**Colorectal Cancer: An Overview**

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The Cancer assist 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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Well, welcome to the cancer assistance podcast. And if this is a first time for you, I'm glad you're joining us because we're going to talk about a topic that's very important. From a cancer point of view. It's a very common cancer, colorectal cancer. If you've been listening in recent podcasts, you'll know that we've talked about breast cancer, and lung cancer and prostate cancer. So this is the cancer, colorectal cancer that sort of makes up the big four cancers most common cancers we see in Canada and the developed world, and really accounts for about 50% of all cancers. So it's a significant problem. And I'm delighted that I have a guest today, Dr. Kevin's book, who's a specialist in colorectal cancer, who's from the Juravinski Cancer Center and an associate professor in the Department of Medicine at McMaster University. So welcome, Kevin, thank you for having me. So I said it's a common cancer and I looked at some Canadian statistics, and there's over 26,000 individuals can be expected to be diagnosed with colorectal cancer this year, and every year and in the US, because I know we have some US listeners as well, well over 100,000 colorectal colon cancer patients and about 50,000 rectal cancer patients. So again, a big problem. And so it's important for us to be aware of some of the causes for this particular type of cancer and what we can do to kind of prevent it if we can and or detect it early, and then have a better outcome if we find it early. So I guess a good place to start is a little bit about some of the risk factors for developing colon cancer or rectal cancer. And then we can talk a bit about the disease itself. So why don't we start there,

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for sure. So, as you have mentioned, colorectal cancer is very common. And some of the common risk factors for colon cancer would be having a family member with colon cancer. So if you have father, mother, brother, sister with colon cancer, or the precursor to colon cancer known as colon polyps, that increases your risk of colon cancer yourself.

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So these are first generation we say, individuals correct, but you can even have broader relatives, aunts and uncles and nieces and nephews and so on who may have colo cancer and you might still be at higher risk, right?

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Absolutely, absolutely. The greatest risk is if you have a first degree relative, but certainly more remote relatives would increase your risk as well. In addition, as an individual, if you yourself have had a polyp, and a polyp is not cancer, but it can sometimes become cancer. And so if you've had a personal history of having hadn't had a polyp, your risk of cold developing colon cancer is also considerably higher. So

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I wonder if everyone listening knows what a polyp is in the bowels, maybe we should just pause there for a moment and there are different types of polyps to with different risks for cancer. So

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colon cancer will almost always start with a polyp. And a polyp is a little growth on the inside of the bowel. So all colon cancers actually start on the inside of the bowel or the colon. And then as they advance they grow through the wall of the colon. And so a polyp is a little, you could consider it a little pouch on the on the colon, that has the potential to become a cancer, very important to realize that the vast majority of polyps will not become cancerous. But some of them if left long enough, will become cancer. So

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we're going to come back to polyps in the context of colorectal screening and talk about that further, but just wanted people to know that these are kind of little initially benign protuberances from the bowel wall, and that some of them can go on to become cancerous. So we'll come back to that. But then there are things like diet and exercise and bad habits like smoking and drinking. Absolutely.

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So risk factors such as smoking, alcohol, probably not quite as, as important colon cancer as they might be in things like lung cancer, for example, but still very relevant and so important to our overall health. In such big risk factors for many other types of cancers, still very important to try to control. You had mentioned diet diet is probably quite important actually. And so a diet that is high in fruits and vegetables, high in fiber, high in in the vitamin folate is very good for you. And eating diets that are high in saturated fat, a lot of animal products, low in fiber. The really tasty stuff is

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meats the process and enjoy their lunches. Yeah, these

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are risk factors and so diet can play an important role and linked very closely to diet would be obesity. And so obesity is a They're a very consistent risk factor when you look at multiple studies for colon cancer.

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So in terms of trying to reduce your risk of of getting colon cancer, there's some things you can control and some things you can you can't control your age, because that's another factor as and as we get older, the risk of getting colon cancer goes up, can't control the family we born into. And certainly if there's hereditary aspects of it, we can't do anything about that. But we can do something about physical activity and obesity, and our diet. And you mentioned you know, about alcohol and smoking not being as big certainly as in lung cancer and had neck cancer. But I was surprised to read in some publications of 12% of of colon cancer was attributable to smoking. And I, I don't think most people are aware that smoking causes things like you know, gastrointestinal malignancies, or liver cancer. So it's probably worth mentioning, and certainly, as you say, as part of a healthy lifestyle. Absolutely.

