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TRANSCRIPT - GR 12 01 23 “Insider Threat Behaviors in the Anthrax Mailings of 2001: Learned Lessons for the Field of Medicine” guest speaker Gregory Saathoff, MD from University of Virginia

Medicine Grand Rounds

00:30:00

For a decade he served as a major United States Army Reserve Psychiatry Medical Corps. He was called from reserve. Judy, during that storm, was deployed as a medical core psychiatrist earning the Army Foundation Medal in 1,991.

- He's worked on many projects since then. The Middle East, in addition to the Middle East is already taken Soviet Union, Western Europe, and Australia. In 2,006 he was appointed to the Research Advisory Board. The FBI National Survey. Analysis of violent crime, and the FBI has recognized after saddle from 5 separate occasions for service on various projects. Initiative currently is a professor in the Department of Public health Sciences and emergency medicine at Wba. He also serves as executive director of the Uva's Critical Incident Analysis Group, and since 1996 has served as an FBI's conflict resolution specialist he continues to serve in this chief. Again, your consultant, the FBI Behavioral Analysis unit in Crisis Negotiation unit
- regarding his scholarly work is published in number of areas, including personality, disorders, police psychiatry, and probably response to weapons and mass destruction as well as fire security and national security. He's written prices, guys, forensics, perspective rights.
- In 2,009 he was offering that Federal judge to share the expert behavioral analysis panel responsible for reviewing the criminal pay file and psychiatric records of Bruce Ivan's Phd. The Us. Department justice determined the science history tax. And this is what we discuss today on personal note. I met Dr. Setup as a medical student spending a day on a present visit with him in his forensic psychiatry capacity. So now one day was one of the most memorable days and experiences in medicine for me, and one of his greatest pearls was that if you need to redirect a visit with a psychiatric patient, or really any patient ask them about their tas it will redirect the discussion and gain some insight into something that they care about, and it is proven and invaluable today many times. And I think of you every time. We're so excited to have you today.
- Well, thank you so much, Sarah. What? What privilege to to be here and to to speak with you today?
- This is such a special place, and and particularly to speak about Anthrax at the really one of the foremost
- infectious disease. Tools, medicine in country? So what other part of privilege to be here. I'm gonna start out with something I've not really ever done before, and that's really kind of
- an advertisement. But it's an an advertisement with a purpose.
- Look at it.
- they hmm! And eyes 21, 7, 9, 30.

- How many in here have ever been to laying a lawn?
- People have been undergrad here, you know, very special. I talked to an undergrad just a couple of days ago. I and he asked me if I was gonna be going on the line, I said, well, what's important to you about my other one said, you know the history I mean it. Really, it really takes you back. And I said Tell me more about that. And he said, Yeah, the theme is going to be disqualified. Feature. Disco.
- Well, you know, is about to pass but it really was started in the aftermath of the 9 11 attacks and a very, very different time then much, much more somber. I mean, this is a somber time. But at that time it was genesis was students who
- Who devise the idea and created, like so many great ideas here at Uva.
- One thing that people will not maybe think about. When they're on the line and playing the line is club. It was here in 2,007 that I had my first meeting with the America X investigative team. On the second floor. There, up on the left, is the library that Jefferson had is now call the library of the Colony Club. And it was a remarkable meeting, and they'll be free doing this as well. So it was.
- I think Dr. Posting as well. So certainly a when I'm on the one I look at this building, and I think about that. I remember that, and whether it was on faculty. It is the Uva Faculty club and so putting a plug into the colony.
- So when I think of history, and why the law and this is what I think about, and those of us who were here at the time of these Anthrax attacks. You know, the Anthrax attacks were like a 1. 2 punch. They were the 2 punch to 9, 11, really an astonishing event, and all of the side of the world didn't really care us what happened. So for those who don't remember those days, and I'm gonna do a little bit of review as well.
- So this was a letter a note that came in the in the mail 91101 in childish handwriting. This was the
- This was the letter I mean very threatening, and you know there's a Chinese verb
- that says, crisis is opportunity riding on a dangerous wave.
- And that is what the perpetrator did wrote on this dangerous way.
- And for him this was an optimism.
- There's also an opportunity for microbial forensics.
- We know so much more in the area because of this extraordinary base and our much, much better
- back in in these early.
- But this is a little bit of a reminder about Andrax and the world. This more is like warming in the soil, and they can live for many, many decades. If a score gets into the body, the animal working
- and they can activate and then you have a more serious kind of situation bacteria multiplies and platforms that are produced. That can cause serious illness and death. And I'm gonna talk about 2 cases. Briefly, just to give you a sense about how those presented
- agitation time for anthrax is is 7 days, usually within 7 days of ingesting or being exposed to the spores through intellectual anthrax.
- you'll have activation. But activation can go as long as 60 days. And that's why antibiotics need to be taken for 60 days, because those spores very resilient sometimes take a while before they pop, and you have to be ready for them.
- But let me just quickly talk about the attacks. September 18,
- 2,001 envelopes containing the aids and aims. Anthrax scores were postmarked to Cbs. Nbc. Newer, post and the parent organization, the National Enquirer. That was September eighteenth.
- By early October

