



## Lung Cancer: Detection and Early Intervention

Webcast

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Douglas E. Wood, M.D.

Jason Chien, M.D., M.S.

Barbara Scribner

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### **Introduction**

#### **Andrew Schorr:**

Lung cancer statistics can be shocking. Now fortunately there are experts like the two physicians you're about to meet who are working together with a whole multidisciplinary team to do better evaluation of people where there's something suspicious in the lungs and where if needed there can be intervention early to help lead to a cure or at least a much longer and better life. You'll hear more about the latest in lung cancer coming up next on Patient Power.

Hello and welcome to Patient Power. I'm Andrew Schorr, and this program like so many we do is sponsored by the University of Washington and UW Medicine, and we're talking once again about lung cancer. Now the statistics are so shocking, and we want to make a difference, and that's what this program and so many of the lung cancer programs that we've done before are all about. Lung cancer is the leading cause of cancer death for both men and women in the United States. It accounts for a third of all cancer deaths in our country, and each year more Americans die of lung cancer than colon, breast, and prostate cancers all put together, so we're trying to make a difference.

### **Barbara's Story**

#### **Andrew Schorr:**

We know that smoking of course, some chemical exposure as well, those are the villains in all this, and we're going to tell the story of a woman who was exposed to all that; chemicals, second-hand smoke from her parents, and also ten years of smoking herself; but also she got the benefit of early detection when there was something suspicious on her lungs and then the appropriate following and intervention, and as you'll hear she thinks it saved her life.

Let me introduce you to her. That's Barbara Scribner who joins us from Kent, Washington. Barbara, thank you so much for joining us.

#### **Barbara:**

You're welcome.

**Andrew Schorr:**

So Barbara, let's go back a year or so. You were just feeling a heaviness on your chest?

**Barbara:**

Yes, just that. A slight heaviness like I was having bronchitis or something.

**Andrew Schorr:**

So you go to the doctor, they do an x-ray, and your regular family physician said let's look further. He knew you were a smoker. So you have a CAT scan. What did that show?

**Barbara:**

It showed a little spot on my left lung, very tiny.

**Andrew Schorr:**

Yes, still scary though, still scary.

**Barbara:**

Actually it really petrified me and that, and so they said that they wanted to keep an eye on it.

**Andrew Schorr:**

You went to a pulmonologist I guess?

**Barbara:**

Yes.

**Andrew Schorr:**

And that doctor said it's really small, let's just watch it, and he said, 'We're going to check you again,' in how long?

**Barbara:**

Six months.

**Andrew Schorr:**

Six months. That didn't sit well with you did it?

**Barbara:**

No, or with my doctor. We decided after two months I was like I can't wait six months.

**Andrew Schorr:**

Right, it's very, very scary, and you knew you had a risk factor with your smoking and all the exposure, and you probably knew that if lung cancer spreads it's a bad deal for sure.

**Barbara:**

Exactly. I've had a couple of people that have died from lung cancer from not getting it detected early or not getting the right treatment.

**Andrew Schorr:**

Right, well that's a good point about that. So that brings you to the University of Washington.

**Barbara:**

Yes, the University of Washington. That's actually where, my doctor is through the University of Washington too, my primary Randy Mandell, M.D.

**Andrew Schorr:**

Right, and so you get evaluated there, and ultimately that leads to further evaluation, the decision to do some intervention, maybe surgery...

**Barbara:**

Yes.

**Andrew Schorr:**

...but then they find well it had spread to your lymph nodes, right?

**Barbara:**

Correct.

**Andrew Schorr:**

So they said, 'Let's do some chemical therapy or chemotherapy to get rid of that if we can.' That was successful?

**Barbara:**

Yes it was. I guess that's the procedure because if they would have opened me up and did the surgery it would have spread even more.

**Andrew Schorr:**

Right. We're going to hear about that. You eventually then did have surgery and removed part of your left lung?

**Barbara:**

Yes, and after I recovered from that stuff and after four months I went back for a checkup and found out that everything went well. They got it all, it's out of my lymph nodes.

**Andrew Schorr:**

Continues to look good?

**Barbara:**

Continues to look good. I've got full capacity of my oxygen.

**Andrew Schorr:**

One of the doctors who was really a guiding light in your treatment is Dr. Douglas Wood who's a professor and chief of general thoracic surgery at the University of Washington and really a specialist in helping give people the best chance of beating their lung cancer. I was just going to say, what would you say about Dr. Wood from your point of view?

**Barbara:**

Dr. Wood actually, I mean if it wasn't for him I probably wouldn't be alive today. They were aggressive. They attacked it. They went after it you know. They didn't just take it as oh well we'll wait a little while. They were right on it, and all the doctors there were wonderful.

