Welcome to Yale Cancer Center Answers with doctors Francine Foss and 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 is joined by Dr. Clarence Sasaki and DanielMorgensztern. Dr. Sasaki is the Charles W. Ohse Professor of Surgery and Section Chief of Surgery and Otolaryngology and Dr.Morgensztern is an Assistant Professor of Medical Oncology at Yale School of Medicine. Here is Lynn Wilson. Wilson Let's start off by having either one of you tell us a little bit about what head and neck cancer is? MorgenszternHead and neck cancer is a specific kind of cancer that usually arises from the lining of the throat, mouth and sinus cavities. They are called squamous cell carcinomas and they tend to be, for the most part, refractory to most treatments. Approximately 50% of patients who have this disease do suffer recurrence, unfortunately. Wilson Tell us a little bit, Dr. Sasaki and then Dr. Morgenstern, how you became involved in this field? Sasaki I became involved because as a Yale medical student I was exposed to my professor Dr. John Kirchner who was and still is a superb laryngologist and head and neck surgeon, and I was especially impressed by how he interacted with his patients and how so many of his patients actually adored him, even though the treatment outcomes, as I indicated, where not always successful. He sent me on a three fellowships to Europe where I worked for a brief time with a Professor at the University of Milan. A couple of years later, he sent me off to work with a Professor at the University of Zurich, Switzerland, and then finally with a plastic surgeon in London. So he ensured that I would probably stick around in this field for a long time to come. Wilson Daniel, how about yourself? Morgensztern For me it started when I worked at the Veterans Hospital and head and neck is one of the most common tumors that was seen there, so I saw so many patients and I started to like it, especially more recently when we noticed an increase for medical oncologist, more patients receiving chemotherapy and more recently targeted therapy such as cetuximab, so we have seen progress and it gets more interesting over time, and I think I made the right choice. Wilson Clarence, you are a surgeon, and Daniel, you are a medical oncologist. I think most people understand what surgeons do so Daniel, tell us a little bit about medical oncology, specifically what sort of things you offer patients? Sasaki Specifically for head and neck cancer, we have three main modalities of treatment which are surgery, radiation and chemotherapy, so medical oncologists are the one that provide what we call 3:23 into mp3 file http://yalecancercenter.org/podcasts/2011_0821_YCC_Answers_-_Drs_Sasaki_and_Morgenstern.mp3systemic therapy, which is usually chemotherapy medicine given in the veins. Sometimes we will give meds in the veins, not chemotherapies themselves, but rather what we call targeted therapy because of side effects or a different profile of side effects, and occasionally we will give tablets, which could be either chemotherapy or targeted therapy. This

is mainly the role for medical oncology. We give medicines that help it work in all parts of the body. Wilson Clarence, how common are cancers of the head and neck? I know this can be a bit complicated because there are a lot of different cancers that can happen in the head and neck, but talk about some of the more common ones? Sasaki About 50,000 new head and neck cancers are detected in this country on an annual basis and worldwide, this increases to about 615,000 on an annual basis. Most of them are, as I indicated, squamous cell cancers, squamous cell carcinoma. There are some cancers that are peculiar to the salivary glands such as acinic cell carcinoma or adenoid cystic carcinoma. There is also a category called mucoepidermoid carcinoma that occurs within salivary glands and these tend to behave more closely to the garden variety squamous cell cancers. Wilson And are some of these cancers better managed by surgery, for example, compared to radiation therapy, or combinations of therapies? Sasaki I'll let Dan chime in here as well, but the choices that are available to patients and doctors depends upon the size of the cancer, so smaller cancers are effectively treated either by radiation or by surgery, and so called medium cancers lend themselves to chemoradiation, that is, chemotherapy and concurrent radiation therapy, and for the very large cancers, our preference is the use of what is called induction chemotherapy, or neoadjuvant chemotherapy followed by either chemoradiation concurrently or by surgery and chemoradiation. Wilson Daniel, what are some of the risk factors for a patient to develop a head and neck cancer? Morgensztern The traditional risk factors are alcohol and tobacco, they are both independent risk factors, it means just smoking cigarettes or drinking alcohol are risk factors and apparently, the combination of them multiplies the risk for developing cancer of the head and neck up to 25 times in some studies. Besides those, there are