- there was already
- public information about Anthrax and the perpetrator then sent.
- and almost identical, and below this time to postmark to Senator Tom Basil and Patrick Leahy.
- They were all mailed from the same mail collection box in Princeton, New Jersey, and the consensus is that there may well have been more letters that just were not so.
- 22 people contracted inhalation. Anthrax 11 were inhalation. A lot of those 5 cases were were failed. There were other cases, 11 cases that were cutaneous in nature. Those survivors had received aggressive antibiotic treatment which absolutely saved their lives.
- Little bit about.
- and bracks. There are 89 existing strains of the slows and prices. But the aim screen. We're very special because it is. It was used in this
- and these letters. But it's also particularly lethal. It's so lethal that it was used by Usam or to devise the the Anthrax vaccine. If you're gonna devise a vaccine, you want to use the stranded anthrax that is, is most potent.
- The person who developed that vaccine Bruce Ivan's Phd. Is person we're going to be talking about today.
- and perhaps as a bio weapon. Well, fours are very stable in nature, as I mentioned. but also there's great potential for parent negotiations
- that really kind of changes the
- the hold on man and spared Lask
- and the Soviet Union
- in 1979
- move us. At least 68 people were killed when Anthrax parcelized accidentally was the from a a military in Russia,
- 1993. Shoga Sahara. I'm Enrico, attempted to at least aerialized Anthrax. We only found out about that later in 1,995, when he had released Sarin in the Tokyo subways.
- So we've known that Anthrax was killer and really a biological weapon since 1,914. So about a hundred years
- class aspect is infectivity and leave value.
- Once it gets a whole of use, it. It will kill you, particularly if it's inhalational. They've done simulations and found that that an aerialized, effective Anthrax attack in a major city is similar to the kind of
- morbidity and mortality you would find with a nuclear bomb 100 deaths in a city of 10 million, even with rapid medical antibiotic response. Well.
- and attack the first
- that is absolutely catastrophic. I also wanna just mention there's a difference between bioterrorism and bio warfare
- bio warfare is when one State attempts to take land. I mean, basically wage war. And and that would be what you would do if you were attacking major cities and the like. Bio terrorism. You don't need to kill that many people to get the entire population very anxious and spending a lot of time and money and effort.
- And that's certainly for those of you who remember. October, November, December January of 2,002 people were microwaving
- the male
- white powder copycat attempts were worked by a plot.
- So let's kind of narrow it down. I an FBI colleague is a microbiologist who happens to be on on control in in in Washington, basically to respond to
- various kinds of threats, bomb cases, or whatever

