Welcome everyone and thank you for joining in the American brain tumor Association's webinar series and thank you for participating in today's webinar. Are webinar today will address is living with seizures presented by Kathy Lupica MSN CNP. All lines during the webinar are muted. If you have a question you would like to ask please type and submit it using the question box in the control panel on the right-hand side of your screen. Kathy Lupica will answer as many questions as possible at the end of the presentation. Tomorrow you will receive an invitation to complete a survey please take a few minutes to share your comments about today's webinar your feedback is important for future webinar development. We are recording today's webinar that will post to the website shortly. You will also receive the webinar link in a follow-up e-mail message was webinar is available. We will pause for a moment so we can begin our webinar recording.

>> The American brain tumor Association is pleased to welcome you back to our webinar series. Are webinar today will discuss living with seizures. My name is Jillann Demes I'm a senior program manager at the American brain tumor Association and I am delighted to introduce our speaker Kathy Lupica. Ms. Lupica -- maintained the brain tumor support group there since 1991. She has been working in neuroscience nursing for 40 years. She recently was a speaker at our conferences past July. Thank you for joining us you may now begin your presentation.

>> Welcome everyone I have decided what I would like to speak with you about today is going to be living with seizures and rather than talking about all the different kind of seizures we will talk about how you can manage living with seizures. We will talk first about seizures and brain tumors because the two combined have some unique things that we will talk about quickly and that is 20 to 40% of the patients with brain tumors will present with the seizure at their very first symptom. It helps us find the tumor clicker but up to about 60% of brain tumor patients will have a seizure at some point during their illness. Seizures are devastating to patients and families and they are treated with anticonvulsant medications. We all know how much patients like to take medications. Overall seizures can affect the quality of life every seizure can cause setbacks and loss of function, depression, anxiety about when the next one will happen and it obviously affects your activities of daily living such as driving, employment, recreational activities and people become socially isolated and lose their independence. On top of all of this not only are you dealing with the seizures but you’re also dealing with the tumor.

>> Seizure frequency which surprises people is actually inversely related to the degree of malignancy which means the patients with very low-grade tumors like patients with DNA to the end ganglioglioma was an oligodendrogliomas actually have more likelihood to have seizures that to 80% will have seizures whereas the patients with a higher grade tumors only about 40 to 50% of them will have seizures.
Now what causes seizures or cause you to have more seizures. Not getting enough sleep, skipping meals, missing doses of medication, alcohol interferes with the absorption. It doesn't mean you can never have alcohol it's very different with the different medications that have that conversation with your physician, over exerting yourself, stress even good stress not uncommon for patients to have a wedding are the birth of a baby and then they are fine for the event and then after it's over they may have a seizure, illness anytime you get sick you're more likely to have a seizure and other medications you may be taking including OTC and antacid may interfere with the seizure medications and cause you to have a seizure.

Precautions are something we talk to patients about and they depend on the type of seizure you have there are driving restrictions but again not everybody with seizures is unable to drive it depends on what type of seizure. It varies by state my state it's up to the physician to make the decision. And others state that is very well spelled out legally how long it will be before you are allowed to drive. I have to mention it includes motorcycles because one of my patients who was on a driving restriction came in and said how great he felt on his motorcycle and I had to break it to him that unfortunately driving restrictions include motorcycles. As far as bicycles again not something to discuss with your physician. It may fall under the next category which is avoiding dangerous activities especially Avalon and we talk to patients about rings like climbing on the ladders are getting up on height, swimming or bathing alone and operating dangerous equipment. These are conversations you need to have with the physician.

The next thing may want to know is when should I call the office? I think the best is you should notify your health care team of any seizure you have. If you normally have three seizures a day you don't have to call me three times a day but again do that especially until we get a feel for your seizures is and you let us know when you have a seizure. Next if it's a first-ever seizure you have. For some of you you may not have a seizure at the beginning but it may occur at some other point in time so if you have a new seizure we need to know. If there is a change in the regular seizures or if your seizures start occurring were frequently.

