LEUKEMIA & LYMPHOMA SOCIETY®

THE BLOODLINE WITH LLS

A PODCAST FOR PATIENTS AND CAREGIVERS

Episode: 'COVID: Staying Safe As The Virus Evolves'

Description:

Join us as we speak to Dr. Lee Greenberger, the Senior Vice President and Chief Scientific Officer of The Leukemia & Lymphoma Society. In this episode, Dr. Greenberger gives us updates on the COVID-19 pandemic. As the virus has continued to evolve at a rapid pace, we discuss how the national approach to this pandemic has changed and what measures we can use to stay safe.

Patients and their families will be given updated and accurate information to stay safe as we all move into the winter season, where we gather indoors and celebrate holidays with family and friends.

Transcript:

Elissa: Welcome to *The Bloodline with LLS*. I'm Elissa.

Jesse: I'm Jesse.

Lizette: And I'm Lizette. Thank you so much for joining us on this episode.

Elissa: Today, we will be speaking to Dr. Lee Greenberger on updates about the COVID-19 community spread, vaccines, alternative methods of protection, and how blood cancer patients can continue to keep themselves safe as we approach our third winter of the COVID-19 pandemic.

Dr. Greenberger is the Senior Vice President and Chief Scientific Officer of The Leukemia & Lymphoma Society (LLS). His responsibilities focus on planning and executing the strategy for all LLS research programs. Dr. Greenberger guides LLS' mission to translate innovative research to ultimately pave the way for new therapies to treat blood cancers.

Dr. Greenberger last appeared on *The Bloodline with LLS* with Dr. Larry Saltzman in the episode titled, "Protecting Patients: COVID and Vaccine Updates." We're excited to have him back today to talk about how COVID continues to affect us all.

Welcome back to *The Bloodline with LLS*, Dr. Greenberger.

Lee Greenberger, PhD: Thank you for having me.

Elissa: So, Dr. Greenberger, much has happened with COVID since we last spoke to you. Earlier this year, we were still in the heart of the omicron wave and some restrictions were still in place throughout the country. Since then, we've seen a slow turn of things seeming like they are returning to normal. However, we are seeing cases rise in Europe and Asia and are not seeing as much reporting here in the US. Where are we currently at with community spread?

Dr. Greenberger: Well, honestly, it's a little bit hard to know because some of the reporting mechanisms have basically dropped off. Beyond that, many people are now doing rapid tests at home, and if they get infected, they are not reporting their results. So, it's a little bit hard to know.

Based on what is being published, the infection rate seems to be fairly even at about 40,000 new cases. However, we know that in Europe, the trend is that the infection rate is going up, and I suspect that the infection rate is also going up here in the US, it's just not being reported and analyzed with the precision that it was before.

Elissa: Yeah. Now with the decrease in testing, scientists often look at the levels of disease in wastewater to see if there is a trend of it rising or decreasing in the community. Could you explain what that is and if we are seeing a trend there?

Dr. Greenberger: Yeah. So, whenever a virus is present, it basically just runs through people and will wind up in the wastewater. And so, this was done for polio recently where there was an outbreak of polio, and you could see the waste levels rising. I cannot speak to what the levels are for COVID. I'm not familiar with those

numbers, so I'm not going to make a comment on those, but I wouldn't be surprised to see that it is rising along with the change of variants as well, which tend to be more infectious.

Elissa: Yeah. We seem to always be about two or three weeks behind cases in Europe, so when they're rising in Europe, we usually expect to see them start to rise here, right?

Dr. Greenberger: Well, it's complicated. There was actually an article today in *Nature* Magazine. So, the subvariants are changing and they're changing in different ways in different parts of the world, whether that be India, Australia, Europe, or even different places within Europe. And so, you're right, in general, in the past, during the omicron surge of last year around January, that was pretty predictive. What was going to happen in Europe, about a month later we had a big surge, a big surge in the US. It's not clear that that's going to happen again because there's so many different subvariants that have changed in Europe and the rest of the world.

That being said, we know that these variants that are being produced tend to be more infectious. And so, it won't be a big surprise to see a surge happen in the US. I think it's going to happen in mid-December to mid-January. That's what the predictions are.