**Multidisciplinary Approach to Evaluating Lung Nodules**

**Andrew Schorr:**

Let's meet Dr. Wood. Dr. Wood has been on our Patient Power programs numerous times. Dr. Wood, welcome to Patient Power. In Mrs. Scribner's case one doctor said, 'Well we can wait and just watch it, and yet when she was evaluated not too long after by your team the feeling was well we might need to move more on this because we want to make sure that it is not a cancer that spreads. So is that a matter of just getting to a specialty center? Why the difference of opinion?

**Dr. Wood:**

The difference I think is experience in managing patients with lung nodules and those that are at risk with having lung cancer, and we have a new clinic that's been established now for a couple of years here, the Lung Cancer Early Detection and Prevention Clinic, and actually Mrs. Scribner had the good fortune of being referred to that clinic where she was seen by Dr. Madtes who's one of Dr. Chien's colleagues, and Dr. Chien is also on this call, and the benefit of this evaluation is a very systematic and thoughtful evaluation of a lung abnormality that's in a multidisciplinary fashion that is a coordinated effort of our pulmonary specialists, our thoracic surgeons, and our thoracic radiologists, and we really look at each patient individually together and in a multidisciplinary fashion try to come up with the best advice for an individual patient, which may be different than the advice that they were originally given. It doesn't necessarily mean that that original advice was wrong or incorrect. I mean there are often multiple ways to evaluate something, but what's different I think is the multidisciplinary fashion and the expertise that I think we have here for evaluating these types of problems.

**Andrew Schorr:**

Let's meet Dr. Jason Chien who you mentioned who is the director of that center. He is the director of the Lung Cancer Early Detection and Prevention Clinic at the Seattle Cancer Care Alliance and Fred Hutchison Cancer Research Center, and of course he is an associate professor at the University of Washington and a pulmonologist.

So Dr. Chien, let's talk about that. So when someone like Barbara Scribner comes to you, and you're sort of following something, what I get is you all experts in lung cancer and

early detection, and early detection makes a huge difference, you have very rigid plans, if you will, for how you evaluate it and follow up to make sure that that doesn't progress or gets the intervention it needs so it doesn't spread. Is that right?

**Dr. Chien:**

Right. Our algorithm was actually developed with a scientific advisory committee which Dr. Wood was also on as well, but it also included other experts including radiologists, nuclear radiologists, medical oncologists, and we took a look at all of the literature out there and really devised a very rigorous plan and approach towards evaluating pulmonary nodules, which is the leading CAT scan abnormality that is suspicious for lung cancer.

**Andrew Schorr:**

Now as we do this program there's been all this debate about imaging and what you find for women with breast cancer and the whole thing that's come up is there are some things that are spotted that don't need to be acted upon, that it's never going to go anywhere.

Does that translate at all to suspicious things that show up on imaging in lung cancer or in the lungs?

**Dr. Chien:**

It does, it does. There's no doubt in any of our minds that CAT scans are highly sensitive, and they can detect lung cancer earlier, but they can also detect many other things earlier, things that mimic lung cancer, and the biggest question right now is how do we balance that with our desire to discover some screening approach towards lung cancer? If the screening approach is too aggressive or applied too broadly we run the risk of over-diagnosis where we either diagnose too many lesions that are not lung cancer or lesions that might be cancer but cancer that ultimately may not be lethal. So there are still a lot of unanswered questions regarding the natural history of lung cancer as well as the natural history of these pulmonary nodules out there.

**Andrew Schorr:**

So a lot of what you do with your team there is, if you will, when to pull the trigger on invasive procedures, and when I say invasive we're going to talk about surgery because that's the best chance of a cure, right?

**Dr. Chien:**

Right. So because there are no screening recommendations for lung cancer we have to treat every patient individually and look at all of their data individually and then come to a consensus with our multidisciplinary team benefiting from all of our expertise and make a decision that's best for that individual patient.

## **Determining the Best Course of Treatment**

**Andrew Schorr:**

Dr. Wood, back to you. So as I just mentioned I've learned from you that when it comes to lung cancer the way to cure somebody is hopefully catch it early and cut it out. There

may be other therapies that come into play, but surgery is key. So how do you determine when somebody is a surgical candidate, and can the x-rays and the things you expected, the CT scan, sometimes be wrong, and how do you give I guess what you would say is the benefit of the doubt to the patient that you want to afford them surgery and the chance for a cure if at all possible?

