**The Detection and Treatment of Colorectal Cancer**

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**SUMMARY KEYWORDS**

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The cancers this show hosted by Dr. Bill Evans, and brought to you by the cancer assistance program help when you really need it.

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bill this month we are focusing on colon cancer. Can you give me some of the background? How common is colon cancer?

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Well, Shauna we've been covering in our series, really all of the most important cancers. We started with lung cancer, we did prostate cancer, breast cancer last month, and today colon cancer, and each of them affects about 25,000 Canadians each year. And the four of them together make up 50% of all cancers. So it's a it's a common cancer. It's an important cancer. But an important message to take away from this show, which I'm sure we'll hear from our guests, is if you find it early, the probability of being cured is really very good. And so it's important to pay attention to your bowel function. And I'm sure we'll hear that from Dr. Simonov, who's coming on next, the importance of just being body aware of how your bowel is functioning, how you're feeling, what your appetite is doing, and whether there's any blood in your bowel motions. And all those things should take you to your family physician and as appropriate additional investigations that we'll be talking about. But if it's found early, this is a curable cancer. If it's not early, then there are increasingly good things that can be done to help you and assist you even to improve your chances of survivorship after a surgeries been performed. We often talk about the risk factors for his cancers. And again, like many of the other cancers in the series, that are so common, the biggest risk factor is actually your age. And 90% of colon cancer occurs after the age of 50. And some other risk factors that you can't control for are really your genetic makeup and one of two forms if you have a first degree relative, so if your mother father, or sister brothers or children have had colon cancer, then you're at higher risk. But there are also some very rare fortunately, genetically determined diseases with big names like familial adenomatous polyposis, where people get literally hundreds, if not 1000s, of polyps in their colon from the start of it to the end of it. And any of those can convert to a cancer. And then there's another syndrome called the lynch syndrome, where again, it's it's a genetic abnormality that predisposes to cancer, but without for running polyp. And for reasons that are not well understood, African Americans have higher risk of colon cancer. And we're seeing some changes in the, in our First Nations people, they used to have a low incidence of, of colorectal cancer, but in recent, several decades, we're seeing a an ever increasing incidence. And it probably has to do with adopting sort of the more Canadian America and European type of diet. The same thing has been observed with Japanese who've migrated from Japan to Hawaii to United States and what you see a low incidence of colorectal cancer in Japan, sort of an intermediate level of colon cancer for those who've lived in Hawaii for a period of time. And if you've lived in the United States and your Japanese roots, but you've lived there for your life, you have an incident similar to other Americans, so presumably has a lot to do with your environment, and most particularly your dietary intake. There's a couple other things that people should be aware of. One of them being that inactivity, probably increases your risk, and certainly exercising and keeping your bowel function regular. As the British say, a morning constitutional, so go for your walk and get the ball moving seems to be a helpful thing to do. And we've come to be aware too, that smoking increases your risk of colon cancer. So those are a couple things you can control can control your genetic makeup and you can't control for your age. But you can do something in your lifestyle in terms of what you eat, how much activity you have and what toxins you put into yourself. I

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have one other quick question. Before we get to Dr. Sommer Novick and Dr. John Gottman, who's a medical oncologist and he'll be dealing more with with chemotherapy in latter stage colon cancer a little later on in the show, are there other risk factors for instance, my mother had ulcerative colitis and I was told that that could be a risk factor for me. Yes,

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I neglected to mention that but inflammatory bowel disease either ulcerative colitis or Crohn's disease, both of which if you have them for a protracted period of time, like a years or longer, your risk of colon cancer is increased. And of course, also the management is more complicated because they already have bowel symptoms and discerning different symptoms that might be indicative of colorectal cancer is challenging. And they may have had multiple surgeries even for either of those inflammatory bowel diseases. So again, it's complicated and so individuals with those particular illnesses need to be aware of that there is some risk and the physicians need to be monitoring them carefully.