- you got a call center part office billing that ride within
- hour, 90 min of the opening of that letter and He
- was very concerned. There's some rapid tests that can be done, and and they came back positive for Anthrax, and he pulled the
- shut down the H. Back, and I wish Scott was here to tell you, but there was some resistance to that, like what an FBI agent telling.
- you know the Sergeant arms the capital that he needs to shut down the entire Hvac system in in mid October. But
- my colleague was able to get the point across.
- E
- commented to me that this aerosolize Anthrax that was in the letters was so light that it looked like smoke. And coming from you, Super.
- we and we're talking about. I mean to be really dangerous. The Anthrax fours need to be like between one and 5 microns.
- in size, and that is extremely small, and that is.
- that is what would happen if if an expert were to
- were aerialized Sokalas Sahara, in 1,993, was not an expert. So the attempt to aerialize Anthrax fail.
- But this was really, I think,
- a great example of leadership, because not only was the Hbac system shut down, but also position. Who was in charge of the capital. Done, Isol.
- decided that you're gonna not only
- diagnostically
- past staff
- visitors, Congress members with with those bobs, but also prophylax, all that were exposed, or could have been exposed.
- With with that, I know you think about it. I mean, as medical people positions. To make a call like that, I mean with with one patient is one thing, but when you are making a decision.
- That is so. Time sensitive, I mean, I think it was really a profound courage, and and something that I mean this that could have been so much what we found with the nasal swath. Was, it really was better at letting us know how many or how far the Hvac system had taken this aerosolized Anthrax.
- Now, you know, as I was preparing for this, this presentation one
- one thing that really impressed me was to go over and review this Jama publication. By Dr. Mayer, in Fairfax.
- Look at this date, I mean.
- these attacks occurred in mid October. I mean, certainly in the and the Washington area, and on November 28 there is this extraordinary publication in Jama
- clinical presentation, inhalational Anthrax following Bioterrorism, exposure, report of 2 surviving patients.
- this doctor, as well as doctors in in Florida, had collaborated and had shared the information that they had about the patients who were having symptoms, etc., etc. And you know that
- that level of collaboration in a time before social media is really impressive to me and remains impressive, and for those of you have time interested in primary sources. I urge you to check out this November 20, eighth, 2,001 article in in jam. It's just beautifully written, and I mean every word counts. I'm just gonna summarize briefly

- for those 2 patients. Patient number one on October came in on October nineteenth in the emergency department, low grade fever, chills, cough, delays progressive.
- The next patient came in the next day headache, nausea, chills, night sweats. They both worked for the Post office. Now, what's interesting, what the article makes clear is these are not identical sets of symptoms. So you have inhalational Anthrax. That really is manifesting in different ways.
- but in terms of diagnosis. The media style and pathology and plural effusions were significant, and the diagnosis was confirmed by blood cultures and polymerase reaction testing.
- Now I mentioned that cipro was used in the capital as a prophylaxis, and there's no question that it saved lives. My colleague mentions that
- he had one, you know, one person who had not taken that prophylaxis, the super right away who had gone home and just had a lot on his mind, and ended up with,
- cutaneous anthrax. It's called cutaneous anthrax. So a timely prophylaxis is just so important for people who are exposed. But for these people who were experiencing significant symptoms of inhalational anthrax
- they needed and receive. iv. Sipro revamp and Linda mice.
- so kind of
- time means everything. When you're talking about anthrax and sporulation that occurs.
- Little bit of a timeline for those of you. My remember.
- the FBI got it wrong. I mean initially,
- A reporter from the New York Times had gotten some information that a microbiologist named Stephen Hatfield had
- some unusual characteristics, some things that were really a concern, and
- Media picked up on this, but also Congress as well. So lots of pressure and people saying, Wait a minute.
- Nick Christoph identified the person who was doing this. I mean, there are abnormalities. There are unusual things about this individual, and yet he is not being pursued.
- a little bit more complex, but ultimately, Dr. Hatfield received what? Almost 6 million dollars from the Federal Government. We're having got Iran
- but in 2,006 the investigation really shifted to Dr. Ivan, who is the developer of the Anthrax vaccine and As time went on there were more and more ultimately in 2,008
- Dr. Ivan's committed suicide just hours after his belief inside again. Hospital
- February 2,009 Department of Justice closed the case and named Ivan's as the sole perpetrator. And then in May of that year Federal Judge asked me to evaluate the psychiatric records of Dr. Ivan's
- I found them to be extremely compelling.
- I mean, basically with psychiatrists who were documenting that this is one of the most dangerous patients that they had ever worked with, I mean, who had made threats, who had fantasies about killing a number of people by way of
- his expertise
- And I requested that a panel before and which is what occurred, and then we'll get a chance to talk just a little bit more about that. Here's the panel, really.
- if you're in a position where you're asked to put together a panel. Make sure you
- that everyone on the panel is smarter than you are. And I was, I was very, you know, fortunate here. Eric and Red Cross. We have it
- number 2 and number 3 leaders of the American Red Cross or
- Joe White, but Duke University, Harvard, Johns Hopkins, UNC University, Rochester. We're all represented, I think, notably uniform services, University of Health Sciences in

