2011 Japan Earthquake and Tsunami: Interim Guidance for Clinicians Caring for Travelers

Moderator: Loretta Jackson Brown

Presenters: CAPT Jeff Nemhauser, MD, MPH

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Coordinator: Welcome and thank you for standing by. At this time all participants are on a listen-only mode until the question-and-answer session of today's conference. At that time you may press star 1 if you'd like to ask a question.

Today's conference is being recorded. If you have any objections, you may disconnect at this time. I would now like to turn the call over to your speaker, Ms. Loretta Jackson-Brown. Ma'am, you may begin.

Loretta Jackson-Brown: Thank you, (Ja'dan). Good afternoon to our West Coast COCA audience. Good evening to our East Coast COCA audience and everyone in-between, good day.

I'm Loretta Jackson-Brown and I'm representing the Clinician Outreach and Communication Activity - COCA - with the emergency communications system at the Centers for Disease Control and Prevention.

I'm delighted to welcome you to today's COCA conference call, 2011 Japan earthquake and tsunami, interim guidance for clinicians caring for travelers. We are pleased to have Dr. Jeff Nemhauser from the

Centers for Disease Control and Prevention with us today to discuss CDC's interim guidance for clinicians evaluating travelers returning from tsunami-affected Japan.

Dr. Nemhauser is a Captain with the U.S. Public Health Service and serves as the medical officer for the radiation studies branch at CDC. He has primary oversight for developing CDC's medical care guidelines for use in the aftermath of radiological or nuclear events. Dr. Nemhauser has authored many educational materials for public health officials, healthcare providers and the public on identification, prevention and management of adverse health effects due to ionizing radiation. He has contributed to multiple CDC internet-based training modules covering such topics as victim triage, approaches to treatment, pharmacotherapy for radiation and nuclear terrorism mass casualties. Dr. Nemhauser is the Associate Director for Science for CDC's Japan Earthquake Incident Management System.

There are no continuing education credits or slides provided for this call.

Japan earthquake and tsunami resources for clinicians are available on our COCA Web site at emergency.cdc.gov/coca. Following the presentation, you will have an opportunity to ask our presenter questions. Dialing star 1 will put you into the queue for questions. At this time, please welcome today's presenter, Dr. Nemhauser.

Dr. Jeff Nemhauser: Hi and good afternoon, 10 days ago as you know, an earthquake and a tsunami struck the coast of Japan and many thousands of lives were lost, many thousands more have been displaced from their

homes and are being sheltered under austere and difficult conditions and our thoughts are at this time going out to the people of Japan.

As a result of the earthquake and the tsunami, the reactors - the nuclear reactors - at the Fukushima Daiichi nuclear power plant in Japan were seriously damaged, which is compounding and aggravating the situation faced by the Japanese government and its people.

Damage to the reactors has resulted in a release of radioactive material into the environment. In order to protect people living in Japan, the government there ordered an evacuation from around the nuclear power plant site to a distance of 20 kilometers or about 12-and-a-half miles.

The United States government issued a recommendation out of an abundance of caution. They further ordered American citizens to evacuate to a distance of no less than 80 kilometers or 50 miles.

As a result of these actions taken by the two governments, we at the CDC have received no reports of contamination in those who have evacuated to the prescribed distances.

At the same time, the U.S. as it always does has its monitors setup to measure the amount of radiation in the environment and according to both the U.S. Environmental Protection Agency and the U.S. Department of Energy, no radiation levels of concern have been measured in the United States as a result of this tragedy.

Concern about the release and migration of radioactive materials is high among not only the Japanese people of course but also for the United States and other countries around the world.

And people are seeking the advice of their healthcare providers about a wide variety of issues including health and safety, preventive measures such as potassium iodide. People are seeking travel information and much more.

Before I finish my comments, I'm really what is my plan this afternoon is simply to open the floor to questions from those on the call. Before I do, I'd like to recommend to you two among many sources of information that are available to you as healthcare providers.

The two that I would encourage you to use for information are the CDC's web site. I'm sure you're familiar with that at www.cdc.gov . The CDC web page has many resources on it including toolkits of information for clinicians and public health officials who are dealing with radiological or nuclear situations to which they have to respond.

The other Web site is one that you may or may not be familiar with. It is the Radiation Emergency Medical Management or REMM web portal and the address for that is www.remm - that's R as in Roger, E as in Echo, M as in Mary, M as in Mary - remm.nlm.gov [www.remm.nlm.gov] and the REMM Web portal is a product of the U.S. Department of Health and Human Services.

It's designed to provide concise, accurate guidance for healthcare providers about clinical diagnosis and treatment of radiation injury in a radiological or nuclear emergency.

Fortunately thus far we haven't had any radiation injuries of which we are aware but nonetheless the information that is contained on the REMM Web portal as well as on the CDC Web site are maintained, kept up to date and accurate and so I encourage you to use those two resources liberally.

As I said, my plan this afternoon was really to try and take as many questions as I could from the floor rather than to speak extensively and so at this point in time, I'd like to open it up to questions to you.