The reason why I'm saying this is because CDC tracks the variants every week. They have a weekly report. If your listeners want to go on, they could actually find the published reports. And what you could see is that there's omicron, then there's a post-omicron people may be familiar with, BA.4, BA.5. I'm now talking about the beyond BA.4, BA5 because what's happening now is, if you look at the CDC reports, the variants that are being produced are the ones that are beyond BA.4 and BA.5. Right now, as of last week, 70% of the variant strains are the ones beyond BA.4 and BA.5.

Why is that relevant? Well, it turns out that those new strains tend to be more infectious. And so, as those strains take over and become more infectious as they are

in the UK and parts of Europe, we're probably going to see that occur in the US as well.

Jesse: Now since we last spoke, unfortunately, and you just touched on this, new COVID variants have developed. There has been recent news of immune-evasive variants in other countries. What do we know about these variants and how could they affect us here in the United States?

Dr. Greenberger: So, BA.5 is almost in the rearview mirror right now.

Jesse: Oh!

Dr. Greenberger: It's incredible, it's changing very fast. So, about the levels of BA.4 and BA.5 are dropping down about 10% a week and they have been doing this for about a month or two. And so, in about three weeks, the predictions are BA.5 is going to be history. It'll all be new variants beyond that. And, again, those new variants are more infectious. Beyond that, this was just information published by Moderna yesterday, they've been looking at the response to vaccines. Their new bivalent vaccine was designed to, in part, give protection against BA.4, BA.5. There is the problem because Moderna published data yesterday saying, "It works well against BA.4 and BA.5, although less well compared to the original variant." Okay. But they're also saying, "Based on preliminary studies, the ability of the vaccine to protect against the variants beyond BA.4 and BA.5, based on 40 patients, is even lower."

So, what's happening is, the variants are evolving faster than the vaccines are evolving and there may be less protection against those latest variants. When those new variants take over completely, it's probably going to be some time in December/January. That's going to coincide with the bivalent vaccine losing efficacy, so you'll see a surge in infection, perhaps because the vaccines are not working well, and people are not getting the bivalent vaccine.

We'll have to see what happens in December/January, whether there's going to be more infections and there's going to be more consequences of those infections.

Jesse: Okay.

Lizette: Right. Now you just mentioned that folks may not be getting the bivalent-

Dr. Greenberger: Yeah.

Lizette: -vaccine. How is that looking with our blood cancer patients?

Dr. Greenberger: General population, about 10% have gotten the bivalent vaccine, even though it got authorized months ago. That's a little bit of a concern. What are immunocompromised patients getting and what are blood cancer patients getting? I could tell you that based on the registry results, and we're tracking now about 3,000 patients in our latest survey, which was conducted in August, before bivalent vaccine became available, you could see that many of the blood cancer patients in the registry were keeping very much up to date with their vaccines. I know that because people were telling us they got vaccine number four, vaccine number five. The bivalent vaccine would be vaccine number 6. I don't know exactly how many blood cancer patients are getting the vaccine number six, the bivalent vaccine, but I could see a lot of people are keeping close, are following the instructions.

Now there's a caveat to that, and I want to point out for people who are listening on this podcast, while it may be people who have participated in our registry, we have about 12,000 patients in the registry and we're following about 3,000 closely for vaccinations. I'm more concerned with the blood cancer patients who are not in our registry, who are not following or maybe not as closely following the vaccine guidance.

The bottom line is that every blood cancer patient should be getting that bivalent vaccine. It will give you some protection against BA.4, BA.5. It will probably give you some protection, albeit reduced, against the new variants.

Now, I want to also expand a little bit on what protection means. When people get these vaccines, what they do is, the body creates antibodies to the protein encoded by the vaccine. This is the spike protein that most of you probably know. So, you get antibodies to the spike protein. And when you get antibodies to the spike protein, the virus cannot penetrate cells, for example, in the lung, as you breathe this virus in. That's good news. So, the vaccines do a good job with that.

The vaccines also induce another immune response in a different part of the immune system, and that response, the so-called T-cell response, occurs to many of the variants. It's one thing to make anti-spike antibodies. It's another one to have a T-cell response. This new vaccine will engage both of those arms of the immune system and they both might have protective ability. The message to blood cancer patients is they should be getting the bivalent vaccine. It's freely, the government is going to pay for this – available just by going to your local pharmacy and getting these vaccines.

Jesse: Dr. Greenberger, is the bivalent booster only preventing severe disease or are we also seeing it prevent infection?

