Saskatchewan Cancer Agency Integration with PIP

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Learning objectives

- Describe Saskatchewan Cancer Agency pharmacy professional roles when a patient is prescribed a cancer treatment medication.
- Explain the "5 Ws" (why, who, where, when and what) of SCA medications that will be captured on PIP/ eHealth Viewer.
- Outline the specific information regarding cancer treatment medications that will be available on PIP/eHealth Viewer.
- Summarize how to incorporate cancer treatment medications now viewed on PIP/eHealth Viewer into practice and how to support patients undergoing cancer treatment.
- Identify quality oncology resources and how to access them.

Saskatchewan Cancer Agency (SCA) Pharmacy Services

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Our Service

 Most comprehensive pharmacy service and drug funding of any dedicated cancer program in Canada

Adult Oncology
Malignant Hematology
Bone Marrow
Transplant
Pediatric Oncology

Outpatients Inpatients

Community
COPS
Family Doctor

IV Oral/Take Home

Trials Supportive

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SCA Pharmacy Services

- Allan Blair Cancer Centre (ABCC) Regina
 - 306-766-2816
- Saskatoon Cancer Centre (SCC)
 - 306-655-2680
- Hours of Operation
 - 0800-1630 Monday to Friday

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Community Oncology Program of Saskatchewan (COPS)

16 locations in the Saskatchewan Health Authority accommodate treatment closer to home

Northern COPS Centres

- Humboldt
- Kindersley
- Lloydminster
- Meadow Lake
- Melfort
- Nipawin
- North Battleford
- Prince Albert
- Tisdale
- Flin Flon **

Southern COPS Centres

- Estevan
- Melville
- Moose Jaw
- Moosomin
- Swift Current
- Weyburn
- Yorkton

Specialized Pharmacist Role

- Provide expertise on pharmacokinetics, pharmacodynamics, pharmacogenomics of drugs
- Assist with drug treatment selection evidence-based
- Ensure policies and procedures exist to deliver treatments in a safe and effective manner
- Navigate reimbursement
- Patient education
- Manage toxicities and drug interactions

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Regulated Pharmacy Technicians

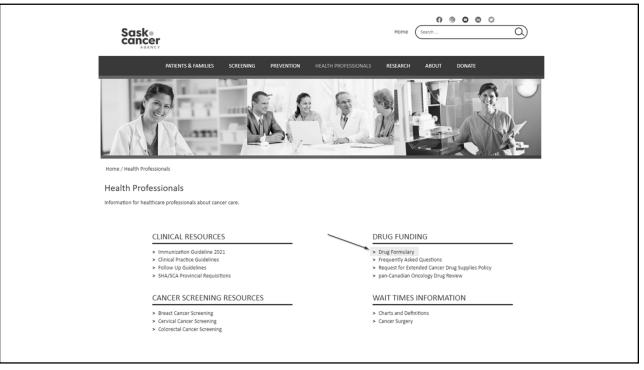
- Interview patients and record BPMH on electronic chart
- Inventory management, shipping and provincial distribution
- Medication order entry
- Oral dispensary and triage desk
- Final product check for take home medications
- Preparation of hazardous medications
- Final product check for IV preparations
- Coordinating external injection programs

SCA Drug Formulary

- Distinct from Sask. Prescription Drug Plan and Hospital Benefit Drug List
- Outlines authorized prescribers, funded drugs with eligibility criteria
- Administered and updated by SCA Pharmacy & Therapeutics Committee monthly
- Published on our website: www.saskcancer.ca

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www.saskcancer.ca

Scask Cancer SASKATCHEWAN CANCER AGENCY DRUG FORMULARY

acidiment. This Saskatchewan Canner Agency Drug Formularies. In information-only resource that identifies the funding status and eligibility requirements of canner treatment drugs and some supportive drugs used to care for canner patients in Saskatchewan. It is current only as of the date listed on the Drumman and Canner C

