Hazardous Medication List

Reducing occupational exposure to hazardous medications for **ALL STAFF**

created by: Provincial Hazardous Medication Committee

Date: 17 June 2025 v3.0

Alberta Health Services | Covenant Health

Contents

Alberta Health Services / Covenant Health Hazardous Medication Classification

KNOWN Hazard Medication	These medications meet the criteria of the National Institute for Occupational Safety and Health (NIOSH) definition of a hazardous drug (see appendix C) and:
	• Have Manufacturer Special Handling Instructions (MSHI) in the package insert and/or:
	  ○ Are classified by the National Toxicology Program (NTP) as "known to be a human carcinogen"
	  ○ Are classified by the International Agency for Research on Cancer (IARC) as Group 1 "carcinogenic to humans" or Group 2A "probably carcinogenic to humans".
	Not all KNOWN hazard medications are cytotoxic or anti-neoplastic.
	These medications present a serious risk to the health or welfare of healthcare staff during occupational exposure.

POTENTIAL Hazard Medication	These medications meet the NIOSH criteria of a hazardous drug for carcinogenicity, cytotoxicity, genotoxicity, or organ toxicity at low doses but are not classified as carcinogenic by NTP or IARC; nor do they have an MSHI.
REPRODUCTIVE Hazard Medication	These medications meet the NIOSH criteria of a hazardous drug for developmental, reproductive, or teratogenic risks. These medications may present an occupational exposure risk <u>for only certain individuals</u>; staff of childbearing years **regardless of gender** with a potential to conceive or fertilize, women who are pregnant, or women who are breast feeding. Staff members with specific questions should discuss them with their supervisor(s) in consultation with their personal physician(s) and Workplace Health and Safety (WHS) to assess the risk of occupational exposure to these medications and the option of temporarily refraining from handling hazardous medications. Certain REPRODUCTIVE Hazard Medications may only be applicable to a subset of the Reproductive population; see Key Points on the next pages.

Hazardous Medication List – Key Points

	Indicates the medication is a **CYTOTOXIC** agent. Cytotoxic refers to a substance or process which results in cell damage or cell death.
*	Indicates **REPRODUCTIVE Hazard Medications** applicable to a subset of the reproductive population. • Some REPRODUCTIVE hazard medications have been identified to have specific parameters and may only be applicable to a subset of the reproductive population. • Refer to Appendix A for more detailed medication-specific information.
⊙	Operational challenges have been identified. Please reach out to hazardousmedication@ahs.ca for more information.
The following products are NOT listed on the Hazardous Medication List, but may require special handling precautions: • Salts, PEGylated and liposomal medication - only the *parent compound* is listed (e.g., doxorubicin) • Combination products containing a hazardous medication (e.g., spironolactone-hydrochlorothiazide) • Investigational / Clinical Trial medication as toxicological data is often incomplete or unavailable, **except** where current data indicates a hazardous risk. Follow the study protocol for safe handling precautions. • Chemicals and / or raw powders; follow the Safety Data Sheet (SDS) for safe handling precautions. • Radiopharmaceuticals: Nuclear Medicine has policies and procedures for the handling of these products	
Use this Hazardous Medication List, the Handling Hazardous Medication Risk Assessment Algorithm (located in Appendix D and on the Handling Hazardous Medication Insite Page), as well as the Hazardous Medication PPE Guide to determine the classification of the medication and the required or suggested PPE, dependent on the likelihood of exposure due to the task being performed.	
The Hazardous Medication List will be reviewed and updated quarterly. Refer to Insite for the most current version.	

Summary of changes in this version:

- **Removed two (2) medications, due to publication of the NIOSH 2024 List**
  - liraglutide removed from POTENTIAL hazard list
  - trastuzumab removed from REPRODUCTIVE hazard list
- **Added two (2) new medications to the list, indicated by bold BLUE type**
  - ivosidenib and inebilizumab; classified as REPRODUCTIVE hazard
- **Reclassified one (1) medication, due to the changes to how NIOSH evaluates hazardous medication as published in the NIOSH 2024 List**
  - semaglutide moved from KNOWN to POTENTIAL hazard list
- **Reclassified thirty-six (36) medications, due to publication of the NIOSH 2024 List, indicated by bold BLUE type only on the individual list (i.e., KNOWN, POTENTIAL, REPRODUCTIVE)**
  - **One (1) medication** moved from POTENTIAL to KNOWN hazard list: (mycophenolate mofetil)
  - **Eleven (11) medications** moved from KNOWN to POTENTIAL hazard list: (AFAtinib, aXitinib, bicalutamide, crizotinib, daBRAFenib, flutamide, megestrol, pipobroman, PONATinib, SUNItinib, trametinib)
  - **One (1) medication** moved from POTENTIAL to REPRODUCTIVE hazard list: (medroxyPROGESTERone)
  - **Twenty-three (23) medications** moved from KNOWN to REPRODUCTIVE hazard list: (abiraterone, anastrozole, bexarotene, bosutinib, cabozantinib, carfilzomib, degarelix, enzalutamide, erlotinib, exemestane, fulvestrant, goserelin, histrelin, letrozole, leuprolide, niLOtinib, PAZOPanib, regorafenib, SORAfenib, triptorelin, vemURAFenib, vismodegib, ziv-aflibercept)

