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Objective One

In all patients, be opportunistic in giving cancer prevention advice even when it is not the primary reason for the encounter.

There are a few of the obvious areas where there are known links to increased Cancer risk that we can help advise our patients about.

A. Smoking
https://www.cancer.ca/en/prevention-and-screening/reduce-cancer-risk/make-healthy-choices/live-smoke-free/smoking-shortens-lives/?region=on
Stop smoking - QuitNow provincial programs (BC, ALberta) that offer up to 12 weeks of smoking cessation tools, including medication, and nicotine replacement therapy

Why is this good?

-decrease risk of lung cancer, esophageal cancer, oropharyngeal cancers, and multiple others
- On average, people who smoke live 10 years less than non-smokers.

B. HPV
HPV prevention - vaccine - gardasil 9 - protects against HPV 16+18 - two strains that cause > 70% cervical cancers and 7 others HPV strains that cause cervical cancers or genital warts.
Reducing unprotected sexual intercourse can also lessen your risk of HPV exposure; however, oral sex and sex with barriers such as condoms still expose you to HPV

C. EtOH https://www.cancer.gov/about-cancer/causes-prevention/risk/alcohol/alcohol-fact-sheet
NIH reports association between alcohol consumption and a number of Cancers, including:

- Head and Neck Cancers including: Oral cavity, throat and larynx, with dose-dependent risk increases
- Oesophageal Cancer, of the squamous cell variety
- Liver Cancer, approximately a 2 fold increase in both Hepatocellular Carcinoma and Intrahepatic Cholangiocarcinoma
- Breast Cancer

- Colorectal Cancer - moderate to heavy consumption carries 1.2-1.5 RR increase compared to no EtOH consumption

D. Skin Cancer

Advise of the risks of excess sun exposure. Advise to avoid direct sun during the middle of the day, use of mechanical sun cover is preferable, but at least sunscreen if not. Avoidance of tanning beds.

Unfortunately this is usually due to excess exposure when someone is younger, so try to give this advice to your younger patients as possible.

The Canadian Cancer Society recommends a few things:
https://www.cancer.ca/en/prevention-and-screening/reduce-cancer-risk/make-healthy-choices/be-sun-safe/the-6-best-ways-to-be-sun-safe/?region=on

- Check the UV index, when it is above 3 you are at significantly greater risk
- Reduce time in sun between 11am and 3pm (or any time of day when UV index > 3)
- Seek shade
- Clothes protect better than sunscreen, including large brimmed-hats
- Get some cool shades - choose ones with UVA/UVB protection in wraparound style
- Use sunscreen properly - SPF of at least 30 and use sunscreen along with the other measures above, no instead of

Objective Two

In all patients, provide the indicated evidence-based screening (according to age group, risk factors, etc.) to detect cancer at an early stage (e.g., with Pap tests, mammography, colonoscopy, digital rectal examinations, prostate-specific antigen testing).

These guidelines are largely from the Canadian Task Force, as that is what will be tested, however keep in mind your province or territory may have slight variation from these.

- **Cervical Cancer**
  - WHY?
    - Can prevent up to 90% of cervical cancers with early intervention
    - WHEN?
  - Age 25-69 every 3 years (or starting at age 28 if you are not sexually active). *Should note that sexually active isn't just penetrative intercourse and also includes touching, oral sex, or any genital to genital contact

- After age 70, you can stop having Pap tests if:
  - Your last 3 tests, done within the past 10 years, were normal
  - You haven't had any serious abnormal cell changes in the past
  - You had an HPV test result that was negative

- **Breast Cancer**
  This was covered in greater depth in Breast Lump Episode 12, so go listen to that too!
  - WHY?
    - Find breast cancers early when treatment may be more effective
  - WHEN?
    - Ages 50-74 every 2 years
    - Ages 40-49 - done on an individual basis. Mammograms in this age group can cause more harm than benefit as false positives may lead to unnecessary interventions and physical/emotional harm
    - Age>75 - Benefit depends on personal health. For example, someone with a life expectancy of 1 year is unlikely to benefit from a mammogram

- **Colorectal Cancer**
  - WHY?
    - One of the most common cancers - affects 1/17 women and 1/14 men in their lifetime

  WHEN?
- 50-74 - screen with FIT/gFOBT q 2 year or flex sigmoidoscopy q10years

  FIT/FOBT looks for occult blood in stool. If positive then move onto colonoscopy.
  - Of note, if someone comes in with rectal bleeding, do not do a FIT. FIT is only for screening. If you already know they are bleeding, you need a diagnostic test, such as a colonoscopy.
  - Also note that any iron deficiency anemia in men of any age and post-menopausal women is colon cause until proven otherwise.