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I mean, many, many of these risk factors are so strong in other cancers, and then in diseases outside of cancer, that will be very important. So yeah, active lifestyle, alert, active lifestyle, trying to minimize the amount of processed red meat that we eat, focusing more on fruits, vegetables, fiber. Diabetes is also a risk factor, although it's very hard to tease that out from these other things like your diet and obesity and a sedentary lifestyle. But these are all things that we can work on for sure. Exactly.

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Now, are there some trends in colorectal cancer incidence that are interesting to talk about? I think there are and particularly bone young people, and maybe some of our First Nations people as Yeah,

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so if you look at the developed world, so the, you know, countries like Canada, the United States, Europe, that have very good screening programs, and we're going to talk about screening for colon cancer, a lot later, overall, trends are starting to decline a little bit, which is very good to see. But what is I would say, disturbing is a trend that we're seeing, in many countries, an increasing number of young patients, and by young, usually defined as less than 40, who are diagnosed with colorectal cancer. And that is that's been consistent among many different populations in many countries.

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What's the understanding of why this is occurring? Or do we know?

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So we do not know. So it is it is not been established? Why this is happening.

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With the First Nations people, you know, I was kind of shocked to read about how common Colorectal cancer is in sort of Alaska Natives and Inuit populations, is it some of the change in diet to to more Western diet from what was a traditional diet? Absolutely.

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So I would suggest that in many Aboriginal populations, if you look 50 years ago, even their cause of death was often infection, poverty, malnourishment. And they ate a diet that was, you know, very different from ours, but probably still healthier, and they were very active, and they often ate only what they needed to eat, to sustain themselves. And with the westernization of, or modernization of the Aboriginal population, came some of the same problems that we have. And there are probably some hereditary differences that make them more prone to the same risk factors that we described. For example, if you know, smoking contributes to 10% of colon cancer risk, in a non Aboriginal person, it might be higher in the Aboriginal Aboriginal population because of different genetic makeup. So that that is a very big problem.

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So I seem to recall, too, that there's some interesting studies of people migrating from areas of low incidence to intermediate to higher like of Japanese people move to Hawaii and or to the West Coast of the United States that the incidence of gastric and colorectal cancer kind of shifts around incredibly correct. So these things are really powerful. And I guess, studies of diet, and what people are ingesting are incredibly complicated to do. And I think it's partly why, when you read about this, you don't get sort of totally clear direction of what you should eat. Specifically that, as you said, more fiber and, and more fruits and vegetables, less processed meats, less red meat. It was sort of the broad recommendations that we can make today. But there may be other things that we'll eventually learn about that the more healthful,

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yeah, and yet the other group where the incidence has been going up a little bit is individuals of African American ancestry. And what's very troubling there is they their prognosis, their survival is is considerably lower. And some of that could be inequities in terms of access to health care. But even if you look at trying to tease that out, they seem to have a worse outcome anyways. And it appears there's something more aggressive about the colon cancer in those individuals.

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One of the things I also stumbled upon preparing for our chat was the fact that different populations and even different sexes have a different incidence of colon cancer, depending on whether it's the, we call the right side of the colon versus the left side of the colon. So just to try and make that clear for people listening, I talked about the right side or the proximal side of the colon, it's, it's the first part of the small intestine, dumps its contents into the, to the large colon on the right side, when the cecum, which if I put your hand on your abdomen, it's the right lower part of your abdomen. And then it comes up as the ascending colon goes across as a transverse colon, that's all sort of considered the proximal colon, and then it goes down, so descends the ascending colon, then there's a S shaped piece called the sigmoid colon. So that's the distal colon. And as a difference, so one of the things I read was black people more commonly have it on the, on the right hand side of your abdomen, if you will. And I guess part of the problem of finding it is that when you do colonoscopy and other studies, and it's a little harder to get there and to identify, and maybe it's a little less prone to symptoms, because the contents at that point are more fluid or more liquid and, and hence not symptoms of the obstruction occurring. So absolutely. So it's complicated, and it's a lot more, you kind of think, well, it should happen equally in all parts of the colon. And clearly, it's more complicated, like everything in life as we learn more about it. So let's maybe talk a little bit about the symptoms of of colon cancer.