COMPLETE List:

K = KNOWN, P = POTENTIAL, R = REPRODUCTIVE

A	
abacavir	P
abemaciclib	R
abiraterone	**R**
acalabrutinib	K
acitretin	R
AFAtinib	**P**
alefacept	P
alitretinoin	R
alpelisib	R
altretamine	K
ambrisentan	R
amifampridine	P
amifostine	R
amsacrine	K
anastrozole	**R**
apalutamide	P
apomorphine	P
arsenic trioxide	K
asciminib	R
avacopan	R
avapritinib	R
aXitinib	**P**
azaCITIDine	K
azaTHIOprine	K
B	
bacillus calmette-guérin (BCG) ◆	K
baricitinib	P
belantamab mafodotin	K
belinostat	K
belumosudil	R
belzutifan	R
bendamustine	K
benznidazole	R
bexarotene	**R**
bicalutamide	**P**
bleomycin	K
blinatumomab	P
bortezomib	K
bosentan	R
bosutinib	**R**
brentuximab vedotin	K
brigatinib	R
buserelin	K
busulfan	K
C	
cabazitaxel	K
cabergoline	R
cabozantinib	**R**
capecitabine	K
capivasertib	P
capmatinib	R
carBAMazepine	P
carbetocin ✱	R
CARBOplatin	K
carboprost	R
carfilzomib	**R**
carmustine	K
cenobamate	R
ceritinib	R
cetrorelix acetate	R
chlorambucil	K
chloramphenicol	K
chlormethine	K
choriogonadotropin alpha	R
cidofovir	K
CISplatin	K
cladribine	K
clevidipine	R
cloBAZam	R
clofarabine	K
clofazimine	R
clomiPHENE	R
clonazePAM	R
cobimetinib	R
colchicine	R
crizotinib	**P**
cyclophosphamide	K
cycloSPORINE	K
cyproterone	P
cytarabine	K
D	
daBRAFenib	**P**
dacarbazine	K
dacomitinib	R
DACTINomycin	K
danazol	R
darolutamide	P
daSATinib	K
DAUNOrubicin	K
decitabine	K
deferiprone	P
degarelix	**R**
dexMEDEtomidine	R
dexrazoxane	K
diethylstilbestrol	K
dihydroergotamine	R
dinoprostone	R
divalproex sodium	R
DOCEtaxel	K
DOXOrubicin	K
dronedarone	R
drospirenone-estetrol	K
dutasteride	R
E	
edaravone	R
eflornithine	R
enasidenib	P
encorafenib	K
enfortumab vedotin	K
entecavir	P
entrectinib	P
enzalutamide	**R**
epiRUBicin	K
erdafitinib	P

Bold BLUE type indicates a medication newly listed as of June 2025

✱ Reproductive Hazard Medication applicable to a subset of the reproductive population. See Appendix A

O Indicates a special circumstance. See information on page iv.

◆, ■, and ◈ See special handling precautions on page 14.

HAZARDOUS MEDICATIONS

COMPLETE List (cont.)