The other thing families want to know is when did go to the emergency room. Normally if the seizure does not stop in a reasonable amount of time if the patient becomes totally unconscious are unaware and cannot be aroused, if the patient has breathing problems or if a second seizure occurs pretty quickly after the first.
Of course the next question is what do I do when someone is having a seizure? Try to prevent injury to the patient so that means getting that area comfortable in moving things out of the way propping there had laying them on their side so they can breathe. Someone should stay with the patient during the seizure and of course for us it's very helpful if you can make observations and report those to us, how did it start and how long did it last. I know it feels like an attorney the but anything you can tell us about what happened during that time will be help all. After the seizure the patient usually requires some emotional support. They are -- you want to get yourself an ABTA sticker they are free and can be attached to the refrigerator, cabinets and things like that that talks about what to do in the event of a seizure. A lot of those patients will get those because everybody at work says what do I do if you have a seizure and so we have free seizure first aid stickers. The other thing I would recommend for patients is they get some kind of pill container. We think we know our day will go and I don't know how many times patients have some event interrupt their day and they did not have their pills with them and missed a dose and in the worst case scenario had a seizures so there aren't some are rioting of pill containers out there. I have seen some really nice things and a bracelet with containers and they look like normal bracelets and were man something that looks like a watch that has a compartment to put your pills and.

Another thing is I always like patients to track their seizures. You can see patterns and that might help us decide how to prevent some seizures so I encourage patients to keep the seizure diary and you can do that on a paper calendar. All of us now have our phones so there are apps for that. Some of the ones I found which were free is my epilepsy diary, seizure diary. Cleveland clinic has one out there. The epilepsy.com site has an online seizure diary. Another thing I said just that they do if possible is try to record their seizures on their phone because the pitcher is worth 1000 words. You can try to just drive your seizure for me but to actually see it is helpful for us.

Next will talk about how do we choose a seizure medication that we put you on. I think Alice in Wonderland takes one pill to make you tall and one to make you small but ideally we would like to get by with just one drug. That is the IDL and sometimes that is not possible but we do our best. You have to understand that 60% of patients will fail their first medication that's not uncommon because it's either because it does not control the seizures or the side effects are in acceptable. The first thing we try doesn't always work. We like to get by with one drug and you will hear me say monotherapy which means using only one drug.
The other thing you have to realize is that [Indiscernible] you will have the seizure if you go off your medications after being seizure free for a while and this is why when you ask your doc to her I have not had a seizure for three years can I go off my medications? most physicians are hesitant to do that because chances are high that if we take you off that medication you can have a seizure and the trouble is we have no means for testing which can tell us which patients are likely to have a seizure so we could take you off your medications and you may have a seizure and then you're back to square one on all your restrictions.

>> Some of the issues we deal with one is generic and there is always that question about which is most effective in which has more side effects. It can be more of an issue with the enzyme inducers which we will talk about the little bit. We always have to consider cost and insurance coverage for patients so unfortunately in this day and age now we often have to work with the generics and that's what we do to try to make them work. Many of the companies have patients in programs and co-pay cards.

>> Will talk about some of the medication issues before we talk about the drugs and the one I want to talk about is the enzyme inducers and those are drugs that go through the liver and are more likely to interact with other drugs. They also require blood level monitoring. Another thing will talk about is that preventative seizures and we call it prophylaxis but trying to prevent seizures in someone who has never had a seizure and then of course we'll talk about the side effects of them of the drugs and drug interactions.

>> When choosing an anticonvulsant we -- it's often an urgency so that a seizure happens and you want to stop it and so you need something that can be given IV and will act likely so there are very few drugs to pick from in the beginning. They are starting to change in where having a few more options. Any medication can have side effects. Some of the common side effects all read this panel here it says I think we should step down on your prescription Mr. Adams were getting a few side effects. The most common side effects are the rash that can be severe, fatigue and mental impairment. If it doesn't match don't worry about it but we know that's not true. In reactions are quite concerning. Those that cause reactions are Thailand Tegretol Lamictal and sonogram about 25% that you can develop a skin reaction. There's cross-reactivity which means if you are on Thailand and you get taken off and put on Tegretol for our rash you may also get a rash on Tegretol or on lament till so we usually go to another drug. The rash can be severe that's why we worry there is something called Stevens Johnson syndrome. Usually we will find that within 30 days if you are likely to have a rash but the trouble is that rashes are masked by steroids and many of you when you are first diagnosed and you have your seizure you're also put on steroids so we may not find out that you are allergic to the medication until we take you off the steroids.
Also it will increase your response to radiation so when our patients are going to be radiated our radiation oncologist would like to not see them on any of those four drugs of it all possible. The reaction will be worse if the immune system is compromised if they are on chemotherapy or steroids or Europe -- or your blood counts are low.