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Yeah, and maybe can Can we just take a step back, maybe, because we're talking about risk factors. And the one thing that I will mention is, there are certain hereditary forms of colon cancer, yes, that are that are quite rare, but increase your risk of developing colon cancer quite significantly. And I think, Bill, when you mentioned, there are certain things you can control and certain things you cannot, unfortunately, we can't change our genes. And certain individuals are born with changes in their genes that make their risk of colon cancer very, very high. And those are rare. But it's very important for us as doctors to be able to identify those people because we need to screen them very, very aggressively. And when it's hereditary, that means it's something that's present in every cell of a person's body. And so they can pass it on to additional generations. And very commonly, I see individuals who are young, who have a very strong family history of colon cancer, and it hasn't been identified. And if we had known, we might have been able to start screening them early, and potentially turned a very serious cancer into a non cancer, or perhaps a very early cancer. And so those those identifying those those individuals is very important. Yeah, glad

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you pulled me back to that, because that's a really key one. And, and there are syndromes, Lynch syndrome, I guess, is the biggest one to be to talk about. But there are others as well. And where you have abnormal genes that don't allow you to repair the damage of, it's naturally happening to us every day, or having genetic changes that our body somehow figures out to repair. But if you have an inherited abnormality and certain genes, and you don't do the repair mechanism properly, and then you get accumulation of mutations and get an earlier cancer in the colon. So in those cases, it's really important to identify because as you say, then screening earlier in life would pick up the changes and potentially lead to a much better outcome. Correct. Yeah, so that's, thank you for bringing that up, because I wanted to touch on it and manage to glance over it. So and then shifting to the signs and symptoms of colon cancer, which I think are particularly important to talk about today, in part because we're going through this pandemic, and I worry that there are people out there who have been afraid to go and see their doctor or afraid to go to the hospital, and may be sitting at home with some grumbling discomfort in their, their belly today or some change in bowel habit. And so let's let's talk about the signs and symptoms. If you're listening and you have any of those symptoms, please go in and see your doctor about them. So over to you in terms of what are the most common symptoms that people will present with? Yeah,

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and I think this is an area where you describe the location of colon cancers and the symptoms that patients present with often does vary depending on where in that colon the cancer is, and so with the more distal cancers that Bill described, you can sometimes see blood in your stool. And I would just say right off the bat, anytime you see blood in your stool, that is, that is something that you need to seek immediate medical attention for. It might be something as simple as hemorrhoids. But don't bank on that, if you if you if you see blood, your stools or your stools are black, so the color of coal or you know, dark black color, that that's something that needs to be dealt with. Another common symptom is a change in your bowel habits. If you're a fairly regular person, and suddenly, you are not, and you're having a bowel movement every two or three days, and you're very constipated, or you were very regular, and you're having a lot of diarrhea. So altered bowel habits are a common symptom, we will see many individuals who end up with anemia. So that is when you have a lowering of your red blood cells, and people become very pale. And that is often due to blood loss from the GI tract. And so a lot of times if we see anemia, that is a red flag that somebody might potentially have an issue with colon cancer is

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a particular concern and in the elderly, right, that they just become anemic for no obvious good reason. And then it may well be slowly bleeding over shirt from a bowel cancer,

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individuals can have obviously abdominal pain, so pain in their abdomen, with the cancer frequency where they're they feel like they went in, they have to go again. That's something called 10 Asmus. So these are these are some of the local symptoms that we would describe.

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So there's quite a lot of different symptoms. But I guess fundamentally, if your bowel habit changes, its its critical. Or if you see blood, or as you said, looks, looks dark from blood mixing in with the feces, I guess another one, if it's really low down in the rectum, the stool may actually become narrower in time, just because there's a smaller space for the stool to pass through. So if you had any of those symptoms, and you saw your doctor, what would the doctor likely do? What would be the diagnostic tests? Yeah.

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So I think it's really important that there's a difference between screening for colon cancer, which we're going to talk about later, and investigating somebody for a possible colon cancer. And so in an individual who presented with symptoms like that, you know, almost always, if there's if the suspicion is high enough that that individual will have a colonoscopy, where they will be sent to a specialist, who will use a camera that's on the end of a very small tube and actually have a look directly into the colon. That is really the gold standard in terms of ruling and ruling out colon cancer, there will be other things, obviously, they'll check your hemoglobin to make sure you don't have anemia, they would do additional bloodwork, there might be CT scans or ultrasounds. But in terms of actually making or ruling out a diagnosis, that is a colonoscopy.

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So that's the gold standard. And because you could visualize it, and importantly, take a biopsy, and that will provide the information as to it being a cancer. And I guess, really what follows after you've got the diagnosis is what we call staging, right? And maybe important for people to understand when we talk about staging a cancer. What do we mean by that? Because sometimes your doctor will come and say, Well, you got stage two disease or what does that mean?