**Dr. Wood:**

It's a very good question and it's multifactorial. There are several issues that go into the decision of whether a patient is appropriate for surgery. One factor is just whether the patient is healthy enough for surgery, and that relates to things like underlying diseases and lung function, etc. But frankly we also work hard to try to give everyone the potential benefit of surgery if we think they have a chance of being cured by surgery even those that are at higher risk because of other associated diseases.

Even more important than that is what we call staging, which is to meticulously determine the true extent of the tumor so that we offer surgery to patients that have a legitimate chance of being cured by surgery, that we be careful to avoid surgery in patients where surgery is not going to help them and only has the potential of hurting them, and that we make that judgment very carefully. That I think gets into your point about x-rays or other imaging and whether they can be wrong. They can be wrong in both directions. They can be wrong sometimes telling us that the cancer appears to be more advanced than it really is, and we actually are very thorough about following through with these types of x-rays or PET scans to determine the true extent of the tumor and to make sure that we've confirmed it with a biopsy or some other test before we decide the a patient maybe has disease that's too advanced and isn't a candidate for surgery.

Likewise the imaging can be wrong sometimes in the other direction and underestimate the extent of tumor, and we're very thorough in that extent as well. This is where the benefit of the doubt comes in that there are times that there is just uncertainty about how advanced a tumor is, and our philosophy is when there's uncertainty that we give the benefit of the doubt to the patient and not to the tumor so that the patient is the one that gets the benefit when we're not sure about the staging or what best therapy is available; we would favor the patient in the lower stage that is apparent by imaging.

**Andrew Schorr:**

Dr. Chien, I imagine as people are referred to you or self refer from around the region and maybe even further, you do see cases where the staging that they were told sort of "around the corner" from them or maybe at the first place they went was wrong.

**Dr. Chien:**

That's certainly possible. Let me step back a little bit. There are many ways to stage the patient or at least many approaches currently available. There are imaging approaches. There are tissue sampling approaches, and even in sampling tissue there are different ways. The key is to have access to a group of experienced physicians who have done this for many, many years with many, many patients who have an intuition about what is the right approach for every patient.

**Andrew Schorr:**

Yes I keep doing programs, it keeps coming up on the art of medicine, and I know you're both teachers as well, and I'll defer to the full professor here for a second, Dr. Wood. I'm right really I'm sure that must come up even in your discussion with students is that it's the wisdom, it's the experience, and it's putting heads together that can make a big difference, and we're talking about a really lethal condition that people want to avoid, right Dr. Wood?

**Dr. Wood:**

Yes lung cancer unfortunately is one of the worst cancers that one can have. It's very common. That's one negative factor about it, and you pointed out in the introduction that it is the most common cause of cancer death for both men and women and yet it can be cured, and so that is why we try to detect lung cancer early and why we have a clinic like the Lung Cancer Early Detection and Prevention Clinic and why we try to be as aggressive as we are about identifying it early, staging it in a very meticulous way, and offering early and aggressive therapy, and experience certainly helps. That having an experience of treating thousands of lung cancer patients I think makes it easier because many of these decisions are tough. They're tough even for somebody like myself who has been taking care of lung cancer patients for 20 years.

**Andrew Schorr:**

Dr. Chien, so some people will not be candidates for surgery or surgery alone. They may need chemotherapy, and Barbara Scribner had that first, and they may need radiation as well, but with these modalities coming together while they may not be cured necessarily of lung cancer, we hope Barbara has been, but people if it's more advanced may well not be. That doesn't mean that they can't have hope for a longer life and a decent quality of life. Is that right?

**Dr. Chien:**

Right, so if you look at lung cancer survival it's very clear that the more advanced the disease when it's diagnosed the lower the survival. For instance the five-year survival rate for lung cancer has been 15% for the last three decades. Now there have been some advances recently with regards to chemotherapy, and very targeted chemotherapy has made a dramatic difference in the survival of a lot of our advanced patients. Unfortunately not everyone is appropriate for that drug.

The quality of life also depends very strongly upon how early the disease is diagnosed; whether it's spread to the lymph nodes, whether it's spread to outside the lungs.

**Andrew Schorr:**

All right, and we've done other programs. Dr. Wood's been on one with Dr. Renato Martins of course who's one of your leading medical oncologists, and we've talked about some of the drug therapy that comes into play.

Barbara, I want to go back to you. So you've been listening and you've been hearing your doctors here talk about it. What would you say to someone listening? There's somebody out there who's smoked for 10 years like you and kind of worries about this or maybe there's something that's shown up or they have a family member. You were what I call a "Powerful Patient" you in going back to your primary care doctor to "do not pass go," get a clear answer, and really, really know what you were dealing with and not just kind of sit around. What would you say to somebody as far as them really taking the bull by the horns?