DRUG	DOSAGE FORM	STRENGTH	SPECIAL STATUS	DISEASE SITE GROUP	CANCER SITE	FUNDED INDICATIONS and ELIGIBILITY REQUIREMENTS	FUNDING NOTES		
abiraterone	tablet	250 mg 500 mg		Genitourinary	Prostate (mCSPC)	Spherosois**, feet prior versities provides server (nCLSQ) in conditional with problems and analogous decreases the resp. (ACT) is a prior with the hand but for aCT of the feet standard setting, or relative of which feed notes in the relational setting with one case progression. When the conditional relational setting with one case progression or was considered to society.	Newsonia protects extent in integrated and distinct institution floates (E.a., possible before scare and extension foliations and extensions foliations extensions from the extension of the exte		
				Genitourinary	Prostate (mCRPC)	Metastatic castration-resistant presides cancer* (nCBPQ) in combination with predivisione	Companies and contract products and the cont		
Abravane (paclitaxel nanoparticle albumin bound [nab])	vial	100 mg		Breast	Breast, Advanced	locally advanced unresectable or metastatic breast cancer in patients who have experienced previous analyhylatic or analyhylatioid mactions with conventional pacitized or docetaxel infusions or who have significant contraindications to use of taxane pre-medication and in whom further use of a taxane is appropriate	An example of a significant contraindication to taxane pre-medication would be in patients with uncontrolled diabetes		
				Gastrointestinal	Pancreas	Locally advanced unresectable or metastatic adenocarcinoma of the pancreas in combination with gemcitabine as first or second-line (after FOLFIRINOX) treatment			
				Gynecology	Multiple	acally absonced unresectable or metastatic ovarian, follopian tube, primary personasi, endometrial or periodic disorie in combination with platnum-based threapy in patients who have experienced previous anaphylanis or anaphylanis			

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PIP Integration

Project Objective

 To capture medications dispensed from the Saskatchewan Cancer Agency into PIP to ensure patient safety and reduce risk by having a more complete patient profile on PIP for Saskatchewan residents

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Why are we doing this

- Provide ability for health care teams outside of SCA to know when a patient is on a cancer medication
- Ensure informed health care decisions are made with all the available medication information
- Increase safety and accuracy of medication histories and profiles
- Allow access to information from a physician or nurse practitioner's clinic, emergency department or community pharmacy

Who is involved/affected

- College of Physicians and Surgeons of Saskatchewan
- College of Registered Nurses of Saskatchewan
- Saskatchewan College of Pharmacy Professionals
- Other users of PIP dentists, midwives, podiatrists
- eHealth Saskatchewan
- medSask
- Ministry of Health (DPEBB)
- Saskatchewan Health Authority
- Saskatchewan Cancer Agency (SCA)

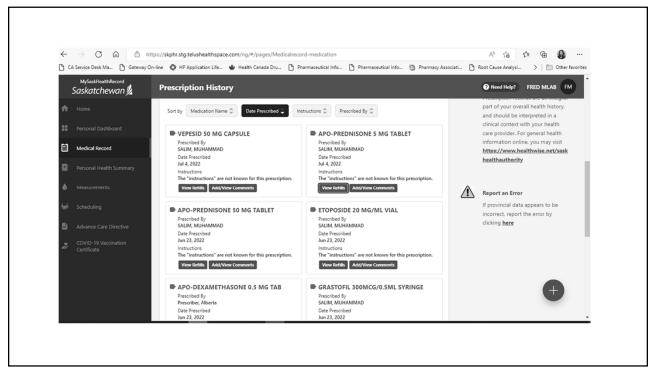


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Where will the info display

- PIP
- eHR Viewer
- Preadmission Medication List
- My Sask Health Record

IPTEST, AA 11-425 4TH AVE NW OOSE JAW, Sackatchewan 0G 0X0 ISN: 210 123 001								
onFidentiality Notice: The or se of the patient's health care provid ignals and copies of the misdirecte PREADMISSION M	EDIC	s communication is have received this lation.	T/PR	ESCRIBI				
eep this form with the Prescriber Or Medication Name	Sers - Must	not be thinned from	patient cha	me / Date of Last Dose	ortnus	Pre	comments / Rationale	
DOXORUBICIN 2 MG/ML VIAL (Doxorubicin HCL) 2022-Jun-13 Salm, Muhammad (MD)	Comments	Intravenous		-				
ONDANSETRON ODT 8 MG TABLET (Ondansetron) 2022-Jun-13 538m, Muhammad (MD) PMS-DEXAMETHASONE 4 MG TAB	Comments	Oral						
4 MG TAB (Dexamethasone) 2022-Jun-13 5atm, Muhammad (MD) etoposide inj 20 mg/1 mL - Oral use-0000000	Comments	Unidentified			\parallel	\parallel		
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Generated from the Pharma	eutical li		ram (PIP) Page 2 c		n Minis	try of H	ealth on 2022-Jun-14.	