Coordinator: Great, thank you. At this time if you'd like to ask a question, you may do that by pressing star 1. Please make sure you unmute your phone and record your name when prompted so I may introduce your question.

If you'd like to remove your question, you may press star 2 and we'll take a few moments here for our first question. It comes from (Kim Snyder). Your line is open.

(Kim Snyder): Yes, hi. I would like to know if the government is doing anything to screen travelers on their entry into the U.S.

Dr. Jeff Nemhauser: Yes, that's a great question. We are right now in the final stages of approval for a screening plan that will be implemented at all airports that receive inbound air traffic and in fact at these airports, all arriving passengers are and even prior to this event, screened for the presence of radioactive contamination, radioactive materials.

As a result of the situation in Japan, we've got a I would say a slightly more heightened awareness of the situation and protocols will be put into place to identify people as they pass through as they travel in from overseas, those individuals will go a thorough screening to identify the possibility of the presence of contaminating material and then those that are found to be contaminated would go through a decontamination process before moving on from there.

What I will say is that what we know so far is that folks who are transiting through the United States even in advance of this plan being put into place that we have not found anyone contaminated at a significant level or a level of concern or of risk to themselves or to others.

And so we are putting this plan into place absolutely again out of an abundance of caution to protect not only individuals but the public health but thus far based on what we know about the situation in Japan and what we have been able to glean from information shared with us by Customs and Border Patrol, we have not yet identified anyone who has come into this country from Japan again with levels of significance or levels of concern.

Coordinator: Great. Our next question comes from (Catherine). Your line is open.

(Catherine): Hi. I noticed that today the U.S. State Department announced that they were giving potassium iodide tablets to those State Department workers certainly in a wider zone than the area of concern whether it's the 80 kilometers or the 20 kilometers but talking about Tokyo and Nagoya, etcetera.

And yet trying to understand for those managing sort of multinational operations or having expats there, what sort of recommendations or plans should we make for them and certainly it's my guess the actions of the State Department raise questions that others are asking so okay, what should we do?

Dr. Jeff Nemhauser: Right and I think that's important and it's a legitimate question. I'm a little bit hesitant to comment on U.S. Department of State policy working as I do for the Department of Health and Human Services but what I will say is that the decision - my understanding - in terms of the decision to deploy or to distribute potassium iodide to the Department of State employees as again simply out of an abundance of caution. We know that other governments both the French and the British have also forward-deployed potassium iodide to foreign nationals in their country, folks that are working for their government in Japan and the Department of State I think is taking a similar approach to that.

But based on what I had said before, I believe that the information that the information we have thus far indicates that the 80-mile evacuation zone should be adequate.

The other thing that I would add to all of this and I think that this is probably a very important statement to make up-front is that the use of potassium iodide as a protective measure is what we would consider here at the CDC and I think others as well as a secondary public health measure.

So that if the State Department and others have issued warnings against travel to Japan right now and the warnings against travel to Japan right now might I add is not out of necessarily a concern about

radioactive contamination or contamination with radioactive materials as much as it is an attempt to make sure that folks who don't need to be in Japan right now who have other places to be are out of the way of the Japanese government to enable the Japanese government to focus their efforts and their resources on their own population.

They're having a real as you can imagine a real crisis on their hands and rather than trying to focus on expatriates and foreign nationals, I think that those recommendations are really designed to try and make sure that folks who don't need to be in-country aren't there.

So the primary - but going back to the question about potassium iodide - really the primary public heath measure would be if you know if there's a risk of contamination, if there's a potential for contamination to evacuate or to get out of harm's way before there's even a need to take the potassium iodide.

Coordinator: Next question comes for (Philip). Your line is open.

(Philip): My question is a little bit related to the previous one. If potassium iodide is indicated, what is the window of effectiveness after exposure, you know, beyond what time period is it no longer effective?

Dr. Jeff Nemhauser: That's a great question. The guidance that we are operating under is that once there's a notification that a plume - a radioactive plume or a plume of radioactive iodine - is moving towards your direction, the recommendations are that you take if you're informed you have about one to two hours in advance of the plume arriving up to about three to four hours after the plume has arrived for the potassium iodide to be maximally effective.

Potassium iodide works as some of you probably already know by saturating the thyroid gland with stable iodine so that the radioactive iodine doesn't have a chance to get into the thyroid gland and to damage the thyroid gland and that's all might I add is that potassium iodide does.

It can't prevent radioactive iodine from entering your body. It can't prevent you being exposed to whatever radiation is being released by that radioactive iodine. As it moves around your body, what it does is it saturates the thyroid gland with stable iodine.

It's good for approximately 24 hours so once you've taken the stable iodine - the potassium iodide - it stays in the body or it saturates the thyroid gland for about 24 hours. If you remain in an areas where there is ongoing potential for contamination with radio iodine, it would be necessary to redose with potassium iodide.