- May also expect guideline change at some point given increasing cases in younger populations. For example screening starts at age 45 in some places

- **Prostate Cancer**
  Screening for prostate cancer is done with a blood test for prostate specific antigen (PSA). PSA is controversial as it often leads to more harm than benefit due to unnecessary interventions. While prostate cancer is fairly common in men, most men

diagnosed with it will not die of it since prostate cancers are fairly slow growing and not life threatening

WHEN
Current official Canadian Task Force recommendations are to NOT screen men of any age for prostate cancer with PSA testing.
However, the Canadian Urological Association does differ from this with a more nuanced approach, linked in the shownotes https://www.cua.org/system/files/Guidelines/4888.pdf
So, exam info you need is probably, NO screening. In real life, there is some contention and If a patient is interested in having a PSA you should start speaking about the risks and benefits with them at age 50.
This can also start at a younger age if they are in a more high risk population:

- Having a father or brother who had prostate cancer before age 65.
- Knowing that a gene change, such as BRCA, runs in your family.

https://screeningforlife.ca/about-us-2/#screening_for_other_types_of_cancer

- **Lung Cancer**
  - WHY?
    - The MOST common cause of cancer-related deaths in Canada. More than 85% are related to smoking tobacco.

    WHEN?

    Keep in mind, this is quite a recent change, and so won't be available in all jurisdictions. However, we wanted to include it for completeness as it is recommended by the Canadian Task Force. https://canadiantaskforce.ca/wp-content/uploads/2016/06/clinician-summaryscreening-for-lung-cancer-1.pdf

  - For adults 55-74 with at least 30 pack year smoking history who either
    - Currently still smoke, or
    - Quit less than 15 years ago

  - The recommendation is to get Low Dose CT (LDCT) annually, up to three consecutive times

Objective Three
In patients diagnosed with cancer, offer ongoing follow-up and support and remain involved in the treatment plan, in collaboration with the specialist cancer treatment system. (Don't lose track of your patient during cancer care.)

Again, this seems straightforward and obvious, but patients are easily lost in the shuffle. Make sure you are being forwarded consults and progress notes from the Cancer Agency. This

process is simplified in Alberta as consults and progress notes are usually uploaded to NetCare (a provincial patient database). If there is a significant change in prognosis or a new diagnosis, it can be helpful to meet with the patient to offer support and understanding.

Also, relisten to episode 12, because we covered a number of resources available and recommendations for follow-up for your patient diagnosed with Cancer.

Objective Four

In a patient diagnosed with cancer, actively inquire, with compassion and empathy, about the personal and social consequences of the illness (e.g., family issues, loss of job), and the patient's ability to cope with these consequences.

This seems very straight forward, but can easily be overlooked in the whirlwind of activity that comes with a new cancer diagnosis. It is easy for patients to feel powerless in the face of a new cancer diagnosis and listening and understanding what they are experiencing can make a large difference.

Additionally, cancer agencies generally have social workers who can help patients fill out disability forms and apply for other resources. In particular, pediatric cancer centres often have free counselling available for patients and parents.

I hate to say this again, but we covered some great resources available to you and your patient for helping with these. Pop back there and give it a quick listen.

Objective Five

In a patient treated for cancer, actively inquire about side effects or expected complications of treatment (e.g., diarrhea, feet paresthesias), as the patient may not volunteer this information.

We covered a number of these in episode 12: Breast Lump, so definitely go back and listen to that episode.

In the meantime, they have asked us specifically to cover diarrhea and lower limb parasthaesias. So….we will.

These are coming from the BC Cancer Symptom Management Guidelines.