some viruses have been associated with head and neck cancer, like the Epstein-Barr Virus. EBV is associated with a particular type of head and neck cancer called nasopharyngeal carcinoma and also the human papillomavirus, or HPV, particularly the subtype 16, is associated with cancers of the head and neck, and particularly cancers of the base of the tongue and tonsils. This is the type of cancer that is growing in incidence in the United States, but other types of head and neck cancers are decreasing. HPV is considered a sexually transmitted disease, in fact it is the most common sexually transmitted disease in the United States, and thus far is associated with several diseases ranging from warts to cancer of the penis, vulva, vagina and anal cancer. Most studies have indicated the risk factors, especially for male sarcoid, is the 7:07 into mp3 file http://yalecancercenter.org/podcasts/2011_0821_YCC_Answers_-_Drs_Sasaki_and_Morgenstern.mp3 number of sexual partners. It is also speculated that immunosuppressive states can cause it ormay increase the incidence of head and neck cancers. First with patients that HIV or AIDS, or patients that underwent transplant may be at risk for developing this type of cancer. There are some familial risks as well and some studies have shown that patients who have first-degree relatives with squamous cell carcinoma of the head and neck may also have an increased incidence. In the past, unfortunately, some individuals have undergone radiation for benign

causes, and this has been associated as well with increased risk of head and neck cancers. Wilson Are we seeing an increased risk of HPV associated head and neck cancers in other places outside the United States as well? Morgensztern That is correct. In the western countries, it is believed that more than 50% of cancers of the oropharynx are caused by HPV, and this trend is actually worldwide, particularly in the western countries, whereas in the eastern countries, there are different patterns for them to have more nasopharyngeal carcinoma, but that is for sure this is not just in the United States. Wilson And this is something that has been witnessed relatively recently in the last 5 to 10 years. We did not really see this, for example, 25 to 30 years ago? Morgensztern That is correct, I do not think we are sure when exactly this epidemic started, but for sure we were not testing for HPV in the past, so it is hard to really tell when this started, but there has been an increase in the number of cancers of the oropharynx, base of the tongue, and tonsils, whereas on the other side, the incidence of the cancer has been decreasing. We also noticed a decrease in middle aged patients having these types of cancers, whereas squamous cell carcinoma of the head and neck occurs in patients older than 60, these types of tumors occur in patients typically younger and patients that have medium to no history of smoking or drinking alcohol, which are the main risk factors for HPV negative tumors. We notice something is wrong so let's test to see if there is something else and lessen the number of cases of HPV. Wilson Dr.Sasaki, what sort of age groups are most at risk for head and neck cancer and how about race and gender, does that factor into things? Sasaki Looking at the traditional cause for head and neck cancer, that is tobacco exposure, about 75% of all of our head and neck cancer patients have a history of heavy tobacco abuse. The ratio of male to female used to be 6:1, more recently though it has dropped to 2:1, mainly because more women tend to smoke now and previously and the ages in which this disease was most prevalent was between 50 and 60 years of age. Wilson Talk to us a little bit about some other symptoms that a patient with head and neck cancer may come to the doctor with, what sort of complaints? 10:29 into mp3 file http://yalecancercenter.org/podcasts/2011_0821_YCC_Answers_-_Drs_Sasaki_and_Morgenstern.mp3 Sasaki Most patients with head and neck cancer have a history of a sore throat, and particularly worrisomeis a sore throat that occurs with pain to the ear during swallowing. Other patients may experience bloody saliva or a lump in the neck or hoarseness that may persist for three or more weeks. Wilson Let's get into treatment options, we mentioned the categories of treatments that can be done, but tell the listeners a little bit more in detail about surgery, for example, and what kind of operations are involved. Sasaki When tumors are small they can be excised, and we favor excision if the excision does not interfere with speaking, with voice or with swallowing. Otherwise, radiation therapy might be a better option in terms of preserving the patient's communication function and swallow function. More recently, we have developed a method of excising tumors that might affect vocal cords or the tissues near the vocal cords by using the CO2 laser. Traditionally what would require an open procedure can