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For sure. So I think it's probably interesting or relevant to the listener to understand if you've been diagnosed with colon cancer, what are the steps that usually need to be taken and so many times if you've been referred to a doctor who does a colonoscopy, they may or may not be a surgeon. And so often once a diagnosis of colon cancer has been made, and most times it's obvious just by what the colon looks like, they will take biopsies to confirm it. But very often, the doctor doing the colonoscopy will know purely based on the look of the colon and they will take some biopsies, do some blood work and that will usually at that point, initiate a referral to a surgeon who will ultimately likely be involved in removing the colon cancer and some additional as you mentioned, staging tests. So in addition to bloodwork, it is really a standard practice now to obtain us a CT or CAT scan of basically the body from the base of the neck all the way down to the to the to the pelvis. And that will often be done to help determine how advanced the cancer itself is, but also to determine if it had spread anywhere.

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And colon cancer has almost a logical kind of spread doesn't have to does first through the wall in the muscle of the bowel, then to lymph nodes and then through lymph nodes and or blood vessels to the liver, lungs and to the surface lining of the inside. I have the abdomen we call the peritoneum, there's a lining membrane. So you get little deposits there, even places within the abdomen like the ovary. So all of that has to be understood to shape the treatment approach. And I think maybe we'll just take a brief break here, and then we'll come back talk about treatment, and then we'll come back to screening, which we've touched on. We've been hanging that carrot out for a while, but we'll talk about that at the end. And we'll be right back, so don't go away.

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We'd like to take a moment to thank our generous supporters, the Hudson Family Fund and Becker creative studio, who make the cancer assist show possible. The COVID 19 pandemic has not stopped cancer. Instead, it has added to the isolation and challenges already faced by cancer patients and their families. The cancer assistance program remains committed to providing free essential support to cancer patients in our community, whether it be transportation and equipment, loans, personal care and comfort items to parking, practical education. With no sustainable government funding, we need your help so we can continue to be there for those who depend on cat to stay safely at home. individual and corporate support of signature events, third party fundraising and financial gifts are greatly needed. Visit cancer assist.ca to see how you can make a difference in the lives of cancer patients and their families.

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Well, welcome back, we're talking to Dr. Kevin's book was medical oncologist at the Juravinski Cancer Center here in Hamilton, who specializes in managing colon cancer and rectal cancer patients. And I should have mentioned as well, Kevin has a special interest in knowledge in cancer genetics. And I think he probably realized that because he talked about the various genetically genetic predispositions you can have that lead to colon cancer. So can we we're starting to talk about treatment in relation to the stage of disease. So what we want to do is fine, the colon cancer at the earliest possible stage when it's just really hardly invading into the wall. And I guess that would be a stage one. And the typical surgical a typical approach, I should say, would be surgery,

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correct? Yeah, and very important when colon cancer is picked up. At stage one, the likelihood of cure is well in excess of 90%. So the chance that you will be cured with surgery alone with a stage one colon cancer is very, very good.

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And this is what you want people to know and understand and why it's so important to get to a doctor early or, more importantly, try and deal with any risk factors you have or enroll once you're at appropriate age and in a screening program. But after a stage one, we move obviously to stage two, and that's when it's gone right through the full thickness, I think of the muscle layer of the bowel. So now the prognosis gets a little different, a little less good. But the management still basically surgery, right? Remove the disease segment and some normal bowel on either side of it and and the lymph nodes that it would drain into that is correct. Yeah. And I guess surgeons, these days can do it either by an open operation or like, basically, as it sounds, probably a midline incision, and just better view of the abdomen. But the results with so called laparoscopic surgery are essentially the same in terms of outcomes and surgeons who do that kind of surgery. It amazes me they can but they're basically watching the thing on TV and operating with little instruments and can remove the diseased bowel through a small incision in the abdominal wall. And the recurrence rates and so on are similar and survival outcomes are similar recovery times a little less, and the trauma to that person's a little less. But I guess things really change at stage three, which now involves lymph nodes, and maybe talk about that and how treatment might be altered. Right.

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So taking a step back with some more high risk stage two cancers, so probably beyond the scope of our conversation to get into a lot of detail about that. But some stage two cancers can have a fairly high risk of coming back. And in those patients, I'm a medical oncologist I administer chemotherapy, we will sometimes give people with Stage Two colon cancer chemotherapy to try to prevent the cancer to come back. In stage three cancer we will almost always offer it to individuals. So with stage three cancer where the cancer has spread to lymph nodes, those that makes up the vast majority of people that we would treat with what is called adjuvant chemotherapy and adjuvant means that it's being given in addition to the definitive treatment. So in this case the surgery is the definitive treatment of the cancer. And we're giving chemotherapy to try to reduce the risk of the cancer coming back. And in stage three disease where it has spread to those lymph glands, as long as the patient is well enough, and as long as they are willing, we will almost always offer those individuals chemotherapy to try to decrease the risk of recurrence.