When - Go live date August 29

- Medications dispensed on and after this date will appear in PIP
- Historical medications WILL NOT appear in PIP
- Data will transmit to PIP 3 times a day

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What will display

- Medications dispensed by the SCA pharmacies
- Including
 - Special Access Program (SAP) medications accessed thru Health Canada
 - Patient Access Program (PAP) medications provided compassionately by manufacturers
 - Clinical Trials

Including cancer treatments administered at:

- ABCC and SCC
- SCA affiliated COPS centres
- Outpatient Treatment Centre (Regina)
- Outpatient Day Centre (Saskatoon)
- Home Injection Programs
- SHA hospitals for inpatients
- Jim Pattison Children's Hospital

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Out of Province

- Patients with Sask Health coverage may have prescriptions filled out of province
 - Receiving treatment at another cancer centre
 - Specialty pharmacy dispensing required
- Patients with health coverage from other provinces may be treated in Sask
 - However without a valid sask health card number these patients will not appear in PIP

Types of Medications

- Injectable Cancer Therapy
 - Includes IV, IM and Subcutaneous
- Oral Cancer Therapy
- Supportive Care Medications
 - Bisphosphonates
- Post Chemotherapy Medications
 - Dexamethasone and ondansetron
 - granulocyte colony stimulating factors (Grastofil®)

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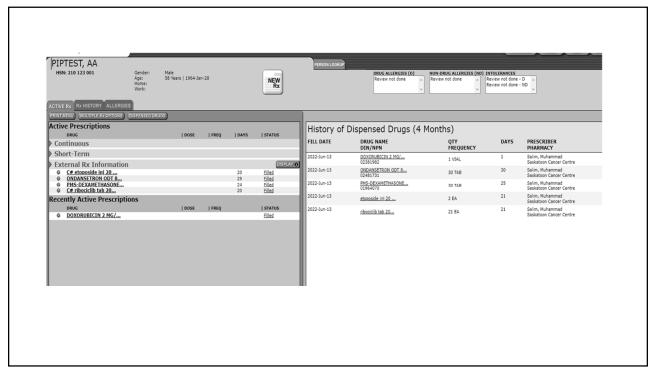
Pre-Medications

- A single dose of medication given prior to treatment to minimize side effects like nausea and vomiting and treatment related reactions
 - WILL NOT APPEAR IN PIP
- Examples include dexamethasone, ondansetron, metoclopramide, diphenhydramine, famotidine, lorazepam
- EXCEPTIONS Emend®, Akynzeo®

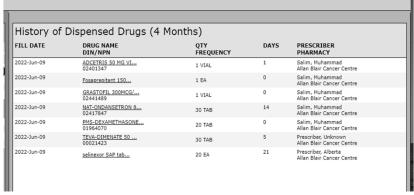
What Information is being sent from SCA to PIP

- HSN of patient
- Date of dispense
- Prescription number
- DIN of the drug product
- Fill quantity
- Days supply
- Provider identification for dispense (physician)
- Pharmacy site ID number ABCC or SCC

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How to identify the prescription was filled by SCA



Dispensing pharmacy will appear as

- Allan Blair Cancer Centre
- Saskatoon Cancer Centre

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Drug name

- Based on DIN
- Specific brand name
 - Tamoxifen
 - APO-Tamoxifen
 - Nolvadex-D
 - Ifosfamide
 - Ifex

- https://efq-pip.ehealthsask.ca/PIN_GUI/
 - https://efq-pip.ehealthsask.ca/

DRUG SEARCH RESULTS 02241356

IFEX 3 GRAM VIAL

History of Dispensed Drugs (4 Months)							
FILL DATE	DRUG NAME DIN/NPN	QTY FREQUENCY	DAYS	PRESCRIBER PHARMACY			
2022-Jun-13	DOXORUBICIN 2 MG/ 02381982	1 VIAL	1	Salim, Muhammad Saskatoon Cancer Centre			
2022-Jun-13	ONDANSETRON ODT 8 02481731	30 TAB	30	Salim, Muhammad Saskatoon Cancer Centre			
2022-Jun-13	PMS-DEXAMETHASONE 01964070	30 TAB	25	Salim, Muhammad Saskatoon Cancer Centre			
2022-Jun-13	etoposide inj 20	2 EA	21	Salim, Muhammad Saskatoon Cancer Centre			
2022-Jun-13	ribociclib tab 20	21 EA	21	Salim, Muhammad Saskatoon Cancer Centre			