now be done endoscopically, and we have been doing this at Yale for about the past 10 years. Wilson Typically for a procedure like that is it a one day surgery; does the patient stay over in the hospital, what sort of recuperation is required? Sasaki That is a very good question, and using traditional surgery, patients would have to be in the hospital for 10 days roughly. With laser endoscopic surgery they go home the very same day, so it is really an outpatient procedure. Wilson And is there a role for robotic surgery in head and neck cancer? Sasaki There is a growing interest in robotic surgery, both at our medical center and elsewhere. I am not exactly sure what advantages robotic surgery has at this point in time because much of the instrumentation that is currently used for head and neck really belongs to surgery for the abdomen, for example, or for GYN. So it is not specifically designed for resection of head and neck cancers. Wilson And Dr.Morgensztern, give us a little bit more information about the systemic therapies that you mentioned, or the targeted agents. Morgensztern This is a little more complex, but as I said before there has been an expanding role for the use of systemic therapies in the treatment of patients with head and neck cancer so one clear indication is for patients that undergo surgery. If they have multiple lymph nodes involved, they typically offer radiation therapy after the surgery with two specific features that may predict high risk for the cancer to relapse, one of them is if the margins are positive, they can't remove everything and 13:29 into mp3 file http://yalecancercenter.org/podcasts/2011_0821_YCC_Answers_-_Drs_Sasaki_and_Morgenstern.mp3 microscopic exam shows that there are still some cancer cells left, so we tend to add chemotherapyto the radiation and this is after surgery. Another indication is that when the tumors spread beyond the capsule of the lymph nodes, we also tend to add chemotherapy. We will add chemotherapy to the radiation and both are used after surgery. Some patients cannot have surgery because of the location of the tumor or because they had surgery before, so we tend to offer a combination ofchemotherapy and radiation. This standard chemotherapy we have been using since the 80's is called cisplatin. This is a very good medicine, very effective, but also has a lot of side effects. It can cause deafness, and it can cause renal failure. The treatment lasts for a long time because the patient has hydration, so they need to have good heart function. More recently, a landmark study published in 2006 showed that this targeted therapy called cetuximab, which is basically an anti-epidermal growth factor receptor treatment, has very few side effects, namely a skin rash that looks like papules, and diarrhea, and it is very well tolerated and combined with radiation gives better results than radiation alone, so we are starting to use it more and more and we are just about to open a study at Yale where the patient will undergo resection for cancers of the head and neck. They do not meet specific criteria for chemotherapy and radiation, and the ones that have received just radiation, they will be randomized, so half of the patients get radiation alone, and the other half will get radiation with cetuximab, so this study may make another indication for the use of cetuximab. Wilson Even with the complications, or side effects rather, that you mentioned, these therapies can be given to

patients as outpatient, is that correct? Morgensztern Those are outpatient treatments. We typically give this treatment once every three weeks during the course of radiation, so the goal, or the target, is to give three cycles of three full treatments. Cetuximab on the other hand is given weekly, so we would give between 6 and 7 doses of cetuximab, but they are all outpatient, and again, we have to follow the patients. We typically ask them to come on a weekly basis and check to see if the kidneys are working well, if they are becoming dehydrated, it cause nausea too, so we have to give a very strong anti-nausea regimen, but most patients can complete the treatment without any complications, and it is important to clarify, these are very good treatments, very effective, but it is more toxic than we would like. Wilson We are going to take a short break for a medical minute. Please stay tuned to learn more information about head and neck cancer with Dr. Sasaki and Dr Morgensztern. 