OK, we’re going to get started that evening.

Everyone and welcome to the cancer screening 101. It is an update on cancer screening.

My name is Javier. You’re an associate director for cancer screening and prevention at Yale Cancer Center and Medical Director of colorectal cancer screening. And tonight we’ll discuss updates on breast, cervical, lung and colorectal cancer with an extraordinary group of panelists that we have with us.
tonight and we're lucky to have them.

We have doctor Golden Menderes, director of minimally invasive.

Technological surgery program who is going to give us the update on cervical cancer screening.

Dr Lin Tenui, director of the lung Cancer screening program Doctor Miriam Glasper, director of the Center for Breast Cancer and Chief of Breast Medical Oncology and who will talk to us about the updates and the rest cancer screening.

You can post your questions anytime in the Q&A and we will try to address them either directly in the chat.
So without further ado, here is Doctor Goldeman. There is to talk to us about an update on cervical cancer screening.
OK, so the talk tonight is going to be essentially about the epidemiology of cervical cancer, followed by risk factors and the significant role of HPV or human papilloma virus in causing cervical cancer, as well as the significant impact of screening guidelines and the guidelines based on agent risk group stratification. So in 2020, cervical cancer accounted for an estimated over 600,000 new cases and over 300,000 worldwide and not surprisingly, over 85% of cervical cancer cases were from resource limited countries.
Cervical cancer was the second most common type of cancer. And the third most common causal cancer mortality when we look at the continents of Africa and Central America. Here we can see the cervical cancer was the leading cause of cancer related mortality among women. Here we can see in the US we have over 13,000 new cases with over 4000 deaths that we see every year. And this is what we do not want to see as providers. This is a huge mass air rising from the cervix year.
we don’t want to see these cases in the next couple decades. Hopefully as far as the risk factors that lead to cervical cancer is concerned, we have behavioral and sexual factors, including large number of sexual partners. One might have an early age at first intercourse. Also, smoking has been linked to increase the risk of specifically the squamous kind of cervical cancer. Not necessarily the second most common kind adenocarcinoma. We have history of sexually transmitted
diseases and in communities with diet low in folate carotene and vitamin C. We tend to see more numbers. Among other risk factors, again comes multiparity and early age. These all increase the likelihood of HPV exposure and lack of routine screening is the one that we’re going to emphasize tonight. Immunosuppression is another risk factor for developing cervical cancer and. Infection and exposure to HPV is wide HPV. All also known as human papilloma virus is central to the development of cervical neoplasia or precancer,
and it can be detected in over 99% of cervical cancers.

80% of the population are exposed to this virus by age 50 and among more than 40 different genital HPV types identified. We have about 15 known to be oncogenic. It’s a double stranded DNA virus and it infects the epithelial cells in the skin and mucous membranes of vagina and cervix. The oncogenic HPV infection of this transformation zone. Here we can see the columnar epithelium of the cervix bordering on the squamous epithelium. This is known as transformation.
zone is where the HPV virus
starts the infection and then
that would lead to precancerous
changes and eventually to cancer.
Here we can see at a more cellular
level the changes that HPV causes,
including the coil acidic cells.
Here the Halo around the nuclei of the
cells as well as the by nucleation.
Our objectives with screening is,
uh, essentially,
to prevent morbidity and mortality
from cervical cancer as well as
preventing overzealous management of
the precursor precursor lesions that
will likely request or disappear when a patient has a competent immune system. The United States adopted Pap smear screening in about 1950s and by mid 1980s, cervical cancer incidence decreased by about 70%. Multiple observational studies continue to show the reduction in cervical cancer mortality after systematic follow up and screening guidelines. What do we screen in day to day life when we see a patient, we place a speculum in the vagina and our goal is to inspect the entire regional mucosa as well as.
the ectocervix and endocervix.

Here we can see a close up image of the upper vagina Cervicovaginal junction, which is important for cervical cancer screening purposes.

The Ectocervix and the Endocervix, which is the glandular epithelium.

So both the endocervix and the ectocervix is important for practical reasons.

In terms of screening, approximately 5050 million women undergo a pop smear or HPV testing each year, and all these women about 8% will have an abnormal result.

And here this pyramid shows us the breakdown...
NOTE Confidence: 0.894979026
00:07:23.140 --> 00:07:26.538 of pop test abnormalities by frequency.
NOTE Confidence: 0.894979026
00:07:26.540 --> 00:07:29.375 Screening can detect the precursor as well
NOTE Confidence: 0.894979026
00:07:29.375 --> 00:07:32.577 as the early stage for cervical cancer.
NOTE Confidence: 0.894979026
00:07:32.580 --> 00:07:35.828 That way we can prevent the development
NOTE Confidence: 0.894979026
00:07:35.828 --> 00:07:37.840 of invasive cervical cancer.
NOTE Confidence: 0.894979026
00:07:37.840 --> 00:07:41.018 When a patient is exposed to HPV,
NOTE Confidence: 0.894979026
00:07:41.020 --> 00:07:44.429 the healthy young women would like likely
NOTE Confidence: 0.894979026
00:07:44.429 --> 00:07:48.618 get rid of HPV in about 6 to 12 months.
NOTE Confidence: 0.894979026
00:07:48.620 --> 00:07:51.180 Sometimes when we cannot eliminate
NOTE Confidence: 0.894979026
00:07:51.180 --> 00:07:54.630 the HPV exposure and it persists,
NOTE Confidence: 0.894979026
00:07:54.630 --> 00:07:57.444 we have low grade cervical precancer changes
NOTE Confidence: 0.894979026
00:07:57.444 --> 00:08:00.598 known as Siri and one in about 24 months.
NOTE Confidence: 0.894979026
00:08:00.600 --> 00:08:02.812 Again a healthy immune
NOTE Confidence: 0.894979026
00:08:02.812 --> 00:08:05.577 system will clear the HPV.
NOTE Confidence: 0.894979026
00:08:05.580 --> 00:08:08.282 If the patient has risk factors as
NOTE Confidence: 0.894979026
well as not a competent immune system, the low grade lesions might turn into CIN two or three, which is known as high grade precancer changes. And if there is no intervention in about 10 to 13 years, the high grade pre cancer cells will turn into invasive cervical cancer, so it is not a change from HPV exposure to cancer that occurs overnight, which gives us the opportunity as providers to intervene and eliminate cervical cancers. What happens when a patient has an abnormal screening test?
One of many things can happen. The patient might need further testing with HPV. It the patient might need a repeat cytology called post scopy or even endometrial biopsy if the psychological normality arises from the endocervix which is the glandular epithelium, which is very much like the endometrium and that would require evaluation as well. Or some patients would be referred to Java and oncologists when there is high grade precancer changes the way that we perform. Oscopy is in the clinic.
There is a microscope that is essentially helping the provider to magnify the image in the vagina and the upper cervix and, if need be, colposcopy directed biopsies can be taken for biopsy purposes. If the patient has any high grade precancer changes, oftentimes we recommend patient to undergo colonization, which is simply a cone shaped biopsy of the cervix to eliminate underlying invasive cancers. The way that we performed conversation is usually with a cold knife.
those procedures are done.

Another way of getting a larger biopsy than just a small cervical biopsy to eliminate underlying cervical cancer is leap, which stands for loop electrosurgical excision procedure. This is mostly used by primary obgyns, and it can easily be performed in the office setting.

So how do we get patients to have cervical cancer? In 2022 it has to be one of many failures that lead to it. Either the patient does.
not show up for screening,

NOTE Confidence: 0.912304155555555

or as healthcare providers.

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We do not offer screening to women

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when they present for annual exams.

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The patient might not follow up

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on abnormal results when there

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is a colposcopy and a biopsy

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that shows pre cancer cells.

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Or the patient might not get

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appropriate treatment to eliminate

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the precancer cells and eventually,

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Unfortunately,

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the patients get cervical cancer,

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which is our ultimate goal

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with screening to prevent this.

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So tonight we’re gonna mainly
00:10:58.280 --> 00:11:00.070 focus on these updated guidelines,
00:11:00.070 --> 00:11:03.310 which originate from American Cancer Society
00:11:03.310 --> 00:11:07.176 2020 update and USPSTF which stands for
00:11:07.176 --> 00:11:09.876 United States Preventive Services Task
00:11:09.876 --> 00:11:12.845 Force which was most recently updated
00:11:12.845 --> 00:11:16.710 in 2018 for purposes of screening,
00:11:16.710 --> 00:11:19.202 we should define what an average versus
00:11:19.202 --> 00:11:22.051 a high risk patient is for developing
00:11:22.051 --> 00:11:24.607 cervical cancer and our age patient
00:11:24.682 --> 00:11:27.195 for us would be who is asymptomatic.
00:11:27.200 --> 00:11:29.643 With a competent immune system and who
00:11:29.643 --> 00:11:31.952 has always had normal screening results
00:11:31.952 --> 00:11:34.925 in the past and most of the guidelines
00:11:34.925 --> 00:11:36.710 focus on average risk patients.
00:11:36.710 --> 00:11:39.391 Since this is what we most commonly
00:11:39.391 --> 00:11:42.031
handle high risk patients would be
the ones who have immunosuppression
for any reason who has HIV or who has
been exposed to deaths in eurodesk
used to be an anti emetic that that
was used in pregnancy until 1970s.
So most of these.
Women are now in their 50s sixties and
it’s not used anymore thankfully.
So there is one less risk factor these days.
As far as cervical cancer screening
risk stratification is concerned.
So the 2018 USPS TF essentially recommends
that cervical cancer screening should
begin at age 21 and no earlier than
regardless of the age of sexual
00:12:24.654 --> 00:12:28.320 onset and the main reason for this is.

00:12:28.320 --> 00:12:31.547 The main concern that will be associated

00:12:31.547 --> 00:12:34.372 with adverse outcomes with follow-up of

00:12:34.372 --> 00:12:37.096 young reproductive age women when they

00:12:37.096 --> 00:12:39.858 have minor cytologic abnormalities.

00:12:39.860 --> 00:12:42.191 The risk in less than 21 years

00:12:42.191 --> 00:12:44.690 of age is about zero point,

00:12:44.690 --> 00:12:46.318 1% for cervical cancer.