Dr. Greenberger: It does prevent infections. It prevents severe disease as well. It should do both.

Jesse: Good to hear.

Lizette: Now what is the biggest concern with the immune evasive variants when it comes to vaccines and monoclonal antibodies like Evusheld™?

There have been many news reports that Evusheld won't be effective with some of the new variants that have been seen overseas, the variants that you've been speaking about. I'm sure patients have relied on that and are very concerned right now.

Dr. Greenberger: Right. I'm glad you brought that up because we've studied that in the registry, and we have data that we're going to release fairly soon but let me give you the reason why people should be concerned and, also, some of the information

that the data's incomplete yet. And so backup for just general context here. Evusheld, which is a monoclonal antibody cocktail, contains two antibodies mixed in. This is given as an injection in the gluteal muscles at a 600-milligram dose. That's important that -people get the elevated dose. That's the dose that's emergency authorized by the FDA, 600-milligram dose and patients could get it every six months. That's what the FDA guidance is and it's on the market, it's available, and the cost of the monoclonal antibody is covered.

The ability of Evusheld to protect against infections can be limited. How do we know this? We know this because it's based on laboratory studies. So, if you take let's say, a certain strain of the virus and you let it infect cells just in a Petri dish, they will infect. If you give the monoclonal antibody, you will neutralize or block that effect. That's called neutralizing activity.

And we know based on laboratory studies, that the components of Evusheld are losing efficacy against BA.4 and BA.5 and the new variants that are coming where it's even more exaggerated. So, I think there was this little statement on CNN saying, "Evusheld is not going to work against the new variant strains." Well, that's a little bit of an overstatement and here's why. It's one thing to block an infection in a Petri dish; it's another one to block infection in real life in humans. And the answer is, we don't know how well Evusheld is blocking the ability to infect humans.

It's a lot more subtle than just a laboratory experiment. I suspect what's going to happen is if you can achieve a high enough level of Evusheld in the body, it will have some protective ability. That protection is going to wane over time, dependent upon how high the antibody levels go and the duration of time after the Evusheld injection. So, it probably will have some protective ability but it's going to lose it rapidly.

My message to patients is Evusheld is safe, may have some protective ability. This is the type of thing that you really need to speak to your physician to determine whether that monoclonal antibody cocktail should be given or not. It may have some protective

ability. I suspect over time, the protective ability is going to decrease, but, honestly, we do not know based on efficacy studies in the patient population, how it's going to perform.

That's one of the things that we're actually looking at right now, but our data is based on the performance of Evusheld back in August. The variants have changed. We know from lab studies that the lab performance of Evusheld is decreasing. I suspect it will be less effective right now than it was in August, but, honestly, we do not know how much less effective it is.

Elissa: Now moving back to the vaccine, moderately and severely immunocompromised people have now been eligible for up to six doses of the mRNA vaccine, like you discussed. As part of the LLS patient registry, we were doing a COVID-19 vaccine study where we were testing antibodies. Are we still testing? And, if so, what results have we been seeing from the booster doses prior to the recent bivalent?

Dr. Greenberger: Right. I want to thank everybody out there who's listening on this podcast who have been members of the registry. We have been analyzing the antibody response to the vaccines since about March of 2021. It seems like a long time ago.

Elissa: Yeah.

Dr. Greenberger: Three months after the vaccines came out, we started analyzing what the anti-spike response was in blood cancer patients. We know that there are some patients who are immunocompromised, who do not have any ability to make anti-spike antibodies to the two vaccines.

About 50% of the patients who are immunocompromised will fail to produce anti-spike antibodies. If you have a B-cell-derived malignancy. I'm talking about some of the lymphomas, chronic lymphocytic leukemia (CLL), about 25% of those patients will fail

to make antibodies, and they're at risk because they're not making antibodies in response to the vaccine. They're at risk of getting an infection. Those patients have to be specifically careful.

Now if you give them a third shot in the series, about 20% of those patients will make anti-spike antibodies, despite the fact that they didn't after the second vaccine. So, the immune system is sort of waking up. And I could tell you we haven't analyzed the response to the fourth and fifth vaccines. In fact, we have stopped offering free lab tests to the fourth and fifth vaccines. But I could tell you that I've heard from others that the anti-spike response will go up a little bit with the fourth and fifth vaccine as well. So, there is some additional protective ability.

