteria, we refer to that
as a smear negative sample. And generally, that's correlated with a low risk of transmission to others, but certainly not a zero risk.

In fact, the science that we've been able to review in the case, about 17 percent of tuberculosis cases are caused by exposure to people who are smear negative on the microscope examination. That's because they still have the bacteria there, it's just not in high concentration, but if you culture their sputum, which we did in this case, you would be able to find the bacteria. Let me take another telephone question.

OPERATOR: Thank you. Mike Stobbe with the Associated Press, your line is now open.

MIKE STOBBE, ASSOCIATED PRESS: Hi, Dr. Thanks for doing this. Where do you think he got the XDR-TB, and why did he go to your, what was the personal reason? And also, can you tell us what row numbers he was in? You said, people who were immediately around him should get tested.

DR. GERBERDING: The source of the patient's tuberculosis is still under investigation. CDC is conducting something called an Epi Aid, which means our epidemic intelligence service officer's are actively participating and investigating not only opportunities for exposure to passengers, crew, family members or others, but also looking backward to try to determine where the original infection occurred that is an ongoing investigation.

And we don't have enough information today to answer your question, but we will be thorough and we will certainly provide that perspective when we have it. We do know that the organism from the patient does not match any of those that we have in our fingerprint pack at this time, but that is not unusual because we are just in the beginning of developing an international collection of XDR-TB strains.

So we will learn more about that as we go forward. In terms of the seat numbers, I am going to defer that information to the notification process that is in play, because we want to make sure that we have this accurate before we go out with erroneous information.

We are still working with the airlines from the involved countries and that will be provided, the entire passenger seating arrangement will be provided to the relevant health administers along with the information we have around the passengers over the next several days. So that information will be forth coming but I am not going to make a wrong statement today and I am double checking that information first.

In terms of the reasons for the patient's travel, I really am not going to comment on the personal reasons, other than to say that they were compelling from his perspective, and we understand and certainly respect that. Let me take another telephone question please.

Operator: Thank you. David Bunn with the Washington Post your line is now open.

DAVID BUNN, WASHINGTON POST: Thank you. Dr. Gerberding can you give us some idea how many people we are talking about? Were these planes full? How
many of these people have been reached already? How many have been tested?

And also you said he entered the country by car. Presumably that was from Canada and over what border and was it a private car? Were there people exposed in the car?

DR. GERBERDING: The airlines involved in the investigation are large transcontinental airlines and they are generally full of passengers. I cannot tell you specifically how many passengers at this point in time, but we will eventually have those details.

Where we are in the process right now, is in the very earliest phases. We don't get this information with the push of a button. It represents many hours of work on the part of the people at the airline as well as the notifications to the various health ministries and you can imagine on an airplane there are people from many countries.

So that means getting information to many health officials and the follow up, particularly over a weekend that was a holiday here in the United States and in other parts of Europe. So we are working as fast as we can to reach out to patients but at the present time the notification process is in its very early stages.

I am not aware of exactly what route the patient took to return to the United States, but he was put into isolation fairly soon after his arrival and was flown to Georgia, his state of residence on the CDC aircraft, a step that we were not obligated to take under our quarantine authorities, but one that we felt was fair and appropriate given that he is a citizen of Georgia. His family members are here and his disease does require prolonged treatment.

We did not feel that is was safe for him to fly on commercial aircraft, so we took the unusual step of using government resources to bring him back to Georgia in the safest way that we could as quickly as we possibly could arrange it. Let me take another question from the phone please.

Operator: Thank you. Anita Manning with USA Today, your line is now open.

ANITA MANNING, USA TODAY: So can you give us any details about the patient, his age? You have mentioned his home state, and you have also said you cannot tell us why he was traveling. He is in Georgia in a hospital. Is that correct? And if he was asymptomatic, how did the CDC become aware of him?

DR. GERBERDING: The chain of information as I understand it today is one that again is still being filled in as the investigation evolves, but the patient was diagnosed with infiltrate on his chest x-ray that was suggestive of tuberculosis and the appropriate tests were done first in one hospital and then in the second location to obtain samples of his respiratory secretions for testing.

Those tests subsequently showed growth of tuberculosis organisms. This is a slow-growing bacteria so it takes many weeks sometimes for the sample to become positive and then for the results of the drug susceptibility testing to be known.
When there's evidence of drug resistant tuberculosis, very often the sample is brought to CDC because we do have special tests available here. And so over the last several weeks in conjunction with the local health authorities and the state health laboratory, the story of the extent of resistance gradually unfolded.

