

Support for Yale Cancer Center Answers comes from AstraZeneca, now offering three FDA-approved therapies for different forms of lung cancer with more in the pipeline. When it comes to lung cancer treatment, one size does not fit all. Learn more at [astrazeneca-us.com](http://astrazeneca-us.com). Welcome to Yale Cancer Answers with doctors Anees Chagpar and Steven Gore. I am Bruce Barber. Yale Cancer Answers features the latest information on cancer care by welcoming oncologists and specialists who are on the forefront of the battle to fight cancer. This week, it is a conversation about international differences in breast cancer surgery with Dr. Salena Bains. Dr. Bains is a Visiting Surgeon from the United Kingdom and Dr. Chagpar is an Associate Professor of Surgery and the Assistant Director for Global Oncology at Yale Cancer Center.

Chagpar Salena, welcome to Yale. I know that you have been here for about a week or so. Tell me a little bit more about yourself and about how medical training actually works in the UK for those of us who have spent most of our lives here in the US.

Bains We have high school equivalency like you have here, but then out of high school, so at the age of 17 or 18, you decide what subjects you are going to study and then you apply to university. Now, we can only put down 5 different universities, you fill out a personal statement, you have your predicted grades and then off go the application forms. For medical school and dental school, you have to have face-to-face interviews. So, if they like you, they will invite you for an interview and then give you an offer. So, when you get your results, if you are A levels, you will then know whether you get your place at university or not.

Chagpar This is really straight out of high school, you do these A level exams, kind of like final exams here except national standardized exams?

Bains Absolutely.

Chagpar Kind of like the SAT I suppose. And then, beyond just getting into college, you figure out what you are going to do and figure out what sorority or fraternity you can be in and what your extra-curricular activities are going to be. You are entering medical school right off the bat?

Bains Yes. Into the dissecting room, people fainting, into the hospice arena actually pretty soon. So, even within the first semester, you will have medical students that are on the wards having a look around and trying to figure out what is going on.

Chagpar Do you find that intimidating or is it really exciting? I cannot figure out what that would be like.

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Bains I think it is a little bit of both. We have post-graduate students as well and they seem a lot more clued up and they really want to be where they are.

Whereas when you are 18 years old, I think a lot of the times, you have got no idea what you are in for. From a personal point of view, I've done the shadowing hospitals, I had my GP surgery, they are more like family practitioners and then you start and you think, I have got no idea what is going. So, it is a little bit intimidating, but there are a lot of people in the same boat, so you are all in it together really.

Chagpar So you enter medical school and you did not do any under-grad college. It is really straight into medical school. How long is medical school?

Bains It is usually 5 years. Some universities have 6 years and you can take a year out in the middle to do an intercalated degree, but on the whole it is 5 years and then you are done, you graduate and you hit the floor as a junior doctor.

Chagpar Wow. In the US, it is 4 years and you can add on a year if you want to do another degree or if you want to do research, so it is a year extra. And then, when you graduate medical school, how does it work, what happens then?

Bains Then you are a foundation year doctor. So, for 2 years, it is kind of develop the skills that you will need, see patients and then you have to get signed off on. So, that is for 2 years. And during that 2 years or towards the end of that 2 years, you decide whether you want to be a pathologist or you want to go into medicine or you want to go into surgery, and then your training will go at a different branch depending on what you want to do.

Chagpar It sounds like those 2 years after you graduate medical school are like a rotating internship.

Bains Absolutely. And in four-month blocks.

Chagpar Four-month blocks. And you do psychiatry and you do OB-GYN and you do pediatrics, so that you kind of get a taste of everything?

Bains Yes. Just to make things more complicated, there are different rotations. So, you can have some that are surgery heavy, some that are general practice heavy and so then when you are in your kind of medical school, I think you then select also where you want to go and rank the jobs you want, so there is kind of a national process to rank the jobs that you want, but the aim is that you are doing very generic stuff. You will have to do some medicine, you have to do some surgery, but what exactly the specialty is will vary depending on where you go.

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Chagpar Got it. Whereas here, a lot of that looking around, getting on the boards, doing blocks and rotations is built into your medical school. In fact, while you have got a 5-year medical school, that additional 2 years is kind of what we would probably include in medical school in the sense of being more

generic rotations. And then you decide in that 2 years, I want to be a surgeon, is that right?