We now are looking at the rate of breakthrough infections after vaccination or after Evusheld at the moment.

Elissa: Wow! Now with this wave coming up that you discussed that we're expecting maybe in December/January, when do you feel like we might be able to get another booster? I'm an AML survivor and I got my booster right after it was approved, so early September, and so now I'm looking at December/January and thinking it's going to wane by then and I might not have as much protection. So, what do we know about that right now?

Dr. Greenberger: Right. So, there's been reports that have followed the drop in antibody levels over time, particularly for the study from Israel after the third, the fourth vaccine, and we know that by six months, antibody levels have dropped considerably. And that's why you're seeing that the FDA authorizing additional shots generally after six months, generally; some of them have actually been even more frequent.

So, you're right to be concerned. If you got a vaccine in September, it's now let's say January, so you're at four/five months downrange, your antibody levels have dropped down, and you may not be fully protected. It's of concern. I don't know when the

CDC is going to think about an additional vaccine. That's really up to them and they actually probably have more of the data than anybody else, despite the fact that they haven't released it yet, as to what those antibody levels are dropping. But based on Israeli studies, by six months, they drop substantially.

Now, what we don't know is what is the amount of antibody level needed to achieve protection? It's a complicated equation because not only is the antibody levels dropping down and we don't know exactly what the right level is that begets protection, but the variants are changing and, essentially, the amount of antibody you probably need to protect against the variants where its less effective, you need higher levels.

Those are two major factors that are changing, and I think the answer is at this point pay close attention to what the FDA is authorizing, and the CDC approves. And when the additional vaccines are available, you should get them.

Elissa: Yeah. We'll make sure to have updated information on our COVID page on the website. That will be in the Show Notes, so definitely look at that if you haven't seen our COVID page.

Now with the antibodies, there's also potential T-cell response, right, as well that we aren't sure about, but we think they offer some protection.

Dr. Greenberger: Right. I mentioned that a little bit before. Let me amplify on that. What the T-cells do is they can actually kill an infected cell. They also assist the immune system in terms of making antibodies as well. So, they do two things and their different type of T-cells that do that.

We have looked in our own studies after two vaccine doses about 50% of the patients will have a T-cell response. That's good news because that T-cell response is directed against the anti-spike protein and so, those T-cells may control an infection if you get it.

Now let me just clarify. The antibodies are great at protecting against an infection. The T-cells will protect, or at least reduce, the infection if you get an infection. They're not so good at protecting against infection, but if you get it, they'll kill an infected cell. So that's why a T-cell response is helpful.

Beyond that, the T-cell responses that have been observed are basically to what is called conserved regions of the spike protein. What do I mean by that? When I talk about COVID variants or spike protein variants, this is a string of, let's say 500 amino acids. I can't remember exactly how many amino acids the spike protein has. Well, if residue 490 changes and the antibody is directed against residue 490, that's a problem. The T-cell response is directed to, let's say, amino acid 10. That is a conserved epitope. In other words, all the variants will have the same amino acid, number 10.

Elissa: Oh!

Dr. Greenberger: The T-cells will protect against numerous variants as they emerge. That's why the T-cell response is important.

Okay, well then there's another twist. Sorry, folks, this just gets even more complicated. There is something called CD4 positive cells and there's something called CD8 positive cells. The CD8 positive cells are the ones that are best at killing infected cells. In our study, we looked at CD4 and CD8 cells, and we see the predominant response is a CD4 positive cell. That's going to be helpful, but it would be nice to have CD8 positive cells also being produced, which we didn't find and, also, our methods are not great at detecting it and so, the ideal situation is to get a CD8 positive response and, therefore, be protected; basically, be able to kill infected cells. So, we're not sure. We get a T-cell response, that's good news. We're not sure how much ability that has kill an infected cell at this point.

Elissa: I'm glad you mentioned the T-cell's ability to take care of other variants. Now I read something probably a month ago that I believe a university in Canada was looking at another vaccine that could take care of all future variants.

Dr. Greenberger: Right.

Elissa: What are we seeing as far as that possibility for the future of a vaccine that will take care of any new variant that comes out?

Dr. Greenberger: Right. There are actually a few companies working on T-cell-directed vaccines. Early days, hard to run trials because a lot of people have gotten other vaccines or gotten COVID and so they're complicated trials to run, but there are a few companies working on that.