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We're going to take a short break on AM 900 ch ml. When we come back, we'll be speaking with Dr. Marco Semin Novick, who's a colorectal cancer surgeon from the Juravinski hospital and a little later on Dr. John golf and a medical oncologist specializing in colorectal cancer systemic therapy. That's coming up on AM 900 ch ml. You're

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listening to the cancer assist show was Dr. Bill Evans and host Shawna Thompson am 900 ch ml. You're listening

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to the cancerous this show on AM 900 ch ml, which is brought to you by the cancer Assistance Program. I'm Shona Thompson here with Dr. Bill Evans. And we're taking a special focus this month on colon cancer. Joining us now is Dr. Marco Simone Novick, a colorectal surgeon from the Juravinski hospital. And welcome Marco

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and thank you for coming in this morning. Now we're talking about colon cancer and rectal cancer. And I'm sure there's many people out there who know where the colon is, but some that may not. So maybe we'll start with the basics of describing where the colon is inside your body and what's out there for sure.

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Thank you for the invitation, Sean and Bell, it's a very interesting time to be in this field. And hopefully we can cover some of the areas that I think may interest our your listeners. Everyone knows where their ribcage is, everybody knows where the pelvis is the bony pelvis, and in between is the abdomen and that's sort of where the colon sits. And at the end of the colon is the rectum for about another foot and a half, two feet. When you eat food, it goes into your stomach, then it goes into your small intestine where all the nutrients are absorbed. And then everything gets dropped into the colon. And the colon is a big sort of inverted sea in your abdomen. And basically all the colon does is absorbs water. And the end result is stool that gets delivered to the rectum. There are a few little electrolytes that get absorbed and excreted. But for the most part, the colon is all about reabsorbing water, so you don't become dehydrated.

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So as we get older, a risk factor is colon cancer, if not a risk factor. We can get colon cancer because we're getting older. And I guess 90% of all colon cancer occurs after age 50. What would a person expect to experience if they were developing a colon cancer? What would be the symptoms? Sure.

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So the first thing is, you know, it is fairly common, but at the same time, only about 5% of the population will end up getting some form of colon cancer. And that can be a very early stage cancer, very curable or late stage. So we don't want to scare everybody, everybody and think that everyone is getting colon cancer. But it is one of the more common types of cancer. And you're right as you get older, that's the perhaps the most important risk factor for who gets colon cancer. There are a few others, but they're poorly understood, and we can discuss those. But the symptoms are the most important thing, as you mentioned, Bill. And it can be something as vague as a bit of an abdominal pain or a weight loss. Okay. And you do want to describe those to your family physician. But the ones you really want to bring to the attention of the family doctor are things like rectal bleeding. So if you actually see blood in your stool, don't just assume that his hemorrhoids or you know what, I had this problem a month ago, it can be very serious and went away. If you do have rectal bleeding, bring it to the attention of your family physician. The other one is a change in bowel habits. So if you are normally loose and you become more constipated, or vice versa, constipated and become more loose, or if you're feeling, you know, discomfort as you have bowel movements, pressures, any change in your bowel habits that's consistent. So you know, we all have changes from day to day. But if there's a consistent drift or change in your bowel habit, bringing it to the attention of your family physician, and your family doctor can do a great job of sort of figuring out is this something that requires further investigation?

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Marco, when you talk about rectal bleeding, and I've heard that as being a warning sign in the past, but how much rectal bleeding are we talking about a little bit? I mean, I'm assuming that if you know the toilet bowl has a lot of blood in it, you better get to see your doctor quickly. But are there smaller amounts that you should be wary of as well?

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What I would suggest is that you really have to bring it to the attention of your family physician. And if we all get occasionally hemorrhoids, okay, these are the reality of existence. And so your family doctor is perhaps the best at saying yes, this deserves investigation, a bit of blood, you know, for a day or too, and then nothing for years obviously isn't as important as someone who consistently is having even just a bit of spotting on their stool. So again, if you see any blood, bring it to the attention of your family physician, and they are best positioned to decide if you deserve further testing.