Bethesda, the chairman of psychiatry. Dave Benedict, a full colonel in the army. Also is on our panel. Dave is a proud graduate of Uva undergrad, and he was really in a

- unusual position, because this was an army facility where this had occurred, and so for him to be on his panel and to make determinations whatever carried with it some
- some challenge, I think. Every one of these people really extraordinary and certainly I want to emphasize that Chris Holiday and the business toxicology. Here uva
- Bruce Ivan's admitted committed suicide, and Dr. Holstegs.
- very in-depth review of the hospital records relating to that, and the suicide with Tylenol was just really remarkable and and very important for the whole group.
- I've been fortunate to work with Kristen a number of projects. And I always learn a great deal. So we, the panel, had access to the entire investigative file, sealed mental health records.
- professional personal emails notes from interviews. Now, these are called 30 two's, which means that I mean, there were hundreds of interviews that the FBI did of people who would have knowledge of this people who worked at us, am or whatever. And so going through those 30. Two's was really enlightening to understand
- much more about what was going on, certainly documents from the American Red Cross, and certainly from Usam or on 20.
- Ultimately we produce a report the American Direct case report the expert behavioral analysis panel. Unfortunately, let's see, we publish this in August of 2,010. Unfortunately, it's still under seal by Federal judge and
- We are hoping one day that it is unsealed, because I think that
- I think those who are interested will. We'll find a compelling.
- This is the murderer.
- This is the fact. That was that Usamra that contained the very aims. Strain Anthrax, that
- who's responsible for the deaths.
- So I'm a forensic psychiatrist. Kara said
- so. The question really was, who was residents? But I'm wanted to spend a little bit of time talking about this brilliant man father was a Princeton graduate who's an Anthrax researcher hired in December of 1980. As I mentioned, it was responsible for vaccine development. Interestingly enough, when the actual letters were found. And that night, the night that the David, that first letter envelope was open
- at the Senate Art Building that evening. That envelope was at Usm being set by one of the top researchers there John Asell. Interestingly enough, even though Dr. Ivan was not a part of the team that was expected to
- to be engaged. He be involved himself in the team. From the earliest moments he was seen as being an eccentric individual, but well liked. I mean, certainly
- a lot of brilliant people that we know
- and be pretty eccentric and dr. Ivan's was no different. Very active in his church. She played keyboard, and in 2,003, right? 50 years after the attacks
- you received the highest department of defense
- awarded, capable being awarded to civilians. So he was we'll talk about that. There was another side that I derived violent childhood. Mother beat and injured his father repeatedly. He had a limited social life very sensitive to rejection, but was remembered by
- from a young age as often being engaged in retribution. I mean, he really was a grievance collector, and interestingly, also from childhood, through adulthood, he engaged in vandalism against those who he felt it wrong him or had concerns about. And we I mean, we really dug deep, and found that when he was at University of Cincinnati, 1,965 to 75

- When he had his thesis defense he carried in a starter pistol and put it, I mean, there he is with the advisors and people who are gonna make decisions
- any questions. Fired guns in residential buildings, fire guns in at, in in at the University of Cincinnati, in dorms, in classrooms, aim at clock or whatever and carry loaded and cock guns like campus.
- Now this is what bubbles a lot of people, and I.
- We don't have time to get too much in the weeds here, but he had an obsession with, I'm not gonna ask anybody here if they members of Capa Kappa Gamma but in the 1960? He asked the girl out her date at University Cincinnati.
- She was a Kappa Kappa Gamma, and she turned it lower down, and he never forgot it. And then, when he was at University of North Carolina, doing his postdoc work.
- one of his colleagues, a younger woman, Nancy Haywood had had a role at Kappa. Kappa. Gamma lived in the Kappa Kappa Gamma house as a graduate student and
- and he was very, very interested, interested in what are the rituals? What are the secret handshakes whatever, which
- seem kind of strange to Nancy Haywood?
- We would break into kind of a cap of Gamma house to find and to steal the ritual books and various things. The secret symbols and signs and things like that, and actually.
- for the view, been here as an undergrad Capagannah house at Uva. He actually also traveled to. We don't know if he broke into it or not. But and this is all from his own admissions. This is
- He was fascinated by Kappa Kappa Gamma, and this one
- no Unc. Phd. Student, Nancy Haywood, he went on to harass her. For decades. Reveal homicide, fantasies and plans and acquired bomb materials and cyanide setup. But shooting range in the basement of his house
- would often make fail threats regarding his knowledge of poison and select the agents wrote to media outlets using aliases, use disguise childlike handwriting to send packages back and forth, trading pornography frequent
- derogatory references to Kappa Kappa Gamma on the Wikipedia page would go on and would say, these slanders things about them. And then what is going on? Why is this person, you know, making this up
- substance abuse alcohol, sedative hypnotics in 2,000 the year before his therapist quit because of her concerns about his homicidality.
- This is a million guy who's psychiatric records were concerned.
- Now you know what was going on in 2,000. 2,001. There were serious threats to the vaccine program. This was really his identity. Having established this vaccine program, going back to the time of the first Gulf war to protect against
- select agents bio warfare, and there were some complications for anybody who's had the Anthrax vaccine. There are multiple injections over time, and it's not the most pleasant. And there were complaints to Senator Leahy, who had publicly expressed concerns about the safety of this vaccine.
- This was untenable for product.
- Right before this 2,001 is 2,001 and exported. We see dramatic increase in his time. In the Bsl. 3 hot suite. The media letters were postmarked
- September 20. First he emailed this Kkg microbiologist from Unc. Nancy K. Wood.
- He emailed her and said, You know, now that 9 11 has happened, I think there's going to be a big bio attack in this country, and I am ready. I'm here and at us, amber. And she thought first of all, why is he emailing me?
- And secondly, this is just very strange.