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So let's drill down a little bit on that when we talk about chemotherapy that often kind of makes a lot of people nervous. And I'm sure you see that in the clinic, because of the fear of adverse side effects. So what drugs are involved? What kind of side effects can they have? Are there any other adjuvant therapies apart from the chemotherapy drugs? Yeah,

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I think it's a very good point that you raise that people have often thoughts about what chemotherapy is based on experiences with friends or family members, I think it's very important to realize that there are many different types of chemotherapy used for many different types of cancers, and they all have different side effects. And so I think when individuals are afraid of chemotherapy, sometimes part of the way we reassure them is that every treatment is different, every person is different. Every cancer is different. And so for example, in the treatment of colon cancer, individuals do not lose their hair with the chemotherapy. And with some other cancers, it's almost universal that they might we have made great strides, I think, in supporting people while they are receiving chemotherapy. And so we have very good medications, to try to prevent nausea and vomiting. And those have improved dramatically. So another kind of thought that people have when they think about chemotherapy is I'm going to be sick the whole time. And we have very good ways to try to prevent that.

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It's really important that people know that and that they not delay getting to treatment or accepting treatment because of these fears. I think one of the things I used to do when I was in practice was just tell them, you know, everybody is different. And let's try the treatment and see how you tolerate it. And we can adjust either the treatment itself or the supportive care drugs that we're giving to try and find what works best for them. And I think most times, you can work it out so that it becomes quite tolerable to take treatment. And as you say, the the drugs that are available today to control nausea, vomiting, diarrhea, and so on are so much better than certainly when I started practice. Absolutely. And the drugs you have as chemotherapy really have changed. Because up until about the year 2000, I think always just had one drug and five for yourself, which that's correct. I used a lot of when I was younger, but there's quite an addition to the the armamentarium there is that that is useful for colon

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cancer, for sure. In the in the in the adjuvant setting when we're trying to help people be cured, we tend to still use the drug 530 or so that you mentioned. And we will often add a drug called mcsalley platen, which is a newer drug that was developed a few years after you had stopped working. And that is the cornerstone of the treatment of, of curative colon cancer is those two drugs. And we will often give between three to six months of treatment. That's

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important to know that it's not indefinite, you know, it is for a defined period of time three to six months, which most people can get through. I guess the one thing about exactly platinum is it can cause what we call a neuropathy. So that can be a bit of a problem. But that reverses over gradually over time doesn't Yeah,

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this would be another area where I think we've made headway over the last few years, we used to routinely give six months of chemotherapy. And if you give six months of chemotherapy, the majority of people will still not have a problem with permanent neuropathy, but about 10% of people will. And what we're learning now is that for many patients, not all but for many patients, we can actually have very good outcomes with three months of chemotherapy. So not only do you cut their their time on chemotherapy, and half their risk of developing permanent neuropathy becomes much much lower or

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something that definitely didn't know. Yeah, kind of nice to know, they're sure that the amount of adjuvant therapy has been decreased. Yeah.

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And so that would be a step that we really like to see where we're looking at. We have good outcomes, but we have a side effect neuropathy, that we're not happy with the number of people who suffer long term. So how do we deal with that and we deal with it with by trying to, to cut back on the chemotherapy or deescalate and with with the same outcome from many people. So that's been a very big change over the last few years in my practice.

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So then you get to, I think we get to stage four now. And here we have the probability of disease in the liver because that's sort of where colon cancer first likes to set up metastases, but it can be in other places. And now you're most commonly will need systemic therapy, although sometimes it's just a few isolated areas of metastasis, which opens up the opportunity for more localized therapies to treat those isolated metastases. May we talk about that first, and then a bit about the drugs that we use when it's more widespread. Yeah,

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there's no doubt that when patients have stage four disease or spread of their cancer to another organ, it's a much more serious situation and the chance of cure is, is much lower. But I think it's very important to realize that some individuals with stage four or metastatic colon cancer are still curable. And the scenario that you set up is the very classic example, the liver is the first organ that sees the blood that comes from the colon. And so that is often the first place that the cancer is going to set up when it spreads. But that will also offer offers an opportunity for it to stop there, and not get into the rest of the bloodstream to go elsewhere. And so, we have been pushing the envelope with our surgical colleagues at offering patients removal of those tumors. And the surgeons have also become much better at what they do, and can remove more and more tumor while leaving enough liver behind to still function. And so that has become very important. And as a non surgeon, as a chemotherapy doctor, whenever I see somebody with stage four colon cancer, one of the things I always try to take myself through with each patient is is there a chance that this could be removable? And if I have any hesitancy I think it might be, then I'll refer them to my surgical colleagues for an opinion, I think we always have to think about that option.