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So I go to see my family doctor, what could I expect would be the investigations he's going to suggest I have? Well,

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what I hope the family doctor will do is to take a good history and physical and find out if there are other things going on. Have you been feeling unwell losing weight, decreased energy, and then they'll do a good physical exam on you. And one of the keys to that is a good palpation of the abdomen looking for any surprises and hopefully there are none. And then a good digital rectal exam. Unfortunately, still, it's not as common as it was even 10 or 20 years ago, family doctors are routinely not doing rectal exams, and sending people on for investigations without that first initial test. And that test can often find cancers that are very low, or can find evidence that there's quite a bit more bleeding in the bottom and then that the patient is admitting to. So that's what I would expect first, and then the next investigations would be probably a referral to a surgeon or a gastroenterologist for a colonoscopy. And that's, you don't screen someone who has evidence of bleeding already. So there's no role for screening of fecal occult blood tests, etc. That person should be sent to a gastroenterologist or to a surgeon for assessment and colonoscopy. And

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when we talk about colonoscopy, maybe we can just describe that a little more what's involved in the challenges of negotiating around that C shaped you just described of the colon, the left turn,

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you know, the whole concept of screening pays. So screening is for patients who don't have any signs or symptoms or problems. But there are different ways to screen patients, depending on the country. In Ontario, it's If you're between the ages of 50 and 74. And you don't have any signs or symptoms, but let's just say that you are sort of scheduled for a scope. And just to let people know, the great great majority of people sail through it can't even remember they had it, they're often sleeping. But everybody knows someone who just had a bit of a horror story to explain. So for the most part, the worst part is the prep. And you'll drink a solution before the surgery or before the scope and it will all be explained to you. And what that does is it cleanses the bowel so that when a scope or a tube is placed with a camera at the end, the camera can go to the end of the colon, which generally is around nine feet long and can see the entire colon and take a good look and look for things like polyps, cancers, or other sources of bleeding like hemorrhoids. Diverticulitis are diverticula, which are little outpouching in the bowel, which can also be a common cause of bleeding. So there's lots of reasons why you might have blood in your stool that has nothing to do with cancer, or things like polyps.

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Okay, can I ask about polyps? Because sure, I've had two colonoscopies now. And they found polyps both times?

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Yes, well, you're very lucky that they were found as polyps and not something more serious as cancer. So the general thinking and again, in medicine and science, we don't have all the answers, but we generally think that a polyp, which is an abnormal sort of growth, but not a cancer takes about 10 years to grow into a cancer. So you have normal mucosal lining of the bowel. And then you can get some abnormal cells and gradually grow into a polyp, a polyp with abnormal cells, and then finally, a polyp with abnormal cells that penetrate certain layers of the bowel wall that make it a true cancer. And we think it takes about 10 years. So intuitively, it makes sense that if you pluck that polyp out before it becomes a cancer, that you should be able to prevent cancers. So in a sense, I mean, I'm sure you got polos, but in a sense, it's good news that you found them as polyps and not cancers.

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Yeah. And I'm also on a regular routine now for screening every five years, right. Yeah,

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that's great. So we're talking about screening. So let's, let's go back into that in terms of what's offered provincially as a screening program, it isn't to have a colonoscopy. That's not the the standard of care that's promoted as the in the provincial screening program. It's actually to look for a cult blood using a particular test, and maybe you could describe that test and, and the pluses and minuses of it, if you will.

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Sure. So different jurisdictions around the world have different policies, and actually Ontario is, you know, one of the first major areas not the only one in Canada to have a screening program. Some of the aspects of that program are clearly supported by evidence, and some necessary or not, but make intuitive sense. So screening in Ontario is for patients who are between the ages of 50 and 74. And the test that we use is something called fecal called Blood Testing, and you do sort of three tests. And the patient is meant to take a little swab of their stool and smear it on a little disc of paper. And it can be a little disconcerting to people to do that. And they have to do it three times. And they have to avoid certain things like vitamin C and red meat and taking aspirin and Advil and NSAIDs. So it can be quite problematic. But it is the backbone of the screening program in Ontario. And as well in Ontario, you are eligible to go directly to a colonoscopy, if you have a first degree relative with cancer and first degree relative means parents, brothers, sisters, or your children. And so that that's that's the program and you do a FICO called blood test every two years. Like I say, if you have a first degree relative, you go for a scope. And if your FOBT is a positive, your local blood test is positive, you're meant to go for colonoscopy. And if you go for a scope and you have a normal scope, you don't need another one for 10 years. Things are changing in the province though, we're moving from ficolo called blood testing to something called fit testing, which has shown to be a more effective test. Not only is it much easier for patients to work with, but it's more sensitive and specific, which means that it detects more cancers. Any test no test is perfect. So FICO called blood testing picks up only about half the patients with cancer, fit testing will pick up about 80% of the patients with cancer. fit testing is much easier to it's just basically a cute tip that you just sort of pluck into the stool as it might be sitting there in your receptacle of choice. And you just snap it off and put it into the little container and mail it in. It's only one little dab and there's no smearing. There's no three tests. And more importantly, there's no adjustment for medications or things that you're eating a test a different part of the blood molecule. And