- and I'd say something about Nancy Haywood just a bit. That's even kind of more. Mark the whole. So the Anthrax members were made known to the public on October fourth, and then the new, the letters, the mailer who had written, the first sent out the second group after death had occurred.
- October fifteenth. Dr. Ivan's requested treatment for cellulitis of his hand. He had cutaneous anthrax. Now, if you work at us, Amy, and you are responsible for these select agents. The medical review process is really significant. Any medical problem that you have must be reported. He did not. He went outside
- of the chain
- with his cutaneous Amtrak
- had a failed trial of Cephalexon. But then Hmm. Responds to Doxycycline, which is also a first line treatment. He never reported this and failed to document it. January of 2,002. This is the Nancy Hay was story
- American Society for Microbiology
- was contacted by the FBI. And they said, I know you have tens of thousands of members. But can you? We think that somebody the American. So Society of Microbiology must know about this.
- or know who might have done this. So can you send something out to all of your people to say, if
- you have
- concerns, or some thoughts, or whatever, please let us know. There was one response. I think there were 40,000 requests, one response
- from Nancy Hayden.
- she said.
- I have concerns. That's something that I worked with at University of North Carolina, who sent me a letter I've always had concerns about him because he's vandalized my property. He has followed me. He has stalked me.
- But he sent this very unusual letter, basically predicting the Anthrax attacks.
- I'd like to tell you that.
- Yeah, the eye of the Department of Justice sees on that letter, and assess, Miss Dr. Evans, but did not have this not until later. 2.5 million dollars reward for information. So this was certainly high profile issue at the time.
- Busiest slide you're gonna see for me, and but this is the these are the routes to the various mailboxes that these letters went to. In order to get to where they finally did it.
- Hundreds and hundreds mail boxes, letter boxes were examined for anthrax, and they finally found in Brisbane, New Jersey, the mailboxes where
- this these letters have been written there they are. One of those, and whichever is the mailbox that that was full of the Anthrax is one that when our panel got together and was meeting for the over the course of 6 months that mailbox was in our conference room but
- So we might identify a minute. This is okay. We know that his father went to Princeton. But why would he do this?
- Why are you talking about Princeton. What is this? But well, it just so happens that National Headquarters of Kappa Kappa Gamma is in this building about right
- 150 d. From the mail towers.
- There's the principal mail drop.
- So the investigation, you know. This is, I think, I mentioned before, but this is really a brave new world. I was talking to my FBI colleague last night. Phone I'm sorry he was not able to join today. He's sorry, too. There was a culture plate that was left out for a longer period

than they expected for supposed to be brought in and reviewed it 48 h, 72 h, and there were notable mutations. Now we know that mutations occur. I mean, that's long been known. What was. But the question was, well this is aim strain. We know this is aim string. We're seeing these mutations. I wonder if we cultured the Anthrax that was pinned the eyes of the victims if we would see the same mutations. Are these absolutely spontaneous? What we're seeing? Or is there a signature?