Bains Yes. Sometimes people have decided beforehand. You may be in the medical school and you think, you know what, I want to be a surgeon and you will get what you do according to what you want to do.

Chagpar But in that two-year block, you are still forced to do medicine even if you are diehard surgeon?

Bains Yes, and psychiatry.

Chagpar Then in those two years, you say, I want to do surgery and what happens then?

Bains Then you apply for co-surgical training and that is two years. We call it co-year 1 and 2, and that is again a rotational type thing but it will include surgery.

Chagpar And then what?

Bains And then, once you have completed those two years, which is a competitive process to get to the core medical training, you will then apply for your specialty. For example, general surgery is different to orthopedics which is different to urology. At that point, you will apply for higher surgical training, which has a specialty you want to go for.

Chagpar And how long is that?

Bains That depends on the specialty, but for surgery, it is six years.

Chagpar Another six years on top of the two years of core?

Bains Yes.

Chagpar In case anybody was just blown away by the fact that people enter medical school straight out of high school because I know some of our listeners might have been blown away by that, I know I was, it actually ends up being about the same, it is just that you end up getting your medical training much earlier, because in fact those two core years of surgery would be kind of like the first two years of our residency.

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Bains Yes.

Chagpar But then, we only need to do three more years of surgery and then that is it, then you are a general surgeon, and then if you want to do a fellowship that is extra, but that is three years; whereas, you have an additional six years. And so, does that make you then a breast surgeon or does that make you a general surgeon?

Bains A little bit of both really. Breast surgery is part of general surgery. We are trained to be general surgeons with an interest in breast. In the last two years of my general surgical training, it was purely breast surgery that I was doing. I was doing general surgery on-call, so your emergencies, your appendices and your dead gut and everything else, but breast surgery was my day job, so that was two years of doing what my bosses were doing.

Chagpar Okay, cool. So that is kind of like for us, you would do an extra year or two of breast surgery as a fellowship. So, it adds up to about the same.

Bains It does.

Chagpar And then, what happens after that?

Bains You can do a fellowship, which is what I have done, so I am doing oncoplastic fellowship like you mentioned and it is almost fine tuning all the skills that you have been picking up over the years, and also it takes you off the on-call rotation, which is brilliant because you will operate on a patient and then you might not see them again because you then rotated around your on-call. So, it is really great to just see your patient's day in and day out, go to the clinics and you just feel like you really belong as part of the unit where all have been disappearing off to different hospital and being on call. But then, because of the way that breast training is going in the UK with the oncoplastic surgery that is very widespread now, there is a thought that we do not really need a fellowship because you have got those skills by the end of your training anyway and now that things have moved on so much, the fellowship, yes of course you can do it, but it is not necessary and I know some fantastic consultants who have not done a fellowship and they have been my bosses and they have been as good as the ones who have done the fellowship.

Chagpar So, do you regret doing it?

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Bains No. I love my fellowship, it was fantastic. I mean mine is a national fellowship, so they are across the country and you get extra time out to do things like come to Yale for example for two weeks and you do not always have that flexibility. My boss at QE told me to enjoy this year, do what you want to do, go out, experience things, go to whichever unit you want to go to and just get the most out of the fellowship because that is what it is there for.

Chagpar Yeah, reality will start soon.

Bains That is exactly what he said. Enjoy whilst you can.

Chagpar So, you do this fellowship in oncoplastics and I want to talk a little bit about oncoplastics in a minute. But then after the fellowship, then what happens?

Bains Then you will be applying for a consultant job. And I had an interview

the week before I came to Yale and I secured a post at the Queen Elizabeth in Birmingham. So, I will be starting as a consultant at the end of my fellowship.

Chagpar Awesome, congratulations. A consultant is kind of like an attending surgeon here. You will be teaching fellows and residents and so on, which will be very exciting.

Bains Yes. Absolutely.

Chagpar Tell us a little bit more about oncoplastics. Certainly, that is something that has picked up here in the US as well. But perhaps not to the degree that it really has in the UK. Tell us a little bit more about what is oncoplastics, what was the training like, that kind of thing.