**Barbara:**

From my experience I believe that if you're a smoker or even around second-hand smoke for a long period of time I would say get a test or get something if you're worried about it and stuff because like they say, early detection is critical. I would say go get checked and don't take no for an answer. Also, I may be out of line, I don't know, but the Seattle Cancer Care Alliance and UW saved my life, and I don't think that if I had gone somewhere else I don't believe I would have been alive today. Only because I've had some pretty close, my brother-in-law for in fact and a couple of other people that I know, have been diagnosed with lung cancer also, and they just passed away. They just died. They didn't get treated early enough. They got checked early, but I guess the things that they did or whatever or the surgeries and stuff weren't successful for them, but I believe that everyone should get checked.

**Screening and Evaluating High Risk Patients**

**Andrew Schorr:**

Right. Let's talk about that with Dr. Chien for a second. So Barbara of course was a smoker and had been exposed to a lot including chemicals at work that may or may not have made a difference. Dr. Chien, there's been some discussion, and I don't know where it stands now and insurance reimbursement and all that for people who may be seen to be at higher risk to be monitored more closely and even some kinds of exams, I've heard of spiral CT and all this, to be used. Where do we stand with that for our listeners as to whether they should come to a clinic like yours if they have a certain history?

**Dr. Chien:**

Right. At the moment it is currently not recommended to screen for lung cancer using low-dose CT scans. This issue about screening for lung cancer has kind of been an ongoing discussion for the last several decades. The initial studies were with sputum, then it was chest x-ray, and now it's CT scans. Chest x-rays are similar to CT scans but just not as sensitive, but it's been through the randomized studies, and it's been shown that while they can pick up lesions earlier, people who were screened with chest x-ray were not less likely to die from lung cancer than people who weren't screened. Now the jury is still out for low-dose CT scans. The National Institute of Health, the NIH, is currently running a randomized study for low-dose CT scans, and we're hoping the results will come out by next year so that we can get some guidance as to whether screening with low-dose CT scans will actually be beneficial for high risk patients such as Mrs. Scribner.

Currently because there are no recommendations our clinic's approach is to take each patient individually and assess their risk in terms of lung cancer, and that would include not only their smoking history but their second hand exposure, their occupational exposure, their family history, and then work with the patient to come up with a solution that is most comfortable with them. So we won't withhold a low-dose CT scan per se but we also educate the patient about what are the likely outcomes if we do perform a low-dose CT scan, and we also inform them that unfortunately because it's not a recommended screening procedure their insurance companies are unlikely to pay for that CT scan.

**Andrew Schorr:**

All right, but if in Barbara's case for instance, there's something suspicious spotted on an x-ray or a CT, it's very appropriate for them to come to a specialized clinic like yours to have the discussion.

**Dr. Chien:**

Absolutely.

**Andrew Schorr:**

That seems to be wise to me.

**Dr. Chien:**

That's absolutely true. What's special about our clinic is that this is basically all that our clinic does. We evaluate pulmonary nodules day in and day out, so we do have more experience than the standard community physician with regards to handling these issues, and the other plus is that we have access to many specialists in multiple different areas such as Dr. Wood who can help us take care of these issues very efficiently and rapidly, which is definitely key in curing lung cancer.

**Andrew Schorr:**

And Dr. Wood just to understand those options. So if there's something suspicious that needs to be biopsied or if there needs to be surgery, and even in surgery you have multiple approaches, right? It's not just a single approach. There are a lot of different procedures you do that would be again personalized to that patient's situation and then radiation and/or chemotherapy again that's tailored individually as well.

**Dr. Wood:**

Yes that's right. I mean there are times that we can tailor a minimally-invasive type of surgery for either diagnosis or treatment or both. There are other times that we have complex tumors that require a major surgery that requires a technically very complex operation that might not be feasible in many centers. So those really get tailored to the individual aspect of the patient.

I'll go back to the screening aspect that Dr. Chien was talking about. Lung cancer screening is a controversial topic, and we're all familiar that breast cancer screening has recently been a controversy, and the National Comprehensive Cancer Network, NCCN,

that you may be familiar with is one of the largest national bodies that creates guidelines regarding cancer, and they've just established a new lung cancer screening committee that I am the chair of to evaluate the data regarding lung cancer screening and to make recommendations on a national level about how to institute screening or whether to institute screening.

Dr. Chien is correct that currently there are no recommendations towards lung cancer screening by any large national or official groups. Nonetheless, many physicians and patients and lung cancer advocates feel that there should be cancer screening for lung cancer, and that's why it's controversial, and we have a group that is evaluating the data and will be making recommendations in the next few months similar to those that we've had from the U.S. Public Health Service about breast cancer screening.