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 and nearly 200,000 nationwide, but there is new hope for these women. Earlier detection, noninvasive treatments, and novel therapies provide more options for patients to fight breast cancer. In 2010, more women are learning to live with this disease than ever before. Women should schedule a baseline mammogram beginning at age 16:56 into mp3 file http://yalecancercenter.org/podcasts/2011_0821_YCC_Answers_-_Drs_Sasaki_and_Morgenstern.mp3 40 or earlier if they have risk factors associated with the disease. With screening, early detectionand a healthy lifestyle, breast cancer can be defeated. Clinical trials 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 combining BSI-101 a PARP inhibitor with a chemotherapy drug, irinotecan. This has been a medical minute brought to you as a public service by 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 guests today Dr. Sasaki and Dr. Morgensztern, and we are discussing head and neck cancer. Dr. Morgensztern, we left off with you talking about systemic therapy for head and neck cancer, talk a little bit about radiation therapy, is that done on a daily basis, how often does it happen, and what is a general course like for a patient? Morgensztern Radiation therapy is given on a daily basis Monday thru Friday, and typically the radiation course goes for six and a half weeks. So patients get it Monday to Friday, and rest on the weekends. They receive it for six and a half weeks, just enough time to get three chemotherapies of cisplatin or six to seven treatments with cetuximab. Wilson And if the radiation is combined with systemic therapy for a patient, would they typically get their radiation and then come to your clinic within Smilow to get the chemotherapy or vice versa, how is it arranged? Morgensztern We are fortunate to have all the services at Smilow

in the same building, so patients can either receive radiation first and then go for chemotherapy, or vice versa without having to drive to another physical location and that works out very well. Wilson Dr. Sasaki, let's talk about screening, is screening available for cancers of the head and neck, is that useful and if so, when does that start? Sasaki We do have a screening program that was started by the Yale-New Haven Hospital back in 2005, and it is given annually to the citizens of New Heaven. It first started at the Yale Physicians Building on 800 Howard Avenue, and subsequently, it moved for a brief period of time to Foxwoods Casino, and because we had fully intended this to be a public service to the citizens of New Haven, we moved it back to the Yale-New Haven Hospital, and this year it will be at City Hall in New Haven. 19:52 into mp3 file http://yalecancercenter.org/podcasts/2011_0821_YCC_Answers_-_Drs_Sasaki_and_Morgenstern.mp3 Wilson What is the process like for a patient, what is the screening examination? Is a history taken, what do they have to go through? Sasaki For people who might want to be screened, for example, at City Hall, you will be greeted by one of our nurses and escorted to see one of five or six doctors who will take a brief history, obtain a review of systems just like you do in a private office and then perform a screening examination. If no lesions are found, the patients are advised that they are fine and can go back to normal activities. If there is something suspicious that turns up, we recommend that the patient be seen either by their local head and neck surgeon, or by one of us at Smilow Cancer Hospital. Wilson What type of person should be screened? Is this for everybody or are there certain risk factors that people should be thinking about if they want to participate as a candidate for the screening? Sasaki As Dan Morgensztern pointed out, anybody with a family history of head and neck cancer probably should be screened at some point in time, and in Connecticut, there are some special risk factors, for example, people that have been exposed to radiation therapy working at the sub base should be screened, and because of the wood working industry in Connecticut, chronic exposure to wood dust predisposes them to certain kinds of sinus cancers, and those who worked in the brass industry were exposed at some point to cutting oils and this predisposes them to a certain kind of head and neck cancer. So, anybody with these exposures probably should be screened at some point in time, and of course, people who smoke heavily or have been exposed to second-hand smoke chronically ought to be screened. Let me point out that individuals who experience a sore throat for greater than six weeks, especially the kind of sore throat that radiates into the ear when swallowing, is a very important sign not to be ignored, hoarseness for three weeks or longer should be investigated, anybody with blood-tinged sputum ought to be seen at some point in time, and a neck mass that does not seem to go away along with unexplained weight loss are usually important signs not to ignore. Wilson When you see patients for screening, they should be prepared obviously to talk to the doctor and have an examination, but they should not be concerned about being uncomfortable, it would be a routine outpatient type of evaluation? Sasaki Yes, this would be a normal physical examination that any doctor would do. We have special