00:12:46.318 --> 00:12:48.804 For that reason, most guidelines,

00:12:48.804 --> 00:12:50.068 including USPSTF,

00:12:50.068 --> 00:12:53.228 do not recommend starting cervical

00:12:53.228 --> 00:12:56.107 cancer screening prior to age 21.

00:12:58.240 --> 00:13:02.496 As far as ages 21 to 29 group is concerned.

00:13:02.496 --> 00:13:06.118 We have one of two ways of screening these,

00:13:06.120 --> 00:13:08.224 uh, these young women.
USPSTF recommends are cytology alone every three years.

On the other hand, the most recent 2020 guidelines from American Cancer Society prefers HPV testing alone starting age 21 as opposed to 21, and doing this screening every five years.

But the important thing about HPV testing is 1. It's not available in all institutions in the US or in many parts of the world, and it only it can only be performed with the two FDA approved primary HPV testing methods, including the one from COBAS and on clarity. So it uses a bit limited at
the time at the time.

Being in the US there are countries like Australia and Netherlands and UK which have these tests readily available.

And they have been employing HPV testing as their preferred strategy.

The rationale for USPSTF recommending age 21 to initiate cervical screening is again the very low incidence of cervical cancer being zero point 1% and they favor cytology or Pap smear over HPV testing because of the higher rates of transient HPV infection.

this thought process is that if we do HPV testing in young women,
they are more likely to test. Positive when we are going to put them through unnecessary colposcopies. Cervical biopsies and colonization biopsies that would then impair their obstetric outcomes. And these guidelines from USPSTF. They don’t account for HPV vaccination rate, so that’s one of the shortcomings of these guidelines. When we look at American Cancer Society recommending age of onset for screening, 25 is. They cite 0.8% cervical cancer rate prior to age 25 and.
It was deemed not to be cost effective to screen women prior to age 25 for that reason. However, they do prefer primary HPV testing due to higher specificity and the one plus from these guidelines over USPSTF is that they account for HPV vaccination rates. When we look at the age group 30 to 64, this is going to be a big pool of patients and we have three options here. We can either do Co testing which is known as combination of cytology or pap smear plus HPV test and this can be done every five years and
not any more frequent than that.

The second option would be primary HPV testing every five years or cytology alone pop.

HPV testing every five years or cytology alone every three years. So one of these three would be.

Reasonable as far as both of these guidelines are concerned. The USPSTF does not prefer one or the other. However, American Cancer Society favors primary HPV testing every five years for women aged 30 to 64.

How about, uh, women over age 65? Eventually this age group we will decide...
to discontinue or continue screening based on the patient’s prior results, life expectancy, and shared decision making. If the patients never have had any CI and two or high grade cervical precancer lesions and they have adequate negative screening, which is defined as three consecutive negative pups or two consecutive negative primary HPV testing or two consecutive negative call tests within the last 10 years. This is defined as adequate negative prior screening.
These women can preferably discontinue cervical cancer screening in many European countries. UM, they do continue until late 75. Considering the improved life expectancy in the last couple decades. And most guidelines do not study this particular question, 65 is not a hard stop. If the patients had a total hysterectomy, meaning they are cervix and uterus had been removed and they never have had any high grade cervical precancer cells,
we can stop screening even though the patient might be younger than 65. Most women who needs hysterectomies, they do need it for abnormal uterine bleeding, which is. Something they struggle with prior to age 50. So if we have a patient age 45 who is done with childbearing and underwent a hysterectomy with removal of their cervix and uterus and they never have had any CIN 2 or high grade pre cancers in the past, that patient can be. Can stop screening for cervical cancer when is not appropriate to stop at age 65. If a patient has had these
high grade precancer cells, namely CIN 2-3 or adenocarcinoma in situ.

Then routine screening should continue for an additional 20 years from the last high grade precancer lesion and that might well extend beyond age 65.

These all everything we talked so far essentially relates to average risk patients when it comes to high risk patients, we talk about patients with HIV patients who have been exposed to death in utero, or have immunosuppression for any reason.

For those patients, the guidelines are a little bit more strict and the recommendations are to do cytology or pop smear every
three years annually.

Three years in a row and if the results are normal.

And we can space the screening out to every three years if we decide to do Co testing.

Meaning we do a pop smear along with.

HPV testing at as the baseline and both side topology and HPV result came back as negative.

Then we can go ahead and screen these women every three years.

Moving forward we do not stop at age 65 given the higher risk of HPV persistent and higher risk of high grade precancer lesions in these
women we continue throughout lifetime and we do have a lower threshold to do colposcopies and biopsies when we look at future directions. One thing to consider is going to be the impact of HPV vaccination is the proportional vaccinated individuals increases the prevalence of high risk HPV types is expected to decrease and that will eventually reduce the positive predictive value for both cytology, smear and primary HPV testing. So we have some ongoing randomized control trials to evaluate the performance of primary HPV testing versus
cytology in vaccinated HPV vaccine.

Get the month.

The second thing to consider moving forward in the next decade is going to be probably we will.

We will see a diminishing role of cytology and uptake in primary HPV testing is the countries such as Australia and Netherlands. They that has the lowest rate of cervical cancer have been employing for over 10 years.

The other possible practical solution to improving the uptake in screening is self sampling. Then Shirley patients will start sampling.
themselves in any setting

and mail these to the providers for evaluation. However, at the time being this is not an FDA approved strategy, so I’m hoping that it will be enabling providers to improve the uptake in screening once FDA approves self sampling.

Summary of guidelines. Essentially, 2012 was the previous. American Cancer Society guidelines. Before the 2020 and the age of onset for screening, then was 21 and age two stop, screening was 65 with pop tests every three years. As we look at the most recent
guidelines we talked about 2018, USPSTF and 2020 American Cancer Society. There is not much changes to USPSTF guidelines which says we should start at age 21 and stop screening for cervical cancer at age 65 and for women less than 30 years of age, pop smear is preferred over HPV testing since there is such high prevalence of HPV exposure in the younger. Nations and that is most likely to resolve them, persist and over age 30 we can use one of three methods, namely pop test every three years.
primary HPV testing every five years

or Co testing that combines the pop with the HPV every five years.

When we look at American Cancer Society, it's a little easier to remember, and I think this is going to be. Kind of more prevalent moving forward.

Once we continue to understand the importance of HPV in causing all these precancerous and cancerous changes and the age to start screening for American Cancer Society is 25. They recommend stopping at age 65 and primary HPV testing every five years is what is preferred.

So cervical cancer is one kind of women
cancer that we can definitely prevent

now that we know that over 99.7% of these cases are caused by the HPV virus.

So as we increase the awareness and increase the uptake of screening and HPV vaccination S GYN oncologists, we hope to eliminate this cancer in the next decade or two.

And this is all I have.

I'll see if I have any time for questions.

Thank you very much.

Document there is please the audience.

If you can post any questions at a tab for documentaries that be great and now we're going to
00:23:33.522 --> 00:23:35.766 move on to breast cancer screening
NOTE Confidence: 0.6468805834

00:23:35.766 --> 00:23:37.790 with Doctor Lasberg Dr Jasper.
NOTE Confidence: 0.6468805834

00:23:37.790 --> 00:23:39.038 Thank you very much for coming
NOTE Confidence: 0.6468805834

00:23:39.038 --> 00:23:40.820 to talk to us about this tonight.
NOTE Confidence: 0.948669615

00:23:42.640 --> 00:23:45.624 Thank you so much. Can you hear me?
NOTE Confidence: 0.948669615

00:23:45.630 --> 00:23:48.312 Great thank you everyone for joining
NOTE Confidence: 0.948669615

00:23:48.312 --> 00:23:51.970 the I will talk today about practical
NOTE Confidence: 0.948669615

00:23:51.970 --> 00:23:55.528 applications of breast cancer screening with
NOTE Confidence: 0.948669615

00:23:55.528 --> 00:23:59.568 an overview of breast cancer risk factors,
NOTE Confidence: 0.948669615

00:23:59.570 --> 00:24:02.041 how to screen your average risk patients
NOTE Confidence: 0.948669615

00:24:02.041 --> 00:24:04.452 patients which will be the majority of
NOTE Confidence: 0.948669615

00:24:04.452 --> 00:24:06.390 your population as well as screening
NOTE Confidence: 0.948669615

00:24:06.456 --> 00:24:08.466 high risk patients and then wrapping
NOTE Confidence: 0.948669615

00:24:08.466 --> 00:24:10.906 up quickly with some discussion of
NOTE Confidence: 0.948669615

00:24:10.906 --> 00:24:13.098 modifiable lifestyle risk factors
NOTE Confidence: 0.948669615

00:24:13.098 --> 00:24:16.520 that applies to all risk patients.
So female stocks remains the most the highest risk factor for breast cancer, as all of you know as well as advancing age, family history and prolonged estrogen exposure, which can be further subdivided into early age of manner, Arch, late age of menopause, late pregnancy and hormone replacement therapy. There are additional risk factors, including exposure to radiation. Abnormal breast. Biopsy, postmenopausal obesity, and excess alcohol use. We will also talk about breast
density as a risk factor for breast cancer in the subsequent slide.

So that there are multiple models for assessing your patients risk of breast cancer, and it can sometimes be confusing which one to go with. The Gale model is the most common one and it’s easily searchable and it’s relatively easy to do where the risk factors that are included include age, age of first period, age of first live birth, number of first degree relatives with breast cancer, and history of breast biopsy.
as well as history of pre-malignant changes such as atypical ductal hyperplasia, does not consider family history beyond first degree of relatives, and this is one of the limitations of this tool, and it does not take into account other cancers or any paternal relatives with cancer in the risk assessment. For this reason, it may not be the most useful in making recommendations for risk reduction. Particularly in individuals with hereditary genetic syndromes, but as I said,
it's relatively easy to use and very accessible. And more comprehensive tool is the Tyra Kuzyk or the Ibis model and this is more extensive, still very easily accessible by quick search online and it includes some additional non genetic risk factors including height and weight. For BMI it includes amounts of family history. Cast of the RC one and two mutation has the risk of invasive breast cancer DCIS overtime. It includes a high risk population,
but tends to overestimate risks, particularly in those with HPR.
The newer the newest version, also takes into account breast density, which I will highlight again why that is important in the in a few slides coming up.
Another older model class. Include as many factors as the Tier 2 SEC and it tends to underestimate risk and for this reason not as recommended, and it tends to be an older data and whether it’s applicable to current population.
This is this is one of the
concerns about this tool.