K = KNOWN, P = POTENTIAL, R = REPRODUCTIVE

ergonovine (ergometrine) / methylergonovine	R
eriBULin	K
erlotinib	R
eslicarbazepine	R
estradiol	P
estramustine	K
estrogen-conjugated ⭘	K
estrogen - esterified	K
estrogen/progesterone combinations	K
estropipate	P
etoposide	K
everolimus	K
evinacumab	R
exemestane	R
exenatide	P
F	
fedratinib	R
finasteride	R
fingolimod	P
floxuridine	K
fluCONazole	R
fluCYTOsine	R
fludarabine	K
fluorouracil (5FU)	K
fluoxymesterone	P
flutamide	P
fosphenytoin	P
fostamatinib	R
fruquintinib	R
fulvestrant	R
G / H	
ganaxolone	R
ganciclovir	K
ganirelix acetate	R
gefitinib	K
gemcitabine	K
gemtuzumab ozogamicin	K
gilteritinib	P
glasdegib	P
gonadotropin, chorionic	R
goserelin	R
guadecitabine	K
histrelin	R
hydroxyUREA	K
I	
icatibant	R
IDArubicin	K
ifosfamide	K
iMAtinib	K
inebilizumab	R
infigratinib	P
inotuzumab ozogamicin	K
irinotecan	K
ISOtretinoin	R
ivabradine	R
ivosidenib	R
ixabepilone	K
ixazomib	K
J / K / L	
larotrectinib	R
leflunomide	P
lenalidomide	K
lenvatinib	R
letrozole	R
leuprolide	R
levonorgestrel	P
lixisenatide	R
lomitapide	R
lomustine	K
lonafarnib	R
loncastuximab tesirine	K
lorlatinib	R
lurbinectedin	K
M	
macitentan	R
maribavir	R
mavacamten	P
mecasermin	K
medroxyPROGESTERone	R
megestrol	P
melphalan	K
melphalan flufenamide	K
menotropins	R
mercaptopurine	K
methIMAzole	P
methotrexate	K
methylTESTOSTERone	R
midostaurin	K
miFEPRIStone	R
miltefosine	R
mipomersen	P
mirvetuximab soravtansine	K
miSOPROStol	R
mitoMYcin	K
mitotane	K
mitoXANTRONE	K
momelotinib	R
mycophenolate mofetil	K
mycophenolic acid	P
N	
nab-sirolimus	P
nafarelin	R
nelarabine	K
neratinib	P
nevirapine	P
niLOtinib	R
niraparib	K
nirogacestat	R
nitrogen mustard (mechlorethamine)	K
O	
olaparib	P
omacetaxine	K
onasemnogene abeparvovec ■	K
ospemifene	P
oxaliplatin	K
oxandrolone	R
OXcarbazepine	P
oxytocin ✱	R
P	
PACLitaxel	K
pacritinib	R
palifermin	P

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◆, ■, and ◈ See special handling precautions on page 14.

COMPLETE List (cont.)

K = KNOWN, P = POTENTIAL, R = REPRODUCTIVE

palovarotene	R
pamidronate	R
panobinostat	K
PARoxetine	R
pasireotide	R
PAZOPanib	**R**
pegcetacoplan	P
peginesatide	R
pegvaliase	P
PEMEtrexed	K
pemigatinib	P
pentamidine ◈	R
pentetate calcium	R
pentostatin	K
phenoxybenzamine	P
phenyTOIN	P
pipobroman	**P**
piritrexim isethionate	K
plerixafor	R
polatuzumab vedotin	K
pomalidomide	K
PONATinib	**P**
ponesimod	P
porfimer	K
posaconazole	R
PRALAtrexate	K
pralsetinib	P
procarbazine	K
progesterone	P
progestins	P
propylthiouracil	P

Q / R	
raloxifene	P
raltitrexed	K
rasagiline	P
ravulizumab	R
regorafenib	**R**
relugolix	R
remdesivir	P
repotrectinib	P
ribavirin	R
ribociclib	R
riociguat	R
ripretinib	R
risdiplam	K
ritlecitinib	P
romiDEPsin	K
S	
sacituzumab govitecan	K
selinexor	P
selpercatinib	R
selumetinib	R
semaglutide	**P**
setmelanotide	R
siponimod	R
sirolimus	P
sodium phenylbutyrate - ursodoxicoltaurine	R
sonidegib	R
SORAfenib	**R**
sotorasib	P
spironolactone	P
streptozocin	K

SUNItinib	**P**
T	
tacrolimus	P
tagraxofusp	K
talazoparib	K
tamoxifen	K
temazepam	R
temozolomide	K
temsirolimus	K
teniposide	K
tepotinib	R
teriflunomide	P
testosterone	R
thalidomide	K
thioguanine	K
thiotepa	K
tirzepatide	K
tisotumab vedotin	K
tofacitinib	P
topiramate	R
topotecan	K
toremifene	R
trabectedin	K
trametinib	**P**
trastuzumab deruxtecan	K
trastuzumab emtansine	K
treosulfan	K
tretinoin	R
trifluridine / tipiracil (combination only)	K
triptorelin	**R**

tucatinib	R
U / V	
ulipristal	R
upadacitinib	P
uracil mustard	K
urofollitropin	R
valGANciclovir	K
valproate / valproic acid	R
valrubicin	K
vanDETanib	K
vemURAFenib	**R**
venetoclax	K
vigabatrin	R
vinBLAStine	K
vinCRIStine	K
vinorelbine	K
vismodegib	**R**
voretigene neparvovec ■	K
voriconazole	R
vorinostat	K
W / X / Y / Z	
warfarin	R
zanubrutinib	K
zidovudine	P
ziprasidone	R
ziv-aflibercept	**R**
zoledronic acid	R
zonisamide	R

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◆, ■, and ◈ See special handling precautions on page 14.