Bains It seems to be relatively new thing with the oncoplastics, and essentially it is tying in the cancer surgery with the aesthetic side of things. And the philosophy is your cancer surgery is the most important. The aesthetics is important but not as important as your cancer surgery. So, you will not compromise on the cancer resection just so that you can get a better result. That is fundamental to all oncoplastic surgery. I think that there is variability in the resources available in different hospitals. For example, in the big units, you have got plastic surgeons who can do a reconstructive surgery, and like you have here, you have the breast surgeons doing the cancer side and then your plastic surgeons take over and do the plastic side. Whereas, in the UK, it was thought that if the resources are not there, this is what we can do, train the surgeons and this is a skill that we can all develop, and it started off with the breast conserving surgery, also known as lumpectomies or partial mastectomies. And there are some patients who are perhaps large breasted who can benefit from oncoplastic procedures because you can

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maintain a shape of the breast which will not be the same size, but it will still be in the form of a breast rather than leaving an aesthetically unpleasing, scarred and deformed breast. And I think it started with just small oncoplastic procedures, so mobilizing the breast tissue to fill the gap to start with. And then we can do wider procedures. For example, in breast reductions, if anybody has ever seen these done, there are massive dissections that are done and then the breast is put back together in a smaller shape. And that is pretty much what we do with the oncoplastic procedures. If you have got a breast where you will remove an area of tissue, you can move around, it is almost like a jig-saw puzzle, you can put things back together so the patients are left with their own tissue and a breast that again may be smaller, but then you can symmetrize the other side as well. And so, the patients are left with something where their cancer has been removed, they will have their treatment but they are left with a breast rather than no breast which is what used to happen before if there were larger tumors.

Chagpar Right. And you would do the symmetrizing procedure at the same time?

Bains Yes, you can do. It can be that you may not have team members to help you, in which case the procedure might be a little bit longer, but it is always nicer to have the procedure done in one sitting for the patient so they do not end up lopsided because it can be quite a marked difference between the sizes, so the patients leave hospital matching, which is nice for them.

Chagpar Fantastic. We are going to learn more about oncoplastics and how the UK is similar or different from the US in terms of breast cancer surgery right after we take a short break for a medical minute. Please stay tuned to learn more about perspectives in breast surgery with my guest, Dr. Salena Bains.

Support of Yale Cancer Answers comes from AstraZeneca, proud partner in personalized medicine developing tailored treatments for cancer patients. Learn more [astrazeneca-us.com](http://astrazeneca-us.com). This is a medical minute about survivorship. Completing treatment for cancer is a very exciting milestone, but cancer and its treatment can be a life-changing experience. For cancer survivors, the return to normal activities and relationships can be difficult and some survivors face long-term side effects resulting from their treatment including heart problems, osteoporosis, fertility issues and an increased risk of second cancers. Resources are available to help keep cancer survivors well and focused on healthy living. More information is available at [YaleCancerCenter.org](http://YaleCancerCenter.org). You are listening to Connecticut Public Radio.

Chagpar This is Dr. Anees Chagpar and I am joined tonight by my guest who comes all the way from the UK, Dr. Salena Bains. We are talking about international differences in breast

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cancer surgery, and before the break, we were talking about differences in the educational system and this whole revolution in oncoplastic surgery, which is a new technique that has been taking hold here in the US as well to try to make cancer surgery cosmetic as well. We were talking a little bit, Salena, about how oftentimes a breast surgeon will do the symmetrizing procedure on the other side. Whereas here, we often use our plastic surgeons to do that. Tell us a little bit more about other differences. The other place where I think the two systems may vary is in terms of how the healthcare systems themselves are set up. How is the healthcare system set up in the UK because we hear all about the NHS and part of it I think is rumors and part of it is true, and we are always looking across the pond to see whether the grass is greener, so is it?

Bains Sitting here with you, I do not want to say, but we have the National Health Service, which is an amazing service and I am biased because I am from England and I work in the system, but it is amazing. In 1948 this was founded and the thing about the NHS is that it is free at the point of delivery,

so that means anybody can walk into the general practitioner or into hospital and whatever care they need, they will not be paying anything for it all.

Chagpar Not a dime?

Bains Not a dime or a penny. And times are becoming difficult because healthcare is becoming more expensive, everyone is driving all the standards to be very high, which is good which is what we want, but that will cost money and it requires resources. So, it is very difficult sometimes to try and keep the service efficient as well as keeping a high quality and that is a challenge that a lot of clinicians and managers are facing. But in terms of what we do, for example, a patient notices a lump or some abnormality or they think that they have something that is not quite right, they will go and see their general practitioner. If the general practitioner suspects cancer, whether that is breast cancer or skin cancer, they refer to the hospital and they have to be seen in the hospital within two weeks.