So if you compare the three models that I've listed here, you can see that the Klaus model is the most limited and the tire acoustic or the Ibis model takes into account the most factors. So if you're particularly worried about your patients' risk, that is the model that we would recommend.

Pick one calculator that you feel comfortable using. Know which patients are average risk versus those who are high risk and those...
are over 20% lifetime risk of breast cancer.

I will talk more about the high risk population coming up and if there’s a question on risk.

Whether you’re worried that your patient is higher risk,
you can absolutely refer them to a high risk genetics program,
and for any patient with any type of modifiable risk factors such as obesity, exercise and alcohol.

So moving on to screening average risk breast patients.

Obviously the point of screening
00:28:33.070 --> 00:28:35.977 is to identify breast cancers at a
NOTE Confidence: 0.918982198181818
00:28:35.977 --> 00:28:38.498 much earlier stage so that there
NOTE Confidence: 0.918982198181818
00:28:38.498 --> 00:28:41.594 is a lower chance of metastasis.
NOTE Confidence: 0.918982198181818
00:28:41.600 --> 00:28:44.120 And to have a curable disease.
NOTE Confidence: 0.918982198181818
00:28:44.120 --> 00:28:46.135 So the guidelines don’t always
NOTE Confidence: 0.918982198181818
00:28:46.135 --> 00:28:47.747 agree on the age.
NOTE Confidence: 0.918982198181818
00:28:47.750 --> 00:28:48.785 To start screening,
NOTE Confidence: 0.918982198181818
00:28:48.785 --> 00:28:50.855 you can see all the different
NOTE Confidence: 0.918982198181818
00:28:50.855 --> 00:28:52.607 ages that are listed here,
NOTE Confidence: 0.918982198181818
00:28:52.610 --> 00:28:55.064 with the USPSTF being the most
NOTE Confidence: 0.918982198181818
00:28:55.064 --> 00:29:00.012 conservative with a start age of 50.
NOTE Confidence: 0.918982198181818
00:29:00.012 --> 00:29:02.553 Although most recently they have added
NOTE Confidence: 0.918982198181818
00:29:02.553 --> 00:29:04.971 40s could be screened after informed
NOTE Confidence: 0.918982198181818
00:29:04.971 --> 00:29:06.909 discussion with their providers.
NOTE Confidence: 0.918982198181818
00:29:06.910 --> 00:29:08.478 American Cancer Society were
recommend starting at 45 and the American College of Radiology. As one of the few other societies, including NCCN, recommends starting annually at age 40. I have the NCCN guidelines here for you. As you can see again, if your patient is under the age 40 with average risk. The recommendation is for breast awareness, not necessarily breast self exams and clinical encounters or clinical exams. Every one to three years. And an annual screening mammogram starting at age 40,
with a preference for tomosynthesis

or 3D mammography,

is available to the patient

and in your practice.

Patients with increased risk are listed here,

and these.

These include those who have a

These include those who have a

lifetime risk of greater than or

The include those who have a

lifetime risk of greater than or

equal to 20% thoracic radiation.

Those with pre invasive lesions

such as LCIADAH and a strong

family history of genetic factors.

Even though you may not be able to

clearly identify their genetic risk.

So for these average risk patients,

it’s important to.
Our recommendation is to begin mammography at 8 between the ages of 40 to 45 annually.

Which mammograms should you choose? I think the trend is moving towards offering tomosynthesis or 3D mammography to most patients. It has improved resolution, reduced recall rate, and it takes a little longer to interpret. But the radiologist really has a much clearer view of what it is. Going on in the breast issue a question that often comes up is this much higher radiation dose when...
we use 3D mammography and the answer is,

it’s only a very slight increase in whole body radiation with 3D mammogram rate increased radiation dose corresponding to about two months of natural annual background radiation.

So, so if your patient is noted in the report to have kids or geniously dense or extremely dense grass, then in this particular case absolutely using 3D mammography or tomosynthesis is important.

It both increases cancer detection rate and reduces recall. As as many of you know,
dense breast tissue can be very hard to interpret on mammography, and it’s also an independent risk factor for breast cancer with extremely dense breast tissue. Increasing the risk of breast cancer 5 fold. There is a law in place that in 27 states, including Connecticut, that patients need to be notified of their breast density on their mammography, and as you can see in the pie graph on the bottom, approximately half of your patients will have either heterogeneously dense...
breast or extremely dense breast.

And these are the categories and more clear detail for you.

The two categories you need to be most concerned about is Level 3 M 4.

Which will be written in the report as hydrogenous.

They danced or extremely dance.

And So what is the action plan for your patients with high breast density?

I think absolutely incorporating tomosynthesis or 3D mammogram in their annual imaging for sure,

and then discussing the pros and cons of supplemental imaging with an automated whole breast ultrasound.
This supplemental imaging increases cancer detection rate to about three to four additional cases per 1000 cases screen, so it’s a modest increase, and it has some additional drawbacks in addition to some additional costs. Depending on insurance, it can be associated with increased recall rates and false positives and increased biopsies, particularly in less experienced centers therefore what.
what we’re not recommending is that every one of your dance breast tissue patients have a whole breast ultrasound, but it should be a dialogue and shared decision making. So take home points for average risk, offer breast imaging starting at age 40 to 45. It has you have less recall rates with 3D mammograms regardless of your breast density, but surely for those with high breast density, definitely do tomosynthesis and then discuss the pros and cons of supplemental imaging with automated full breast ultrasound to those with impressed breasts.
NOTE Confidence: 0.935314575555556
00:33:51.700 --> 00:33:53.752 Density moving on to
NOTE Confidence: 0.935314575555556
00:33:53.752 --> 00:33:55.804 screening high risk patients.
NOTE Confidence: 0.935314575555556
00:33:55.810 --> 00:33:57.110 These are patients with
NOTE Confidence: 0.935314575555556
00:33:57.110 --> 00:33:58.410 a strong family history,
NOTE Confidence: 0.935314575555556
00:33:58.410 --> 00:34:00.420 greater than or equal to 20%.
NOTE Confidence: 0.935314575555556
00:34:00.420 --> 00:34:06.182 Lifetime risk of breast cancer and
NOTE Confidence: 0.935314575555556
00:34:03.516 --> 00:34:06.182 the strongest recommendation is to
NOTE Confidence: 0.935314575555556
00:34:06.182 --> 00:34:08.787 incorporate breast MRI with contrast.
NOTE Confidence: 0.935314575555556
00:34:08.790 --> 00:34:11.622 It’s not as useful without contrast
NOTE Confidence: 0.935314575555556
00:34:11.622 --> 00:34:15.390 as an adjunct to 3D mammography.
NOTE Confidence: 0.935314575555556
00:34:15.390 --> 00:34:18.858 So typically what we recommend is
NOTE Confidence: 0.935314575555556
00:34:18.858 --> 00:34:22.030 alternating the breast mammography with MRI.
NOTE Confidence: 0.935314575555556
00:34:22.030 --> 00:34:23.956 So some type of breast imaging
NOTE Confidence: 0.935314575555556
00:34:23.956 --> 00:34:25.780 is done every six months.
NOTE Confidence: 0.935314575555556
00:34:25.780 --> 00:34:27.670 And obviously the purpose is
NOTE Confidence: 0.935314575555556
00:34:27.670 --> 00:34:29.560 to identify internal cancers at
NOTE Confidence: 0.764845291428571
00:34:29.626 --> 00:34:30.950 a much earlier stage.
NOTE Confidence: 0.764845291428571
00:34:30.950 --> 00:34:33.238 As you can see in the pictures depicted,
NOTE Confidence: 0.764845291428571
00:34:33.240 --> 00:34:35.746 the MRI clearly has a much higher
NOTE Confidence: 0.764845291428571
00:34:35.746 --> 00:34:38.522 resolution and is able to detect things
NOTE Confidence: 0.764845291428571
00:34:38.522 --> 00:34:40.964 much more clearly than in mammogram.
NOTE Confidence: 0.764845291428571
00:34:40.970 --> 00:34:43.796 However, it does need expert breast
NOTE Confidence: 0.764845291428571
00:34:43.796 --> 00:34:45.721 radiology opinion, it can be.
NOTE Confidence: 0.764845291428571
00:34:45.721 --> 00:34:48.010 And said it can be uncomfortable for
NOTE Confidence: 0.764845291428571
00:34:48.084 --> 00:34:51.148 patients and it can lead to false positives,
NOTE Confidence: 0.764845291428571
00:34:51.150 --> 00:34:54.910 leading to sometimes unnecessary biopsies.
NOTE Confidence: 0.764845291428571
00:34:54.910 --> 00:34:56.146 You might ask, well,
NOTE Confidence: 0.764845291428571
00:34:56.146 --> 00:34:58.729 what if my patient is very high risk?
NOTE Confidence: 0.764845291428571
00:34:58.730 --> 00:35:01.614 Should I also add a third breast
NOTE Confidence: 0.764845291428571
00:35:01.614 --> 00:35:04.053 imaging modalities such as an ultrasound
NOTE Confidence: 0.764845291428571
00:35:04.053 --> 00:35:06.309 to the mammogram and the MRI?
And the answer is clearly no based on the Eva trial, the MRI plus mammogram gave the best cancer yield and the addition of an ultrasound to these two modalities did not add anything additional. If for whatever reason. The patient cannot tolerate an MRI. You can see that an MRI plus ultrasound can also give relatively good yield. So back to the NCCN guidelines for your patients with high risk. It’s really important to know first who’s at risk.
So this comes back to good family history. Doing using the risk calculators and then the age of screening is very much dependent on who the youngest family member with the positive family history was and we recommend starting ten years prior to that initial youngest family member diagnosis. And this should. And consider risk reducing strategies, including medications which I’ll briefly touch on.
as well as continuing to emphasize breast awareness so your patients report to you if you’re if they’re noticing changes. There are multiple reasons that a patient can be high risk apart from family history, and includes thoracic radiation between the ages of 10 and 30 years old, and that includes thoracic radiation. Where imaging typically starts eight years after radiation but not prior to age 30, and that also applies to breast MRI imaging. These are the genetic alterations that are recognizable to most of you, and it’s the high penetrance and
moderate penetrance genes that are

That have very firm guidelines about

Earlier and more extensive breast imaging.