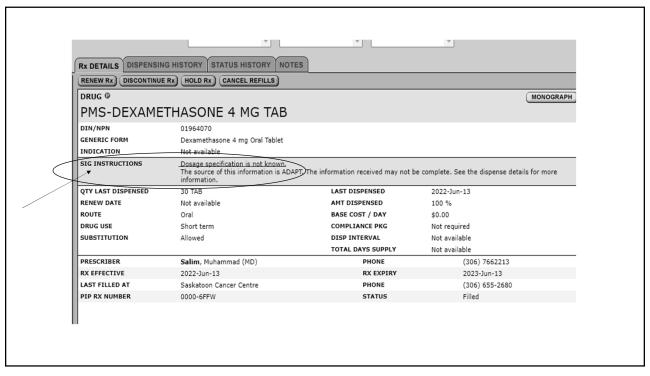
Fill Date

- Fill Date is based on the date of prescription entry
- Prescriptions are generally entered ahead of time
- Fill Date may not equal start date of chemo cycle or date of administration

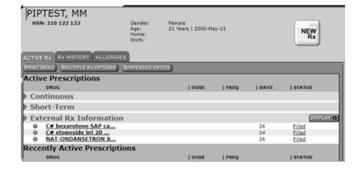
What does not appear in PIP

- SIG/Instructions do not transmit from SCA to PIP
- Patients should refer to the label on their prescriptions for instructions

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C# compound attribute

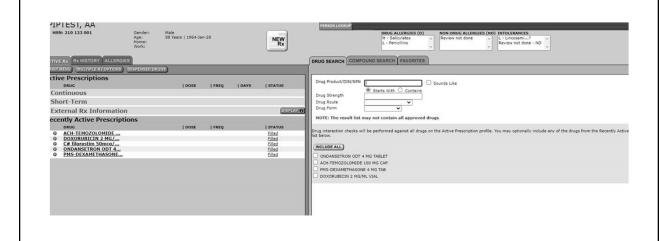


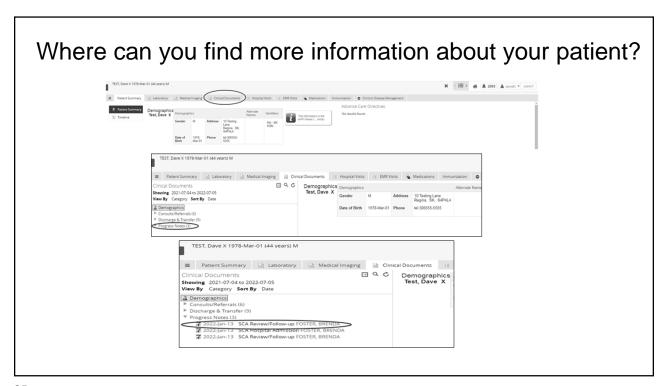
Important Note:
will NOT automatically
DI check in PIP

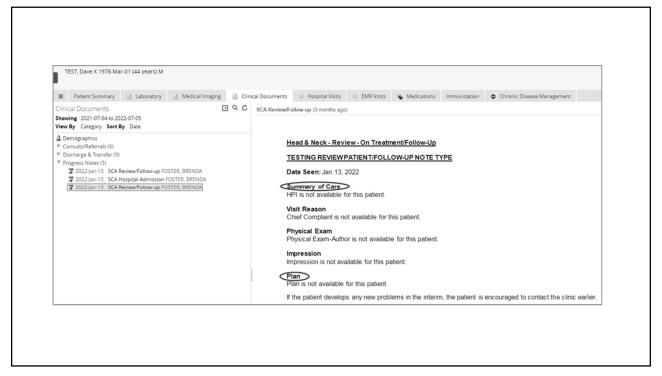
- clinical trial drugs
- compounds

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ePrescribers and DI Checking

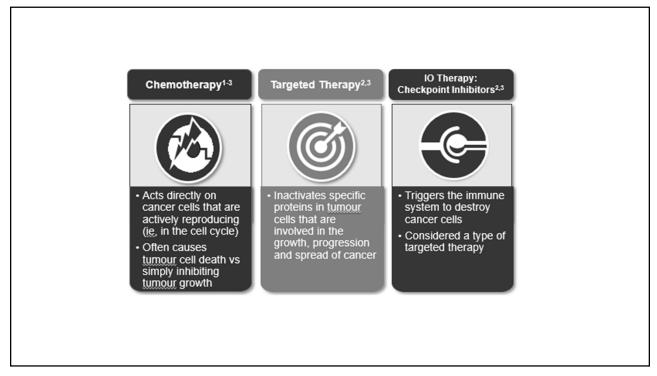






How can you use this information in your practice?