Chagpar This whole concept of the NHS is, yes – the care is really free, but you have to wait in terrible long lines and that is all rubbish, is that right?

Bains There is a different story to that, in that they are probably talking about emergency department. We have a 4-hour target in the emergency department. So, from when you walk in the door, you should be seen by somebody within 4 hours. Now because of the problems within the NHS at the moment, there is a delay sometimes in patients being seen in the emergency department and I am sure you have seen the headlines of

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patients in trolleys waiting in corridors and that is something that is not great to be honest, it is not something that we are proud of at the moment, but everybody is working really hard to try and see what we can do to try and minimize that.

Chagpar I will tell you Salena, there are people who have waited for four hours in emergency rooms in the US. How is healthcare paid for? I mean is taxation astronomical in the UK, like somebody has got to pay the bill, right?

Bains It comes from our taxes and the government has given us a budget for the year and then that is given to the department of health and then it is all filtered down to where the money needs to go. The taxation is not as bad as I think some countries have. The higher rate of tax, which is at 40% is when you earn over 45,000 pounds. So, it is not that everybody is having to pay 40% of their salary on tax. Everybody will always say they are being taxed too much, but if you want to have good services, then you need to be willing to be giving the money for those services because there is unfortunately not an infinite amount of money to go around.

Chagpar That is interesting because our highest bracket is still around 39% and

our healthcare is not free and in fact healthcare costs are one of the biggest propellers of bankruptcy in this country. So, clearly, we need to be doing some learning as to how the UK works, but I understand that in the UK, it is not that everybody goes to the NHS, there is also a private system, is that right?

Bains Yeah, absolutely. There is the option there to go privately and pay yourself.

Chagpar Why would you do that if the NHS is so wonderful?

Bains Some people like the nicer rooms, there are chefs that come with a white hat on and give you silver service for your dinner and some people like that. And, I think that if there are some things like hernia repair, which is not a major operation, you can go have it done, have your fancy dinner, go home, great. But if you have got cancer, I think the NHS is the best place to be.

Chagpar Really? Bains Yes. Because of the standards that are met by the hospitals across the board, because of the seamlessness that exists and the standardization of care. For example, we were chatting last week about the tumor board meeting that you had and I explained that any patient with cancer is discussed in our multidisciplinary team meeting. So, every single patient is discussed. For example, in a typical week, we have a 2-hour meeting

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and we discuss somewhere between 50-60 patients in that 2 hours and that is every single person that has come to us and has had a biopsy or had a mammogram and we then are able to follow them in clinic with a plan as to what we are doing with them.

Chagpar So, the standards are set for NHS, but in the private system, they do not necessarily have to adhere to the same standard?

Bains There is now a change in that to make sure that there is the standardization because what you do not want is some maverick person doing whatever they want to do and there have been occasions when that has happened. I say now there is a big move to make sure that people are accountable for what they are doing, they need to do what their revision rates are, what their re-excision rates are and that is something that should be in the public arena so that everybody knows what they are getting when they go and see a certain person.

Chagpar That is fantastic. The other thing is that in the UK, you have this body called NICE that really sets these standards. Tell us more about that and whether you feel that that is beneficial in terms of being evidence based and guiding policy or whether you find it constricting.

Bains I think the different specialties will have different opinions on it. One of the problems that we face as clinicians is that there is such an evolution in what is happening, so everyday there will be a new paper, there will be a new study,



there will be a new technique that we use and sometimes these bodies can be a little bit behind the time, which I think some clinicians feel is a little restrictive because they have seen the evidence to say this is what we need to be doing, but until the body of guidance tells we are going to allow the funding for that, you may feel that you are a little behind the times from what your colleagues may be doing across the pond or in Europe.

Chagpar Otherwise, NICE really does dictate policy, but it does that also based on cost, right?

Bains Yes, we have got limited resources. They will look at clinical effectiveness and also look at monetarily is this something that is worth it and that is very difficult because what price do you put on someone's life? I think they have to make some very tough decisions, but the decisions they make are such that they want there to be equity across the country so it is not that you get a postcode lottery where in a certain postcode where they are a little bit more affluent, they have got a little bit more money, they will end up with different drugs to somewhere in a city where they do not have the resources, so that is the aim of NICE.