Whereas the genes listed on

The right hand column,

Which have insufficient evidence,

We don’t have as clear and evidence in

Terms of making screening recommendations

And for for those category.

Patient really,

The screening is a lot by family

History and if this can be confusing,

Certainly a high risk breast clinic can help you with those

Decision making juncture so.

But as you can see here,
NOTE Confidence: 0.764845291428571
00:37:42.950 --> 00:37:45.666 the highest risk genes are listed in
NOTE Confidence: 0.764845291428571
00:37:45.666 --> 00:37:48.488 the red box and just reemphasizing
NOTE Confidence: 0.764845291428571
00:37:48.488 --> 00:37:51.113 the need for alternating mammogram
NOTE Confidence: 0.764845291428571
00:37:51.113 --> 00:37:54.915 and MRI starting at an early age and
NOTE Confidence: 0.764845291428571
00:37:54.915 --> 00:37:57.092 certainly at risk reducing mastectomy
NOTE Confidence: 0.764845291428571
00:37:57.092 --> 00:38:00.228 can be discussed with this very high risk.
NOTE Confidence: 0.764845291428571
00:38:00.230 --> 00:38:01.114 Population with,
NOTE Confidence: 0.764845291428571
00:38:01.114 --> 00:38:04.650 with the caveat that none of these risk
NOTE Confidence: 0.872184048125
00:38:04.737 --> 00:38:06.711 reducing surgeries have
NOTE Confidence: 0.872184048125
00:38:06.711 --> 00:38:08.685 impacted overall survival,
NOTE Confidence: 0.872184048125
00:38:08.690 --> 00:38:10.766 and so it’s really about shared
NOTE Confidence: 0.872184048125
00:38:10.766 --> 00:38:12.581 decision making about many patients
NOTE Confidence: 0.872184048125
00:38:12.581 --> 00:38:14.765 can choose to follow the screening
NOTE Confidence: 0.872184048125
00:38:14.765 --> 00:38:17.057 guidelines and do not necessarily have
NOTE Confidence: 0.872184048125
00:38:17.057 --> 00:38:19.325 to have these risk reducing surgery.
NOTE Confidence: 0.872184048125
00:38:19.330 --> 00:38:22.330 If that’s not their wish.
NOTE Confidence: 0.872184048125

00:38:22.330 --> 00:38:24.540 This table here summarizes who
NOTE Confidence: 0.872184048125

00:38:24.540 --> 00:38:26.308 should undergo genetic testing,
NOTE Confidence: 0.872184048125

00:38:26.310 --> 00:38:28.802 both those with a history of breast
NOTE Confidence: 0.872184048125

00:38:28.802 --> 00:38:31.860 cancer as well as those who do not have
NOTE Confidence: 0.872184048125

00:38:31.860 --> 00:38:33.810 a personal history of breast cancer
NOTE Confidence: 0.872184048125

00:38:33.810 --> 00:38:35.670 but have a strong family history.
NOTE Confidence: 0.872184048125

00:38:35.670 --> 00:38:38.897 I think if you search under NCCN
NOTE Confidence: 0.872184048125

00:38:38.897 --> 00:38:40.280 genetics training guidelines,
NOTE Confidence: 0.872184048125

00:38:40.280 --> 00:38:42.520 this would be the best way to to
NOTE Confidence: 0.872184048125

00:38:42.520 --> 00:38:45.110 kind of decide who should be tested.
NOTE Confidence: 0.872184048125

00:38:45.110 --> 00:38:47.018 So what do you do when you do find
NOTE Confidence: 0.872184048125

00:38:47.018 --> 00:38:49.016 out that your patient is high risk?
NOTE Confidence: 0.872184048125

00:38:49.020 --> 00:38:51.420 Certainly it does change their screening.
NOTE Confidence: 0.872184048125

00:38:51.420 --> 00:38:53.575 Recommendation as we talked about
NOTE Confidence: 0.872184048125

00:38:53.575 --> 00:38:56.851 there is an option of risk reducing
chemoprevention with a number of drugs, with tamoxifen being available for premenopausal and postmenopausal women. Relaxed offen and exemestane and actually also have data in post menopausal women. Depending on the genetic risk factor and family history risk, reducing surgeries can also be considered and we always want to continue to target modifiable risk factors. So when should you refer a patient to high risk genetics clinic? Really, if you’re not sure if they have very high risk of history such as...
prior chest wall radiation and

known hereditary alteration,

a strong family history,

that’s very confusing or finding

atypical ductal hyperplasia

of LCIS atypical ductal hyperplasia

or other pre invasive risk lesions.

If the risk model is estimating

risk as greater than 20%.

We are happy to help.

So in your busy practices I know this

can be a lot to take on sometimes

and depending on your comfort level,

we’re happy to assist.

So take home points for high risk patients.

Annual mammogram alternating with

an annual breast MRI,
and there is some evidence that by staggering these two tests you’re essentially offering your patient close observation through imaging every six months. Do not screen women with life expectancy less than 10 years, and generally all our screening data pretty much stops at age 75. However, I think beyond age 75. Depending on patient preference and life expectancy, I think individual decisions can be made. A wrap up in the next few minutes on the lifestyle factors and
breast cancer risk reduction.

I think we’re all aware of multiple sets of data and studies showing that diet levels can be profoundly important for cancer risk reduction, particularly with respect to breast cancer. And the data are actually strongest for physical activity.

So as you can see in this plot, our activity level even in adolescence can help determine our future risk of breast cancer and so any even patients who are who are not active, and adolescence but become active later in life,
have the option of reducing their future breast cancer risk. So this is something that it’s easy to say it’s much harder to implement in our sedentary society, but it’s something that that should definitely be discussed for patient. So in terms of next steps, obviously I think following the guidelines in terms of risk assessment and imaging for sure. And then I think we also need to focus on system level support for weight management, physical activity and diet interventions,
and particularly the high risk populations
and continue to promote health education
within the Community with awareness
of the role of obesity, obesity, activity level and higher breast cancer risk,
without, of course, shaming more patients.
Because this is, these issues are.
Very endemic in our culture currently and it’s not any one patient’s fault.
However, if we can even make some steps toward modifying,
if you have these factors, it can reduce their risk.
I’m happy to take questions.
I have my cell phone number up on the slide and I’m happy to get curbside questions.
My email is also listed and I thank you for your time.

Thank you very much that the last Berg and you can go ahead also and post your questions to Q&A or as actor last word, make herself available through her email and cell phone.

She's not with us tonight so she's got some technical difficulties connecting, so we deeply appreciate the fact that you you made it happen. Regardless. Thanks a lot.

We'll move on then to the lung cancer screening with Doctor Lynn Tanui.
Thank you very much.

Doctor tanui.

OK, thanks everybody for being here to listen to these talks,

I’ve actually learned a huge amount so that that’s a hard act to follow.

My name is Lynn Tanoe.

I’m in the Department of Medicine at Yale School of Medicine,

and I direct our lung screening and natural program.

I don’t have any disclosures.

And tonight what I’d like to get across in this talk is that you are aware of the updated USPSTF recommendations for lung cancer screening.
I think it’s important to understand the evidence based is demonstrating the mortality benefit because that means that screening is successful and lung cancer screening has been a long time to come to this table and I hope that at the end of the next 20 minutes that you will be motivated to implement lung cancer screening in your clinical practices. So I’m going to give you a very high level lung cancer background. We’ll talk about the USPSTF recommendations for lung cancer screening, which we just updated last year and
I'm just going to talk about 3 studies that form the fundamental evidence based for lung cancer screening and then, with the little bit about benefits and risks.

So in the United States, cancer is the leading cause of lung cancer. Is the leading cause of cancer death in both men and women in 2022, it's estimated that about 100 eighteen 118,000 men and 119,000 women will be diagnosed with lung cancer, it's estimated that about 100 eighteen 118,000 men and 119,000 women will be diagnosed with lung cancer, this unfortunate imbalance exists that women now get lung cancer more frequently than men. I guess it will cause an estimated 69,000
00:45:16.410 --> 00:45:21.202 deaths in men and 61,000 deaths in women.
00:45:21.202 --> 00:45:22.876 That’s 130,000 people dying
00:45:22.876 --> 00:45:24.686 of lung cancer this year.
00:45:24.690 --> 00:45:27.175 These are data from the American Cancer Society going back to 1930 when the
00:45:27.175 --> 00:45:29.435 state of first started being kept
00:45:29.435 --> 00:45:31.445 state of first started being kept
00:45:31.450 --> 00:45:33.490 lung cancer deaths and men on the top
00:45:33.490 --> 00:45:35.654 are in this red line and on women
00:45:35.654 --> 00:45:37.707 in the bottom again in the red line,
00:45:37.710 --> 00:45:39.734 and you can see that lung cancer causes
00:45:39.734 --> 00:45:41.486 more deaths than all of these other,
00:45:41.490 --> 00:45:43.258 more most common tumors.
00:45:43.258 --> 00:45:45.910 Archie causes more deaths than breast,
00:45:45.910 --> 00:45:50.230 colorectal and prostate cancer combined.
00:45:50.230 --> 00:45:52.810 It is the second most common
00:45:52.810 --> 00:45:55.820 From the data that we have, we can see that lung cancer is causing
00:45:55.820 --> 00:45:58.532 more deaths than any other cancer combined.
00:45:58.535 --> 00:45:60.639 This is a significant problem and highlights the need for further
00:45:60.642 --> 00:45:62.742 research and advancements in lung cancer treatment.
cancer in men and women.