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doesn't matter whether you've had red meats and had exactly blood testing from there will be positive on the fecal Copeland test. Then on the fifth test, right, so it's advantageous. Now in some parts of the world are using sigmoidoscopy as a screening test. And that's not sort of standard here, although there are nurse practitioners that were trained in this city to to actually do that screening. How's that progressed?

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Well, as you know, Bill, there are many many idiosyncrasies in any health system in any part of the world. No kidding. And that is a bit of a paradox in that flexible sigmoidoscopy has been shown more effective at preventing colorectal cancer deaths than fecal occult blood testing. But it's a more challenging test to sort of organize and you basically are now doing flex cigs on everybody. You know, some of the literature suggests that if we consistently use you know, Fico called blood testing over a 10 year period, only about anywhere from 10 to 25% of patients would end up with a colonoscopy. Well, those numbers are much, much higher if you're doing a flex signal on everybody, because the second you see any polyp with a flex sagen polyps are quite common, you know, probably 50% of people over the age of 60 have a polyp, you end up doing many, many more colonoscopies. So there are advantages and disadvantages. And I think what I'd like to just emphasize is that I don't think that we get have the perfect screening test. But we have a pretty good screening test. Now, fit should be an improvement on that. But at the same time, let's not rely on screening to fight colorectal cancer, if you have signs or symptoms, you really have to bring it to the attention of the family doctor, and angle from there. That's really

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a key message that we'd like all our listeners to hear and take away. Now you're a surgeon. And so let's talk about the surgical management of colon cancer First off, and then we'll try and fit in surgical management or rectal cancer, which has been different. And increasingly, these minimally invasive procedures are being used around the world as a way of operating on colon cancer, which I find astounding because when I was trained, it was an open operation, which kind of makes sense because you can see what you're doing and feel things and so on. And maybe you could describe as a colorectal surgeon, the pros and cons of these two different approaches an open operation, or one that's essentially done through a series of punch holes in the abdominal wall and, and watching on a video screen as you remove the part of the colon in a plastic bag.

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Right. So so a surgeon who does their operations, predominantly laparoscopically, or a surgeon who does them predominantly open, we are all on the same page in terms of what are the critical elements of a high quality operation. Okay, and that's proper assessment before the operation, understanding where exactly the cancer is, how extensive it is. And so whether it's done laparoscopically or open it's the exact same operation. The only difference is that the incision An open operation is obviously on average longer than when it's done laparoscopically. There have been a number of trials with laparoscopic colon surgery that suggests that if you have a done laparoscopically, you stay about a day less in hospital. On average, you use less pain medication, and obviously your scar is smaller. But surprisingly, there aren't really many differences in terms of you know, well, not surprisingly, perhaps, fortunately, there aren't any differences in chances of cure. Even things like the development of hernias, after surgery, there's no difference whether it's done laparoscopically, or open. We've done some research in Ontario that suggests that the advantages as hospitals adopt more and more laparoscopic surgery really isn't reflective of what the purported advantages would be from the randomised trials. Because perhaps, you know, the the big thing that we have to wait for the battle to start moving again. There have been randomized trials with rectal cancer surgery, and those are a little more problematic. Those trials suggests that laparoscopic surgery outcomes are not as good as open surgery outcomes for rectal cancer. quite controversial and I'm sure if you had a surgeon who did predominantly laparoscopic surgery, they would disagree with me. But I will say that the American lead of the main trial testing laparoscopic rectal surgery thinks that there should be a moratorium on laparoscopic rectal surgery and states has stated publicly that he does not believe rectal cancer surgery should be done laparoscopically.