It did not become known to CDC until after the patient had left the United States that his bacteria were resistant not only to the first line drugs and the second line drugs which categorizes in the extremely drug resistant category.

Is there another telephone question?

OPERATOR: Thank you. Nancy Cortis with CBS News, your line is now open.

NANCY CORTIS, CBS NEWS: Yes, could you tell us if he is a U.S. citizen and also, I know you're still investigating where he contracted the TB in the first place, but had he been out of the country and can you tell us at least whether it appears that he had been out of the country around the time when he would've been susceptible, or whether he's been in the United States and it looks like he contracted it here?

DR. GERBERDING: One of the complications about determining when someone acquired tuberculosis is that it can have a very long period of time when it remains in your body silently. So it's possible that any time a person comes in contact with TB they may have absolutely no symptoms and be completely unaware that they were exposed.

And then later in life the disease becomes activated. Symptoms develop and it gets diagnosed. So we have a lot of work to do to trace back to identify likely sources of TB exposure in environments where we know or suspect that drug resistant tuberculosis would be more common.

That investigation is still ongoing and obviously part of the interview that the academic intelligence officers conducted with the patient.

So we know that's a very important piece of information. It's important to the patient and making decisions about the best way to provide him the optimal medical treatment. But it's also important to recognize in case there are other people that could've been exposed in a similar environment.

And when that information is available I'm sure the local health authorities will do the appropriate trace back and involved CDC when we can be helpful in that effort. Is there another telephone question please?

OPERATOR: Thank you. Mike Huckman with CNBC, your line is now open. Mr. Huckman please check your mute feature. Sir your line is open. We'll go on to the next question, Allison Young with the Atlanta Journal Constitution, your line is now open.

ALLISON YOUNG, ATLANTA JOURNAL CONSTITUTION: Hi Dr. Gerberding. Were health officials, the CDC, the county health department aware that this man was leaving the country? And if so, why weren't these kinds of actions taken prior to his
departure?

And then my second question is I understand that this man is scheduled to undergo surgery and other treatment at National Jewish Medical Center in Denver. Will the CDC quarantine order allow him to travel there for treatment?

DR. GERBERDING: The local health officials have been involved in the care of this patient with tuberculosis from the moment that they were aware of the diagnosis and he was being seen in the clinic.

It's our understanding, from conversations with the health officials, that the issue of travel was discussed, that the patient was advised that it was not appropriate to travel when you have tuberculosis. I think most of us recognize the kind of a common sense way people would understand that.

This is a situation that comes up often where we have people with tuberculosis or other communicable diseases and we do not issue isolation orders under our quarantine statute, because we recognize that we have a high success record using voluntary means of information and advice.

In this case, the patient felt that his personal agenda was highly relevant to him, and he made the decision to travel. CDC was not aware of that. If we had been aware that travel was imminent, we may have been able to act, if requested by the local health officials, but under the circumstances, I think we were surprised that the patient had left the country.

With respect to whatever decisions the patient in his position may make about the need for additional therapy, that's really a privacy issue between him and his clinician. If it was deemed necessary to move the patient for medical treatment or desirable, we have means of orchestrating that, either under the federal isolation order or through a voluntary memorandum of understanding.

So there should be no barriers to the patient receiving the appropriate medical treatment; however, we would not recommend that the patient fly on commercial aircraft, or be transported in any other way that could affect the public's health.

Again, our job here is to balance the need to protect people from exposure to this very, very serious organism with the recognition that, as an individual, the patient needs and wants and should have the very best medical treatment, and as soon as it can be expeditiously arranged. Now I'll take another telephone question, please.

OPERATOR: Thank you. Terry Murray with the Medical Post, your line is now open.

TERRY MURRAY, MEDICAL POST: Okay, thank you. Excuse me, I have two questions. One is at this point how many countries are involved? How many nationals were involved, and presumably that includes Canada? And secondly, what was the isolation order that was issued in 1963?

DR. GERBERDING: The number of countries affected by this is large, but the total is not known at this point in time because we do have to review all of the passengers
and learn what their country of origin is before we are confident that all of the people on these planes have been notified. That's what makes this time consuming and complicated to initiate.

