Welcome to Yale Cancer Center Answers with Dr. Francine Foss and Dr. Lynn Wilson. Dr. Foss is a Professor of Medical Oncology and Dermatology, specializing in the treatment of lymphomas. Dr. Wilson is a Professor of Therapeutic Radiology and an expert in the use of radiation to treat lung cancers and cutaneous lymphomas. If you would like to join the conversation, you can contact the doctors directly. The address is canceranswers@yale.edu and the phone number is 1-888-234-4YCC. This week, Lynn welcomes Dr. Hari Deshpande. Dr. Deshpande is Assistant Professor of Medical Oncology and of Otolaryngology and Assistant Clinical Professor of Nursing at Yale School of Medicine. Here is Lynn Wilson.Wilson Let's start off by having you tell us a little bit about what it is that you do with relation to cancer and cancer patients?Deshpande I take care of patients with head and neck cancer. I started at Yale in 2004 and since then I have been working with patients with what is known as head and neck squamous cell cancers as well as other head and neck cancers including thyroid cancers.Wilson How did you become involved in this field Hari?Deshpande When I started at Yale, I took over the head and neck service and since that time I have been working very closely with my colleagues in the department of otolaryngology, or ENT surgery, as well as the department of radiation oncology.Wilson Tell us a little bit about your background and training, where are you from? What is your training background? What amount of time did that take, and how did you develop the type of expertise that you have.Deshpande Well, to be an oncologist you have train first off in a medicine residency which is three years of treating patients with all kinds of medical problems, you then specialize in medical oncology which is another three years, and then at that time you have the choice of either going into what is known as general practice, where you can treat patients with any kind of cancer, or you can specialize in one field and that is what I chose to do when I came to Yale, and really it is something that you are learning every day. Every day you see new patients with conditions that may be slightly different ones than you have seen before, but we do have certain protocols that we stick to when we treat head and neck cancers.Wilson So even though head and neck cancer is a subspecialty of oncology, there are quite a few different cancers in the head and neck area, could you tell us a little bit about some of them?Deshpande That is correct, and in fact it is almost a misnomer because even though we say head and neck cancers we are not talking about cancers of the brain which obviously is in the head, but that falls under a different category. Head and neck cancers are cancers of what we call the upper area of the digestive track so that is really everything between the front of the mouth or the lips all the way3:13 into mp3 file http://yalecancercenter.org/podcasts/2012_0318_YCC_Answers_-_Dr_Deshpande.mp3down to the larynx, which is the Adam's apple you can feel in your neck. So it is quite a small area, but within that area there are many, many stretches. The larynx itself is a very, very complex stretch, the mouth we split up into different areas which we call the oral cavity and then a little further back is the pharynx which we subdivide into the oropharynx, nasopharynx, and the hypopharynx. So, it is quite a complicated field for just

a small area of the body.Wilson Tell us a little bit about what exactly your part is in the multidisciplinary team of doctors who manage and see patients with head and neck cancer. Tell me a little bit about the different specialties that are involved?Deshpande That is really what I enjoy most about working with head and neck cancer patients is we really do have a very good team of doctors. This includes the surgeons, the ENT physicians, and the ones I work very closely with are Clarence Sasaki and Benjamin Judson, and radiation oncologist including Yung Son, and Roy Decker and then Daniel Morgensztern who is the medical oncologist, along with myself. And we see patients together first of all in a multidisciplinary tumor board meeting where we actually see the patient at the same time. It is quite unprecedented for most tumor boards but is very useful for all of us, as we ask questions to any patients that come in. Where I fall into the team is that I am in charge of the chemotherapy side of the treatment.Wilson When you have this tumor board and the patient is actually there, you mentioned that is unprecedented. Why is it unusual and could you explain some of the advantages?Deshpande Most tumor board meetings are meetings where all different physicians of different specialties get together and review a case of a new patient or a complicated patient. We would look at the x-rays or CAT scans and pathology, but usually the patients are not physically present in the room. In the case of the head and neck tumor board, the patients are physically there and the advantage is you can put a face to the description of the case that is being described before you, however, sometimes not all patients like to be involved in this, and so there are times where we would not bring the patient to the tumor board, they may