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Well, if there's any chance of cure, that's what people will absolutely want to hear about. And, and I think my understanding is that it's surgical skill and managing metastatic disease and liver has been improved with I don't know, greater understanding the anatomy and the lobular nature of the liver and what you can resect and what you can, and so on. So it's been quite a quite an advance. And of course, the supportive care postoperatively is become much more sophisticated allowing people to get through major surgeries like that, for sure. But if there's no chance of resecting, I suppose one other area for resection is an isolated metastasis in the lung because the lung has got a fair bit of extra tissue, if you've looked after it over your lifespan and haven't smoked, that you couldn't if there's just a few nodules that could be removed that way, absolutely. But when you're dealing with a multiplicity of places, then you're really your hands are tied, you've got to use systemic therapy or drugs to go through the whole body. So what are the the options, they are first lined for treatment,

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so we will often use very similar drugs in patients with more advanced disease as what I described in patients with curable disease, and so it is often going to be a combination of drugs, we will use five Fleurier. So what you already heard about with oxaliplatin, or, if not oxaliplatin, another drug called the Reno TKN. And in occasional cases, we might even use all of those drugs together. And so we have many different options. There are many different cocktails that can be used.

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And the sort of interesting acronyms full Fox and full theory and full Fox Knox. Yes, that's a harder one to say. And then in addition to that, you have targeted agents. And I think this is a really interesting aspects of, of colon cancer therapy is also part of lung cancer treatments and so on understanding the drivers of tumor cell growth. And for the listeners, you have to think of the cell having little receptors on its surface. And then growth factors that are kind of like a key going into a lock and then turning the lock and driving the cell to produce more cells. So we have these growth factor receptors, we have growth factors, and then we have substances that inhibit them. So they're targeted to these receptors, some of them anyway, and then sometimes the pathways that are stimulated by those receptors, and that's become a part of the management of colon cancer as well.

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Absolutely. So I think the field of oncology is really moving towards more precision care, as you've described bill and drugs like five Fleur uracil oxaliplatin, or no tea can, they're more traditional chemotherapy agents that often try to kill off cells that are rapidly producing, but they're not as selective as he described. And so a big move in all of oncology is to move towards much more targeted therapies and we have two big targets in colon cancer. So we have something called the vascular epithelial growth factor receptor, that we have a target for. And then we have the epidermal growth factor receptor and, and so these are Growth receptors, they're proteins that sit on the surface of the cells. And when cancer colon cancer specifically, in this case, when those cells start to grow, they rely heavily on those receptors to grow. And so if you block those, you can help block the growth of the cancer.

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That's really a nice bit of sophistication to cancer treatment, as you say, precision oncology instead of the, the chemotherapy, which many people have come to think of is kind of like a sledgehammer effect because it affects normal cells as well as the abnormal cells, whereas this is affecting predominantly the the abnormal cells in a selective way. And so there's been an interesting proliferation of drugs, cetuximab and panitumumab, and Bevis ism, and all these things with MAbs on the end, which are mean, they're monoclonal antibodies, and I guess people are getting used to hearing about monoclonal antibodies in the context of a pandemic, and so on. But, but they're very important part of the management of many types of cancers, but particularly here in colon colorectal cancer. Now, some of the decision making for patients is complicated. And one of the things I think people would like to know about is how decisions get made. Is it by an individual doctor, deciding these things? Or are there tumor boards or case conferences where things are discussed and like when to decide on a surgery for a patient who's more complicated? Absolutely.

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I think in colon cancer, we, our volumes are very high. And so I would would not say that we discuss every case at tumor board. But if there's any uncertainty about the right direction, for example, if I see a standard stage three colon cancer in a 55 year old, it's pretty clear what I'm going to do. But if there's a 65 year old with two liver metastases, and I'm wondering about resection, we will always bring those patients to a tumor board, and a tumor board where we have surgeons, radiologists, pathologists, chemotherapy, doctors, radiation, doctors, nurses, pharmacists, all discussing the case and coming up with a consensus about the best treatment. And we as you know, Bill, we use those very heavily in Hamilton and not uncommonly, we might present a case that more than one have a tumor board, you know, at gi rounds, and then again, at hepatobiliary rounds that focus on the liver,