- Then there's a signature. and that really has opened up the field of microbial forensics so initially Dr. Ivan's very helpful. But over time, let's hope. And all those interviews that they did with him. name various people that he thought might be responsible people, that he knew, colleagues that he was friends with. Interestingly enough, we read
- the interviews of those colleagues, and they did not name him or any other colleagues
- of this. Rmr. 1,029 flask. Right? This is what they were looking for. I'm going to detail. There were some interesting things that he did early on, and sending the
- samples for review. There was a deliberate
- He did not follow the directions that he was supposed to. and
- it was explained to him what they were doing and why they were doing. They said, We want you to send another sample.
- and we want you to do all right. Turns out that that new sample was a different
- from a different culture. The 2. Didn't we know that because the 2 didn't match up
- so more and more as we looked at the interviews and things like that that had been done. We saw that those had significant inconsistencies.
- But the kinds of things that you would say, well.
- why would he not be truthful about this? Why would he not be truthful? And the more they started asking questions about these inconsistencies which were significant. the more anxious.
- Hi, Brian, it's Guy.
- Ultimately one of the FBI microbiologists.
- Scott Decker, approached Bruce Ivan's to get the blast right like we need to. And ultimately Ivan's went to a back cooler and found drafted fiasco and relinquished it. His people that he worked with closely.
- I've never seen this last, and that I showed you the webinar that was the Rmr. 1,029 flat also. So the investigation associates, where we interviewed interviews were re analyzed after spring, 2,005. It was clear that he was.
- There were lots of questions about him and re-interviews, and and he
- became more anxious. October 2,007 Warren was obtained to search home and lab continue to divert suspicion, as I mentioned, and also attempted to. Secretly this card related reading material that he had put together.

That is late one night he's under surveillance. Late one night the as the transfer was coming just before it arrived he drops material. but in the trans receptacle, and that was picked up and reviewed, and

- I and certainly pretty illuminating something with timeline. He took a medical leave of absence because of his curation. Increasingly using substances, sometimes showing up drug to the to us, Amy, and took a medical leave of absence and then 2,008, some final interviews. It was only then that he was diagnosed with substance, dependence. Interviewed and March seventeenth, and Anthrax spill in the hot suites.

- He just left the hot suite and laundered his clothing, that he spilled the Anthrax at home without reporting another time. He was then removed from the lab, and he overdosed, and
- March of that year received some inpatient treatment, and in June of 2,008
- Had Phil, doctor had? Phil was exonerated, and there was a report indictment, and and then the significant decompensation occurred where Dr. Ivan's had made threats in group therapy. That he had a list of people that he was gonna kill said this in group therapy, after having also made these comments at us, Amy, to a to a researcher. And so he was involuntarily committed And discharged. Ultimately after a few weeks, and within hours asked his wife to stop by supermarket where he got to work all the Tylenol and took his life.
- So, Bruce Ivan, insider threat you have the capacity, the opportunity, and the motivation.
- And we on the panel, reviewing all of this material, really felt that motivations were really fourfold revenge. Right? He's Gonna show.
- Senator Dasha said Early. Those who were critical of his vaccine, that that Anthrax is a potent weapon and dangerous, and there needs to be. And that's why we need to have a vaccine personal validation. And he certainly was in 2,003. He got the highest Dod award career, present preservation and also to reverse some of the losses in his life career issues and the like that I troubled him so from the standpoint of license for clinicians and investigators. We thought that and this is just true, and this is great if it remains a very high wall for investigators, I mean, in order to get the psychiatric records, this had to be ordered by age, Federal Judge.
- And ironically when he went through his security clearance in 1,980, he had signed a form that said that any of his records, including mental health records, could be reviewed. They weren't.
- Had they been reviewed, we're confident that he never would have gotten a security clearance. He never would have gotten that position. But after having gotten the position. it was not possible for Department Justice to get those mental health records until after his death.
- Certainly a benefit of an independent exam and fitness for duty. This is so important. When he was removed from the hot suites he needed to have a doctors letter saying he was fit to go back.
- He went to his own doctor. who had You've never seen lots of side of hypnotics and the like and basically told this doctor what to write, I'm ready to go back, and which is what the position did. So when we have situations like this fitness for duty. Really, when people are working in such a sensitive area, there's really a value depending independent expert, not the treating physician, but an independent expert to expect a treating physician to wear 2 hats. Right? Yes, you're my patient. We have a rapport. I work with you for years and years. But no, I don't think you're ready to go back to work. That's hard for many of us to do, and so really separating that there is can be is is very important from system standpoint. The role of substance use was significant at the time
- Dr. Ivan's was utilizing significant amount for anxiety, and that freeze as did alcohol the capacity for compartmentalization and the ability for him to in some email show a tremendous amount of revenge, and to certain people convey his red hot feelings of anger, you know, towards certain people. But then the others they didn't see that side of him at all. We all have the capacity for compartmentalization.
- Familiarity breeds content researchers at Usamron. I have great respect for taught in their field. They had known him for decades and were very comfortable with him, and so familiar. It's like, well he can't be an Anthrax mailer right?