KNOWN Hazard Medications

A
acalabrutinib
altretamine
amsacrine
arsenic trioxide
azaCITIDine
azaTHIOprine
B
bacillus calmette-guérin (BCG) ◆
belantamab mafodotin
belinostat
bendamustine
bleomycin
bortezomib
brentuximab vedotin
buserelin
busulfan
C
cabazitaxel
capecitabine
CARBOplatin
carmustine
chlorambucil
chloramphenicol
chlormethine
cidofovir
CISplatin
cladribine
clofarabine
cyclophosphamide
cycloSPORINE
cytarabine
D
dacarbazine
DACTINomycin
daSATinib
DAUNOrubicin
decitabine
dexrazoxane
diethylstilbestrol
DOCEtaxel
DOXOrubicin
drospirenone-estetrol
E
encorafenib
enfortumab vedotin
epiRUBicin
eriBULin
estramustine
estrogen - conjugated ⭘
estrogen - esterified
estrogen / progesterone combinations
etoposide
everolimus
F
floxuridine
fludarabine
fluorouracil (5FU)
G / H
ganciclovir
gefitinib
gemcitabine
gemtuzumab ozogamicin
guadecitabine
hydroxyUREA
I
IDArubicin
ifosfamide
iMAtinib
inotuzumab ozogamicin
irinotecan
ixabepilone
ixazomib
J / K / L
lenalidomide
lomustine
loncastuximab tesirine
lurbinectedin
M
mecasermin
melphalan
melphalan flufenamide
mercaptopurine
methotrexate
midostaurin
mirvetuximab soravtansine
mitoMYcin
mitotane
mitoXANTRONE
mycophenolate mofetil
N
nelarabine
niraparib
nitrogen mustard (mechlorethamine)
O
omacetaxine
onasemnogene abeparvovec ■
oxaliplatin
P
PACLitaxel
panobinostat
PEMEtrexed
pentostatin
piritrexim isethionate
polatuzumab vedotin
pomalidomide
porfimer
PRALAtrexate
procarbazine
Q / R
raltitrexed
risdiplam
romiDEPsin
S
sacituzumab govitecan
streptozocin
T
tagraxofusp
talazoparib
tamoxifen

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◆, ■, and ◈ See special handling precautions on page 14.

KNOWN Hazard Medications (Cont.)

temozolomide
temsirolimus
teniposide
thalidomide
thioguanine
thiotepa
tirzepatide
tisotumab vedotin
topotecan

trabectedin
trastuzumab deruxtecan
trastuzumab emtansine
treosulfan
trifluridine / tipiracil (combination only)
U / V
uracil mustard

valGANciclovir
valrubicin
vanDETanib
venetoclax
vinBLAStine
vinCRIStine
vinorelbine
voretigene neparvovec ■

vorinostat
W / X / Y / Z
zanubrutinib

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✱ Reproductive Hazard Medication applicable to a subset of the reproductive population. See Appendix A

✪ Indicates a special circumstance. See information on page iv.

◆, ■, and ◈ See special handling precautions on page 14.

POTENTIAL HAZARD MEDICATIONS

POTENTIAL Hazard Medications:

A
abacavir
AFAtinib
alefacept
amifampridine
apalutamide
apomorphine
aXitinib
B
baricitinib
bicalutamide
blinatumomab
C
capivasertib
carBAMazepine
crizotinib
cyproterone
D
daBRAFenib
darolutamide
deferiprone
E
enasidenib

entecavir
entrectinib
erdafitinib
estradiol
estropipate
exenatide
F
fingolimod
fluoxymesterone
flutamide
fosphenytoin
G / H
gilteritinib
glasdegib
I
infigratinib
J / K / L
leflunomide
levonorgestrel
M
mavacamten
megestrol
methIMAzole

mipomersen
mycophenolic acid
N
nab-sirolimus
neratinib
nevirapine
O
olaparib
ospemifene
OXcarbazepine
P
palifermin
pegcetacoplan
pegvaliase
pemigatinib
phenoxybenzamine
phenyTOIN
pipobroman
PONATinib
ponesimod
pralsetinib
progesterone
progestins

propylthiouracil
Q / R
raloxifene
rasagiline
remdesivir
repotrectinib
ritlecitinib
S
selinexor
semaglutide
sirolimus
sotorasib
spironolactone
SUNItinib
T
tacrolimus
teriflunomide
tofacitinib
trametinib
U / V
upadacitinib
W / X / Y / Z
zidovudine

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◆, ■, and ◈ See special handling precautions on page 14.