>> The other issue is fatigue and that's a tough one but that is a big side effect of a lot of these drugs.

>> There is also a black box warning that got applied to all seizure medications. In December 2008 the FDA requires us to warn any patient being put on a seizure medication about the risks of suicidal thoughts and behavior. The risk is very very low but when patients are put on a seizure medication they should be told no matter how low the risk is the risk is there and if you ever have any suicidal thoughts you need to speak with your physician immediately because you will need to, that medication.

>> When we are choosing an anticonvulsant were looking for immediate the fat [Indiscernible] Dilantin is one of the oldest drugs we have but it's not a long-term choice for patients and will talk about that later. We have had a couple other medications come out in the last year and that is Capra and Vimpat so those are the choices for the immediate stopping the seizure with things like Ativan. When we are going to add on the director change there is a lot of newer drugs out that have left side of fax and some have secondary and we like to keep those in mind. There is no non-side effect to these that several [Indiscernible] we have some new good side effects on some of the drugs we try. Again we talked about the enzyme inducers so these are the drugs that are enzyme inducers they go through the liver and are more likely to interact with other drugs. That is any Tyner Dilantin, carbamazepine, phenobarbital, Mysoline and Trileptal. Those are the enzyme inducers and although they're very good drugs we often try to stay away from them because they will interact with chemo and other medications.

>> Most of the others have very little of that on the liver and those are gabapentin or Neurontin, Lyrica, lamotrigine or lament doll, topiramate or Topamax, valproic acid or Depakote which does have some liver clearance and here is some of the newer drugs. Zonegran, Gabitril, velvet trawl which is very restrict did use because of anemia, Capra, the impact. -- Them Pat.

>> You might want to talk to your doctor about your drug interaction. Basically seizure medications can interact with other medications like steroids, chemotherapy, antidepressants, anti-smoking agents and actually these are also what we would call seizure provoke or is they can make you more likely to have a seizure so we try to avoid those in our patient, antibiotics and anticholesterol medications.
Stimulants we have used for fatigue can be seizure provoke or is we know that we talk to patients about that when we are going to start something like Ritalin or Provigil however our experience has been most patients who have seizures can go on stimulants safely and not have seizures. Birth-control pills can interact with seizure medications and make them less effective. They can interact with blood thinning agents we use for blood clots and then all those complementary therapies in supplements and over-the-counter medications about 70% of view do not tell us you are taking in those can interfere with seizure medications.

The issue at preventing seizures like we said about 20 to 40% of brain tumor patients will have a seizure at the time they are diagnosed that's how we find the tumor. Of the rest of those 20 to 45% will eventually have a seizure at some point during the elements. The question is should we be doing something to prevent that from happening?

Again we have to think about the side effects I would like to get the prescription filled. This drug has some side effects you're better off with the disease so that's what we're faced with and so the American Academy of neurology did look at the issue back in 2000 and issued a report and what they said is in patients with newly diagnosed brain tumor is that anticonvulsant medications did not present seizures. If you have not had one and because of that because of the side effects they did not feel that what we felt were preventative anticonvulsants should be used in newly diagnosed patients unless they have had a seizure and so what they said is in patients with newly diagnosed brain tumors without a seizures tapering in discontinuing the anticonvulsants after surgery is appropriate particularly if patients are medically stable and are having side effects. That's what a lot of us will go by and again the side effects never take a pill that has more side effects.

Will talk about the drugs and their good features and they're not so good features. The first one is Dilantin or phenytoin so the good thing is that gets Enbrel quick and even orally you get a good dose level immediately. It can be taken once a day. The cons are that it has many side effects including fatigue, dental slowing, ataxia which is a balance problem, vision problems including nystagmus your eyes get jumpy and the skin reactions that we talked about. Also Dilantin can cause changes in the gums to the point that we end up taking patients off the medication and bone loss over time and these two usually occur when you're on Dilantin for a long period of time. It's an enzyme inducers so it goes through the liver and has more interactions with other drugs and it's difficult to control the blood levels.
The next drug is Tager tall so again the side effects are similar to what I spoke about with Dilantin so there are skin reactions and again that cross react to the DFU have a skin reaction on another Dragon you get put on carbamazepine you may have a skin reaction also. It can affect the blood levels and a form of Tegretol called Trileptal can cause low sodium levels which makes you slow mentally so those need to be watched. The good thing with Tager tall at the very good nerve pain medication so patients have nerve pain and maybe a good direct try.