But certainly as I had said before since the primary public measure - primary medical intervention if you will - is to leave the area, to vacate the area at the advice and the instruction of public health officials, the idea is to try and get you enough time to get out of that area until you can get into an area that's no longer contaminated.

So in summary about one to two hours in advance of the arrival of the plume up to about three to four hours afterwards is your window of opportunity for maximal effectiveness of the KI and it has an efficacy of saturating the thyroid gland for about 24 hours before you would need to redose.

Coordinator: Our next question comes from (Sarah). Your line is open.

(Sarah): Yes. Could you repeat that Web site for the radiation?

Dr. Jeff Nemhauser: Yes, I'd be happy to. The CDC Web site is cdc.gov [www.cdc.gov] and the other Web portal that I mentioned was REMM, that's R as in Roger, E as in Echo, M as in Mary, M as in Mary, remm.nlm - which stands for National Library of Medicine - nlm.gov; remm.nlm.gov. [www.remm.nlm.gov]

(Sarah): Thank you.

Coordinator: Once again for anyone that a question has already been answered, you may press star 2 to remove your question. Our next question comes from (Wayne). Your line is open.

(Wayne): Yes, thanks. We're getting questions for people in Japan but outside the zones concern as defined by either the Japanese government or the U.S. government about food safety and water detection and the concerns come from whether what's the recommendation for appropriate handling and washing of for example fresh vegetable before you eat them? Can you give any advice on food handling and protecting the water supply?

Dr. Jeff Nemhauser: Yes, I'll do my best on that. Before I answer this question, I was just handed this. Supposed to state that those just joining us after a brief overview we went immediately into questions. This call will be archived for any information that you may have missed so with regard to the question, a couple of issues that I'm aware of with regard to the food and water safety.

First is that the government of Japan has enforced and embargo on food supplies surrounding the nuclear power plant - that they've actually conducted some monitoring and I don't have that data on hand but they've conducted some monitoring of green leafy vegetables, other produce that grows in the area. And they have identified that some of those vegetables - some of that produce, some of those crops - are indeed contaminated with radioactive material and so they have implemented an embargo on the food that comes from that area.

So they are engaged right now in active surveillance for the presence of radioactive contamination of food supplies and they are making sure that whatever food comes to market at this point in time in fact is not contaminated or does not have evidence of radioactive contamination on it.

By the same token, in this country the Food and Drug Administration and the United States Department of Agriculture are also engaged in active monitoring of not only whatever food is coming from Japan into the United States but also are looking at the potential for at some point down the line if significant amounts of contamination are blown into the United States from this event in Japan, if those contaminating materials get into the food supply here, the U.S. Department of Agriculture and the Food and Drug Administration are looking to make sure that whatever food is contaminated as a result would again be embargoed or interdicted so that it would not go to market.

With regard to the water situation, I've not heard information about that and so I'm a little bit hesitant to comment on that, other than to say that right now from what I know, given the very low levels of radioactive

contamination that we're hearing about that whatever's there is probably being diluted out in the water supply.

But my guess is - and again this is a guess and I apologize for that because I don't have information on this but that the water just like the food supply in Japan is also being monitored but I don't know that as a fact.

Coordinator: Our next question comes from (Tonya). Your line is open.

(Tonya): Hi. Going back to people returning from Japan, you mentioned that no one that we know of has shown signs of contamination.

If we're told that they were contaminated and had to remove clothing and leave it behind, is there some surveillance we need to do on them if there's really other known exposure but they did have "contamination" and could you comment on what that means exactly. Is there some cutoff to the detector that would indicate contamination?

Dr. Jeff Nemhauser: Right. The detectors that are used by Customs and Border Patrol are extremely sensitive and so we anticipate that if there is any contamination at all, it will be identified at the time that people are in fact entering the country.

The….as people enter into the country, if they are in fact identified as being contaminated with radioactive material and are advised to decontaminate, their information will be collected at that time that will be transmitted to the CDC and the CDC will have an opportunity to review that information, will have an opportunity to contact the individual.

And together with the individual and the results of whatever it is that the findings are of the scan of the screen will be able to make a decision as to what the next step would be, whether that would be to conduct additional testing, whether that would be to look for signs that something may be contaminated internally as well as externally and so plans are in place as part of the screening process to make sure that that gets done.

Again, I want to emphasize or reemphasize that right now based on what we know, we're not anticipating that we're going to face that situation very commonly, that we're not seeing evidence of people coming over to this country who are significantly or even minimally contaminated at this point but nonetheless we are planning for that eventuality and would move into that mode if necessary.

Coordinator: Our next question comes from (Ed). Your line is open.

(Ed): Two questions actually, the first one being when you take a look at indications for potassium iodide, they're based on modeling of dose to the thyroid. Is anybody actually going to be doing this modeling or how is that going to be dealt with if there is an issue of radiation drifting over?

And that leads to the second question is who is doing the modeling for the upper atmosphere with regard to radiation drift across the globe?

Dr. Jeff Nemhauser: Two good questions. Right, the modeling that with regard to the thyroid is dependent upon the concentration of radioactive iodine in the

environment so that's based on the sensors and the detectors and the interpretation of those results.