REPRODUCTIVE Hazard Medications:

(applicable to staff members of any gender with reproductive potential)

A
abemaciclib
abiraterone
acitretin
alitretinoin
alpelisib
ambrisentan
amifostine
anastrozole
asciminib
avacopan
avapritinib
B
belumosudil
belzutifan
benznidazole
bexarotene
bosentan
bosutinib
brigatinib
C
cabergoline
cabozantinib
capmatinib
carbetocin ✱
carboprost
carfilzomib
cenobamate
ceritinib
cetrorelix acetate
choriogonadotropin alpha
clevidipine
cloBAZam
clofazimine
clomiPHENE
clonazePAM
cobimetinib
colchicine
D
dacomitinib
danazol
degarelix
dexMEDEtomidine
dihydroergotamine
dinoprostone
divalproex sodium
dronedarone
dutasteride
E
edaravone
eflornithine
enzalutamide
ergonovine (ergometrine) / methylergonovine
erlotinib
eslicarbazepine
evinacumab
exemestane
F
fedratinib
finasteride
fluCONazole
fluCYTOsine
fostamatinib
fruquintinib
fulvestrant
G / H
ganaxolone
ganirelix acetate
gonadotropin, chorionic
goserelin
histrelin
I
icatibant
inebilizumab
ISOtretinoin
ivabradine
ivosidenib
J / K / L
larotrectinib
lenvatinib
letrozole
leuprolide
lixisenatide
lomitapide
lonafarnib
lorlatinib
M
macitentan
maribavir
medroxyPROGESTERone
menotropins
methylTESTOSTERone
miFEPRIStone
miltefosine
miSOPROStol
momelotinib
N
nafarelin
niLOtinib
nirogacestat
O
oxandrolone
oxytocin ✱
P
pacritinib
palovarotene
pamidronate
PARoxetine
pasireotide
PAZOPanib
peginesatide
pentamidine ◈
pentetate calcium
plerixafor
posaconazole
Q / R
ravulizumab

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◆, ■, and ◈ See special handling precautions on page 14.

REPRODUCTIVE Hazard Medications (cont.)

regorafenib
relugolix
ribavirin
ribociclib
riociguat
ripretinib
S
selpercatinib

selumetinib
setmelanotide
siponimod
sodium phenylbutyrate - ursodoxicoltaurine
sonidegib
SORAfenib
T
temazepam

tepotinib
testosterone
topiramate
toremifene tretinoin
triptorelin
tucatinib
U / V
ulipristal
valproate / valproic acid

vemURAFenib
vigabatrin
vismodegib
voriconazole
W / X / Y / Z
warfarin
ziprasidone
ziv-aflibercept
zoledronic acid
zonisamide

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Special Handling Considerations for Specified Hazard Medications

◆ Bacillus Calmette-Guérin vaccine **(BCG)**

BCG, although classified as a vaccine, is used in the treatment of certain cancers. BCG should be prepared with aseptic techniques. To avoid cross-contamination, parenteral drugs should not be prepared in areas where BCG has been prepared. A separate area for the preparation of BCG suspension is recommended. All equipment, supplies, and receptacles in contact with BCG should be handled and disposed of as biohazardous. If preparation cannot be performed in a containment device, then respiratory protection, gloves, and a gown should be worn to avoid inhalation or contact with BCG organisms. Follow special handling guidelines.

BCG requires specialized clean up if spilled. AHS/COV staff: see the Hazardous Medication Insite page to access Lippincott Procedures: *Hazardous medication spill response* for information on handling hazardous medication spills including BCG.

Monoclonal Antibodies **(mAbs)**

While many monoclonal antibodies are classified by American Hospital Formulary Service (AHFS) as 10:00 antineoplastic medication, they are not typically classified as hazardous medication by NIOSH.

Monoclonal antibodies included on the Hazardous Medication List require handling precautions as per the PPE Guide.

◈ Pentamidine

For inhalation (administered by respiratory therapist). AHS/COV staff: follow special handling guidelines on the Respiratory Therapy Insite Page linked under Resources on the Hazardous Medication Insite page.

■ Gene therapy

These products require specialized clean up if spilled. AHS/COV staff: see the Hazardous Medication Insite page to access Lippincott Procedures: Hazardous medication spill response for information on handling hazardous medication spills including gene therapies. Others, please contact the Hazardous Medication team at hazardousmedication@albertahealthservices.ca for details.