- So, being so familiar. It was a. It was an environment that was really kind of receptive over time for something like this to happen.
- And I. As I say we, we all on our panel have had such great regard for the Syria. To the scientists who worked alongside Dr. Ivan's.
- So workplace violence can be a final comment. Pathway it was, you know, in the last stages when he was in a violent grows that he was making threats that really amounted to concerns about workplace violence public information we counting the Anthrax attacks upon.
- Let's book here. Scott Decker, FBI agent and microbiology, if you want to know that's science behind this, and how this was solved. This is an excellent book, but these are all these are all very good books. This book. Richard President, even in the freezer, you know he is written, a hot zone is very good. So there is, there is a lot of material that's available. That can be very hard. So I hope that some of you will be going to line one you may look at it just a little bit differently. As you advance to Disco. But we have a little bit of time for questions I'm happy to.
- So there's circumstantial evidence with this, and then there's conviction in a court of law. So I know there's been a lot of also doubts.
- Did you? Wanna just speak from them right now? Nope.

Hello. okay. So I think there have been like, there's been like a front line episode and lots of other investigations, to cast some doubt on whether this really is the right guy, even though the circumstantial evidence is pretty strong.

- How do you know, he's the right guy? I was in that frontline episode, and they make me look. They made me look much better than I have been concerned about his suicidality back at the time in 2,007, when they when they did the
- So I did the searches, and I wrote a memo to that to that effect. How can we be certain? I will say that the Some of the things in the front line but we know a lot more than what we did in 2,011 in terms of other information. That's come out there is that proceedings, the National Academy of Sciences that really speaks to what they did in those early years in terms of binding narrowing things down to that to that flask. And yes.
- God. this is circumstantial evidence, and that's why, if there is an opportunity to have our microbial colleagues to answer and be able to describe the science and the science that women did this one of the things that was important about this in the science. Those people who did the studies, and were working on this and the like. Microbial forensics were blinded and there were many us amarid people who excellent scientists who were involved in that. So the process of coming to the determination wasn't that there was this predetermined decision, or target? I was very interested in that the front line piece and I know how upsetting it must be for any institution to say this person was in our midst. I mean, these are some of those patriotic people that we can imagine. But if there is an opportunity to have the science and that aspect, I think that would be very helpful for this, this medical audience, and I'm glad you asked the question, because ultimately they were ready to indict. They had significant materials, grand jury materials that haven't been made available. But he killed himself prior to. So I'm glad that that was the first question, because it's important for everybody to remember.
- Yes, so a comment and 2 questions. The comment is, Thank you for highlighting the origin of the lighting on the lawn. I think that's really important, something that we all should be, you know, cognizant. Remember? The 2 questions. And maybe they're in the front line.

Documentary. But the first one is that I'm surprised he was discharged, you know, from his psychiatric admission, and then allowed to or unsupervised, and, you know, have the opportunity to take his own life that he wasn't arrested or under supervision. So you could address that. That'd be just curious about that and the I think maybe the more important question is, are you aware of, or can you articulate, what type of processes Usmrat has now undertaken to, you know, evaluate their step. And you know, to you know, it's quite surprising that he got the clearance to work there. Given his history. First of all, that, you know, it seems like there should be or wouldn't need to be set up ongoing background, transfer or understanding of what? You know, a person's psychiatric guilt issues may be under such sensitive jobs. Yes, thank you.