feel a little intimidated in a room full of doctors.Wilson And I would imagine with head and neck cancer Hari, there is a bit of an advantage for this type of evaluation because in most of the cases you can actually see the tumors when you examine the patient as opposed to something in the gastrointestinal tract which would be impossible to see without a special internal endoscopic type of technique or a CAT scan for a lung cancer, that sort of thing, and is that something that you focus on as a group, that you can examine the patient together, and actually see what you are talking about.Deshpande That is absolutely correct, and whether it is a lump in the neck that you can see from across the room or it is a lesion in the mouth that you can just see by looking into that patient's mouth, it is very easy to see and evaluate the primary or secondary cancer that the patient has.7:01 into mp3 file http://yalecancercenter.org/podcasts/2012_0318_YCC_Answers_-_Dr_Deshpande.mp3Wilson I would presume that by all of you being there together with the patient, there is some sort of discussion with the patient perhaps after the meeting and does that enhance the efficiency of the clinical evaluation for the physicians and the patient, since they are getting access to all of the specialists in one visit as opposed to going from doctor's office to doctor's office over several weeks?Deshpande I think that is the main advantage of the tumor board meeting with the patients, they can feel that everyone has discussed their case. Typically, what happens is while the patients are in the room we will ask a certain amount of questions to them. The patients and the families will then leave the room, we will have more of a discussion and then

at the very end, supposing it is someone I presented, I will go back and discuss the findings with the patient, so it is a very involved process and the patient is the center of all of the discussions.Wilson So someone could come in say, that afternoon, be seen, come to the tumor board and then before going home may have a fairly detailed outline of what the treatment recommendations are of this entire specialty team?Deshpande That is correct. Typically they do have to come back for a more detailed visit with say me if chemotherapy is involved, but yes they will get an outline right there and then.Wilson That sounds fantastic. Getting back to specific head and neck cancers, what are some of the more common ones in the head and neck area?Deshpande Head and neck cancers that I see occur, as I mentioned, anywhere from the mouth all the way down to the larynx. The common cancers that we see include cancers of the tonsil, base of the tongue, that's the back of the tongue, and cancers of the larynx itself. They are not as common as lung cancer or breast cancer. Typically, in this country we see around 40,000 cases every year and that is compared to say 200,000 cases of lung cancer.Wilson Still quite a few cases though.Deshpande Yes, that is right.Wilson What are some of the risk factors for head and neck cancer in general?Deshpande This has interestingly changed over the years. Typically cigarette smoking and alcohol in conjunction were considered the main factors for having cancers of the head and neck, however, since the 1970's, cancers of the oropharynx, the tonsil and the base of tongue have increased despite patients not smoking as much, and so a lot of investigation has been done into that area and what we now know is that these cancers, and some other cancers in the head and neck, are9:54 into mp3 file http://yalecancercenter.org/podcasts/2012_0318_YCC_Answers_-_Dr_Deshpande.mp3associated with the virus which is known as the human papillomavirus, a similar virus to what causes cervical cancer in women.Wilson And how do those patients fair if it is HVP compared to a patient who has the same type of head and neck cancer that may be unrelated to HPV and is because of smoking, for example, do they behave differently biologically?Deshpande They do, and in fact, there have been many studies reported over the past few years asking exactly that same question and what we find is that with exactly the same treatments, typically radiation and chemotherapy, the patients who have HPV related cancer do remarkably well and the survival rate is five years in the 80% to 90% range, whereas if they have cigarette smoking related cancers, they do not do as well so survival is in the 50% to 60% range.Wilson You had mentioned both smoking and alcohol consumption. Is each one a risk factor in and of itself and the two of them together are synergistic, how does that work?Deshpande The two of them is definitely synergistic. If you take oropharyngeal cancer, for someone who has a 20 pack year smoking history, who drinks more than about five drinks a week, then the risk of developing cancer in the oropharynx is about 40 times that of the normal population, and that is much higher than if they smoke cigarettes alone. Alcohol drinking by itself does not appear to be a risk factor for head and neck cancer, but it does make the cigarette smoking more of a factor.Wilson You mentioned in your example 20 pack years, what does that mean?Deshpande That is the time we