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Managing Side Effects of Cancer Treatments

- Patients are provided with counselling on all cancer medications
- Written information is also provided
- Patients have contact information for their oncologist
- Refer back to SCA when needed

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Febrile Neutropenia

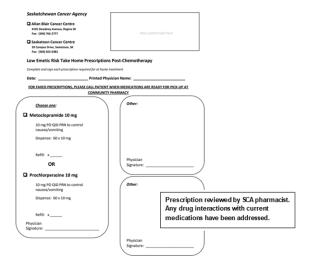
- Neutrophils < 0.5 or <1.0 with a predicted decline to <0.5 within 48 hours
- Fever a single temperature of > 38.3°C or a temperature of > 38°C sustained for over one hour)
- Risk factors: cytotoxic agent, dose intensity of the regimen, concomitant chemoradiation therapy, severity and duration of neutropenia, patient factors

Febrile Neutropenia is a medical emergency

- Seek medical attention immediately
- DO NOT take acetaminophen, ibuprofen or ASA until healthcare provider has been contacted
- Treat empirically with broad spectrum antibiotics

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Take Home Prescription



Nausea and Vomiting

- Did the patient have dexamethasone and ondansetron filled by the SCA pharmacy?
- Did they take it according to the directions?
- Did the patient receive a take home prescription?
- Did they fill it?
- Nausea and Vomiting are assessed by the oncologist/pharmacist at each follow up visit
- Encourage the patient to keep a symptom diary

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Diarrhea

- Can be a symptom of mucosal damage secondary to chemotherapy or radiotherapy
 - Expected side effect of some chemotherapy
 - irinotecan, capecitabine, fluorouracil, methotrexate, cytarabine
- Can be result of immune related toxicity secondary to immunotherapy

Diarrhea Management

- · For chemotherapy induced
 - Loperamide
 - Intensive loperamide regimen Irinotecan
 - Diphenoxylate
 - Octreotide
- For immunotherapy induced
 - Mild supportive care
 - Moderate to severe Prednisone

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Immunotherapy

- Ipilimumab (Yervoy®)
- Pembrolizumab (Keytruda®)
- Nivolumab (Opdivo®)
- Durvalumab (Imfinzi®)
- Atezolizumab (Tecentriq®)
- Avelumab (Bavencio®)

Identifying Drug Interactions

- Medications patients were taking prior to initiation of cancer treatment have been reviewed by the SCA pharmacist for drug interactions
 - Please contact SCA pharmacy if a significant drug interaction is noted and it is unclear if it was addressed
- Prescriptions for new medications started after cancer treatment initiation will need to be reviewed for drug interactions by the community pharmacist

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How to manage drug interactions

- Was the patient on the interacting medication prior to starting cancer treatment?
- Is the interaction significant?
- Can an adjustment be made to the non-cancer medication?
 - Is there an alternate agent that does not have the same risk
- If the risk is significant and no alteration can be made to the non-cancer medication, contact the oncologist

Important Notes

Prescription reviewed by SCA pharmacist. Any drug interactions with current medications have been addressed.

- Not all prescriptions written by an oncologist are reviewed by the SCA Pharmacists
 - Prescriptions for supportive care medications may be sent directly to the community pharmacy
- Not all prescriptions for 'cancer' drugs are written by an oncologist
 - Tamoxifen for breast cancer <u>prevention</u> written by a GP would not be reviewed by an SCA pharmacist

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Nausea and Vomiting – Anti-nauseants

- Dispensed by SCA
 - Dexamethasone
 - Ondansetron
- Dispensed by community pharmacy
 - Metoclopromide
 - Prochlorperazine
 - Dimenhydrinate
 - Olanzapine

Tamoxifen and Antidepressants

- Inhibitors of CYP2D6, inhibit activation of tamoxifen (prodrug) to its major active metabolite
- Decrease clinical effectiveness
 - = Decrease Disease Free Survival
- Strong inhibitors paroxetine, fluoxetine, buproprion
- Weak inhibitors citalopram, desvenlafaxine, escitalopram
- Fluvoxamine and venlafaxine do not significantly inhibit CYP2D6

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Acid Reducing Agents and TKI's