Chemotherapy-Induced-Diarrhea(CID)
http://www.bccancer.bc.ca/nursing-site/Documents/GuidelinesforManagementofCID.pdf

The prevalence of this in chemo or radiation treated patients is estimated at **45%** for those treated with irinotecan or 5-fluorouracil.
They offer a few risk factors which make this more likely to occur:

- Older females
- Lower performance status (ECOG 2 or more)
- Existing bowel pathology: colitis, or lactose intolerance for ex
- Tumour in the bowel
- Weekly chemo, particularly irinotecan or 5FU
- Previous chemotherapy-induced-diarrhea
- Concomitant Abdo-pelvic radiation and chemo

They break this down into severity. Which is essentially mild/mod(grade 1-2) and severe(grades 3-4)

Grades 1-2 = 6 or fewer bm per day, with nocturnal stools and some abdo cramping
Grades 3-4 = more than 10 bm per day, +- blood stool and clinical need for parenteral fluid support. These patients need hospitalization.

For mild cases:
Of course, because you're a good physician, you rule out other causes for their diarrhea.

- Medications: softeners, laxatives, antacids
- Infection: C Diff or Candida
- Partial bowel obstruction
- Malabsorption
- Faecal impaction
- Acute radiation reaction
- Diets high in fiber or lactose can aggravate diarrhea

<u>Dietary Changes to Try</u>

- Increase intake of clear fluids: water, sport drinks, broth, gelatin, clear juices
- Can consider a BRAT diet: banana, rice, apples, toast
- Patients who get diarrhea after starting irinotecan specifically need pharmacologic intervention as dietary intervention alone will be inadequate

<u>Skin Care</u>
Recommend perianal skin hygiene. Use mild soap to cleanse area after bm and pat dry, do not rub.
Can consider sitz baths to soothe the area.
Can also consider barrier creams as needed.

Medications

- moderate(grade 2) diarrhea, or mild(grade 1) diarrhea that persists 12-24 hours needs pharmacologic intervention

- **Loperamide**
  - 4mg, followed by 2mg q4h or after each unformed stool
  - Up to a max of 16mg per day

    If the diarrhea lasts longer than 24 hours
    - Loperamide dosing can be increased to 4mg to start
    - 2mg q**2h** and continued for 12 hours after resolution of the diarrhea and normal diet

- **Atropine-diphenoxylate** "Lomotil"
  - May be useful as adjunct to the loperamide for mild/moderate(grade 1-2) diarrhea
  - 1-2 tabs q6-8h

- **Octreotide**

  For mild/mod (grade 1-2) diarrhea lasting more than 24 hours despite loperamide with/out atropine-diphenoxylate
  - 100-150 ug SC tid
  - For grades 3-4 diarrhea, with no improvement, this dose should be increased to 300-500ug SC tid
  - Can be discontinued 24 hours after cessation of diarrhea and normal diet

- **Antibiotics**

  If concomitant neutropenia, antibiotics should be considered until diarrhea resolves, and granulocyte counts normalize

Chemotherapy Induced Peripheral Neuropathy

http://www.bccancer.bc.ca/nursing-site/Documents/15.%20Peripheral%20Neuropathy.pdf
The other side effect they wanted us to cover is peripheral neuropathy.

Of course, just like any new symptom, you need to have your differential and rule out other causes before jumping straight to the chemotherapy as the cause.

- Ask around spinal cord compression causes and clinical features
- Can get a few labs:
  - B12 level
  - Thyroid testing
  - Blood sugar

Patient Education

- Record new symptoms and changes
- Advise can occur with chemotherapy, and can persist for several months after the last treatment
- Provide Tips to avoid burn or freeze injuries due to lost sensation
- Tips to avoid fall risk due to loss of foot sensation
- Passive range of motion exercise may enhance reinnervation, and activity can help reduce atrophy from neuropathy muscle weakening

Non-Pharmacologic Management

- Relaxation techniques, medication, yoga, etc
- Massage, acupuncture, TENS
- Apparently cryotherapy using frozen socks and gloves around chemo infusion could be useful for these neuropathic symptoms

Pharmacologic Options

- Acetaminophen or NSAID
- SNRI, such as Duloxetine
- Anticonvulsants: gabapentin or pregabalin
- Tricyclics: amitriptyline, nortripraline, imipramine
- Topicals: capsaicin or lidocaine cream, baclofen/amitryptiline/ketamine compounds

Objective Six

In patients with a distant history of cancer who present with new symptoms include recurrence or metastatic disease in the differential diagnosis.

https://www.albertahealthservices.ca/assets/info/hp/cancer/if-hp-cancer-guide-br013-early-stage-follow-up.pdf
The Alberta Provincial Tumour Team has developed guidelines for follow-up care. While this is related to breast Cancer, the premise remains the same.