So in Japan, there are a variety of agencies who are doing that monitoring and in the United States it's the Environmental Protection Agency and the Department of Energy.

And so through those monitoring systems, a determination of the concentration of radioactive iodine can be made and then based on that concentration a decision is made as to what that represents as a dose to the thyroid and then protocols as far as administration of the potassium iodide can be made at that time.

Coordinator: Our next question comes from (Elaine). Your line is open.

(Elaine Vernetti): Jeff, hi, it's (Elaine Vernetti) from New York City.

Dr. Jeff Nemhauser: Hi, (Elaine). Good to hear your voice.

(Elaine Vernetti): Thanks. I'm wondering if there's any data coming out of Japan about the external contamination levels that they're finding on people and if they are finding any or working up for internal contamination?

Dr. Jeff Nemhauser: (Elaine), the answer is is we don't have that information right now so I think those are excellent questions but right now we just don't have that information so I really can't comment any further.

(Elaine Vernetti): Okay, thanks.

Dr. Jeff Nemhauser: Sure.

Coordinator: Our next question comes from (Stephen). Your line is open.

(Stephen): Hi, thanks very much for doing the call. It's very helpful. I was wondering if you could comment just generally on there's been a lot of potential hype in the media as far as the total amount of radiation that's been release thus far if you have any data regarding that?

And then a second question would be for folks who have already returned from Japan but were there during the tsunami or shortly for the week thereafter, can we therefore assume if they haven't been screened that there's a seasonably low likelihood of them having any exposure and therefore don't need any further testing or should they be tested and if so, how?

Dr. Jeff Nemhauser: Right. In terms of the total amount of radiation released, those numbers change daily based on the current situation and so I would encourage you to look at a variety of sources whether it be the Nuclear Regulatory Commission or the Department of Energy Web sites. Also the NISA Web site [www.nisa.meti.go.jp/english/] which is the Japanese equivalent of the Nuclear Regulatory Commission is putting up numbers and so those are a variety of sources that you can turn to for probably more up to date, more accurate information than I might be able to share with you over the phone.

In terms of people who have already returned from Japan, I think that your question is a good one but I also think that at this point as I said before, we don't have any indication that those people would be contaminated because if they came back to this country and cleared

Customs, they would have been identified at that time as having been contaminated.

They said this is a system that was in place that long predated this event and so it had people come through and been identified as being contaminated at that time, they would have been notified as such by the Customs officials as they came through.

So it's unlikely that those - and might I say - so was luggage. Luggage was also screened so it's unlikely that anybody returning to the United States from Japan prior to this point in time, if they weren't already notified at the airport that they had been contaminated, it would make it extremely unlikely that doing any additional testing or screening at this time would reveal any valuable information.

Not to mention the fact that if they've changed clothes, if they've showered, those sorts of things, those are the basic guidance that we would give to somebody who in order to achieve external decontamination anyway if someone's been home for some appreciable amount of time, they're probably done all of those sorts of things.

So I think reassurance and speaking to their concerns I think is valuable and important but in terms of doing additional medical testing, I don't know that it's indicated or warranted at this time.

Coordinator: Our next question comes from (Robert). Your line is open. (Robert), if you could please check your mute button, your line is open.

(Robert): Hi, good evening. I just had a quick question regarding commodities and other products that were coming through from the U.S. Postal Service and alternative carriers if you could comment on those carriers if they're doing screening on products and shipping materials and so forth.

Dr. Jeff Nemhauser: This is based on very limited information and so but what I can say is my understanding is that U.S. Postal Service as well as other carriers typically routinely screen mail and other packages for the presence of radiological materials for radiation but that's as much as I can say. I don't know much more about it than that. If you go to their web sites, they may be able to share more information with you about that.

Coordinator: Our next question comes from (Norman). Your line is open.

(Norman): Yes. I was at a conference two days ago in which radiation hazard was discussed extensively. The police in my area are being given belt radiation detectors, the gamma-only digital.

I was wondering if these might be available to the medical community and also I'm part of the medical reserve corps and I'm concerned down the road about concentration in seafood. Is anybody looking at that?

Dr. Jeff Nemhauser: Okay, well there were two questions there. I want to make sure that I get to them both. In terms of these monitors that the police force are wearing that you referred to, many law enforcement officials as well as fire and hazmat teams around the country because of concern primarily about I would say terrorist activities have begun to deploy wearing these types of devices in order to identify potential radiation

events, radiation emergencies. And so these are becoming more commonly available and they are commonly worn.

By the same token in hospitals, healthcare providers who typically work around radiation wear radiation badges, personal dosimeters that allow them to know the dose of radiation that they might be exposed to over the course of a period of time and so those are available to them.

The devices that are worn by the, as I said law enforcement, hazmat and fire services, those are generally set for different things because they're looking for different things. And so there are two different types of devices that serve two different - important but two different types of functions. And so that was what I wanted to say about that.