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Now we're running out of time but you've touched touched on rectal cancer. And I know you're a big proponent of something called Total measle rectal resection or?

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Sure, yeah, so you want to describe that a bit

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very briefly, in 30 seconds or less. Now,

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if think of the Think of the rectum as a sausage in a sausage bun that's wedged into the back of your pelvis and your pelvis is like a tea cup. So in essence, total mesorectal excision is just making sure you stay outside that sausage bun to remove the sausage in the rectum intact in one piece with the sort of the sheath of the Mizo rectum where all the lymph nodes are intact so that that's the best way of ensuring that the cancer doesn't come back either in the pelvis or elsewhere in the body.

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And you've been promoting this technique across our region and helping all the colorectal surgeons or general surgeons in our community in the LIN to undertake this kind of surgery more effectively.

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I have a big my research interest is actually in optimizing rectal cancer surgery at a population level told me is a rectal excision is just one small part of that. Well, it's

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terrific. I love the work you do in quality improvement for cancer surgery. You've been a real leader in this community and I really want to thank you for coming in today and talking about colorectal cancer.

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Thanks so much for the opportunity.

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It's absolutely fascinating. You're listening to the cancer assist show on AM 900 CML, it is brought to you by the cancer resistance program. We'll be right back on AM 900 CML.

23:00

sensitive subject straight ahead talk this is the cancer assist show with Dr. Bill Evans and host Shawna Thompson on AM 900 ch ml. You're listening

23:09

to the cancer assist show on AM 900 ch ml. It's brought to you by the cancer Assistance Program. I'm Shona Thompson and I'm here with Dr. Bill Evans. And we have a special guest Dr. John golf and a medical oncologist who specializes in colorectal cancer systemic therapy.

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Well, good morning, John, thank you for coming in. It's great to have you and following on what Dr. Some anomic was talking about all the surgical approaches now. There's a role for systemic therapy increasingly in the management of colorectal cancer, but I'm old enough to know that we've only had one drug to work with for the longest time from but 1972 Year 2000 There was this one drug five fluorouracil or five fu for short. And then things have changed. And let's talk about some of the new drugs that we have. And then how that relates to what Marco was speaking about the surgical management of colorectal cancer.

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Yes, thank you for having me today. I do want to emphasize the importance of screening and and really not to give Dr. Semenova too much credit as a surgeon but surgery is number one here and we want to catch the disease early. Because chemotherapy is really an add on. The goal with chemotherapy is do I call it partial insurance, we're trying to decrease the risk of that disease coming back after the surgery has been performed and hopefully got virtually everything or everything out of the patient. In the metastatic or incurable setting. We don't have the same options. And at this point we call chemotherapy. Palliative meaning it's not going to cure us but it can buy us some quality and quantity of time. So

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if I'm a patient who's had colorectal surgery, let's say colon cancer surgery, because there's differences we need to talk about with rectal cancer surgery. What determines whether I get any adjuvant or additional chemotherapy after the surgery I've had. So

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for colon cancer, the most important thing we look at is the presence or absence of disease and something we call the lymph nodes. And the lymph nodes are part of our immune system that these little clusters of white blood cells sitting in a in a little tiny, tiny bag, maybe the size of a pea are smaller. And that's really the first place that the cancer cells tend to escape to. And when they've managed to get to these little lymph nodes, we know they figured out how to travel. And it suggests if they traveled there, they might be able to travel somewhere else. And then we're worried about the possibility down the road of metastatic disease or disease that spread beyond the original origin. And that's, that's our main indicator for chemotherapy. So you spoke

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of the chemotherapy as kind of insurance. So you're giving it because you've identified that there's been spread to some local structures, lymph nodes. And you're hoping that by putting this into the body system that the drugs will travel around and get any microscopic and microscopic amounts of cancer that are in other parts of the body, potentially, that's exactly