use in medicine all the time. Basically, what we do is try and quantify how many cigarettes someone has had over their lifetime, so we take the average number of packs they smoke a day and multiply it by the number of years they have been smoking, so if they smoke two packs a day for ten years, it is a 20 pack year.Wilson I see. If you have a patient who has a tumor in the throat, how do you figure out if this is perhaps related to smoking or related to HPV?Deshpande That is a very good question. Right now we test all the cancers of the tonsil and the base of tongue for the presence of HPV, and recently we have been able to do this using a protein called P16. If the pathologist finds P16 in that specimen that means the cancer is associated with HPV. We tend not to test the other sites just because the incidence, so the amount of cancers that are related to HPV in other places in the head and neck, are not as high as they are in the tonsil or base of tongue.13:17 into mp3 file http://yalecancercenter.org/podcasts/2012_0318_YCC_Answers_-_Dr_Deshpande.mp3Wilson Do you have any sense of why things have changed over the last 20 to 25 years? Why hasn't HPV been a problem for 100 years, why has it started to be a problem more recently?Deshpande I do not think anyone knows the absolute answer to that. We think it might be due to changes in sexual practices over the last three or four decades. There are a lot of other reasons for this, which I think remain to be elucidated over the next few years.Wilson We were going to take a short break for a medical minute. Please stay tuned to learn more information about head and neck cancers with Dr. Hari Deshpande.MedicalMinute Breast cancer is the most common cancer in women. In Connecticut alone, approximately 3,000 women will be diagnosed with breast cancer this year, but there is new hope. Earlier detection, noninvasive treatments and novel therapies provide more options for patients to fight breast cancer. Women should schedule a baseline mammogram beginning at age 40 or earlier if they have risk factors associated for the disease. With screening, early detection and a healthy lifestyle breast cancer can be defeated. Clinical trails are currently underway at federally designated comprehensive cancer centers such as Yale Cancer Center to make innovative new treatments available to patients. A potential breakthrough in treating chemotherapy resistant breast cancer is now being studied at Yale combing BSI-101 a PARP inhibitor with the chemotherapy drug, irinotecan. This has been a medical minute brought to you as a public service by the Yale Cancer Center. More information is available at yalecancercenter.org. You are listening to the WNPR Health Forum on the Connecticut Public Broadcasting Network.Wilson Welcome back to Yale Cancer Center Answers. This is Dr. Lynn Wilson and I am joined by my guest, Dr. Hari Deshpande and we are discussing head and neck cancer. Hari, we were just talking about risk factors for head and neck cancer, HPV being one of them. Let's get back to smoking for a moment. If someone is diagnosed with a head and neck cancer and they are a heavy smoker, is smoking cessation at that point something that is going to help them in terms of their treatment and prognosis?Deshpande Absolutely, and what we know about many head and neck cancers, especially cancers of what we call the oral cavity, that is the

front of the mouth, is that they often present very early on. The patients will see a lump, they'll go to their doctor and it will be removed, so technically those cancers are curable. If they continue to smoke, however, then the risk of cancer coming back is about twice as high as if they stop smoking so we really encourage those patients to stop smoking and in fact we do have an excellent smoking cessation clinic in the Smilow Cancer Hospital on the fourth floor where patients can enroll and they are given help to stop smoking.16:22 into mp3 file http://yalecancercenter.org/podcasts/2012_0318_YCC_Answers_-_Dr_Deshpande.mp3Wilson And is that for just patients who have been diagnosed and under treatment or would that be for any patient who is interested in quitting smoking with cancer, who would qualify?Deshpande That is a good question. Anyone who is smoking who was seen in the Smilow clinic gets a form to fill out, to say first of all whether they are smoker, and then if they are, then they have an option of joining that clinic and we do encourage this.Wilson That is terrific. Does smoking for someone who is just unable to stop smoking, and we have both known many patients because it is very difficult thing, does this impact the ability to successfully get through the treatment program, can it cause problems with the treatment itself in terms of side effects?Deshpande It definitely can. Head and neck cancer treatment is, I would say, one of the more difficult treatments to tolerate for patients. The radiation, for instance, is being targeted to the neck and that is the place where all the air goes down when you are trying to breathe, it is where all the food goes down, when you are trying to swallow, so it is a very difficult treatment for anyone to undergo. If you add cigarette smoking and all the irritation from cigarette smoke on to that, it can make it twice as hard to get through.Wilson Thinking about