In terms of the seafood question I think there are two issues there. I think one is the issue about migratory fish that may be caught off of the coast of Japan. And generally it's believed as I said before when somebody asked about the water question, the potable water question, the same would be true of the ocean.

Any radiological material that settled into the ocean would be rapidly diluted out. There would not be a significant risk of contamination of the seafood of migratory fish whether it be tuna or what have you.

I think there is a concern. Perhaps it may be theoretical, it may be actual. I don't know that this has been formally examined yet. But to farmed seafood, so for example shellfish or shrimp beds that may be off the coast of Japan in the vicinity of the nuclear power plants or to seaweed which is harvested and eaten by the Japanese people. And these are going to be in shallower waters, maybe waters that are not

likely to have as rapid a turnover. And the radioactive material may settle into those beds.

And so I think that if those farm seafood beds exist in that vicinity I think that's something else that the Japanese government will need to look at as well as, as I said before, the FDA that ensures the safety of our food supply in this country would be looking at as well to make sure that any foods that came into this country were not contaminated with those radiological materials.

Before we go to the next question I was handed a question here to please state the difference between exposure and contamination.

I think the easiest way to try and explain this is that one is contaminated with radiological material. So it's the actual stuff if you will whether it be out of the nuclear power plant or it's a medical isotope that may be delivered in a hospital setting, in a medical setting. It's the actual radioactive stuff. The radioactive material itself releases radiation which is a form of energy. And it's that form of energy that we can be exposed to. You don't actually have to touch the stuff. You don't have to be in physical contact with the radioactive material to be exposed to the radiation that it releases.

So contamination occurs when the radioactive material is on you or in you. And exposure occurs when that - the energy that's released by that radioactive material passes through your body. And that's in brief the difference between exposure and contamination.

And if there's additional questions I can get into a little more detail. But I wanted to try and summarize that quickly. And I'd be happy to take the next question.

Coordinator: Great. It comes from (Elizabeth). Your line is open.

(Elizabeth): Hello. I'm getting a lot of questions from people in California. And one of the questions they had was that the - I understand the monitoring of the jet stream and stuff like that is showing no, you know, appreciable increase in background radiation.

But the concern came up was that if the higher spikes from the plants happened later in the disaster then wouldn't those be tardy in arriving on the West Coast? And should we or should they anticipate having higher levels occur in the next week or so?

Dr. Jeffrey Nemhauser: Well all of that is I guess hypothetically or theoretically true. I'm not an expert in nuclear power plants.

And but what I will say is that again the Environmental Protection Agency and the Department of Energy are continuing to monitor the situation. They will identify when there are - if there are spikes in activity and will be able to provide that sort of guidance and warning to residents in North America in advance of the arrival of those radioactive materials.

And we'll be able to provide sufficient warning so that whatever public health measures would need to be taken or put into place could be affected. And that's - I think that's probably the safest thing to say at

this point. I'm not sure that I - I'm not sure that there's that much more to add.

Coordinator: Our next question comes from (Tracy). Your line is open.

(Tracy): Yes, I'm not asking this because I think there's any concern at the time. But I'm kind of using this to get educated on radiation and what public health measures may need to be taken at some point in the future.

You mentioned the possible water contamination. I just wondered if there are methods to remove contamination by unstable elements from a public water supply or do you just have to wait till it decays?

Dr. Jeffrey Nemhauser: To the - I'm not sure I really understood the question. Are you asking if someone were to deliberately contaminate a water supply? Or I want to make sure that I understand the question so that I can try and answer it to the best of my ability.

(Tracy): Well I suppose it could be that but I was thinking, you know, if you have the lake or river or something that functions as a public water source and you had a nuclear power plant in the U.S. or something that contaminated that body of water or I don't know if it'd make much difference if somebody did it intentionally.

But, you know, I know EPA monitors for uranium and radiologic isotopes as part of the Safe Water Drinking Act. I believe there are some remediation methods that they can recommend to put in place. But I wasn't sure if you had contamination of a public water source if there were methods of treatment or you just have to wait it out?

Dr. Jeffrey Nemhauser: There's no way that I'm aware of again not being a water scientist so I'm veering pretty far away from my area of expertise here.

But there's no way that I know of, of trying to pull radioactivity out of the water. It would be necessary and as far as I know to allow it to undergo its own natural decay process.

Coordinator: Okay our next question comes from (Warner). Your line is open.

(Warner) if you could please check your mute button or lift the handset.

(Warner): Okay.

Coordinator: We can hear you. Your line is open.

(Warner): Can you hear me? All right...

Dr. Jeffrey Nemhauser: Yes, yes. We can hear you...

((Crosstalk))

(Warner): ...on the potassium iodide dosing standard table, the standard table basically say it's not recommended for individuals who've been exposed in that narrow time window who were non-pregnant over 40. Is that still the case?

Dr. Jeffrey Nemhauser: Right, well the - if you look at the dosing schedule that is the - approved by the United States Food & Drug Administration, there are very specific - it's a very specific dosing table...

(Warner): Right.