The next one is valproic acid or Depakote. This is level -- little liver clearance. The most bothersome side effect is that it causes people to gain weight and cause there's their heritage than and some patient's will get hair loss. It can increase bleeding time and low platelets so we will check those occasionally and Depakote will also cause a hand tremor that can be mild to severe to the point patients have a hard time writing and that may cause them to choose to go off the medication. The pros is that it's a good mood stabilizer and it makes people's moods better and the psychiatrist use it a lot for that and it's a very good headache medication so in patients experiencing mood issues or headaches that might be a good drug.

Then there is gabapentin or Neurontin or Lyrica. Neither one of them are very good to be used alone they are pretty good as add-on drugs but by themselves they are not very good at seizure control. They can cause weight gain and load retention and Lyrica has prescribing restrictions that can only be prescribed for six months at a time and it cannot be [Indiscernible] there are prescribing restrictions with that but the pros are that it is a very good nerve pain reliever and so if patients are having nerve pain we can at that medication. Lamotrigine or Lament till concert the rash and it has a very slow dose escalation so we have to take you up on that drive very slowly over 8 to 10 weeks so it takes eight on that drive very slowly over 8 to 10 weeks so it takes 810 weeks to get a full dose and we don't have that lecture he when was trying to stop seizures but it makes it a good add-on drug if you have time. The pros are it's a good mood stabilizer also and so it may help if patients have some mood problems with anxiety or depression.

Topiramate or Topamax some of the cons are some patient's experience a little cognitive impairment on it. This is minor is not in all signers thing but for some patient's the - it can be bothersome. It's just like Lamictal and has a very slow dose escalation so it will take up to 8 to 10 weeks to get the full dose. It does have a side effect of causing kidney stones of patients have a history of this it's not a drugs we want to use. If the patient develops a kidney stone on the drug we will take them off the medication.
On start up if patients get an uncomfortable tingling burning or pins and needles things sometimes even [Indiscernible] patients say if I drink a soda by tong just tangles Itza Purkey side effect that will clear up after a few weeks but for some patient's is intolerable and they choose not to stay on the drug. The pros are it does cause patients to lose weight so patients are struggling with weight we may consider the Dragon it's also a very good headache medications of patients are struggling with med -- headaches we may go to that medication.

>> Zonisamide the cons are you have a sulfa allergies should not take zonisamide. It can cause a rash and kidney stones. The pros are it's a very good headache medication. It causes patient's to lose weight and it's a once a day dosing and that is attractive for patients that have trouble remembering to take medication.

>> The next one is Capra. It's a good monotherapy single agent drug that can be used by itself and it's very often although interestingly it's not FDA approved of that but we don't see much problem with the insurance company. It's a very quick start within a day or two Europe to full dose it has an ID form if we need to give it I've even patients are unable to take pills. It has an XR dosing which can be taken once a day so it causes less side effects and less chance of missed dosages. The problem with Capra -- levetiracetam ham is that causes irritability and anger so it has been doped -- [Indiscernible] it can become quite bothersome and it's usually the family members that complain about it and not the patient's. They say he has a short fuse I have to watch everything I say around them. She goes off -- just a short fuse and again there are some things we can do sometimes we have patient's tried vitamin B6. We can try decreasing the dose if we have that lecture he. Of the seizures are under control and we think it's safe to decrease the dose otherwise they are looking at changing them to another drug.

>> Them pot -- Vimpat it's one of the more recent drugs we are using. It has a unique mechanism of action in activating the sodium channels so -- no other medication does that those good add-on drug. It has been pretty well studied and is shown to be a positive add-on drug with a lot of other drugs particularly Capra -- Brought -- it has a moderate dose escalation within two weeks we can have you on full dose. They just got approval for what we call a loading dose so actually would in patients that need to get started immediately we can give them a full dose on the first day which is what we call a loading dose and then go to the standard dose.