Extended Precautionary Period for Hazard Medications

A. KNOWN Hazard Medications Requiring PPE for Longer than 48 Hours[i]

Some hazardous medications require a longer precautionary period based on the time of excretion from the body. The following hazardous medications require the appropriate PPE from the start of the time of administration of the KNOWN hazard medication up to the number of days listed. [ii]

Hazard Medication	Suggested precautionary period
brentuximab vedotin	10 days
carmustine	7 days
cyclophosphamide	5 days
DOXOrubicin	7 days
enfortumab vedotin	7 days
eriBULin mesylate	5 days
etoposide	5 days
imatinib mesylate	7 days
inotuzumab ozogamicin	28 days
ixabepilone	5 days
lurbinectedin	5 days
midostaurin	42 days
mirvetuximab soravtansine	10 days
mitoXANTRONE	7 days
niraparib	5 days
onasemnogene abeparvovec	28 days
polatuzumab vedotin	28 days
~~**semaglutide**~~	~~**14 days**~~
talazoparib	7 days
tisotumab vedotin	7 days
trabectedin	14 days
trastuzumab deruxtecan	28 days
voretigene neparvovec	14 days
vinCRIStine	7 days
vinorelbine	5 days

B. POTENTIAL and REPRODUCTIVE Hazard medications.

POTENTIAL and REPRODUCTIVE RISK hazard medications on the AHS Hazardous Medication List do not require a precautionary period.

This document is subject to change.

Appendix A: Reproductive Population Subset

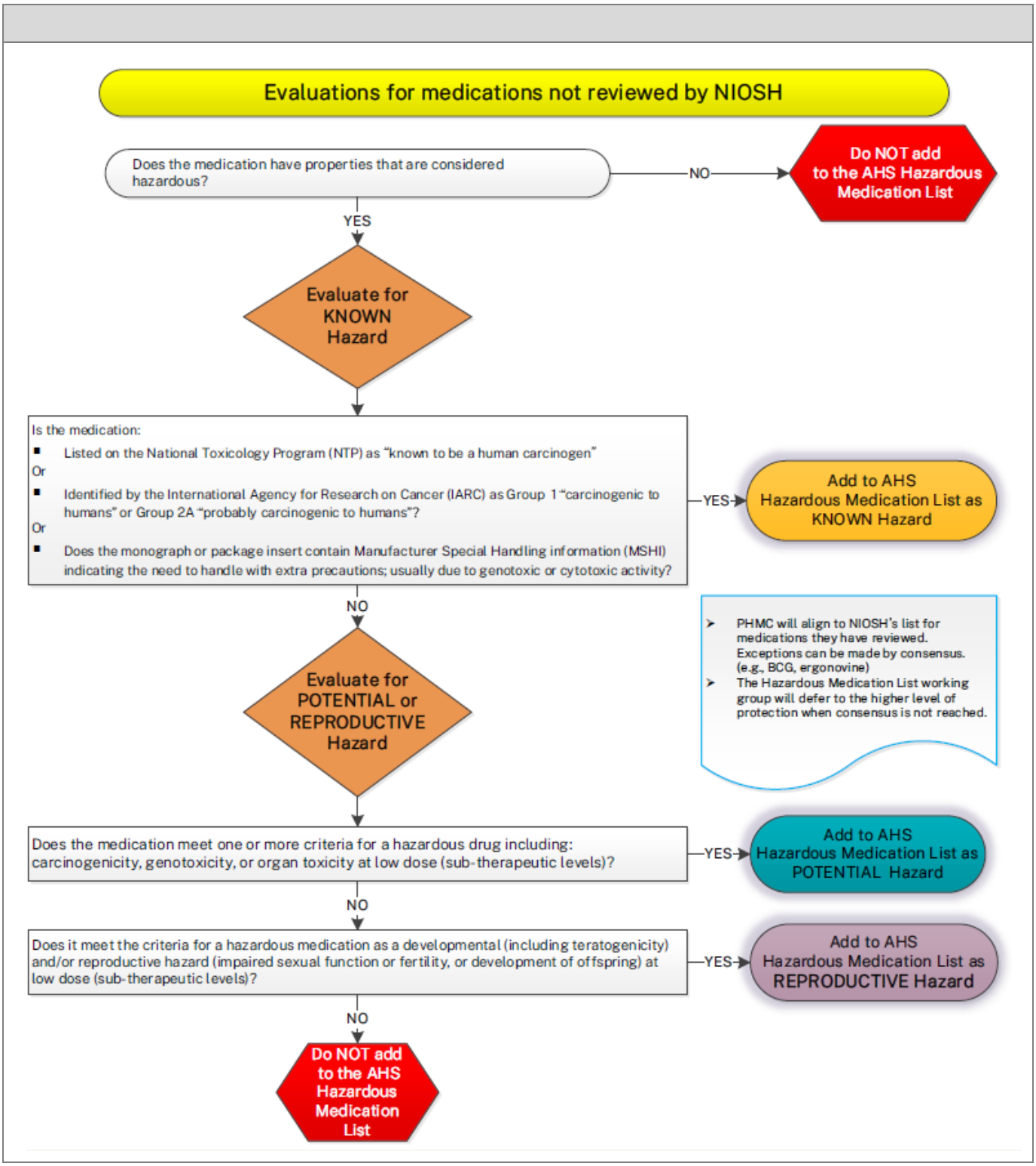
(**REPRODUCTIVE** Hazard medications with special handling parameters are indicated with an asterisk in the hazardous medication list.)