So as we go forward we'll have a better idea of whether that's a very long list or hopefully a shorter list. But I can say right now is the countries that we have been in consultation with have been amazingly collaborative and the Canadian health officials have certainly been wonderfully collaborative as always, and we're very pleased with the transborder cooperation that we've had.

I think your second question related to the last time an isolation order was used, and we're checking to see if this has happened any time since 1963, but to the memory of the people who are working here at the present time, we can't recall using our federal authorities since that point in time.

But in 1963 the statute was used for quarantine, not isolation, for quarantine of someone who had been exposed to smallpox, and in some sense the situation was very similar, where the exposure itself may have been a low transmission hazard but not zero. But the organism was so tragically important for people who could get infected that the decision was made to error on the side of caution.

And implement a federal quarantine requirement for the person until they were outside of their period of incubation.

I'll take another telephone question please.

OPERATOR: Thank you, our next question comes from Anna Merris (ph) with Nature, your line is now open.

ANNA MERRIS (ph), NATURE: Hi, thanks so much. Two quick questions, one is that I've heard that XDR TB usually only shows up in HIV positive populations. Does this fact have any bearing on whether or not there might be continuing threat of infection rippling out from this one patient, and the other one is what is the prognosis of the man?

DR. GERBERDING: Let me very clear, anybody who comes in contact with XDR TB could become infected with this organism. There is nothing in our science that suggests that it's any more or less infectious than regular tuberculosis.

So the fact that in some parts of the world people with HIV infection are showing up with XDR TB has to do with the disease condition and the immunosuppression. In general, the prognosis for XDR TB depends on treatment and in this country people do have access to the best possible treatment.

Certainly all tests will be done to determine what options for drug treatment there
may be. Surgery may be an option. There are other means in the United States. We're fortunate enough to have access to those kinds of state of the art treatments. Unfortunately that's not true in many other parts of the world.

So many of the people who have XDR TB do not survive their infection. And that's again part of the reason why were taking this situation so seriously and why we took this unusual step of issuing a federal isolation order in an effort to curtail any additional possibility of exposure to passengers or others that were potentially in harms way. Let me take another question from the telephone please.

OPERATOR: Thank you, John Lauerman with Bloomberg News, your line is now open.

JOHN LAUERMAN, BLOOMBERG NEWS: Hi, could you just go over the flight information again and then I have another question.

DR. GERBERDING: Just very quickly the patient departed Atlanta on May 12th and arrived in Paris on May 13th on Air France flight 385. The patient departed from Prague in Czech Republic on flight 0104 and arrived in Montreal and then entered the United States via automobile on May 24th.

LAUERMAN: So when did the patient arrive in Montreal? May 24th or?

DR. GERBERDING: On May 24th.

LAUERMAN: On May 24th, OK. I think that's all thanks very much.

DR. GERBERDING: Thank you. All right, I'll take two more questions from the phone please.

OPERATOR: Thank you, our next question comes from Brenda Wilson with National Public Radio.

BRENDA WILSON, NATIONAL PUBLIC RADIO: Thank you and I apologize if I am repeating a question you already have answered but I just want to be sure. I think Mr. Castro said 49 cases in the United States so far and is this at all, I mean, has the situation of the man in Arizona, but this isolation order it's not similar to that if I understand correctly. Thank you.

DR. CASTRO: Thank you, Brenda. This is Ken Castro. There are two components to your question. I will answer the first one. Yes, in the United States, we have documented 49 persons reported with extensively drug resistant TB from 1993 through the year 2006. They represent the, relatively, small portion of persons.

I'll also take this opportunity to say something about I didn't touch upon, and that is that globally we still rely, primarily, on the diagnosis of TB by sputum microscopy. That is looking at the respiratory secretions under the microscope, and the capacity of laboratory to do drug resistance testing, is not all there.
And one of the aspects of the global response to XDR-TB, is making sure that we build that capacity where better ploys to identify where it is occurring, and address it accordingly. I would invite you to visit the WHO, or World Health Organization Web page, so you can see the planned approach to the response to XDR-TB.

We, in the United State, have provided leadership, and are full fledged partners in that effort. You later asked about the quarantine order, and aft of it was similar to a case we've been reading about in the media occurring in Phoenix Arizona. I'm going to defer to Dr. Cetron, who's the Chief or Director of the Division of Global Migration and Quarantine here at CDC.