Dr. Jeffrey Nemhauser...in terms of who should receive it and under what conditions.

And the reason why the table is that it is is because the likelihood or the risk of adverse health effects in children, in young people, in pregnant women, breast-feeding women, that the risk to the thyroid glands in that population is much greater, that they are a much more sensitive population if you will to the effects of radioactive iodine on the thyroid gland. And so as a consequence the threshold at which we would initiate treatment in that population based on the predicted exposure to the thyroid is much lower.

As the population ages if the - in the non-pregnant population the risk to the thyroid gland to long term adverse outcomes to the thyroid gland goes down. And so consequently the predicted thyroid exposure, the dose to the thyroid goes up in terms of the dosing recommendation. So if you look at the table that's put out by the Food and Drug Administration yes, adults over the age of 40 years non-pregnant would have to be - would have to receive a significantly larger dose of radiation from the radioactive iodine before a consideration for treatment with potassium iodide would be made. That's correct.

Coordinator: Our next question comes from (Irene). Your line is open.

(Irene): Hi. I just wondered if you could make a comment on we've heard about news stories of flight crews who were carrying personal dosimeters. I've had questions from people who call themselves frequent flyers as to whether they should be carrying these things?

Dr. Jeffrey Nemhauser: Are you talking about flying in general or specifically to and from Japan?

(Irene): The questions from my patients came from flying specifically to and from Japan. I'm not sure what the flight crews, the news stories that I read. I think again it was just to and from Japan.

Dr. Jeffrey Nemhauser: Right, well I think this goes back to the statement that I made earlier which is up until now based on all the available information that we have that the risk for exposure to radiation or the risk for contamination with radioactive material to folks who do not enter certainly within that 50 mile zone that's been established by the United States government that the risk to those individuals is extremely low to nonexistent for as I said either exposure to high doses of radiation beyond background or contamination with radioactive material appreciably above background.

And so I don't know that there is really any value or any benefit other than perhaps reassurance. And I don't mean to minimize that. But in terms of the medical approach to dealing with radiation I don't know that there's - that there would be necessarily any value to that.

Of course the other point that I would want to make, people who are frequent flyers or people who travel or by air over long distances are naturally exposed to higher amounts of radiation because of the elevations of the airplanes as they travel.

Those folks who are traveling at those heights and at those distances are exposed to radiation, cosmic radiation, radiation that comes from

outer space during the course of their travel in the same way that someone who lives in Denver, Colorado for example at a higher altitude gets exposed to more radiation than someone who lives at sea level say for example Miami or Los Angeles.

And so simply flying in the air over an extended period of time will increase someone's exposure to radiation. And so that might be another consideration for people.

But if you're talking specifically about travel to Japan I don't know that there's any specific benefit that would be accrued by wearing a personal dosimeter.

Coordinator: Our next question comes from (Catherine). Your line is open.

(Catherine): Hi. I'm going back to the potassium iodide and recognizing there are recommendations for people to evacuate in a certain zone but there are a number of other U.S. citizens who might be in Japan still.

And with the State Department giving out potassium iodide for people in Tokyo and Nagoya, what is the availability of potassium iodide for U.S. citizens who might be there recognizing this is certainly all about an abundance of caution, it may never be needed.

Dr. Jeffrey Nemhauser: Right.

(Catherine): But if there - who was a citizen also wanted to have the same abundance of caution, how might they actually get access? And is it available?

Dr. Jeffrey Nemhauser: Yes. I don't know that there's a specific mechanism for someone who is an American citizen living in Japan at this point in time to go in advance to have that potassium iodide on hand as you say just in case. It's my understanding that the government of Japan has ample supplies, adequate supplies of potassium iodide available and would distribute those - that potassium iodide to the population when it became necessary. Beyond that I can't comment. I just - I don't know.

Coordinator: Our next question comes from (Sarah). Your line is open.

(Sarah): Yes what is the process for military returning from Japan, Navy, Marines, et cetera, to be evaluated from their radiation? Do you know if DOD has something ongoing?

Dr. Jeffrey Nemhauser: I believe DoD has something ongoing. I do know that recently there was a - the DoD has begun - has initiated a voluntary return of DoD dependents to the United States and that those dependents go through the exact same screening process that commercial air carriers do that on arrival in the United States they go through screening at a customs and border control and are subject to the same screening for radioactive contamination as the general traveling public. Specific protocols for DoD I'm not privy to.

(Sarah): Okay thanks.

Dr. Jeffrey Nemhauser: Sure.

Coordinator: And there are no other question in the queue at this time. So if anyone has joined the call late once again you may ask a question by pressing Star 1.

Loretta Jackson Brown: And while we're waiting, Dr. Nemhauser would you please repeat the web site for the resources for clinicians?

Dr. Jeffrey Nemhauser: Sure. As I said the first one that I mentioned is our own CDC Web site. That's www.cdc.gov .

And right now if you go to the CDC Web site one of the - at the very front at the top of the page you can click on the tab that says Radiation and that will take you directly to our radiation emergencies web site give you a lot of information about what we know right now what's going on in Japan and guidance concerning the use of potassium iodide and other public health measures.