Hazardous Medication	Background	Mechanism of Action	PPE Recommendations
oxytocin	Oxytocin has been identified as a hazard medication by NIOSH. It is considered a Table 2, primarily having adverse reproductive effects. PPE requirements are only applicable to a subset of the reproductive population.	**Oxytocin stimulates uterine contraction** by activating G-protein-coupled receptors that trigger increases in intracellular calcium levels in uterine myofibrils. Oxytocin also increases local prostaglandin production, further stimulating uterine contraction. Oxytocin has specific receptors in the muscle lining of the uterus and the receptor concentration increases greatly during pregnancy, reaching a maximum in early labor at term.	Oxytocin is considered a REPRODUCTIVE Risk Medication. Per the references, the reproductive risk is identified to be in pregnant women in the 2 or 3rd trimester. It is recommended that the Hazardous Medication PPE described in the Guide be worn by this select group. Other individuals in the reproductive population (as described in the guide) may also choose to wear the PPE when handling oxytocin if they prefer
carbetocin	Carbetocin has not been identified as a hazard medication by NIOSH as it is not available in the USA, however PHMC has determined it should be handled in a similar manner as oxytocin. PPE requirements are only applicable to a subset of the reproductive population.	**Carbetocin is a synthetic analogue of oxytocin.** Carbetocin binds oxytocin receptors located in uterine smooth muscle producing rhythmic uterine contractions characteristic to deliver, as well as increasing both the frequency of existing contractions and uterine tone. Enhances uterine involution early in postpartum.	Carbetocin is considered a REPRODUCTIVE Risk Medication. Per the references, the reproductive risk is identified to be in pregnant women in the 2 or 3rd trimester. It is recommended that the Hazardous Medication PPE described in the Guide be worn by this select group. Other individuals in the reproductive population (as described in the guide) may also choose to wear the PPE when handling carbetocin if they prefer.

If you require more detailed information, please contact hazardousmedication@ahs.ca.

This document is subject to change

Appendix B: AHS Classification of Hazardous Medications



Appendix C: NIOSH Classification of Hazardous Medications

NIOSH List of Hazardous Drugs in Healthcare Settings, 2024

National Institute for Occupational Safety and Health (NIOSH) has formalized the methodology used to guide the addition of drugs to, the removal of drugs from, or the tabular placement of drugs within the List in a document entitled Procedures for Developing the NIOSH List of Hazardous Drugs in Healthcare Settings (Procedures).

As stated in the Procedures, NIOSH defines a hazardous drug as a drug that is:

1) Approved for use in humans by U.S. Food and Drug Administration Center for Drug Evaluation and Research (FDA CDER),
2) Not otherwise regulated by the U.S. Nuclear Regulatory Commission, and
3) Either
    a. Is accompanied by prescribing information in the "package insert" that includes manufacturer's special handling information (MSHI) to protect workers handling the drug, or
    b. Is identified as a carcinogenic hazard, developmental hazard, reproductive hazard, genotoxic hazard, or other health hazard by exhibiting one or more of the following toxicity criteria in humans, animal models, or in vitro systems:
        i. Carcinogenicity,
        ii. Developmental toxicity (including teratogenicity),
        iii. Reproductive toxicity,
        iv. Genotoxicity,
        v. Organ toxicity at low doses, or a
        vi. Structure and toxicity profile that mimics existing drugs determined hazardous by exhibiting any one of the previous five toxicity types.

However, if a drug also exhibits a molecular property that may limit the potential for adverse health effects from exposure to the drug in healthcare workers, it may be determined it is not a hazard.

Table 1:

Drugs that have Manufacturer Special Handling Instructions (MSHI) in the package insert and/or meet the NIOSH definition of a hazardous drug and one or more of the following criteria: are classified by the National Toxicology Program (NTP) as "known to be a human carcinogen", or are classified by the International Agency for Research on Cancer (IARC) as Group 1, "carcinogenic to humans" or Group 2A, "probably carcinogenic to humans."