Again, first leading cause of cancer death and really the problem we face with lung cancer is that the five year survival is so low and so in last year the five year survival for lung cancer was 22%. That’s actually a lot better than it was even ten years ago, which reflects advances in research and therapies. But you can see that that survival really pales into comparison with what we have achieved for colorectal breast. And prostate cancers at three.
Next most common cancers where five years of Bible has improved tremendously and for many of these cancers, we’re talking about 10 and 20 years survival. And that is really what we need to achieve with lung cancer. But it’s a big mountain to climb, and the reason 5 year survival is so poor in lung cancer is that we diagnose cancers late, and so if we look at this pie chart for lung cancer, nearly half are diagnosed at stage 4. Or when disease is already metastatic and only 23% at stage one.
The earliest stage that we can find is when cure is possible. And when you look at five-year survival for the stages 1, 2, 3, 4, you can see how steeply that falls off. We certainly need to do better with stage one, but when you have a four percent five-year survival for stage four and half of the patients are being diagnosed at that stage. You can see then why our five-year survival rate overall is so low and the in contrast, breast cancer really demonstrates the opposite, where half of patients with breast cancer are diagnosed at stage one.
cancer are diagnosed at stage one and only 6% at stage four. And when you look then at five year survival for each stage you can see why the breast cancer survival over five years is so high because most patients are really being diagnosed here and so we really need to do early detection for lung cancer. And for the past eight or nine years we have had that ability, but we’ve been underusing it. So in on the very last day of 2013, USPSTF made this landmark recommendation for annual screening for lung cancer.
with low dose CT in adults aged age
50 to 80 years of a 30 pack year
smoking history and currently smoke or have quit within the past 15 years.
And that was the first time that USPSTF recommended any lung cancer screening in the United States.
Decades has been spent looking at chest X ray as an intervention for lung cancer screening and the bottom line was all the Childs were negative, culminating really in the publication from the prostate, lung colon, and ovarian PLO screening trial. Looking at their 155,000 participants who’ve been followed for multiple years,
they looked at chest X ray versus no screening, which was actually standard of care and it really doesn’t matter whether you had a chest X ray. Or no chest X ray, because the curves for cumulative deaths superimpose and so chest X ray is not an effective screening tool because it does not increase, it does not decrease mortality with a decrease in mortality being the gold standard for successful screening. The USPSTF change in recommendation December 31st,
2013 really was based predominantly on the national lung screening trial, which is the first of the three studies. I would like you to see and LST enrolled 53,000 participants and followed them for six years. High risk for lung cancer for this study was identified as ages 55 to 74 greater than or equal to 30. And if that sounds familiar because I just said it. Patients were randomized to either annual smoking or quit within 15 years.
screening with low dose CT or chest X ray.

There were a total of three screens done over the span of three years once a year and the study was powered so that it could identify a 20% reduction in mortality which was felt to be a threshold for successful screening. This study cost $250 million to do and really involve so many patients because that was the power that was required to achieve potentially that mortality reduction and the data are here on the right. 

And what you can see is that in terms of the number of lung cancers identified, low dose CT identified more than chest X ray.
Radiography and that was significant. But more importantly, more. People who were enrolled in the intervention model CT arm had fewer lung cancer deaths. The study was actually stopped early because it was clear that this endpoint was going to be achieved. So what the actual mortality reduction could have been. We’re never going to know because it was stopped when the 20% became inevitable to be achieved. The other important piece of information is that most of the cancers diagnosed in NLST were early. Age 63% were stage one and so the screening,
in this case achieved what the intent was, which was to diagnose cancers early when they could be cured and to decrease mortality, and this study had probably the shortest conclusion I’ve ever seen for it. Paper screening with low dose CT reduces mortality from lung cancer. This study was followed by a study in Europe called the Nelson study. This was done in the Netherlands and in Belgium. It was a smaller study but also a double blind randomized control trial.
They had 16,000 participants, most of whom were men. They were ages 50 to 75, so included a slightly younger population and less cigarette exposure. Greater than 15 cigarettes per day for 25 years, or 10 cigarettes a day. For more than 30 years. They were the heavy smokers and the medium smoking history was 38 Packers. They had to have been more approximately smoking. Currently smoking or quit within 10 years and the Nelson study had the advantage over NLST of measuring the positive findings, which are lung nodules by volume as
opposed to linear diameter and so they
could actually calculate doubling time,
which is a much more sensitive measure
of growth than a than linear diameter.
We do have actually the capability
in our city.
Scanners to do this,
but it is very time intensive
for the radiologist.
This is probably the next iteration
of screening down the road in
the United States to incorporate
natural volume measurement,
but for the time being you are have
no results will be reported back to
you as linear diameters of noxious.

These patients were randomized to low dose CT screening or nothing, but they did not do a chest X ray arm. There were four low dose CT done over the span of six years and the patients were followed for 10 years so they’re duration between screens was longer than analyst. The study was also positive, not stopped early and the data are here, and although the curves look different than NLST, what you can see is that there were more cancers diagnosed.
That's good that was screened with low dose CT. Then in the control group. That didn't get any screening and there were fewer cancer deaths in the screening group compared to the control. So the cumulative rate ratio for death from lung cancer was .76 and that was statistically significant. So they actually had a 24% reduction in lung cancer mortality and there was a signal that this was actually stronger in women with the 34. Percent.
00:54:17.800 --> 00:54:19.224 34% reduction in mortality.
NOTE Confidence: 0.825854819090909
00:54:19.224 --> 00:54:21.004 but there weren’t enough women
NOTE Confidence: 0.825854819090909
00:54:21.004 --> 00:54:22.878 in this study unfortunately.
NOTE Confidence: 0.825854819090909
00:54:22.880 --> 00:54:24.780 To reach significant significance.
NOTE Confidence: 0.825854819090909
00:54:24.780 --> 00:54:29.930 Although this was a very interesting finding.
NOTE Confidence: 0.825854819090909
00:54:29.930 --> 00:54:31.514 Nelson also demonstrated again
NOTE Confidence: 0.825854819090909
00:54:31.514 --> 00:54:33.890 that there is a shift towards
NOTE Confidence: 0.825854819090909
00:54:33.965 --> 00:54:35.950 earlier stage when you screen,
NOTE Confidence: 0.825854819090909
00:54:35.950 --> 00:54:38.026 and so the Nelson intervention group
NOTE Confidence: 0.825854819090909
00:54:38.026 --> 00:54:40.846 with low dose CT is shown here in the
NOTE Confidence: 0.825854819090909
00:54:40.846 --> 00:54:43.145 blue bars and you can see that more
NOTE Confidence: 0.825854819090909
00:54:43.145 --> 00:54:45.548 than 50% of patients were diagnosed
NOTE Confidence: 0.825854819090909
00:54:45.548 --> 00:54:49.068 with cancer at early stage stage 1A and B.
NOTE Confidence: 0.825854819090909
00:54:49.070 --> 00:54:50.970 This is solitary nodule
NOTE Confidence: 0.825854819090909
00:54:50.970 --> 00:54:52.870 less than 3 centimeters,
NOTE Confidence: 0.825854819090909
00:54:52.870 --> 00:54:54.970 whereas only about 11% were
NOTE Confidence: 0.825854819090909
00:54:54.970 --> 00:54:56.650 diagnosed with stage four.

And if you remember the pie chart,

00:54:56.650 --> 00:54:58.008 this is a dramatic change.

From that distribution and what’s

00:55:00.030 --> 00:55:01.915 really striking is that the bars in

00:55:01.915 --> 00:55:04.426 red and green are the control arm

00:55:04.426 --> 00:55:06.372 and green and their cancer registry,

00:55:06.372 --> 00:55:08.698 which is essentially another

00:55:08.700 --> 00:55:10.240 sort of control group,

00:55:10.240 --> 00:55:11.780 and you can see that half of

00:55:11.780 --> 00:55:13.887 patients are diagnosed at stage 4,

00:55:13.887 --> 00:55:15.498 which is again with that pie chart

00:55:15.500 --> 00:55:17.208 shows so when you look at the blue

00:55:17.208 --> 00:55:19.170 bars compared the red and green bars,

00:55:19.170 --> 00:55:24.146 you really see this move with

00:55:20.960 --> 00:55:24.146
screening towards detecting cancer at much earlier stage. And the last study is the Southern Community Cohort study. There are clearly many studies looking at screening, but this particular one was important because it really addressed health disparities in lung cancer and lung cancer screening. So, Doctor Aldrich, who’s from Vanderbilt, did a prospective study of lung cancer screening and 12 Southern states in the 2002 to 2009. They looked at everybody in
a lot of community clinics.

Predominantly convenient, not academic Medical Center clinics and they looked at 48,000 African American and white current and former smokers is 40 to 79. Two thirds of the population was African American and 1/3 was white and what they what they saw was that 17% of African American smokers were eligible for screening compared to 31% of white smokers. And so there's this big discrepancy in who would be eligible of course,
screening that was associated with race.

They then looked at all of the cancers that occurred in this population over that time frame, and they came up with about 1300 new lung cancers and when they looked at those patients, what they found was that 32% of the African American patients who had gotten lung cancer were eligible for lung cancer screening. Based on the USPSTF criteria compared to 56% of white so many more. Whites were eligible for lung cancer screening than blacks, and really the lack of eligibility.
00:57:07.716 --> 00:57:10.106 was primarily associated with lesser smoking among African Americans

00:57:10.106 --> 00:57:12.026 who got lung cancer with the median pack years of 26 compared to 48 in.

In the white smoking patients who had gotten lung cancer and this really again brought out this observation that African Americans and women seem to get lung cancer. That's a lower smoking intensity exposure and also at younger age.