When the discussion about what vaccine to make, two or three years ago, there was a discussion whether we should make T-cell-directed vaccines or just get antibodies to the anti-spike protein and get B-cell-directed vaccines. So, I think we're now sort of retrenching saying, "You know, those T-cell vaccines may be important, and they may assist now when the B-cell directed, the anti-spike antibody type vaccines have been made."

So early days. We'll have to see how those clinical trials go.

Jesse: It seems this virus came out of nowhere and we're evolving and everything that you're saying is just that; they're learning more and more about the virus and then, obviously, those boosters are going to change as we learn more. So, I'm happy to hear that they're doing that.

Dr. Greenberger: Right. So, this virus, wherever it came from, has the capacity to mutate quickly. That's one of the unusual things about this virus that's so problematic. It's evolving very quickly, as a matter of months. So, vaccines may have to change. Behaviors, for blood cancer patients, should not change because patients should get vaccinated and behave like they're unvaccinated because the virus is changing.

I'm telling blood cancer patients, "You may not be fully protected because maybe you're not making antibodies. Maybe you didn't get a good T-cell response. The variants have changed. It's been six months since your last vaccine." So, there are many, many factors that are occurring here that blood cancer patients and, in fact, any immunocompromised patients, for example, patients who had a transplant. I'm not talking about a bone marrow transplant. I'm talking about a kidney transplant, a heart transplant where there's T-cell suppressive medications on board, as well as patients who have bone marrow transplants, they need to be extra careful. They should get vaccinated. Continue to wear your mask when you go into large crowds. Get the family vaccinated so you can reduce your exposure.

Jesse: That was my next question. As CDC guidelines have changed throughout the pandemic, have relaxed quite a bit since we spoke earlier this year, such as optional masking, quarantine isolation times after exposure or positive test, you are, obviously, recommending that blood cancer patients take extra precautions, especially with compromised immune systems.

Dr. Greenberger: Yeah. I don't think it's time to let our guard down, and I certainly don't think it's time to let our guard down with the winter coming on. And we need to see what happens with these variants, how infectious they're going to be and how much the general population is protected.

Immunocompromised patients, because of their disease, because of the therapies that are being used, those folks need to be extra careful. And it doesn't take much to put a mask on, honestly.

Jesse: Yeah, I agree. And does it matter how far out they are from treatment?

Dr. Greenberger: Depends on what the disease is, what the treatment is, when you got the treatment. Let me give you a particular example. For patients who have received these so-called anti-CD20 antibodies, that is rituximab or obinutuzumab, these antibodies are used in general to treat lymphomas – diffuse large B-cell

lymphoma, follicular lymphoma, mantle cell lymphoma. Those are the most common ones. It's also used to treat, in certain patients, chronic lymphocytic leukemia. Could be also hairy cell leukemia.

Those antibodies when you use them, what they do is suppress B-cells. B-cells are the ones that produce antibodies. And so if you've had Rituxan® and obinutuzumab, or you're taking it, and it's typically given on a every-three-week cycle for many cycles, let's say perhaps eight, you will be B-cell suppressed and it'll be very unlikely that you're going to make antibodies in response to the vaccine. So, you're vulnerable.

But it goes beyond that. Rituxan and obinutuzumab are highly effective at controlling lymphomas. CLL, for example. But the reason why they're effective is they have a sustained effect. So even after you've got those anti-CD20 antibodies, you will be B-cell suppressed for about 6 to 12 months after that. And so even if you say, "Well I'm off therapy, I should get a response to the vaccine" that will not be true if you're 6 to 12 months out after those type of therapies.

Beyond that, there are certain diseases where even if you're in a watch and wait situation where you've gotten no therapy that you will be B-cell suppressed as well. We've definitely seen that in CLL patients.

Jesse: Well, thank you so much for that explanation. I know as a person who does not have a compromised immune system how much information, it could be quite overwhelming. So, thank you for that information for our patients listening.

Dr. Greenberger: And I want to say, if people want to get more information, they should go to the LLS website. So many of these are frequently asked questions, and they are described in more detail or reiterated on the website.

Elissa: Yes, definitely. Now you talked a lot about masking and getting vaccinated. Many blood cancer patients are, obviously, continuing to have these concerns going into the winter season where you just talked about a potential surge. But families will

be gathering for the holidays and more people will be eating and gathering inside. How can patients really stay safe throughout these colder months and the holidays?