>> The cons is that was initially approved for partial seizures only and not the generalized seizure and only as an add-on drug however it just now has been approved by the FDA to be used by itself. I think we will see it being used at that more.
Side effects these are most late seemed on start up in the first couple of weeks until patients get used to the dose in patients will have a little bit of dizziness, a little bit of imbalance like feeling faint, some patients get a visual disturbance particularly patient’s doing a lot of reading your computer work complain they can’t get their eyes to focus. These usually will go away after a couple of days but for some patient’s they are unacceptable. It can have a effect on the heart rhythm so in patients that have a problem with heart rhythm it may not be the best indication to use. Because it’s newer than the other drugs it is not out in generic so it can be expensive on them insurance plans are not approved at all. It carries the same prescribing restrictions as larrakin terms of you can only get six is a time. It cannot be script did more of an issue for the Dr.’s office but again.

>> We have the new kids on the block and these are also new medications that have been rolling out in the last year or two. This is exciting. Usually these are used as add-on only because most insurance companies make a show you have felt all of the usual drugs we talked about before they will allow us to go to these medications. Many of them require prior authorization are not be covered at all. They have high co-pays because none of them are out in generic. You need to know they are out there and there are times we look into them.  
- These are Eslicarbazone acetate which is Aptom, Ezogabine or Potiga, Perampanel,, Trokendi which is a form of topiramate and Oxtellar which is a form of Trileptal . The last two are an XR form which can be taken once a day. Oxtellar does have a nap on to the name of that drug in the mobile health library for seizures and tracking. You need to do in under that drug to get to it.

>> Something important is making sure patients are educated about the things I talked about so far and that is when to take your pills, what are the side effects, what are the other interactions so I like this slide it says Dr. Joe said I have to take one of these pills every day for the rest of my life. That’s not unusual Larry we all have to take a lot of pills every day.

>> Yes but he only gave me 30 days. Sometimes we need to be careful about how we explain things to patients.

>> Here are a few more little things. We will take questions and answers after this. Most patients with brain tumors will experience seizure control when the tumor is treated so radiation, surgery, medication and chemotherapy with the seizure medication will be able to control the seizures. About 15% of rain tumor patients will continue to have intractable refrac three seizures.
What are intractable seizures?

Most patients with intractable seizures are those patients with the low-grade tumors and patients can have one period of remission where they are functioning well but then we are having the seizures that are significantly impacting the quality of life and taking alterable medications to control the seizures. And these are causing side effects.

What is intractable seizures? Antiseizure not controlled by medication especially if more than one drug is required and patients are still experiencing side effects and still having seizures. In these patients we try to think about sending them to the epilepsy she's her specialist -- Caesar specialist for a medication change or to consider something we call seizure surgery and I'll talk briefly about that because it only affects about 15% of you. There is a difference between tumor surgery and seizure surgery. Tumor surgery where needing to get it diagnosis wanting to remove the tumor to take down the swelling and we know the more tumor we can get out the better patients will do so we want to get 95% or more of the tumor out and there is an urgency there to do this quickly.

If various mapping done it's what we consider for critical function which are things like motor movement, speech or memory but they don't necessarily map to find the seizure focus. The target is to get the tumor off -- out safely and the problem is sometimes the seizure focus is not always in the tumor or in the portion of the tumor that was removed. So then patients will still continue to have seizures.

What makes seizure surgery different? It's done is the second surgery because for all those reasons I talked about if there is an urgent with the first surgery but if we consider going back in a second time we might think about mapping for the seizure area. Its extensive and time-consuming workup to try to do that map and find the target of the brain that is causing the seizure. The goal is to remove the area of the brain that is causing the seizure. So again it's something we try to keep in the back of our minds. I will end up here with please talk to your healthcare team and tell us what is important to you, it'll be different for everyone. Talk to us about the symptoms, the side effects of the drugs you are taking, tell us what medications you RRR not taking. We all know some of you are not necessarily taking your medications when you are supposed to but it would help us if you be opened and honest with us and never feel afraid to ask questions. We may not have the answers but we are happy to try to answer them. Snoopy it has been a bad week for me what can you do when everything seems helpless? Snoopy gives her a kiss and that seems nice. At this point we are ready for questions and answers.
Thank you so much. They that was wonderful and we have a lot of questions coming and going. We will start with one that came in. Someone is asking about wanting to know if this is a side effect or that the seizure or tumor growth. Someone is experiencing chills with goosebumps on one side of the body. The how would you know if that is a side effect, a seizure or is dying of tumor regrowth?