epidemiology, besides some of the risk factors we have discussed, are there other types of behaviors or groups of people that might be at increased risk for head and neck cancer in terms of more males versus females, younger folks versus older folks, tell our listeners a little about that.Deshpande For the HPV related cancers, which we mentioned earlier, it seems as though this is beginning to affect a younger population, but by younger we still see patients in their thirties, forties, and fifties. In those groups it seems to be affecting men and women about equally. For the cigarette smokers, however, it does seem to be more of an older man's disease, for instance, the ratio of men to women in some series that I have seen for larynx cancer, which is one of the more cigarette smoking associated cancers that we see in the head and neck, it is probably in the order of four to one, and even up to seven to one in some series, male to female ratio.Wilson What are some of the symptoms that the patient might complain about that would be suggestive of a head and neck cancer? Of course understanding that many of the same symptoms may represent a completely benign and non cancerous disorder, but when you see a patient who has got a diagnosis of cancer and you take their history, what are some of the more common symptoms?Deshpande That is a very good question because it is one of the reasons I think people do not seek medical attention initially. We have all had a sore throat or a cough or trouble swallowing or pain because19:34 into mp3 file http://yalecancercenter.org/podcasts/2012_0318_YCC_Answers_-

__Dr__Deshpande.mp3of reflux and we tend to ignore these for a while, but if those symptoms continue for more than a couple of weeks despite antibiotics, then that is the time for the patient to go and see their doctor, and specifically these are sore throat, difficulty swallowing and definitely if they have a lymph node in the neck, it does not go away, and also if they are coughing up any blood that is an immediate red flag for more investigations.Wilson Aside from the sore throat, can patients have pain? Do these cancers hurt? Can they get ear pain, are those factors?Deshpande They are, it depends where the cancer is, so if the cancer is in the tonsil or the nasopharynx then that is very close to several of the structures that affect hearing as well as including something called the Eustachian tubes where they either have a feeling of blocked ear or pain in that area. We refer to that as referred pain; the cancer is in one place but they feel the pain somewhere else.Wilson I see. And when you are evaluating such a patient are there other tests sometimes that you want to get? What sort of things might a patient need to prepare themselves for?Deshpande Typically they will go see the ENT doctor after they have seen their primary doctor. At that time, they will have what's known as a mirror exam where the ENT physician will typically put a mirror at the back of throat to look further down into the throat then they could just by looking with their eyes and then they may get what's known as a fiberoptic laryngoscopy, that is where a flexible small telescope is introduced through the nose into the mouth and they get an excellent view all the way down to the larynx to make sure that they do not see any abnormal structures.Wilson You mentioned a little bit about treatment with chemotherapy, radiation, and removal of the tumor. Is it generally fair to conclude that the smaller the tumor is, the more apt it may be to undergo a surgical procedure and do a removal in one operation and possibly be cured?Deshpande That is absolutely true. All that does depends on where the cancer is. In the front of the mouth, typically those cancers are very easy to reach with an operation and treated if they are very-very small with an operation alone. Further back, say in the tonsil or in the larynx, sometimes an operation to remove that would involve damaging structures that would affect speech or swallowing, and so, over the last 20 or 30 years we began to do more radiation as a primary treatment for those cancers rather than an operation upfront and typically they need only a single modality of treatment for very small cancers, in other words, either just surgery or just radiation.Wilson For cancers that have spread to the lymph nodes, for example, and you have to introduce some more aggressive treatment programs of perhaps a combination of radiation and chemotherapy, I know you have a lot of experience with these combined regimens, what are some of the main toxicities that we see?23:05 into mp3 file http://yalecancercenter.org/podcasts/2012_0318_YCC_Answers_-__Dr__Deshpande.mp3Deshpande This is what I was referring to earlier, as one of the most difficult cancer treatments to undergo. The toxicities include pain on swallowing, typically when someone undergoes radiation for head and neck cancer. The side effects are quite variable at the very beginning, but towards the end the side effects become much worse. In other words, they feel more pain in the throat. It is more difficult for them to swallow and they may lose

a significant amount of weight, and for patients who do lose more than about 10% of their body weight or we feel they might