So that aldriches group. Has recommended that the smoking eligibility criteria for USPS screening be decreased to 20
00:57:47.965 --> 00:57:50.982 pack years to try to address this
NOTE Confidence: 0.854431875882353
00:57:50.982 --> 00:57:53.198 health disparity where fewer African
NOTE Confidence: 0.854431875882353
00:57:53.198 --> 00:57:55.493 Americans were being screened because
NOTE Confidence: 0.854431875882353
00:57:55.493 --> 00:57:57.857 they weren’t eligible on the basis
NOTE Confidence: 0.854431875882353
00:57:57.857 --> 00:57:59.705 of the smoking intensity and if
NOTE Confidence: 0.854431875882353
00:57:59.705 --> 00:58:01.962 that were to be implemented that
NOTE Confidence: 0.854431875882353
00:58:01.962 --> 00:58:03.847 it would increase the percentage
NOTE Confidence: 0.854431875882353
00:58:03.850 --> 00:58:05.850 of African American smokers
NOTE Confidence: 0.854431875882353
00:58:05.850 --> 00:58:08.339 who would be eligible for screening
NOTE Confidence: 0.854431875882353
00:58:08.339 --> 00:58:10.865 and they did this very interesting.
NOTE Confidence: 0.854431875882353
00:58:10.870 --> 00:58:13.334 Sensitivity study and I’m not going to
NOTE Confidence: 0.854431875882353
00:58:13.334 --> 00:58:15.268 go through everything on this graph,
NOTE Confidence: 0.854431875882353
00:58:15.270 --> 00:58:18.000 but what they looked at was in
NOTE Confidence: 0.854431875882353
00:58:18.000 --> 00:58:20.460 the population with the existing
NOTE Confidence: 0.854431875882353
00:58:20.460 --> 00:58:21.670 USPSTF guidelines,
NOTE Confidence: 0.854431875882353
00:58:21.670 --> 00:58:23.470 what is the sensitivity of screening
00:58:23.470 --> 00:58:26.222 to pick up a lung cancer and African
NOTE Confidence: 0.854431875882353
00:58:26.222 --> 00:58:28.658 American sensitivity is shown here in
NOTE Confidence: 0.854431875882353
00:58:28.658 --> 00:58:31.332 the solid orange line and whites in
NOTE Confidence: 0.854431875882353
00:58:31.332 --> 00:58:33.933 the dotted orange line and you can
NOTE Confidence: 0.854431875882353
00:58:33.933 --> 00:58:36.159 see that the sensitivity of screening
NOTE Confidence: 0.854431875882353
00:58:36.159 --> 00:58:39.787 was much much lower and so the question is,
NOTE Confidence: 0.854431875882353
00:58:39.790 --> 00:58:41.730 well, how can you?
NOTE Confidence: 0.854431875882353
00:58:41.730 --> 00:58:44.155 Bring that sensitivity more equitably
NOTE Confidence: 0.854431875882353
00:58:44.155 --> 00:58:47.526 to so the curves look more similarly,
NOTE Confidence: 0.854431875882353
00:58:47.530 --> 00:58:49.060 and they modeled out what would
NOTE Confidence: 0.854431875882353
00:58:49.060 --> 00:58:49.825 happen if you,
NOTE Confidence: 0.854431875882353
00:58:49.830 --> 00:58:52.231 if we had screened at 20 pack
NOTE Confidence: 0.854431875882353
00:58:52.231 --> 00:58:54.160 years as the threshold,
NOTE Confidence: 0.854431875882353
00:58:54.160 --> 00:58:57.008 and you can see that the the solid
NOTE Confidence: 0.854431875882353
00:58:57.008 --> 00:58:58.832 orange line and the dotted orange
NOTE Confidence: 0.854431875882353
line still don’t quite meet,

but they become much closer,

and there is no decrease in sensitivity

in whites by making that change.

And so on.

The basis of that and actually many other

cancer screening studies last March.

So a year ago,

USPSTF updated its recommendation

for lung cancer screening to include

adults now ages 50 to 80 years.

So younger population with a 20 pack

year smoking history along the lines

of the recommendation of the group

from Vanderbilt who are currently

smoking or quit within the past 15 years.
And this expansion of the USPSTF criteria.

Now makes about 14 million Americans eligible for lung cancer screening.

Both speakers so far have mentioned shared decision making and I think we incorporate that into all of our daily practices.

Lung cancer screening does differ from other screening for cancers because it’s actually mandatory that you do it to be for the test to be reimbursed by Medicare so that there must be documentation that is shared decision making.
session with the patient was actually occurred. The updated guidelines. Now do not make it necessary for that shared decision making to occur with. Position or PRN? A trained individual including a our end or some other healthcare providing person can now do that shared decision making our visit and it is very important because like all other cancer screenings, there are known benefits and potential harms that we’re very clear in all of these studies. This is a CT scan that actually
includes imaging of every part of the chest and upper abdomen, and that makes it different. Than other cancer screenings where it’s really only the organ of interest that appears on whatever study is being done. There are a lot of false positive the false positive rate and NLST was actually 94%, so most of the nodules that are identified by screening are not going to be cancers, and so it is very important that the American College of Radiology Lung Rads algorithm for natural evaluation is used because the intent of that is to minimize unnecessary evaluation of.
nODULES that are not likely to harm, and it does provide this opportunity to talk to the patient about tobacco cessation and many people feel this is the teachable moment that when a patient is motivated to listen to you as the expert about lung cancer screening, that may be the time when your 3 minutes of smoking cessation counseling. He’s most effective. So there are also lung cancer risk assessment models for patients who smoked or actually didn’t smoke lung cancer screening.

Those only offered by Medicare to patients with that pretty incentive.
Smoking history.

This is the prostate lung colon ovarian model that was developed in 2012 based on the PL fuel population.

This is the website where you can get it really easy by Googling.

PLCOM 2012, Brock University.

The primary author for this model is Brock University in Canada.

And I think what this demonstrates is that there are a lot of risk factors for lung cancer besides smoking.

Although smoking is the causative agent in probably 85 to 90% of all comers with lung cancer,
or at least a contributor.

But many other factors create risk body mass index.

Whether you have other lung disease.

If you hadn’t other cancer yourself,

or that there’s a family history of cancer and there’s definitely influence based on race and ethnicity.

it does give you a probability of lung cancer in the next six years.

And so for this 73 year old patient who has these demographics?

That lung cancer risk is about 5%
double the risk of NLST or Nelson, and so this patient would be considered very high risk even though that number may not look so high. So it’s important to ground that in. Who is the high risk population for all those studies? And what did that mean? So the benefits of lung cancer screening I think are pretty obvious. Decreased lung cancer mortality, detection of lung cancer, early stage detection of disease when it’s treatable, improvement in survival and quality of life,
and providing that teachable

moment for tobacco cessation.

But there are also risks,

predominantly related to

the high false positive.

Likelihood of finding a nodules

that are not destined to harm,

and those nodules can create unnecessary

testing and procedures and economic,

emotional and physical costs which

hopefully can be minimized if

we stick to the algorithm used.

Meeting of Longreads given to us by PCR.

There can be false negative results.

We used to worry a lot more about the

detection of indolent disease that
would really not render any benefit and that is known as overdiagnosis. There is some radiation. Exposure related to having a test with radiation every year, but it really takes thousands and tens of thousands of examinations to generate enough harm that one person would get lung cancer or another cancer from their screening. And then I’ve already mentioned that this is a CT scan of more than one organ and so incidental findings are quite frequent. Speaking with patients in these and
01:04:49.210 --> 01:04:51.310 these shared decision making visits
NOTE Confidence: 0.889394671
01:04:51.310 --> 01:04:54.315 makes it clear what that there are
NOTE Confidence: 0.889394671
01:04:54.315 --> 01:04:56.047 actually individual patient level
NOTE Confidence: 0.889394671
01:04:56.047 --> 01:04:57.893 barriers to lung cancer screening
NOTE Confidence: 0.889394671
01:04:57.893 --> 01:05:00.430 related to stigma of fear of a test,
NOTE Confidence: 0.889394671
01:05:00.430 --> 01:05:02.392 and in particular this is often
NOTE Confidence: 0.889394671
01:05:02.392 --> 01:05:04.394 confused with a closed MRI and
NOTE Confidence: 0.889394671
01:05:04.394 --> 01:05:05.646 you can alleviate that.
NOTE Confidence: 0.889394671
01:05:05.650 --> 01:05:07.360 Patients are afraid of getting
NOTE Confidence: 0.889394671
01:05:07.360 --> 01:05:09.503 a cancer diagnosis so may avoid
NOTE Confidence: 0.889394671
01:05:09.503 --> 01:05:11.990 having the screen they’re afraid of
NOTE Confidence: 0.889394671
01:05:11.990 --> 01:05:14.550 having surgery or radiation or more.
NOTE Confidence: 0.889394671
NOTE Confidence: 0.889394671
01:05:16.794 --> 01:05:17.916 By screening,
NOTE Confidence: 0.889394671
01:05:17.920 --> 01:05:20.426 APRN recently had a patient telling her
NOTE Confidence: 0.889394671
01:05:20.426 --> 01:05:22.536 I can’t afford to have lung cancer.
I'm not sure I want this screen access and cost, and I think we all of these are common, perhaps to all screening interventions, but particularly too long. And then I just want to encourage everybody on this call to think about lung cancer screening and talk to their patients because it is a relatively new screening program. We should have had this long ago because lung cancer kills so many patients every year. These are these are statistics across the states in the United States in 2020.
and this is Connecticut and you can see that in 2020 in Connecticut, 7% of eligible patients underwent cell cancer screening which is really low.

We really need to increase that number if we want to get to that. We can save 20 out of 100 lives from cancer and what’s really ironic on this slide is the state of Kentucky, which has the highest smoking prevalence in the country and the highest lung cancer incidence actually is screening twice as many patients percentage wise as we are doing Connecticut, and the reason that this is actually
really taken off and Kentucky is because of Community and state based efforts.

To really get the word out and so there have been laws passing the Legislature support lung cancer screening and a lot of community advocacy groups that have to take in this on and so the take home points for tonight from this section is that remember lung cancer is the leading cause of cancer deaths in both men and women in this country in the world. It is the leading cause of cancer death.
Improved survival and increases the chance of cure. There's a very strong evidence based demonstrating that screening for lung cancer with low dose CT decreases lung cancer mortality, so this will save lives. The 2021 updated recommendations expands the populations of all people, but particularly is geared towards resolving the health disparities that we see for African Americans and women who are now increasingly eligible for screening and 14 million. People are eligible in this country, but right now we're screening only
5 to 10% and so just to remind you, please screen your patient to meet the eligibility criteria. 50 to 80 years old who have a 20 pack year smoking history and currently smoke or have quit within the past 15 years. Thanks very much for listening. Thank you very much, Doctor. Thank you for this wonderful review and hopefully we’ll start getting more and more patients referred for lung cancer screening. As important as you’ve shown. Very good and we’re gonna move on now to the last presentation.
And that’s on a colorectal cancer screening.

And I have no conflicts of interest to disclose,

so we’re gonna reveal colorectal cancer incidence trends to The Tonight.

We are going to be looking at screening with ALITIES and also we’ll review the newest guidelines and starting screening at an earlier age that most of you are familiar with already.

So colorectal cancer,

still the third leading cancer,

and both men and women and also the third leading.