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it. If we have a measurable tumor nodule, let's say in the lung, or the liver, that's let's pretend five centimeters in size a couple of inches. You know, chemotherapy may shrink that down. But it's pretty exceptional for it to make that particular spot disappear. But our thought is that if there are a few stray cancer cells that have escaped through the bloodstream and landed somewhere else in the body, that chemotherapy can mop those up by by killing those, those strays. And we usually quote about a 10% or 15% improvement in the chance of cure, at what we commonly use as a time time point of five years. And by five or six years, if the cancer hasn't come back, we're pretty confident that a cure has been achieved. So

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it's not a big increase. But nonetheless, it's something that a few were in the situation of having had colon cancer, and you were at risk, you might want to take that chance of going through the treatment to improve your chances of staying well. But there's always a downside with chemotherapy. So what sort of things would I experienced as a patient if I came to get adjuvant chemotherapy in your clinic?

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Well, the first thing we do is make sure that we tailor the treatment to the individual. And we talk about personalized care. And in some ways, we're not at the point with colon cancer, where we're doing a whole bunch of genetic testing and picking out an ideal recipe on a patient basis. But we want to see what's the patient's age, what's their general health otherwise, are there other risks? If I have major heart disease, and I'm in the hospital every two weeks with a major heart problem, then going chemo through chemotherapy is probably not the right choice for me. So for most people, side effects are actually pretty good, not too much. We always have questions about hair loss, and the drugs and colon cancer are actually pretty friendly for the hair. People are always worried about nausea or throwing up, that's a kind of a classic concern. And for the most part, that's not a problem, we can prevent or control that if that if that comes up, the things that we really pay attention to are and this this is true of many chemo therapies of the kind of older school variety, still heavily in use include a risk of infection. And just like the cancer cells, a little white blood cells can be temporarily hurt and those white blood cell levels in the body can go down. And there can be a risk of infection. It's temporary, and it can be dealt with. But we make people very aware that if they have a fever, they must get prompt medical attention. And the second time, a little gross maybe for discussion is diarrhea. And that can be at times serious. Mostly it can be well controlled with over the counter medications such as Imodium. But we do warn patients to keep hydrated drink well. And if the diarrhea is not in good control, we want to hear about it so we can we can make a change and get it under control.

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And so again, if I'm a patient, what does this mean to me coming to the cancer center, how frequently How much time do I have to spend? And can I can I work when you're on this kind of treatment or not? It's

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quite variable. So there are some people who are able to work they have the energy and it's quite astounding. Some patients are extremely impressive and what they can do. But for many of us, I think it's quite tiring and our expectation is that the average individual would not work as for time, it does take a lot of time the general treatment after surgery would be about six months of treatment every two weeks or depending on the particular regimen or recipe and the visits to the Cancer Center. They require some patients we do. I guess that's why they call them patients

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differently. Yeah.

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Yeah, our clinics are sometimes a little behind. People have to wait to get their blood tests and their appointments. The chemotherapy suite is an increasingly busy place. And, and I have to give immense credit to the patients that I work with is that they are patient they they really They seem to understand and despite the fact they spent so much time there, and they're going through so much, they are remarkably tolerant and patient with us as well. Excellent.

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No, in the setting of metastatic disease, you said it's palliative. And in the past, my experience was we had the single drug, but things have changed. And I gather now there are more drug combinations. And you can go from first line, the second line to third line, talk a little bit about how that's evolved. And what it means in terms of overall survival of person with more advanced stages of colorectal cancer.

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Yeah, we're very careful about discussing survival, because it's extremely individual. And as you know, from practice, there are results all over the map. And some people can do extremely well and have utterly surprised and other people run into unfortunate complications and things go the other way. But over time, we've accumulated a number of drugs so that in the metastatic setting, kind of the average life expectancy has gone up from under a year with that single drug, the five fluro year or so, up to close to two years with a small smorgasbord of different drugs and different recipes. And this is where, to some extent personalized care comes into play as we do have a little bit more choice and a little bit more. A few more options in the metastatic setting, limited by the available data and of course, funding by the ministry. One of the drugs that we use, is actually quite sensitive to the presence of a specific gene or DNA abnormality we call a mutation. And this K RAS k r a s, and it's a family of mutations actually impacts on our use of a particular antibody or drug and can completely influence whether it's likely to work or not. So although it's still early days, in some respect for personalized care in colon cancer, you know, we're at the beginnings of making choices based on actual genetic testing of tumors. So

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it's not routine to test colon cancer for the K RAS mutation, or is it in

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the incurable setting? It is routine? Yes, yeah. It hasn't come into the curative setting.