Some presentations or symptoms that they mention warranting extra consideration for someone with a history of Cancer, and the appropriate investigations are:

Symptom	Action / Investigation
new mass in breast	mammography +/- ultrasound +/- needle biopsy
new suspicious rash or nodule on chest wall	refer to surgeon for evaluation and biopsy
new palpable lymphadenopathy	refer to surgeon or interventional radiology for biopsy
new persistent bone pain	plain x-ray of affected site(s) and bone scan
new persistent cough or dyspnea	chest x-ray and/or CT chest
new hepatomegaly or RUQ abdominal pain or jaundice	ultrasound and/or CT scan of abdomen and liver enzymes
new onset seizures	seizure management (as required) and CT/MRI brain
back pain with limb weakness, change in sensation, change in reflexes, or loss of bowel/bladder control	MRI spine
new persistent headache or new concerning neurologic deficits	CT / MRI brain
altered level of consciousness, nausea, vomiting, and/or pain with symptomatic hypercalcemia	IV hydration and bisphosphonate therapy

Objective Seven
In a patient diagnosed with cancer, be realistic and honest when discussing prognosis. (Say when you don't know.)

If this is a new diagnosis, you will need some help from investigations. Likely a tissue biopsy to prove and identify the cancer. In addition you will need advice and expertise from your oncology colleague.

As a frame of reference, we have included the serious illness conversation guidelines. Step three in this process is to "share the prognosis" and suggests framing it as
"I want to share with you my understanding of where things are with your illness"
And if you're unsure of the prognosis at that time,
"I **hope** you will continue to live well for a long time, but I am worried you could get sick quickly"

For a more thorough discussion of this process, pop back to Episode 10: Bad News.

the generEHlist

105 CCFP Topics Podcast

Conversation flow		Patient-tested language
1. Set up the conversation • Introduce purpose • Ask permission	Set Up	*"I'd like to talk about what is ahead with your illness and do some thinking in advance about what is important to you so that I can make sure we provide you with the care you want — **is this okay?**"*
2. Assess illness understanding & information preferences	Assess	*"What is your **understanding** now of where you are with your illness?"* *"How much **information** about what is likely to be ahead with your illness would you like from me?"*
3. Share prognosis • Frame with a "wish...worry", "hope...worry" statement • Allow silence, explore emotion	Share	Prognosis: *"I want to share with you **my understanding** of where things are with your illness..."* Uncertain: *"It can be difficult to predict what will happen with your illness. I **hope** you will continue to live well for a long time but I'm **worried** that you could get sick quickly, and I think it is important to prepare for that possibility."* Time: *"I **wish** we were not in this situation, but I'm **worried** that time may be short as_ (express as a range e.g. weeks to months, months to a year)."* **OR** Function: *"I **hope** that this is not the case, but I'm **worried** that this may be as strong as you will feel"*
4. Explore key topics • Goals • Fears & worries • Sources of strength • Critical abilities • Trade-offs • Family	Explore	*"What are your most important **goals** if your health situation worsens?"* *"What are your biggest **fears and worries** about the future with your health?"* *"What gives you **strength** as you think about the future with your illness?"* *"What **abilities** are so critical to your life that you can't imagine living without them?"* *"If you become sicker, **how much are you willing to go through** for the possibility of gaining more time?" "How much does your **family** know about your priorities and wishes?"*
5. Close the conversation • Summarize what you've heard • Make a recommendation; check in with patient • Affirm your commitment to the patient	Close	*"I've heard you say that ____is really important to you. Keeping that in mind, and what we know about your illness, I **recommend** that we _____. This will help us make sure that your treatment plan reflect what's important to you"* *"How does this plan seem to you?" "I will do everything I can to help you through this."*
6. Document your conversation & 7. Communicate with key clinicians		