Cancer related deaths both in men and women,

but the good news really,
01:08:52.150 --> 01:08:53.618 on colorectal cancer is

01:08:53.618 --> 01:08:55.086 what I'm showing here,

01:08:55.090 --> 01:09:00.511 which is these very nice steady

01:08:58.018 --> 01:09:00.511 decrease in both incidence and

01:09:00.511 --> 01:09:02.978 mortality since the mid 1980s,

01:09:02.978 --> 01:09:07.676 Again incidence and mortality,

01:09:07.676 --> 01:09:11.059 and a lot of it has to do with

01:09:11.059 --> 01:09:12.924 exactly what I'm showing here,

01:09:12.930 --> 01:09:15.695 which is this steady increase also in

01:09:15.695 --> 01:09:18.219 the utilization of colonoscopy as we.

01:09:18.220 --> 01:09:20.436 Been doing more colonoscopies,

01:09:20.436 --> 01:09:22.058 uh, we've seen that decrease

01:09:22.058 --> 01:09:23.126 in the incidence rate.

01:09:23.130 --> 01:09:25.573 Other factors have played also a role

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in that decrease in colorectal cancer, but certainly screening has played a very important role over the last few years. We’ve been hearing more and more about not starting with colonoscopy screening as the first screening option, but also other types of screening tests that recent. Studies have shown their usefulness for colorectal cancer screening, so those include city colonography, but it also includes stool based studies that basically test for alterations, either blood or cold blood in the stool or some a cold blood plus DNA abnormalities related to malignant
cells that at the end of the day would result in a positive test that would require.
The follow up colonoscopy but the issue about this test is that really and that was very recognized in nineteen 2016 by USPSTF is that we really don’t have a lot of data. We have very good studies showing efficacy of all the methods that I showed to you and the legitimacy of using these methods, but not much comparison between the two different.
Fans in in the also stated that all those single test performance is an important issue. The detection of colorectal cancer sensitivity of the test of our time is more important. How the test perform over time. So with that in mind, they try USPSTF. What they did is they commissioned what they called the cancer intervention and Surveillance Modeling network sysnet and that included three different. Analytical models have performed in different institutions to inform really recommendations for
01:11:25.922 --> 01:11:27.892 These are the three different
01:11:27.892 --> 01:11:29.996 groups and what they did is they
01:11:29.996 --> 01:11:32.089 use the they based the modeling on
01:11:32.089 --> 01:11:33.641 historical colorectal cancer incidence
01:11:33.641 --> 01:11:36.260 data from the pre screening area.
01:11:36.260 --> 01:11:39.296 So from 1975 to 1979 were really we
01:11:39.296 --> 01:11:41.133 could not see the effects of screening
01:11:41.133 --> 01:11:43.148 because colorectal cancer screening
01:11:43.148 --> 01:11:46.320 cannot be implemented at that time.
01:11:46.320 --> 01:11:49.850 So and the analysis would have to.
01:11:49.850 --> 01:11:51.076 Include benefits,
01:11:51.076 --> 01:11:54.141 harms and burden of colorectal
01:11:54.141 --> 01:11:55.367 cancer screening.
01:11:55.370 --> 01:11:57.206 That’s what they really looked at,
so this is some of the data that came out of that modeling commissioned by USPSTF here on the left side. You see all the different modalities of colorectal cancer screening. There's an added one which is the multi target stool DNA every year, which is not the recommended one. Recommended one is every three years. The other ones are Standard of care recommendations, but they look that went to in that specific time frame and there were several things that we assessed in this one. I'm showing life years gained per thousand individual screen and what
they saw is I'm showing here the the middle of the different of the different brackets when it comes to the estimates. According to the three models, so they life years gained per thousand colonoscopies actually using colonoscopies. Primary methods would be 270 will end the one with the lowest performance will be flexible sigmoidoscopy every five years with 221 at the end of the day. Though all the different screening modalities were within were yielding within the 18% range of the highest performer which would be colonoscopy here. So pretty good performance and
as assessed per life years game.

For 1000 screen individuals,

and this is another one

that’s colorectal cancer.

Deaths averted per thousand screen

and they got 24 and the modeling for

colonoscopy every 10 years versus the

lowest performers which were flexible

sigmoidoscopy every 5 years,

and the multi target stool

DNA every 3 years.

But at the end of the day again,

a difference of one to four,

depending on which modeling you would use.

One to four deaths of difference

among the different screening.
Questions per thousand screened individuals and they look also for complications. And here obviously the more aggressive test for screening is obviously colonoscopy, which had the highest number of predicted complications with the lowest number being 9 for the multi targets to DNA test, so a difference overall from four to six complication difference. Among the different screening options per hundred per thousand screen individuals, finally they look at the burden of these and the burden here in this case, looking at how many colonoscopies it does require per thousand individual screen.
So when they looked at colonoscopies needed when you are using colonoscopy every five every 10 years as your screening method of choice. That would be about four colonoscopies in a lifetime per individual. But, uh, if we look at the lowest, the one that required less colonoscopy, that will be when screening for with a feed test every year that will be close to 2000 colonoscopies per thousand individual screens. So that would mean that basically that would cut in half the number of colonoscopies needed per patient from
01:15:13.350 --> 01:15:15.450 4 colonoscopies to two colonoscopies

01:15:15.450 --> 01:15:18.227 to that still a significant burden.

01:15:18.230 --> 01:15:21.387 Even using the these other pre screening.

01:15:21.390 --> 01:15:23.830 Test if if we choose to do so,

01:15:23.830 --> 01:15:26.590 but certainly it would definitely decrease

01:15:26.590 --> 01:15:29.660 the overall burden of for colonoscopy.

01:15:29.660 --> 01:15:32.015 So non colonoscopy strategies pretty

01:15:32.015 --> 01:15:35.542 much resulted in about half of the

01:15:35.542 --> 01:15:37.177 total colonoscopies performed.

01:15:37.180 --> 01:15:38.880 So based on all that,

01:15:38.880 --> 01:15:42.378 the USPSTF really departed from the

01:15:42.378 --> 01:15:45.699 prior iterations where really there was.

01:15:45.700 --> 01:15:47.248 There were sets of preferred tests

01:15:47.248 --> 01:15:49.300 and in this case it was colonoscopy.

01:15:49.300 --> 01:15:51.300 The preferred test to are
no longer emphasizing that,
and really emphasizing that the
clinical decision should involve all
the considerations that we're talking
about in not only evidence alone
and more options than that's there
a good number of studies that show.
And more options can result in
better screening uptake.
Some individuals may be more amenable
to some of the options and others,
in some other cases availability of
some tests, particularly colonoscopy,
may not be as available,
and therefore the stool based test,
for instance,
or colonography could be more attractive. Choices, so individualized decision making to the specific patient or situation as well as local availability of testing options was really emphasized, so I think that goes also to doctor Tannous comment about the shared decision making where more and more with all the options that we have and none of them really being right and wrong, but really making sure that everything or every we. Look at all the different
possibilities that can actually fit our individual patient. That’s probably the what’s going to give us the best chance for a high uptake of screening, and this is an important message that came out from those guidelines in 2016. They stated the screening is a cascade of activities that must occur in concert cohesively and in an organized way for benefits to be realized from the point of the initial screening examination, including related interventions or services that are required for successful administration of.
The screening tests. Such as a bowel preparation for instance. Or sedation with endoscopy to the timely receipt of any necessary diagnostic. So really we have to put it in this larger context. We can screen with colonoscopies, but beef patients are not well prepped. We are going to fail in really detecting lesion so there’s just anywhere using a stool based test if we don’t have a proper way to really follow up and make sure that they happen in the either.
Yearly or every three years for the multitarget stool DNA test. We are not going to be able to succeed. So whatever we do, it should be in an organized fashion to really maximize the benefit from it. So with all these where we stand with oral cancer screening in the US after all these years, screening rates have increases have slowed over the last few years and we still close to 1/3 of eligible individuals who are not up to date with screening would be individuals.
in the 50 to 54 years of age range.

Hispanics,

people with less than high school.

Diploma or individuals

with Medicaid or uninsured.

So there’s these groups of individuals

were really screening is a dismal

still has dismal numbers among all

the non up-to-date group over a

third are individuals age 50 to 54.

So even though for many years we’ve been

recommending to start screening at age 50,

we still underperformed dramatically in

that age, and there are a lot of reasons.

Some of them is that lack time.

NOTE Confidence: 0.75358565
That I’m stating here where.

Need for screening to really finally happen.

We do need to talk to patients for a while before they become convinced, but also they are.

The other reason is that more as the population is younger, they have less medical illnesses. They have less contact with the medical system.

There are less opportunities for us to really talk to them about colorectal cancer screening, but also have of the, even though we said that Medicaid and uninsured have the lowest screening rates.
Half of the individuals, private insurance, and a quarter of medical patients do not up to date with screenings. Or certainly there’s a lot of room. But anyways, we are much more effective screening the captive audience as we were talking about individuals we have. Context and then regular basis with our healthcare system, with our healthcare system, we really need to figure out a way to really reach out those those individuals who are not regularly...
01:20:21.567 --> 01:20:23.311 seen by medical providers and who
NOTE Confidence: 0.840105356666667
01:20:23.311 --> 01:20:25.212 happen to be in this younger age.
NOTE Confidence: 0.840105356666667
01:20:25.212 --> 01:20:27.109 And I’ll show you in a minute
NOTE Confidence: 0.840105356666667
01:20:27.109 --> 01:20:28.678 why that is so important.
NOTE Confidence: 0.840105356666667
NOTE Confidence: 0.840105356666667
01:20:31.640 --> 01:20:35.042 In in, in one of the facts that we
NOTE Confidence: 0.840105356666667
01:20:35.042 --> 01:20:38.293 really recognize over the last few years
NOTE Confidence: 0.840105356666667
01:20:38.293 --> 01:20:41.989 is that in spite of these wonderful.
NOTE Confidence: 0.840105356666667
01:20:41.990 --> 01:20:44.550 Data over the last 30 years or so
NOTE Confidence: 0.840105356666667
01:20:44.550 --> 01:20:47.590 on the steady decrease in incidence.
NOTE Confidence: 0.840105356666667
01:20:47.590 --> 01:20:50.476 Colorectal cancer in older than 50.
NOTE Confidence: 0.840105356666667
01:20:50.480 --> 01:20:53.280 We have seen this very steady increase
NOTE Confidence: 0.840105356666667
01:20:53.280 --> 01:20:55.738 in the incidence of the younger
NOTE Confidence: 0.840105356666667
01:20:55.738 --> 01:20:58.489 individuals in between 20 and 49 that’s
NOTE Confidence: 0.840105356666667
01:20:58.566 --> 01:21:01.134 translated in an increase in annual
NOTE Confidence: 0.840105356666667
01:21:01.134 --> 01:21:05.370 increase of 1.8% from 2006 to 2015.