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So you have a mutation of this particular k RAs, and then the some of the drugs will not work as effectively as I understand it, correct?

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Yeah, that's right, we do get a little bit of a prognostic value from this a little bit of an understanding of the overall disease course. But specifically, there are a couple of drugs called panitumumab, and Cetuximab which do work if this mutation, K RAS is not present, and do not work if it is present. Right,

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right. And one of the hot areas of oncology is immunotherapy. And we hear a lot about that in lung cancer and melanoma and kidney cancer. Not so much in colorectal cancer, but maybe a small sub segment of the population where it might be beneficial. Yeah,

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I mean, dare I say that this is a really sexy part of Oncology at this point, these drugs have gotten a lot of media play. And as a class, they have certainly improved care across several diseases. But you're right in colon cancer, it's been a little bit more challenging. And there are markers, it's a bit the same idea of K RAS using using what we call a bio marker to determine whether something's going to work. But there are these markers or biomarkers for these immune agents. And one of them is the PDL one level in the cancer. But that doesn't seem to work. So well in colon cancer, it seems that it's working on a different set of rules to some extent. And the big one, and this, this starts to get a little bit complicated, is that something called microsatellite instability. And that's, that's fairly complicated stuff. But basically, we have these strings of repetitive DNA, and they get messed up when we don't repair them appropriately. And the key issue here is that when you have abnormal cancers, with lots and lots of mutations, they look funky, they look strange to the immune system, and there's a chance the immune system will recognize it as being alien or being foreign. Now, if you can uncloak this, this, these cancers that the immune system has woken up, then maybe you can actually get some benefits and shrink these things down. But in colon cancer, it's been hard. So we're still studying that we have an active trial at the Czerwinski Cancer Center for people who have colon cancer and advanced disease and that study is actually almost coming to, to a close it's accruing very quickly because people are excited about these drugs.

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It's a very exciting field of oncology and a good time to be in it as an oncologist for if you're an academic oncologist. But it's been also impressive to me just to see how much progress has been made in adding different drugs and combinations and extending the survival of even the metastatic patient and improving modestly the survival of those To undergo surgical resection, so it's a very positive story. And I appreciate very much for coming in and telling it, John, thank you.

35:06

Thanks for having me. Dr.

35:07

John golf and our guests. We'll be right back on the cancer assist show on AM 900 CML, and the cancer assist show is brought to you by the cancer assistance program. We'll have more in a minute on AM 900 ch ml.

35:19

Do you want answers about cancer? You'll find them on the cancer assist. Joe was Dr. Bill Evans and host Shawna Thompson on AM 900 ch ml.

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This is a m 900 ch ml and you're listening to the cancer assist show. I'm Shona Thompson here with Dr. Bill Evans. Just a reminder that sadly, we can't take phone calls during the course of the show. But you can reach us with any questions. You can either send me an email at as Thompson at 900 C gmail.com, or on Twitter using the handle at Shona talk. And please use the hashtag cancer assist show so that we can deal with your questions. And in fact, Bill will we've been focusing on colon cancer this month? Last month we were talking about breast cancer. And I had a couple of people who sent me some emails with regards to some controversy over mammography?