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I think these things are really important for people to know about. Because, frankly, in the past, medicine was sort of practiced almost privately, you went to see a surgeon who made the decision for you, then were referred perhaps to a radiation oncologist who made a decision, kind of in a vacuum with their knowledge of the use of their modality, or you got referred to a medical oncologist also worked in a kind of vacuum. That was the early style of practice when I began in oncology, and I'm so pleased to see the evolution to these multidisciplinary case conferences, because then you get so many more perspectives on a given case and experience, because everybody brings, every practitioner brings their experience to bear. And it can really be helpful in the decision making. So one of the things I really wanted to bring out in this podcast is just how that's pretty commonly done in Ontario, and is very much done here in Hamilton. Because there are there are multidisciplinary case conferences for all the different tumor sites taking place in the cancer center so that patients are getting multiple opinions, not just a single practitioners opinion. So it's just as a change in practice style that's happened over the recent decades. And it's really a very positive one, that it's good that patients know what

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I do feel patients often feel very reassured when we when we tell them explicitly that we'd presented your case, these were the people who were there. And this was this was the consensus. They they feel like they got a built in second, third, fourth, fifth opinion. And

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I guess it avoids those second opinions where you feel like I need to get in my car and drive down to the Cancer Center in Toronto or in London or something because I've heard from a variety of Physicians and Surgeons right here who have excellent knowledge and this is the their consensus, so they're reassured Well, let's talk about screening. Yeah. Such an important aspect of, of care and again, because of the pandemic, unfortunately, the screening programs for colon and breast and cervix, I think they've all taken a bit of a hit everywhere because resources have had to be moved. So I really want to stimulate people to think about getting back to awareness of screening and taking advantage of it if they're in the appropriate age group and have the appropriate level of risk, and so on. So let's define what that is,

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right. So you know, screening for colon cancer can be carried out in a variety of different ways, I think we're going to talk about the main one that's utilized in Ontario. And so screening is a way to detect a cancer before it's symptomatic. And so at a population level for colon cancer, in Ontario, we start screening at the age of 50. The most common type of screening is the fecal immuno test. And so this is very easy, it's very convenient. There is a lot of stigma associated with screening for colon cancer, but because it involves the bowel and, you know, perhaps the the inconvenience of somebody having a look up with a camera. But the the most common screening tests that's available to all people in Ontario over the age of 50, is a test on your stool. And so you you get a kit from your family doctor's office, if you don't have a family doctor, you can actually write to cancer care, Ontario, and they will mail you a kit. And in the comfort of your own bathroom, you take a little bit of stool or poop, and you put it on a stick and you mail that in. And what they're looking for is they're looking for traces of blood, and traces of blood on that test, we'll get you hooked up with a specialist who will do a colonoscopy. And I think it's critical that we all screen starting at the age of 50. Even if you feel you're healthy, you don't have any symptoms. That's why we screened

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it's because early cancers bleed a bit. And even Paul halls can bless you. Yeah, so that that puts the blood into the stool, but it might be at a level microscopic level that you can't see with your eye, we talked earlier about seeing real blood in the stool, and we're in the toilet water, or mixed with the stool. But that's when there's a lot of bleeding. But this is when they're just sort of microscopic. And so that means also the test needs to be done on a number of consecutive days as at night like are we still doing them three consecutive days? Or is it just one with the also it makes it easier to fit because with the FOBT test, which was a chemical test that reacted to identify the hemoglobin, it was three, three consecutive days. So that makes it easier.

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Yeah, and this test is more sensitive as well. It has a higher chance of detecting a cancer when it's there. So

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then, if so that's average risk. So anybody over age 50 to 70, yeah, should be having this done on an annual basis every two years, every two years, okay. And then if it's positive, you get referred to someone who's going to do a colonoscopy correct. And we talked a bit about colonoscopy, that obviously, there's a preparation for it basically cleans you out. And that's perhaps the worst, well, I'm not sure it's the worst part of it, but it does empty you out and get the colon clean, which is very important because the endoscopy is the person doing the colonoscopy has to really be able to see all the folds of the colon, while they're doing it if it's scared by the presence of stool and may miss a cancer. So it's very important. And it's also important that the operator, the person doing it really be skilled. And because this isn't exactly simple test had they had a couple of them. And having watched the TV screen, the ability to negotiate the turns in the colon, we talked about the different parts of the colon, the semicolon, the transverse and the descending while there's some right angle turns that are a little hard to negotiate. That can be done, you want to see the whole colon. And then you want to see all the folds as you're bringing that scope out. So he can't go too fast. You can't go too slow, you got to experience tells you what the right speed of withdrawal is to be careful to see even when we call sessile pull ups which are quite flat and barely common in the right colon. So yeah, there's a lot of aspects to that. There used to be flexible sigmoidoscopy whether it's still being done in Hamilton or not.