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Individuals that are younger than 55 really pretty significant increase particularly. So when comparing with the overall numbers in that, so I'm adults younger than 55, there's been a 51% increase in incidence of colorectal cancer from 94 to 2014 and an 11% increase in mortality from 2005 to 2015. And if you look at here in this graph here we have years, this graph here we have years, year of birth, and if you look closely, basically almost all individuals. Uh, were born after eight after uh, 1960. In all age groups,
we see an uptick in colorectal cancer incidence.

So anyone basically who has been born after that after 1960, we've seen that increase in colorectal cancer incidence and the increase in the annual percentage change in the incidence rate for adults aged 40 to 49, which has been on average 1.3% has been more than twice that of the adults.

Age 50 to 54. So really dramatic increase in the younger side of the of these patients. This suggests that the risk for the younger cohort will continue to carry forward into the group age
01:22:26.951 --> 01:22:29.256 50 to 54 over the next few years.

01:22:29.260 --> 01:22:29.700 Therefore,

01:22:29.700 --> 01:22:32.340 the effect will be really important and what I’m really showing here is that truly what we call the age 45 is the new 50

01:22:32.340 --> 01:22:34.240 important and what I’m really showing here is that truly what we call the age 45 is the new 50


01:22:36.544 --> 01:22:40.928 what we’ve seen is that the incidence


01:22:44.130 --> 01:22:44.599 Uh,

01:22:44.599 --> 01:22:47.882 what we’ve seen is that the incidence

01:22:47.882 --> 01:22:51.291 of the colorectal cancer at

01:22:51.291 --> 01:22:55.130 age 45 in 2015 has reached the same

01:22:55.130 --> 01:22:58.330 incidence that we had at age 15,

01:22:58.330 --> 01:22:59.304 nineteen, 93,

01:22:59.304 --> 01:23:02.462 which is about 30 per 100,000 individuals.
And that’s where we say 45 is the new 50 in colorectal cancer, because that’s where we are right now. That’s where we have moved from that standpoint. Unfortunately, so adults born around 1990 have twice the risk of colorectal cancer and four times the risk of rectal cancer compared to adults born around 1950, so we can see that while in 1996.4% of colorectal cancers were among individuals younger than 50, in 2015 had doubled to 12.4%, so really significant increase,
and I think that really, this like really shows a lot which is. Even though the numbers are much lower in this younger population, when you look at life years, life years lost due to this disease in the group of 45 to 49, that’s about 10% of all life years lost due to this disease. And that compares to 13% for the 50 to 54. And this is really a strong Argument to make a about decreasing screening at age to 45. So the with all these data, the ACS in 2018 that decided to
reevaluate the optimal age to start

screening for average risk population

and basically what they did.

Is that OK?

Well, they look at the Commission.

One of these modeling groups that

actually USPSTF has been using and what

they did is they analyzed outcomes.

Not only under that assumption that

that the of the prescreening years,

but also the what they did is

they incorporated the the recent

cleared data incidence data,

showing that increase in the

young set colorectal cancer.

And in that case,
what they showed is that here
we have the different methods.
Colonoscopy, CT, Colonography,
flex, 6 feet and others to test as
starting either at 45 versus 50.
What they saw is that moving to 45
starting training range we would increase.
6.2% live years again with the cost
of about 717% more colonoscopies,
so they did conclude that modeling
convincingly demonstrated that due to
the rising incidence of colorectal
cancer in younger individuals,
screening all average risk persons
between the ages of 45 and 75

reduces mortality from colorectal cancer with an acceptable risk as measured by number of colonoscopies per life years gained,

so the trend of increasing colorectal cancer incidents in success.

That successfully younger birth cohort suggests that these recommendations will really continue to be appropriate in the future and the benefit burden balance strongly favors changing to 45.

After that, the USPSTF and that was published last year commissioned the same modeling groups again,
and they did the same process that it did before in 2016, comparing age 50 versus 8 starting at age 45.
And here we they look at additional live years game. And basically what they saw is that starting at 45 to 75 we would increase about from 22 to 27. The number of additional life years gained per hundred per thousand individual screen. Here they looked at additional colorectal cancers, averted and starting at food at 45 would result in three more additional colorectal cancers averted out of 1000.
individual screen would again with 17% more.

Colonoscopies,

USPSTF came up with the same recommendation with it that the ACS came up with in 2018 which was starting screening for average risk individuals at 45 instead of age 50 as it had been so far.

So for the USPSTF in summary screening, asymptomatic adults age 50 to 75 is of substantial benefit, and modeling suggests the benefits will also be substantial for age 45.

The benefits of early detection and

01:27:12.231 --> 01:27:14.591 screening seem to decline after age 75

01:27:14.591 --> 01:27:17.897 and decision to screen individuals from

01:27:17.900 --> 01:27:20.539 76 to 85 should really be individual

01:27:20.539 --> 01:27:23.186 and the individual one considering over

01:27:23.186 --> 01:27:26.066 our health prior screening history and

01:27:26.066 --> 01:27:28.814 benefiting after age 85 seems to be a very,

01:27:28.820 --> 01:27:31.285 very unlikely benefit given the


01:27:33.260 --> 01:27:37.068 So, with all these,

01:27:37.070 --> 01:27:39.366 group of us have tried to really.

01:27:39.370 --> 01:27:42.346 Incorporate all that type of information

01:27:42.350 --> 01:27:44.950 in a way that the providers in our

01:27:44.950 --> 01:27:47.236 system will have all the tools to

01:27:47.236 --> 01:27:49.040 really work on that decision making

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01:27:49.040 --> 01:27:50.490 process shared with the patients
NOTE Confidence: 0.858586135
01:27:50.537 --> 01:27:52.103 and trying to really find the
NOTE Confidence: 0.858586135
01:27:52.103 --> 01:27:53.770 appropriate way to screen individuals.
NOTE Confidence: 0.858586135
01:27:53.770 --> 01:27:56.178 And that came out came life in
NOTE Confidence: 0.858586135
01:27:56.178 --> 01:27:58.259 the epic system wide at Yale,
NOTE Confidence: 0.858586135
01:27:58.260 --> 01:28:00.600 New Haven Health just yesterday.
NOTE Confidence: 0.858586135
01:28:00.600 --> 01:28:03.294 And that’s the correct cancer screening
NOTE Confidence: 0.858586135
01:28:03.294 --> 01:28:07.025 pathway where we really go through the
NOTE Confidence: 0.858586135
01:28:07.025 --> 01:28:09.604 different recommendations when it comes for.
NOTE Confidence: 0.858586135
01:28:09.604 --> 01:28:10.860 Uh, when we should?
NOTE Confidence: 0.858586135
01:28:10.860 --> 01:28:12.380 We should not screen,
NOTE Confidence: 0.858586135
01:28:12.380 --> 01:28:15.969 but then after that it gives you the takes
NOTE Confidence: 0.858586135
01:28:15.969 --> 01:28:18.429 you into evaluating if the individual
NOTE Confidence: 0.858586135
NOTE Confidence: 0.858586135
01:28:21.186 --> 01:28:24.324 Here we have some examples where
NOTE Confidence: 0.858586135
01:28:24.324 --> 01:28:27.060 basically as you hover in all
these blue text you’ll see, for instance, this is hovering over stool based testing will be a benefits and risk for instance. Or actually you can have here opening up a table of sensitivity, specificity of all the different. Screening tests for both polyps and cancer, and it takes you down here helps you also analyze who is at high risk and therefore we would be suggesting colonoscopy versus non colonoscopy approaches and basically at the end of the day. Once you make that decision, it also allows you to really place
01:29:04.570 --> 01:29:06.600 the orders directly for colonoscopy,
NOTE Confidence: 0.858586135
01:29:06.600 --> 01:29:08.472 for City colonography and
NOTE Confidence: 0.858586135
01:29:08.472 --> 01:29:11.650 for a stool based test so it.
NOTE Confidence: 0.858586135
01:29:11.650 --> 01:29:13.498 Within the same path we were able to
NOTE Confidence: 0.858586135
01:29:13.498 --> 01:29:15.327 really go through the whole process,
NOTE Confidence: 0.858586135
01:29:15.330 --> 01:29:16.902 so we hope that these two
NOTE Confidence: 0.858586135
01:29:16.902 --> 01:29:17.950 will be really helpful,
NOTE Confidence: 0.858586135
01:29:17.950 --> 01:29:19.516 not only to increase screening grades,
NOTE Confidence: 0.858586135
01:29:19.520 --> 01:29:22.215 but also to help the providers to
NOTE Confidence: 0.858586135
01:29:22.215 --> 01:29:24.598 have those discussions with the right
NOTE Confidence: 0.858586135
01:29:24.598 --> 01:29:26.908 information and and making sure that
NOTE Confidence: 0.858586135
01:29:26.908 --> 01:29:29.515 that every patient does have the
NOTE Confidence: 0.858586135
01:29:29.515 --> 01:29:32.905 benefit of really being able to.
NOTE Confidence: 0.858586135
01:29:32.910 --> 01:29:36.318 Make a well informed decision about
NOTE Confidence: 0.858586135
01:29:36.318 --> 01:29:39.450 screening approaches and that is all
NOTE Confidence: 0.858586135
01:29:39.450 --> 01:29:42.522 I wanted to talk to you about tonight

and I think we'll run out of time.

So.

We may not have time for answers, but anyone can feel free to email us and we'll be very happy to address any questions from this session.

Unfortunately, yeah, time will run out, but again, Richard was directly very happy and, again, thanking tremendously doctors.

There is a tanui and lasberg for being here, sharing their knowledge, and in such wonderful presentations it’s been a pleasure to share that time with them.
Thank you all for being here tonight.

Goodnight