DR. MARTIN CETRON, DIRECTOR OF DIVISION OF GLOBAL MIGRATION AND QUARANTINE AT CDC: Thank you Dr. Castro. The patient in Arizona is under an isolation order per the state and local authorities, and it does not involve use of any federal authority.

And the vast majority of situations, in which, the covenant of trust that Dr. Gerberding referred to, is not sufficient to ensure public health and public protection. State and local authorities around the country and around the world are using their legal authority to issue isolation orders.

And this is not an uncommon event in the management of tuberculosis, regardless of the drugs acceptability pattern. The reason in this instance that a federal order came into play, is the federal statutes govern the international importation and interstate spread, in particular.

And those specific aspects provide federal jurisdiction for management of this situation, in the event that this covenant of trust isn't sufficient to protect public health.

DR. GERBERDING: I'll take a question from Miriam.

MS. MIRIAM (ph): Any idea - can you cure this man of this XDR-TB? I mean, you say there's treatment available, but he's in the hospital now, mainly because he's being quarantined, right? Or would he be hospitalized without it? And how would you treat him? What's the success rate?

GERBERDING: I can't comment on the particulars of this patients medical condition. There are people who, certainly, have been successfully treated for extensively drug resistant tuberculosis, and survived and are considered to be disease free, and we certainly hope that, that will be the outcome in this case.

The specifics of the drug treatment can also depend on more information about the specifics of the resistance, per se. We use this term generically to describe highly drug resistant organisms, but there's some variability, in terms of, what options are available. And we will be helping in anyway we can to test for the things, normally, would be used to facilitate testing of anything else that might be a potential value to the patient.

So if it requires technical expertise, that kind of expertise is available in Atlanta, it's
available in several other medical centers around the country. But, you know, given that we've only identified 49 patients with XDRTB in the US, most of our experience is based on an international perspective. Let me take on the last question from the San Francisco Chronicle. Saban (ph) please go ahead.

MR. SABAN (ph), SAN FRANCISCO CHRONICLE: Yes, thank you. I was wondering again if you could information at least to the person's age. And secondly could somebody describe the circumstances under which he was apprehended so to speak. I understand in New York City.

DR. GERBERDING: I'm going to ask Dr. Cetron to describe how the federal isolation order was executed.

DR. CETRON: Thank you. The person wasn't apprehended actually, we made contact with this person after being aware that he had entered the country. And I spoke to him personally and requested his compliance to go to the isolation facility, the isolation hospital in New York City to be evaluated.

He voluntarily drove himself there. He was given instructions on how to do that safely without putting public health at risk. He was admitted and served a provisional quarantine order that held for 72 hours while this assessment was going on. And then the individual was asked if he preferred to remain in New York City for his treatment if he wished to come home to Atlanta.

He preferred to come home. And we assured the safe transport for that return to Atlanta. And that occurred on Monday via the CDC plane. And he was issued a federal isolation order on arrival in Atlanta in order to cover the period of time for us to hand over the jurisdiction and public health management of this case to the state and local authorities in Fulton County in the State of Georgia where he is a resident.

So that's, and that process or that hand off is ongoing right now. Until it's either rescinded and the responsibility is transferred over to the local jurisdiction or until determined by the Director that he is no longer a public health threat. Or until the re-negotiation of that covenant of public trust can be established in order to assure voluntary compliance. So those are the criteria in that respect.

DR. GERBERDING: I want to emphasize that from our perspective, no laws were broken here. This is very complicated situation and many people were engaging in the process of trying to identify a good outcome that respected all of the priorities involved.

We don't take this lightly and we certainly hope that we'll be in a situation as soon as possible where the patient can manage the infection in the way that further his good health without the involvement of federal authorities. We prefer not to be involved when things are handled effectively at the State level. And don't pose a risk of in State or international travel.

Our system works very well and I really want to end by thanking the public health officials from around the world who came together and the network of protection basically to really work through the complexities here and take steps necessary to
protect the public's health.

It was not an easy task and I think our lack of having to do this since 1963 reminds us as we move into the era of emerging infectious diseases we've got to make sure that this network works every time for everyone anywhere. And we will be doing everything we can to strengthen that network further as we go forward.

So thanks to everyone who contributed their expertise, their time and mostly their concern for this particular patient and his family. Thank you.

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