A lot of times with seizures that Off is that the same thing every time. So the more patients will report having an event that is the same thing every time the more you would have to start thinking it’s a seizure. With that kind of side effect the number one question if it’s only on one side of the body, is that relating to where the tumor has so if you’re tumor and that symptom is occurring on the left it could be a symptom of the tumor but if it’s sporadic and intermittent it could be a seizure. Of its occurring on the same side as you’re tumor it is probably not and those are the things we have to sort out and we would lean toward it being a side effect of something. When something is on one side of the body it’s usually not a drug effect because those usually occur on both sides of the body for the most part so again when I tell patients if you’re having an event and it occurs sporadically and it varies every time and particularly most of the seizures will not last much more than 30 seconds to a couple of minutes so it comes and stops I am leaning more towards seizure. I hope that helps.

Thank you. Next question is wondering if the worsening of seizures is any indication of tumor progression?

That is a good question and we struggle with that all the time. I like to reassure patients that a lot of times just because the seizures acting up that does not always mean the tumor is acting up. So they do not panic every time their seizures change but again that’s the time for calling us and telling us what’s happening and we can make decisions. A lot of times patients seizures well at And we can never really pinpoint a cause but it’s always concerning when the seizures change wrapped up. One of the possibilities is the tumor is that a nap. Usually how we approach that is we would probably be on the safe side and do the next MRI sooner and see what is going on and we have that peace of mind if everything looks fine then we know it’s not the tumor and then let’s try to figure out why the seizures are at team up.
Someone has a question but I also want to read into this question a little further also. They are asking about that they have been on Capra for a couple of years and there is not then breakthrough seizures and the dock or wants to possibly go off of that which I knew you addressed. How do you address the -- the patient talks about living alone, how do you it address the fear the patient is feeling about living alone and the possibility of having another seizure and it's happening again? That has to be a concern.

For that reason like I said it is usually the office that patients are baking in us to take them off of the medication and we are telling them why they should stay on it. We cannot protect who is anyone that there if we take them off their medication we cannot protect who is going to have a seizure and as high as 70% of patients may have a seizure. So it is a concern. When people live alone and have seizures you know you look at trying to have safety measures in place. One of the life alerts or something like that where you have something attached to your person so you can call someone if you have a seizure and you know that someone will come over. That's the most safety thing you can have. Just having someone checking in with patients at least daily if not more often. After that and again if you live alone it's trying to not to do any dangerous activities that would put you at risk if you have a seizure. For that reason most of the time if patients are not having it problem with the medication we recommend they stay on it. Even if they are having a problem with the medication talking to them about switching to other medications there are a -- enough medications out there. If you don't like the way you feel and this medication here at their drugs we can switch you to.

That helps me because we do want to address the emotional issue they are going through as well. Do antacids interfere with these?

In fact people do not realize they can interfere with any medication and the best thing is not to take -- the way antacids read -- work as a coat your stomach to protect your stomach against other things so for those medications absorbed in the stomach it prevents the medication from being observed properly. The best thing is to not take in antacid within an hour or two or 2 Either Way of your medication. I realize that might be near impossible that keep the antacid as far away from the other medication as possible so it will be absorbed properly.

Thank you. Could you call over I know you mentioned it in the beginning that we have another question about it, when should I patient go to the hospital call their doctor with a seizure. Is that their first seizure, is that the length of the seizure just so there is no confusion because we have had that question posed again.
>> Again you have never had a seizure before and you have one or you have what you think is a seizure you should call. If your normal seizure changes in any way so maybe before you just had a little twitching and Effinger and now the entire hand is twitching, if it is lasting longer, or if you used to get one a week and now you have three a day, if they are coming more often or you are having a new kind of seizure which sometimes will happen patients have one kind of seizure and then they have a totally different seizure. Any of those requires a call to your physician. What happens is as we know patients and know their seizures we should always have a conversation because not all seizures need to go to the emergency room. Some of them you can stay at home and let the physician now. So I think it's having the conversation with your physician about when should I worry and when should I not, when should I call you? Obviously if you have three seizures a day and you are having three seizures that day you do not necessarily need to call me. If they start lasting twice as longer you are having a different type of seizure then you should. It's a tough thing to make a decision about. I tell patients I would rather they called and not call it again that's something you need to have a conversation with your doctor about.

>> Thanks for clarifying that. A question about array factory seizure disorder wondering if it is common to experience periods of I movement facial spasms and difficulty staying words?