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Yeah. So you know, Bill, I think you allude to the fact that there are there are a variety of very valid ways to screen for colon cancer. And so, in Ontario for the average risk person, we're going to talk about the non average risk person in a sec. It's the fecal test, but certainly colonoscopies in many other jurisdictions like in the US, very common that the cold colonoscopy itself is used for screening. And there is there is data on using a flexible sigmoidoscopy. So a much shorter scope where they just look at the most distal part of the the colon, the bottom, and there are a couple a couple small pockets in Hamilton where there are nurse practitioners who are doing that. But I would say It's a fairly small number of people screen that way in Ontario, but still very valid. And all of these tests have been shown in studies to actually improve survival. So there are very powerful screening tests. That was the

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point I wanted to make is that the screening with flexible sigmoidoscopy, I think, was the first to show that there was a survival advantage. And then there have been trials since then on colonoscopy. So it's, it's interesting, because it's not only detecting cancer earlier want to make this point, but it's finding those polyps, removing the polyps and you don't get cancer. So it actually has led to a decline in incidence of colon cancer in some jurisdictions, as a result of having effective screening programs in place. And we just talked with the pandemic and the sort of the delays in getting people back into screening programs, we don't see, you know, an uptick in the number of more advanced colon cancers as a result. So we mentioned the provincial program, and that's been active, I guess, in Ontario for, like, 10 years, at least at least. Yeah. And, and colon cancer check is a name and Cancer Care Ontario is the agency of government that's been operating that. And if you're 50 years of age or older, and you're in this province, make sure to to get your every two years fit or fit test. And

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if you don't have a family doctor, they'll still send you a kit. So you can do this without actually being linked to a family doctor. That's how important it is.

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And then you mentioned that there are people are higher risk. So those are people that are going to get screened. And let's talk about those folks.

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So this really is where I had mentioned the first degree relatives with colon cancer. And so if you have a first degree relative with colon cancer, and once again for you that would be brothers, sisters, mom, dad, or your children, you are eligible for for higher risk screening. And that's where we go to colonoscopies, and those are done either every five years or every 10 years, depending on how young the individual was, who was diagnosed in your family. And so because these individuals are all higher risk, that we want the most sensitive test, the test that has the highest chance of picking up a cancer, or a polyp and that is the colonoscopy.

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And so are there special clinics for people at high risk?

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Yeah, so those individuals with a family history can still be referred to anybody who does endoscopy is and so they they go through the it's still part of the colon cancer check program is just an aspect that bypasses the FIT test. And then for individuals, these very rare individuals who have genetic conditions, we screen them very, very aggressively. And so the one that you mentioned is something called Lynch syndrome, which is the most common form of hereditary colon cancer. And individuals are often diagnosed with colon cancer very young, that the mean age of diagnosis is in the late 30s or early 40s. And so for those individuals, they do need to be seen in a specialized genetic clinic. But once that diagnosis is made, we actually do colonoscopies every, every year for these individuals, usually starting around the age of 25. And so they end up being screened very, very aggressively. And even in that rare condition, we have data that it's it improves survival. So I think screening for other types of cancers is a little bit more complicated. But the data with colon cancer is very clear screening has always been effective.

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Then there's some other rare but nonetheless very important diseases where you have multiple polyps, a familial adenomatous, polyposis, terribly long name FAAP for short. But I've seen pictures of colons taken out of people and like there's literally 1000s of polyps in these individuals. And it's the only treatment there is to remove the correct the colon and to the rectum is preserved to just keep checking it for occurrence of polyps. A lot of fascinating illnesses aren't there. And a lot of things that have actually come along to make the outcomes for people with these diseases better, finding them earlier, treating them better with localized there therapies or, or systemic drugs and many more drugs at the hands of folks like yourself in the clinic. Are there any last messages that we should deliver to people listening about colorectal cancer or things you'd like to reiterate just to drive home? Yeah,

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I mean, I think I've said it a number of times, but I would end with get screened for colon cancer. i i It's incredibly important. It's very effective. I do think there's a little bit of a stigma or a little embarrassment sometimes about screening for colon cancer. And we've got to get past that because it can save your life. And so I'm 50 now and I plan to do my first FIT test this year for sure.

50:16

Well Been there done that. And I've had several colonoscopies under my belt for screening too. So I can attest to, first of all, the importance of it as doctors the book has said, and also that it's a little uncomfortable, but it's no big deal for sharing and if something that can prevent you getting a cancer is definitely worth doing. So I'd encourage us doctors a book has just done all of you listening to if you're over 50 and this the average risk get out there, get your fit test AND, and OR colonoscopy depending if you're listening in the United States. And I appreciate people listening to the show, and I also very much appreciate doctors for giving his time and his expertise to the cancer systems podcast today. So hope you'll enjoy the podcast or have enjoyed the podcast and that will have you back listening in another month's time.

51:07

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