lose that, then we typically will put a feeding tube, that is a tube that goes directly into their stomach to make sure they can get through the treatments and we have excellent supportive care in our program, whether it is our nutritionist or the nursing staff or the other members of the team. We will monitor these patients very closely and make sure they get through that treatment with as few interruptions as possible.Wilson Hari, are there any screening programs available? Is screening worthwhile? We talk about screening in some of the other cancers, there have been some studies looking at chest x-rays versus CAT scans for lung cancer, mammography in breast cancer. What do you have available and what is really making a difference in head and neck cancer?Deshpande I think one of the reasons mammography, say for breast cancer, has been so successful is because there have been many really excellent studies done using that modality. For head and neck screening, I do not think we're as far advanced as they are say, in breast cancer, but we do have a screening day here at Yale. In fact, the next one is coming up, it is a yearly event, on April 17, 2012 at the Yale Physicians' Building. It is the Annual Head and Neck Screening Day. Basically, anyone can come in for head and neck screening on that day and will be seen by one of our physicians there. They typically ask questions about smoking habits and things like that and have a very brief exam to see whether they have any lesions.Wilson You said April 17, now is that something that patients need to sign up for somewhere in advance or can they just show up at the Yale Physicians Building?Deshpande I think they may need to sign up for that, and what I would suggest to them is if they call the main number of Smilow then we can direct them to where they need to go.Wilson Terrific, you mentioned the tumor board. Obviously, the same team members are seeing patients in clinic, but walk us through what a clinic visit would be like for a typical patient who you perhaps suspect as having head and neck cancer. What is that half a day, or day, like for them?Deshpande It depends on which physician they see. Typically, if they do come to see myself initially, then I will try and also have them see one of my colleagues, usually Dr. Sasaki or Dr. Judson but they would come to the front desk and they would have a history and a physical done by me and I ask26:44 into mp3 file http://yalecancercenter.org/podcasts/2012_0318_YCC_Answers_-_Dr_Deshpande.mp3them about their risk factors for head and neck cancer, have a look at them and then when the ENT surgeon eventually sees them, whether it is that same day or a different day, they will have a more thorough exam with a fiberoptic laryngoscopy and there may be a biopsy at that time.Wilson Generally, either the evaluation would be complete for a patient who came to Smilow either in one day, by a variety of specialists who you thought might be necessary to evaluate that patient, or over just a couple of days and that is all happening at Smilow in the same building the same facility and same team?Deshpande In fact, Dr. Sasaki, Dr. Judson and myself are on the same floor about two rooms away from each other, so it is very-very nice to have a true multidisciplinary team.Wilson I see. We cannot over emphasize

enough the other members of the team, nursing, and social work that you have mentioned, nutrition, dietician, and things like that.Deshpande Absolutely, and social work is one I did not mention and they are extremely important. Head and neck cancer, to me, is one of the cancers that is hardest to hide. If you have lung or breast cancer or prostate cancer someone could look at you and they do not know you have cancer. If you have a tracheostomy or a lump in the neck everyone is going to notice that, so it is socially a very much more difficult disease to handle, I think.Wilson Hari, are there any new or current clinical trials that you are excited about and as a follow-up question to that, why are these types of trials important?Deshpande We do have some clinical trials that we have opened or are opening here at Yale and I am the principal investigator on a clinical trial trying to improve on chemotherapy, and in answer to your question, one of the reasons we need these is for the patients who are unlucky enough to have cancer that spread to different parts of the body, they really do not have a very good prognosis, about 6 or 10 months, so anything we can do to improve on that will be good. The clinical trial I am running is looking at standard chemotherapy and whether or not something called bevacizumab, or Avastin will improve on survival, and this is a very interesting compound that affects the blood supply of a tumor. It has already been approved for lung cancers and was briefly approved for breast cancer and also approved for colon cancer. So, hopefully it will be useful in our cancers as well.Dr. Hari Deshpande is Assistant Professor of Medical Oncology and Otolaryngology. If you have questions or would like add your comments, visit yalecancercenter.org, where you can also get the podcast and find written transcripts of past programs. You are listening to the WNPR Health Forum on the Connecticut Public Broadcasting Network.