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Chagpar Which is very different from here where we really do not have that kind of a body and we really do not have that kind of equity. There are huge disparities between people who have and people who have not between the insured and the uninsured, between the wealthy and the impoverished, and I think that that is another place where we can actually do a lot better. But it does lead to controversy. For example, when we have bodies, for example, like the United States Preventative Services Task Force, which looks at screening and says this is cost effective, this is not cost effective and comes up with guidelines, there are then a bunch of professional bodies that will say, well we agree or we do not agree or we do not think that you should put a price tag on screening and so forth. Whereas in the UK, you have pretty standardized recommendations for screening

.Bains Absolutely. Yes we do.

Chagpar For our listeners, because I know we discussed this last week, tell us about screening in the UK and how that works?

Bains For the general population, screening used to be from the ages of 50-70. There is a bit of an age extension trial going on at the moment. So, they are screening from 47-73, and the patients come for mammograms every 3 years. And I know that is very different from here. And then after the age of 73, the patients can choose to have mammograms done, but it is not that they will be routinely requested to come and have mammograms done.

Chagpar Do women in the UK knowing that in the US many women are recommended to get mammograms every year, do they push back and say, Dr. Bains,

why am I only getting a mammogram every 3 years?

Bains No, on the whole, I have not found that to be the case at all really and unfortunately it is not that everybody even comes for the mammogram, so we aim for just over 70% and that is probably about what we are hitting in terms of the people that actually come for screening. So, I think it is quite similar to here, is it?

Chagpar Yeah. The interesting thing is that, here we get a lot of pushback when the new guidelines come out. But the truth of the matter is that not everybody comes annually for the mammograms anyways because it is another trip to the hospital and to the clinic and then there is parking and you have to take time off work and who wants all of that and a lot of people are just too busy or they just do not think about it. The other 26:04 into mp3 file [https://cdn1.medicine.yale.edu/cancer/2018-YCA-0715-Podcast-Bains\\_338078\\_5\\_v1.mp3](https://cdn1.medicine.yale.edu/cancer/2018-YCA-0715-Podcast-Bains_338078_5_v1.mp3) thing that I found interesting was what happens after screening, just in terms of the efficiency of your clinics? Tell us more about that. So, somebody comes for a mammogram and an abnormality is seen, what happens then?

Bains The images will be reviewed. They will be re-called and they may need to have mag views done to look in more detail or then they will have biopsy done. But everything that we do, we have got a strict timeline that we stick to. We have got for example a 31-day target, so whether it is breast cancer or skin cancer, you have got 31 days from when you decide that you are going to treat the patient, to when you have to do their treatment, and we have got to meet, I think 90% that you have to make sure that you operated or treated over 90% of patients within that timeframe.

Chagpar And is that completion of treatment or is that just the initiation?

Bains Just the initiation. It may be we start endocrine treatment or chemotherapy beforehand and that will count as a treatment.

Chagpar When we talk about treatment in the UK, all of your treatment is covered, so that includes your chemotherapy, your surgery, your radiation, everything.

Bains Everything, absolutely.

Chagpar What about, do you have issues in terms of people living in remote areas and having access to the hospitals, to the radiation facilities and so on?

Bains Yes. Where I have been working, in Birmingham or in Leicester, where I did my training as well, that is not so much of an issue, but when you go out to say Scotland, you find that for some patients, for example, traveling for their radiotherapy, it is very difficult because they live so far away and I think that in those areas you could say, well the care is not exactly the same as we knew it in the city, so there is not issue there, but I do not think it is marked as it is here in the US.

Chagpar Let's talk a little bit about outcomes. Patients come and they get treatment, how well do they do? I mean, do we have a comparative of how people do in the UK versus in the US and what the treatments are like in the UK versus in the US?

Bains I think so. Because we got our guidelines there, we are a little limited as to what exactly we are going to do, but I think in terms of our health outcomes, I think they are similar to the US, but I think the US and the UK are not doing as well as some of the

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countries in Europe, for example. I hope I am not misquoting, but I have been looking at how much of our GDP is spent on cancer treatments for example, and I know that the UK spends a little bit less than the US, but I think our outcomes are quite similar.

Dr. Salena Bains is a Visiting Surgeon from the United Kingdom. If you have questions, the address is [canceranswers@yale.edu](mailto:canceranswers@yale.edu) and past editions of the program are available in audio and written form at [YaleCancerCenter.org](http://YaleCancerCenter.org). I am Bruce Barber, reminding you to tune in each week to learn more about the fight against cancer here on Connecticut public radio.