- I hope that this gets unsealed because the issues regarding the hospitalization and the like are pretty well detailed here. And that that I'm not in a position to answer the question but the decision to release him when they did. It was not a complete consensus decision. I hope they instill this. Secondly, change at us. Ambrist. You might know that subsequent to frontline document and can read. There were some significant concerns at us, Amart, about safety procedures and the like, and some it's very serious concerns in terms of how select agents were being managed and like, so I don't know that it was just merely this event, but also some subsequent events that raise serious questions, and there were some major changes and overhauls at us, average in terms of the way that select agents were dealt with, and if one of my microbiology colleagues is able to get the talk. They'll be able to give a much more fulsome boss couple. I have a couple different couple. There's a comment in the chat, and then a question as well. So the comment is that Dr. Nancy Wood was a professor at University of Washington, and slowly now, has a very robust scientific research career in HIV. So just kind of an interesting side out. The second one is a question. So regarding the 2 survivors of the Anthrax inhalation that showed differing symptoms.
- Did they have differences in terms of their underlying health conditions, allergies, or age that made them have those different presentations that we know of? What a great question! And I don't know that that was one of the detail in that article. there, I mean, obviously they were. They were older gentlemen. And but I'm not aware of oh, they're medical histories, but I think that you raise a good question as to like why, there might be a different phenomenology or manifestation may well, you know, be due to their own medical conditions and the like. I will say that we had expected Anthrax to be much, much more fatal, 80 to 95 cents than what we found out, you know, particularly with use antibiotics. We can be much more optimistic about treatment of anthrax diagnose if diagnosed quickly. So the textbooks. What the textbooks were saying in 2,000 about Anthrax, and what to expect about Anthrax really have been rewritten to a certain extent, you know, particularly with the variability of presentations, even with inhalational Anthrax.
- And I should mention that meningitis is also a real concern, and often a harbinger, and, and, as you know one of the individuals had significant headaches.
- Yes, Carrot, I'll ask one last question. So we kind of, you know, went through his history and picked him apart. And as a forensic psychiatrist that you know that's your job. I've seen you do it get deep into someone's history.
- How do you balance? You know. We don't want to stay in people with something they did when they were 19 forever and hold that against them. And you know that's part of your identity or people who are working and have different personalities and sometimes that is tricky. We always say, don't criticize someone's personality. When you're giving them feedback. Ver. You know, that shouldn't be part of it should be personally versus professional, and it gets really murky. And how do you approach that when you're asked?

If someone's a risk? You know, with all this back history, and do you think we should kind of hold onto those things more with positions or people on high, you know, power positions or not. I think, more, vigilance about contemporaneous behavior is really important, and certainly those who have.

- Well, it's just so important to spread the net widely right in terms of getting information. Dr. Ivan's brother was convinced that he did it. He must have done it, and went to the media and said I got no doubts that this was my brother who did this so. But I think, looking at the type of thing is that would be important for a lot. You know, the type of things that really reflect contemporaneous behaviors related to. You know the issues at hand. But if we think about personality and personality, disorders and patterns of behavior. They really we.
- They do have some predictive kind of capability. And I think that I mean, we've presented to the National Security Council and others. 1 one thing is, if someone is engaging in vandalism as an adult, right?
- Probably not. Somebody with the high should have the highest level of classification. I mean, this is a birth of behavior. It's a behavior that is done, you know, in secret. But it also is. You know, it's a pretty primitive thing. So that's one of the reasons why getting top level psychiatrists from top level institutions was just so important in looking at this material, and really trying to balance all that out and not having to rush to judgement. But I want to make it clear. Judge Lambert didn't say we want to ask psychiatrist to see whether or not he did. This was already determined, based on the science right that that he was solely responsible. The question for us was what as a society, I mean, can we take a closer look at this individual? Are there some things? Are there some markers of? So in looking at that we were surprised. And I think I may have mentioned to you, Kara, that one of the psychiatrists, when interviews, said I've been a psychiatrist for many, many years. This is the most dangerous. I always felt this was most dangerous person I ever worked with and so one must be extremely careful.
- And that's why I think your comment in the beginning was so important is that adversarial process in in court where you have experts who are looking at and able to really to be cross, examined right? And to look at the information. As it is, it's just so important.
- So thanks again. And what a what a privilege to be here! And I wanna just kudos to Dr. Holste for joining the on the panel and doing such great work. It's we're gonna be proud to be.

Goodbye