- Stomach pH is an important factor in the solubility and absorption of Tyrosine Kinase Inhibitors (TKI's)
 - End in 'tinib'
 - Afatinib, erlotinib, gefitinib, and osimertinib
- Avoid proton pump inhibitors if possible
- Separate from H2 receptor antagonists 10 hours after last dose or 2 hours before next dose
- Separate from antacids by several hours

Bisphosphonates

- Zoledronic acid and pamidronate are commonly prescribed for the prevention of skeletal related events in patients with bone metastases
- Patients may be prescribed a bisphosphonate for prevention of osteoporosis by their GP
- Increased risk of hypocalcemia, renal impairment, osteonecrosis of the jaw

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Steroids

- Dexamethasone is commonly prescribed
 - for management of chemotherapy induced nausea and vomiting,
 - as part of some treatment protocols
 - for management of side effects related to radiation therapy
- Prednisone is prescribed in combination with many prostate cancer treatments
- Patients may also be prescribed steroids by their GP for the management of various conditions or emergency room physicians for management of side effects related to immunotherapy

Paxlovid and Cancer Treatment

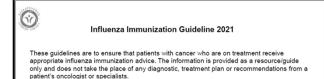
- Numerous drug interactions with various cancer therapies
- Cancer patients receiving active treatment should be counselled to call the cancer centre for prescribing of Paxlovid

Immunocompromised with complex disease state:						
O Active treatment for cancer	O Hematopoietic stem cell transplant					
O Moderate to severe primary immunodeficien	ncy O Solid organ transplant					
○ Yes to any → Refer patient to the appropriate specialist only-SHA Early COVID Therapeutics Team, Cancer Specialist or Transplant Specialist (Note: Transplant and Cancer patients-if unable to reach the specialist, call 811)						

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Influenza Immunization

- Recommended that patients on chemotherapy, targeted treatment and immunotherapy receive flu shot
- Exceptions
 - Stem cell transplant within previous 4 months (6 months for pediatrics)
 - CTLA-4 Inhibitors Ipilimumab
 - Patients on clinical trials



Drug Interaction Checking Software

- LexiComp
- Micromedex
- Drugs.com

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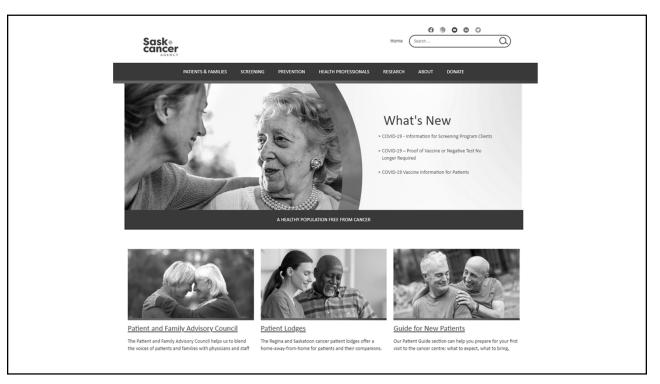
Oncology Resources

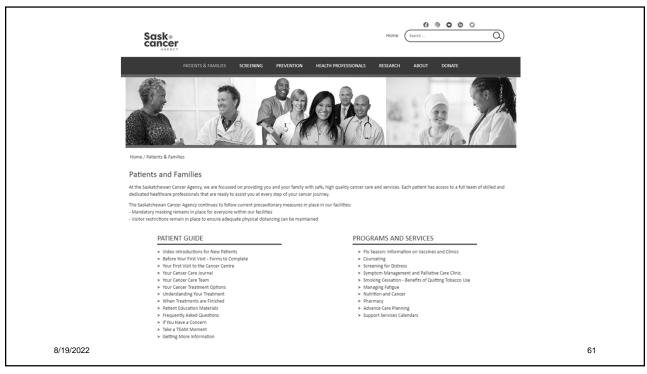
Oncology Resources

- Sask Cancer Agency Website
- BC Cancer Agency Website
- Cancer Care Ontario Website

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Video Introductions for New Patients

 $\ensuremath{\mathsf{A}}$ diagnosis of cancer can be overwhelming. Knowing what to expect can help.

Join Costa Maragos and Trish Cheveldayoff, both former cancer patients, as they guide you through what to expect as you begin treatment and tour you through the Allan Blair Cancer Centre in Regina and the Saskatoon Cancer Centre:

What You Need to Know After a New Cancer Diagnosis What to Expect with Chemotherapy

What to Expect with Radiation Therapy

Allan Blair Cancer Centre

Saskatoon Cancer Centre

Please note, each video will open in YouTube.



8/19/2022