36:06

Well, there's no question. This is a controversial area. And in fact, in preparing for the show, I did quite a bit of reading. And one particular issue of one of the cancer journals had all of the perspectives laid out from those who are still very positive and enthusiastic about breast cancer screening to some that are more negative. It's clear, though that the initial benefits from that were reported for breast cancer screening, were overly optimistic. So a 40% reduction in mortality is just off the charts, and counterpose to that the Canadian trial, which is now 25 years old, didn't show any mortality reduction. So there you have it, you don't have one showing us huge and one showing no mortality reduction. In between the two you have 11 Other randomised trials and I think the consensus from many different workshops of experts around the globe, has generally said that there is some benefit. It's more modest, perhaps a 20% reduction in mortality. Translating that into something people might understand better, you'd have to do 1000 mammograms to prevent one woman dying from breast cancer. Some people would argue that's not a good enough test. Others would say gosh, to save one life, it's worth doing that screening. We have a Canadian taskforce on preventive health care in Canada that reviews evidence, their guidelines and recommendations came out in 2011 still support average risk women from 50 to 74 years of age having mammography every two years. And for those who are younger enough at higher risk, like having a braca one or two gene having it starting earlier in life. They're going to review all of the existing evidence and their website reports that they'll be putting up new guidelines sometime this year. So we'll see where that is at the moment. That is the provincial standard is to undertake mammography and the lady is 50 to 74. And there's no question there are both potential benefits and potential harms. And sometimes people emphasize the harms being that you can get a false positive, which leads to a bunch of extra tests more mammograms, you go from a screening mammogram to a diagnostic mammogram to a biopsy. And with that all the anxiety associated with it. On the other hand, you could argue that by finding small cancers early, you can concert have conservative breast surgery and not the big, radical mastectomies of the past. But you're also pick up these pre cancerous lesions, things we call DCIS are ductal carcinoma in situ. This is a kind of cancer, but it hasn't invaded yet. The reality is that many of these are indolent and would never cause harm, but some of them are aggressive and you can't tell the difference. So what are you going to do and some people reading the literature here will see the term overdiagnosis, and I have to just say that overdiagnosis means that it's a cancer, but it would never take your life because something else took your life. It's like, I find cancer and three months later, you're hit by a bus or you have a heart attack. There's no way of knowing when you find it, that it isn't a cancer that's going to be important. So doctor has no choice but to deal with it when they find it. So don't be over, taken by the notion that overdiagnosis equates to over treatment and doctors are doing bad things. It's finding things that we it's a statistical idea that you're finding things that we know wouldn't have actually taken your life because other things would have intervene. So it's a complicated answer to I complicated situation. I said this would be controversial and not surprised. We got some good feedback, but it shows that women are concerned and out there and trying to find the best information for themselves. And so it is a discussion they should have with their doctors.

40:16

And sometimes, you know, you can be exposed to a lot of information. And if you don't know what the source of that information is, it can be suspect, I guess the bottom line is, go have a discussion with your family doctor.

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And it doesn't hurt to do some reading around but you also have to have a lens on it that you're if you're not medical, you may be taken in by terms like overdiagnosis, or overtreatment, or some hyperbole that's in in some of the articles, I've gone to these websites, and they're they're clearly taking things beyond what the evidence actually shows.

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We have just a couple of minutes left on this month's show, and we're going to be back on June 25. But before we wrap up, I wanted to make mention of a couple of fundraisers because the cancer assistance program depends on on donations and and people helping out that way. Just had their great walkathon yesterday. Another great event is coming up in August and that's the annual golf tournament that is at the Glendale Golf and Country Club.

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And that's occurring on August the ninth and it's a great opportunity. I think that most of the foursomes have been filled up but it is $175 per golfer. So there may be a few slots left, call and find out. Certainly there are opportunities for prize donation and event sponsorship including sponsoring a hole in honor of someone who's battling cancer and memory of someone who's no longer with us. But remembering that all these funds go towards the services of the cancer Assistance Program provides and includes the free rides it's includes the the equipment that assists patients to stay in their homes, the wheelchairs, the commodes, and other things. We've got a lot of equipment in now. So we're really well stocked in that regard. But we also can always use more. And we also want to make people aware that we've got incontinence supplies, disposable bed liners nutritional supports, was are all the services that are available through the cancer Assistance Program, but all made possible by fundraising initiatives. So I really hope that you'll get out for the golf tournament or any of the future fundraisers or just make a donation, which you can do by going on to the website and cancer assist.ca Or by calling 905-383-9797.

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And of course cash is the most flexible donation because then the cancer assistance program can put the funds to where it's needed most and where there is an immediate need.

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This has been the cancerous this show, brought to you by the cancer Assistance Program.