Dr. Greenberger: Right. Patients ask, "Can I get together with family? I really want to get together with family. I haven't seen my grandchildren in months." There's motivation, including myself, to get together with friends and family, particularly this time of year.

Here's what I would suggest. One is if you have any doubt, take a rapid test. See if you've been infected. You might even ask people who you're going to visit, "Take a rapid test." Certainly, if you have symptoms, you should definitely take a rapid test. But I know of certain people who are basically saying, "Look if we're going to get together in a crowd of 10 to 20 and it's in the house and the windows are closed, it's wintertime," you could say, "Well maybe everybody should take a rapid test." That may seem a bit extreme, but it would give some comfort.

By the way, rapid tests are not foolproof. You can be infected, and the rapid test could be negative. So, it's not bullet proof, but it is a good indication. And if somebody does come back positive on a rapid test, they should excuse themselves. They really should not attend. You should not be in contact with somebody who is rapid test positive. That means that you could get infected.

If you really, really want to do that even though there is COVID around and you have somebody that is infected, I would encourage people to wear a mask and don't get together in large crowds and keep your distance.

Elissa: I'm glad you brought up all those things about getting together with families for the holidays. As an AML survivor, my family is very protective over me so we make sure those three weeks coming up to the holiday that we're kind of lessening our risk and staying safe, not going out to gather with friends or go out to restaurants all the time, and then also testing before we get together. But it is good to try to stay safe during the holidays.

Now on our patient podcase Home Page, we have a quote that says, "After diagnosis comes hope." To finish off this program, what would you say to patients and caregivers to give them hope as we move into our third year of the COVID-19 pandemic?

Dr. Greenberger: There are many things to say. First of all, we have had periods where there've been high infection loads. There's been flu virus, COVID. And as more and more people get infected, the chances that you will get infected are reduced and this will probably die down. I think you're going to see a trend that life will become back to normal, I hope. We don't know what variants are ahead, but I think you're going to see that this is going to calm down to some degree.

The other thing is, if you got infected in let's say March of 2020, that was a very scary time-

Elissa: Yes.

Dr. Greenberger: -because we didn't know a lot about the virus, we didn't have any good therapies in the event you got infected. The hospitals were overloaded. We're not in that situation right now. Paxlovid™ is very good at reducing the time of an infection.

The message to patients is, if you get infected, symptomatic, rapid test positive, and you're a blood cancer patient, you should be contacting your physician immediately because Paxlovid can be prescribed and is highly effective at reducing the time of infection, but you have to get it within the early portion of the infection. I've heard stories from physicians say, "I had a blood cancer patient. They told me that they got infected except they came a week or two after the infection happened." That's too late. They're not a candidate for Paxlovid. It won't work well in that situation.

Paxlovid is an oral medication that could be taken within five days after you get infected. Within that window, it's highly effective. It's not only effective in terms of

preventing or reducing the time of infection, but it can also possibly reduce long COVID as well after the infection has cleared and the symptoms that go along with that.

The second thing is there is a monoclonal antibody called baptelovimab that is FDA authorized in the event that you get infected is another choice and can also reduce the time that you could get infected.

let's not rule out Evusheld. Evusheld is a prevention to prevent you from getting infected. That still may have some efficacy. That's a conversation that you need to have with your physician and the physician has to be advised as the variants are changing how effective is Evusheld.

Elissa: Absolutely. Well thank you so much, Dr. Greenberger, for coming to talk with us today. It's great to have really updated, accurate information on where we are at with COVID. I'm sure a lot of patients are concerned going into the winter season, so I hope that this will give them a little comfort in knowledge about where we are at and what they can do to keep themselves safe, so thank you, again, so very much for joining us today.

Dr. Greenberger: My pleasure.

Elissa: And thank you to everyone listening today. *The Bloodline with LLS* is one part of the mission of The Leukemia & Lymphoma Society to improve the quality of lives of patients and their families.

To help us continue to provide the engaging content for all people affected by cancer, we would like to ask you to complete a brief survey that can be found in the Show Notes or at TheBloodline.org. This is your opportunity to provide feedback and suggested topics that will help so many people. We would also like to know about you and how we can serve you better. The survey is completely anonymous and no identifying information will be taken.

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