The other Web site that I wanted to make people aware of is the REMM web site. That's www.remm which stands for Radiation Emergency Medical Management remm.nlm which stands for the National Library of Medicine nlm.gov. So remm.nlm.gov and those are two great sources of information.[www.remm.nlm.gov]

The REMM web site just for your information since we don't have any calls in the queue right now, you can download the REMM web site not only to your desktop and laptop computers, you can download it to your handheld device or mobile device. So you've got information there. And you can also subscribe to the REMM listserv through the web site that will allow you to get updates and other information as it comes available on the REMM web site you'll be notified of that. And that will allow you to get the most current information as I say either to your desktop, your laptop or to your handheld device.

So I would encourage healthcare providers to have that. It's - I think it's available even as an app for your iPhone right now. We've developed that as well. So those are all good ways of getting information in the event of an emergency.

Coordinator: We do have a few more questions in the queue.

Dr. Jeffrey Nemhauser: Okay.

Coordinator: The next question comes from (Joseph). Your line is open.

(Joseph): Yes a follow on question two the potassium iodide issue.

Given the recent counselor bulletin about the U.S. government providing it to their employees, for companies that want to provide potassium iodide to their ex-pats already in Japan it is my understanding that it requires a prescription and it is illegal to ship potassium iodide into Japan. Any information on whether the Japanese government will lift or lessen restrictions on shipping potassium iodide into the country or how companies can provide potassium my dad for the expatriates?

Dr. Jeffrey Nemhauser: I don't know about the Japanese government policies concerning that so I'm afraid I can't answer that question.

It's also interesting to me that in Japan potassium iodide is a drug that's available by prescription because in the United States the FDA has made it so that potassium iodide is available as an over-the-counter drug. So that's interesting to me as well.

As far as specifically how to get potassium iodide, how companies can provide that to people living over in Japan I don't have any specifics on that other than as I said before it's my understanding that the Japanese government has ample and adequate supplies of potassium iodide and were it needed in a public health emergency would provide that too people. Beyond that I'm afraid I don't know much more.

Coordinator: Next question comes from (Pat Crocker). Your line is open.

(Pat Crocker): Yes I Googled the NISA site and they've either gone off-line or are not posting anymore. Do you...

Dr. Jeffrey Nemhauser: Okay.

(Pat Crocker): ...have a more specific address?

Dr. Jeffrey Nemhauser: It's possible that they have - I don't know. I would only be, you know, postulating why they've gone down right now. There - they may be updating the site or something. I don't know.

I - the last time I looked at it myself was actually a couple of days ago so it's possible that between then and now it's gone down. I don't know. I - all I would say is to encourage you to continue to check and hopefully it will be back up.

Coordinator: Our next question comes from (Ed). Your line is open.

(Ed): To answer that previous gentlemen's question the NISA site is up. It's - the web address is www.nisa, like Nuclear Industry Safety Agency, dot meti as in Mike, Echo, Tango, India dot go like Golf, Oscar dot jp. And

then it's a forward slash index or sorry, \english\index. And that should take you to the NISA site. [www.nisa.meti.go.jp\english\index]

But the question that I had for Dr. Nemhauser was that in a few days ago the Surgeon General Ms. Benjamin said that it's appropriate to be stockpiling potassium iodide or to be buying potassium iodide.

Is that the official position of HHS that we and as Americans should be going out to get potassium iodide even though you can't buy it anymore?

Dr. Jeffrey Nemhauser: Yes I think that's a great question. And in fact what the Surgeon General said was if I understand correctly was that she felt it was appropriate for Americans to be prepared. And I think that she was using that sort of in a -someone asked her I think specifically about the potassium iodide question and she said that she felt that it was appropriate for Americans to be prepared.

So I think that the Surgeon General would agree that the goal is to ensure the safety of all Americans, that people should be - they should have both the knowledge and emergency response kits that are available through a variety of organizations including say for example the American Red Cross, that they should have a lot of information about what to do in a particular emergency. But that also that Americans really need to listen to the public health community to make sure that they follow the instructions of the public health community.

And right now as I said before taking KI is not a primary measure. It's a secondary measure and that the - our instructions would be to shelter

in place, to evacuate, and only to take KI when distributed by public health authorities and in an appropriate way.

So I don't think she was specifically saying that people should be stockpiling or stocking up on KI as much as she was really encouraging people to make sure that they were ready to receive information and to use that information in the event of an emergency whether it be a natural disaster or a man-made disaster. That - I think that's where she was going with that.

Coordinator: Next question comes from (Tammy). Your line is open.

(Tammy): Yes my understanding was that if there is the need for potassium iodide that the public health officials in the area would distribute that and locally. And that's the information I got from our local disaster preparedness people.

Dr. Jeffrey Nemhauser: That's correct.

(Tammy): So citizens do not need to find it on their own?

Dr. Jeffrey Nemhauser: Citizens do not need to find it on their own.