lights available that allow us to look into cavities that family physicians are not be able to, but there will be no injections or needles sticks or anything that would be hurtful. Wilson So Smilow Cancer Hospital and Yale Cancer Center will be holding this free screening on July 22, can you tell us a little bit more detail about it? You mentioned City Hall, but give us all the information that you have regarding the details of the screening day. 23:14 into mp3 file http://yalecancercenter.org/podcasts/2011_0821_YCC_Answers_-_Drs_Sasaki_and_Morgenstern.mp3 Sasaki This is a free five-minute checkup that you can obtain on Friday, July 22, from 10 a.m. to 3 p.m., and the address is 200 Orange Street at the Circle Hearing Room, lower level, and you can even call in advance to make an appointment, the number is 888-700-6543 and let me repeat that, it is toll free, 888-700-6543. We welcome walk-ins as well or you can access more information online at www.yaleheadandneck.org. Wilson Tell us a little bit more about who will actually be performing the screening? You said that they would be greeted by a nurse and there would be several physicians. Are these physicians that are part of your regular team in Smilow, who will they be seeing? Sasaki They will be members of my faculty, they are all board certified, fellowship trained head and neck surgeons. Wilson And the nursing staff is part of your nursing staff as well? Sasaki Yes, these will be nurses who work in our outpatient clinics, but also some nurses who might be volunteering from the operating rooms. Wilson Where can people learn more information about the free screening, should they just go to the website that you mentioned? Sasaki Yes, you can go to www.yaleheadandneck.org or you can call us at 888-700-6543, it is a toll free number, or you can just walk in. We would be happy to see you. Wilson If you are doing the screening and you see a patient or a member of the community and you find something that you are concerned about, what would happen right at that point, you would discuss that with them and make recommendations to them about who they might see next to help them with those arrangements, what would happen? Sasaki We would recommend that they see their family doctor first who might wish to send them to his own head and neck surgeon. If one is not available, the patient could be easily seen at our Smilow Head and Neck Clinic that takes place on Mondays and Wednesdays. Wilson Tell us a little bit about the multidisciplinary nature of your clinic, how does it work? Are there various physicians seeing patients at the same time, do you sit with all or the specialists? Tell us how the head and neck tumor board works? Sasaki The nice thing about Smilow is that all cancer related services are in one spot. So for example, when I see patients on Wednesday, Dr. Morgensztern and Dr. Deshpande are available, and Dr. Yung Son, the radiation doctor that I work with, is also seeing patients in the basement of the 26:16 into mp3 file http://yalecancercenter.org/podcasts/2011_0821_YCC_Answers_-_Drs_Sasaki_and_Morgenstern.mp3 Smilow Clinic. If patients are discovered to have disease that needs further treatments, we invite them to the head and neck tumor board, which takes place on Monday afternoon at 2:30 to 5:00. Wilson That is actually a pretty unusual experience for a patient

where they will actually go to the tumor board themselves and you will perform an examination with the other doctors at that time? Sasaki We do, and at this so-called tumor board, there may be about a dozen of doctors there and they include specialists in surgery as well as medical oncology and radiation therapy. There are also some rehab physicians who are there in speech and swallow and in voice. And so the patient has the ability to see all of us at one time rather than just taking the word of the surgeon who might recommend surgery because that is the only form of treatment he knows. Wilson And the patient would come to the tumor board and you do an examination at that time? Sasaki My patients are examined just before the tumor board, and their relevant images, x-rays, and biopsies are available to us at the discussion, what we call the tumor board, so that I would then present the patient to the other doctors who would review the x-rays, review the biopsies, and invite the patient in to describe the symptoms that he or she might be having and to engage that patient in his or her particular needs before final decisions are rendered. Wilson I see, and then after the tumor board is over, is the patient asked to wait during the tumor board and then perhaps yourself or one of the other specialists may come out and discuss with the patient the findings. Sasaki That is correct. After the discussion is completed at around 5 o'clock, patients are asked to wait in one of the exam rooms, or we counsel them further, and if the decision is made, for example, for radiation therapy, we would refer them to the radiation therapy offices or surgery would be scheduled through my secretary, and if chemotherapy is required, the appointments would be made with Dr. Morgensztern or Dr. Deshpande. Dr. Clarence Sasaki is the Charles W. Ohse Professor of Surgery and Section Chief of Surgery and Otolaryngology and Dr. Daniel Morgensztern is an Assistant Professor of Medical Oncology at Yale School of Medicine. If you have questions or would like to share 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.