**Andrew Schorr:**

Well I know where I come out, and I'll validate that with Barbara in a second. Dr. Wood, then just from your point of view while the jury's out, and you're on the jury if you will, it sounds like for people like Barbara who proactively went to your clinic, or if someone in my family we were suspicious, that for us to make an individual decision to seek further advice that's not unwise counsel is it? If we're not comfortable and we have risk factors certainly the downside of not doing it is high and that we would be wise to do that wouldn't we?

**Dr. Wood:**

I'm going to urge caution with my answer because the kind of kneejerk response seems like it should be yes that it seems like doing more is always better, but that's not the case, and that's what Dr. Chien was mentioning regarding data and screening and relates to a question that you had earlier about x-rays being wrong.

The problem with indiscriminate screening is that it creates a lot of information that may actually be detrimental to a patient, and so what I would urge patients to do is that they have a very thoughtful risk assessment for lung cancer, talk about the pros and cons of cancer screening with their doctor, and if appropriate with our experts in the Lung Cancer Early Detection and Prevention Clinic and make an informed decision about whether it's appropriate for them to have a CT scan for screening because it's not routinely appropriate for everyone, and it's not an easy decision and not an automatic that everybody should have a CT or benefits from it because of the potential negative findings or invasive tests that can result for patients that don't need it.

**Andrew Schorr:**

All right, well I understand that. We wish there were clear answers. Dr. Chien, just to end with you from the medical point of view, so you have this clinic though and you all are well educated and with a lot of experience to have that discussion, that individual discussion we were talking about, so for the Barbara Scribner's of the world with risk factors whether it's your center or maybe there are a few at probably mostly university centers around the country, that's okay. You probably see people every day who go the extra mile like that.

**Dr. Chien:**

Yes, that has actually been a significant portion of our clinic population, which are people who are concerned about their lung cancer risk. In those situations we give a number of recommendations that hopefully help them reduce that risk. The number one thing that any smoker can do is quit smoking immediately, and we actually have a program in house that helps them with that, the Smoke Free Life program. The second thing is that we educate them. Many people who have quit smoking believe that they're no longer at risk for lung cancer anymore, and that's absolutely not true. About 60% of lung cancer cases in the United States now are diagnosed among former smokers. So former smokers still need to be aware of their lung cancer risk and aware of their own body and their symptoms that might suggest early disease.

**Andrew Schorr:**

Right, and I just want to mention there's a really cool program you have I know where if a cancer patient comes in I think for any cancer I know there's a program available to them that if their spouse is a smoker you help them to quit, so I think there are some very cool options there.

I want to thank you Dr. Jason Chien and with your Lung Cancer Early Detection and Prevention clinic for being with us and the work that you do, and Dr. Doug Wood thank you so much for all you do and your leadership. I'm really curious how those recommendations are going to come out Dr. Wood, so I was going to say we'll hold our breath, we can't do that, but I really wish you well in your evaluation of what's right really for people probably across the U.S. and I'm sure it will be a guiding light for other countries as well.

**Dr. Wood:**

Thank you for including me, and I hope we can shed some light on it and come up with recommendations that will help the greatest number of people.

**Andrew Schorr:**

Right. Barbara I'm going to give you the last word. There's a team and a man who is the leader of it who helped you as an individual, and I know as you said you're very thankful.

**Barbara:**

A very awesome man. That whole clinic is, and I do believe he's right. Not everybody rushes out to get a CT scan or anything, but I think quit smoking and going and seeing your doctor and him recommending people, but I think UW and Seattle Cancer Care Alliance I think are the best. The main thing is to research. Don't just give up. Research different things that you can do to help people and stuff like that, and yes their quit-smoking program is awesome, and it helped my family because one thing about quitting smoking is if you nag a smoker they will smoke more, but when my family went to that smoking thing they said that if they support you and help you then you'll have a better chance, and that's exactly what happened.



**Andrew Schorr:**

All right, Barbara Scribner, long, long, long life Barbara.

**Barbara:**

Thank you so much.

**Andrew Schorr:**

Thank you so much for being with us. This is what we do on Patient Power. We've told a story here, and I think it's a story first of all of don't smoke, stop smoking, if you have those risk factors you want to be on top of being evaluated, and it's certainly in Barbara's case but to me it seems you want to be evaluated by people who really specialize in it, and we've had folks like that on today from the University of Washington.

I'm Andrew Schorr. As always remember, knowledge can be the best medicine of all.

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