(Tammy): Okay thank you.

Coordinator: Our next question comes from (Eric). Your line is open.

(Eric): You mentioned earlier in the call that you were in the final stages for approval of a medical screening procedure. I wonder if you can tell me what the timeline for that is and how you intend to promulgate that?

Dr. Jeffrey Nemhauser: The timeline for that is short. I'm anticipating that we will have implemented a - see a traveler screening plan within the next day or so. It's in the final - as I said, it's in the final stages of clearance. It's actually gone up out of CDC. It's in clearance right now at high levels and cross clearance with all the various groups and agencies that would be required to implement the screening plan. And so it should were nearly done and that should be implemented as I say over the next if not today then certainly within the next day or so.

Coordinator: We have one more question. Did you want to take it?

Dr. Jeffrey Nemhauser: Sure.

Coordinator: it comes from (Steve) and your line is open.

(Steve): I just want to confirm I understood what you had said regarding people returning from Japan. So right now people returning from Japan at all ports of entry to the US are being screened personally for radiation?

Dr. Jeffrey Nemhauser: Anybody who flies into this country from an overseas destination has to clear customs. And when they clear customs they are screened for the presence of radioactive material or radioactive contamination. That is correct.

(Steve): Great thanks.

Dr. Jeffrey Nemhauser: Sure.

Coordinator: Next question comes from (Charles). Your line is open.

(Art Davidson): Hello?

Dr. Jeffrey Nemhauser: Hello.

(Art Davidson): Can you hear me?

Dr. Jeffrey Nemhauser: Yes.

(Art Davidson): Sorry, this is (Art Davidson) in Denver. I have a question about the people who have come back from Japan so far.

Has anybody on screening at any airport been found to be contaminated and have they been diverted from the usual pattern of ingress into the United States?

Dr. Jeffrey Nemhauser: Our understanding right now is that no one who has returned to the United States from Japan has been contaminated with material at a level of concern and no one has been diverted from onward travel. That is the best information that I have available.

(Art Davidson): Okay and we would be informed if that were to change, is that right?

Dr. Jeffrey Nemhauser: That is correct because if people began to return to this country and were contaminated CDC and others would be responsible for taking the public health steps necessary in order to handle that situation.

(Art Davidson): Thank you. We're calling on behalf of a public health department.

Dr. Jeffrey Nemhauser: Okay.

(Art Davidson): Thanks.

Coordinator: Our next question comes from Jeanine. Your line is open. Jeanine if...

Jeanine Prud'homme: Hi. This is Jeanine Prud'homme from New York City Department of Health. With respect to persons that are being screened at airports I apologize if I missed the response but I wanted to clarify. Will persons be decontaminated at the airports or will persons be referred to their either radiation control program or local or state public health entity?

Dr. Jeffrey Nemhauser: A - as part of the returning - as part of the travelers return to the United States those who are identified as being contaminated will be strongly encouraged to go through a decontamination process prior to onward travel.

Jeanine Prud'homme: Thank you.

Dr. Jeffrey Nemhauser: You're welcome.

Loretta Jackson Brown: Operator we have time for one more question.

Coordinator: And we have one last question in the queue. It comes from (Ed). Your line is open.

(Ed): Jeff, with regard to what you were saying about the states distributing potassium iodide, I've spoken to a couple of state S&S coordinators

who said they do not have potassium iodide stocks within their state for the general population.

Dr. Jeffrey Nemhauser: Okay well those are...

(Ed): But...

Dr. Jeffrey Nemhauser: ...issues...

(Ed): ...I guess where is the KI going to come from then?

Dr. Jeffrey Nemhauser: Well those are issues that I think are if in fact states themselves don't have potassium iodide, those are issues that are probably being handled at a level beyond where I'm at. So those discussions are probably ongoing at this point. And I'm afraid I'm not privy to that information. I know that's...

(Ed): Thank you.

Dr. Jeffrey Nemhauser: I'm - that's not a great answer but it's the best answer I've got.

Loretta Jackson Brown: Dr. Nemhauser do you have any information on the strategic national stockpile at CDC in relation to KI?

Dr. Jeffrey Nemhauser: I don't. The assets and their location and the number of assets in the strategic national stockpile are not widely shared.

Loretta Jackson Brown: Thank you. On behalf of COCA I would like to thank everyone for joining us today with a special thank you to today's

presenter Dr. Nemhauser. If you have additional questions for today's presenter please email us at coca@cdc.gov. Put Dr. Nemhauser in the subject line of your email and we will ensure that your email is forwarded to him for a response. Again that email address is coca@cdc.gov.

The recording of this call and the transcript will be posted to the COCA web site at emergency.cdc.gov\coca within the next few days.

In addition we will have links to the resource web sites that Dr. Nemhauser mentioned in today's discussion.

To receive information about upcoming COCA calls subscribe to COCA by sending an email to coca@cdc.gov and write subscribe in the subject line.

Thank you again for being a part of today's COCA conference call. Have a great day.

END