>> All of those so again that's three factory seizures or seizures that we are having difficulty managing. So patients may be on two or more medications at full dose and still have seizures. That's what we consider intractable or refractory seizures. A lot of patience just have facial twitching eye blinking. You can have those symptoms and have something totally different there is something called and the facial spasm where they get twitching of their face or eye blinking that is not a seizure. You need to talk to your physician because we can sort that out for you. Is it a seizure, isn't it a seizure, what do we need to do about it. It's difficult with the seizures to decide if they really are seizures are not. It's not that easy.

>> This is a hard one is there any way to tell if it take or mood problems or cognitive problems can cause the focal seizures. Someone is asking they want to get their life back and get off Keppra is there a way to improve some of the different areas to get off Keppra?

>> There is a lot to this. Number one a lot of problems a lot of times with their patients it's extremely difficult to decide how much of the mood and memory stuff and even speech stuff is being caused by the seizure medication, by some other medication and so sometimes it's not that easy but number one is the patient comes in and tells me they really are not happy on Keppra the side effects are in acceptable. Will sit down and talk about -- I don't know if I'm comfortable taking you off it depends on the seizures story but I am not beaded talk to you about some of the other medications that we could switch you to and how we would do that so that is usually the first choice.
It’s not to go off of the drug but switch to another drug. The other thing we do and I realize that not all facilities have this option, we have the neuropsychologist on their staff. We go to him and send patients for neuropsychological testing which is about a half day testing where they are put through a battery of tests and they interpret those tests and then helps us out a little bit. Just this does he think from the tumor itself, how much does he think is the medication and if so what medication may be the culprit. We do recommend patients consider having that type of evaluation. Patients find it frustrating because it is a battery of tests. We hear from patients a lot of times I feel stupid, I could not do that, it made me feel awful but it does help us try to sort this out. A lot of times when we do that testing it will tell us [Indiscernible] possibly some kind of therapy and so maybe they could have cognitive therapy with the things they are having a net might be a little bit flexible and we could send them to a cognitive therapist, not so much to fix it but to teach them how to live with that and how to compensate for it. I think that is a really important thing that sometimes we forget about the other thing that we do with patients with that kind of testing when patients are trying to decide whether they can't return back to their work situation. They are not sure they can go back into the job they used to do. Doing this testing and having the feedback from the neuropsychologist is helpful in deciding if the patient will be able to return to the workforce or if there would need to be modifications made in their job.

>> Thank you Kathy. That was a perfect last question. It rounds it out and I think neuropsychology plays an important role in all brain tumors but especially in this area when it affects your whole life and people need to know there is a discipline out there that is important so thank you for mentioning neuropsychologist and the testing and how they can help out. We are almost at the top of the hour so that’s all the time we have for questions. I want to mention one more thing. If you did not catch that Kathy put a great plug out or ABTA we have a seizure link that you are more than welcome to e-mail ABTA or call us and I will give you those numbers. It will stick to antisurface it talks about things you can do during a seizure and will send the note to you free of charge and you can put them in areas for your family members, your coworkers to know what to do in case of a seizure. Thank you once again Date we appreciate it. If you want information about any of our tumor treatment and formation RRR seizure information you can e-mail us that ABTA cares at ABTA.or call us on the line at 800 the line at 800-886-2282 and we will pause for a moment to stop the recording and then we will come back for brief announcement about future webinars.

>> We invite you to continue to check back on the website for other brain tumor related topics in our webinars areas. That is www.ABTA.or. Are next to webinars are on 8 October from 1:59 PM. We are having a ketogenic diet for brain tumor patients presented by Leonor Aranda she is a registered dietitian out of the University of Arizona cancer center at St. Joseph’s Hospital and medical Center.
She will discuss with the ketogenic diet is, how to achieve catalysis and the challenge associated with the diet and result seen thus far.

>> On November 4 from 1:59 PM the latest innovations in surgically treating brain tumors will be the subject presented by Julian Bailes. He is a surgical director of North's short neurological Institute and chairman of the department of neurosurgery. He will discuss how technology is revolutionizing the weight neurosurgeons treat brain tumors. You will share case studies and provide insight into how technology and other animal he invasive perceived jurors offer promising outcomes for patients with otherwise inoperable brain tumors. We want to thank you for joining us for our webinar series. This concludes our webinar. To remind you leave complete the feedback survey that you will receive shortly following this session. You may now all disconnect and have a great day.

>> [Event concluded]