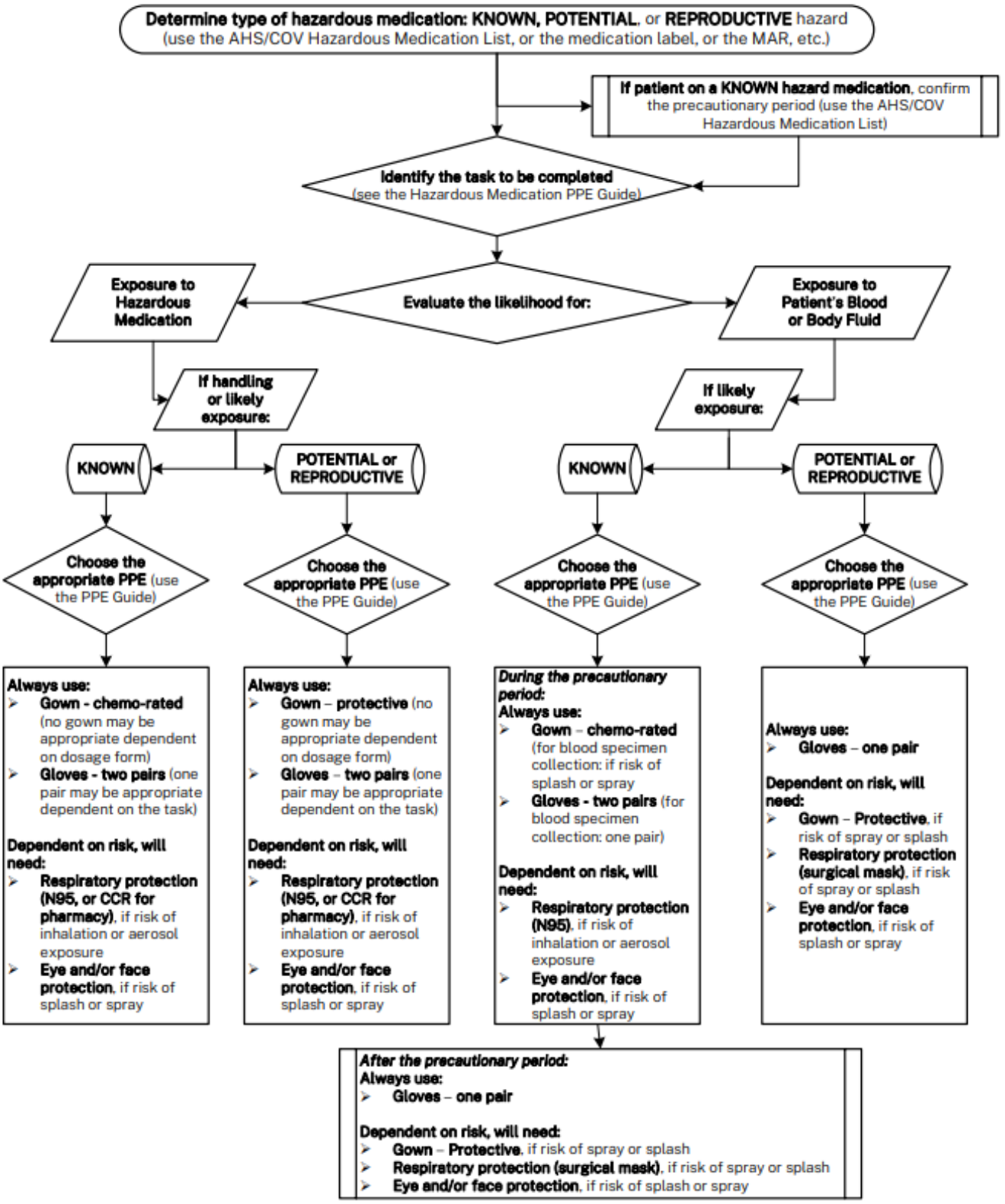
Many of these drugs are cytotoxic, and many are hazardous to those workers who are actively trying to conceive, who are pregnant or may become pregnant, and who are breastfeeding because the drugs may be excreted in breast milk.

Not all drugs in Table 1 are antineoplastic drugs.

Drugs reviewed for this update were new drug approvals or received new safety-related warnings from the Food and Drug Administration (FDA) in the period from January 2014 through December 2015.
Table 2: Drugs that meet the NIOSH definition of a hazardous drug and do not have MSHI, are not classified by NTP as “known to be a human carcinogen,” and are not classified by IARC as Group 1, “carcinogenic to humans,” or Group 2A, “probably carcinogenic to humans.” (Some may also have adverse developmental and/or reproductive effects.) Some of these drugs may also present an occupational hazard to those workers who are actively trying to conceive, who are pregnant or may become pregnant, and who are breastfeeding because the drugs may be excreted in breast milk.

Appendix D: Handling Hazardous Medications-Risk Assessment Algorithm

(See Hazardous Medication Spill Response in Lippincott Procedures for the PPE to wear when cleaning up a hazardous medication spill)



Developed by: AHS – Provincial Hazardous Medication Committee (PHMC); Hazardous Medication Evaluation Panel; PHMC Hazardous Medication List Working Group; Pharmacy Services Medication Quality and Safety Team (MQST); Health Professions, Strategy and Practice (HPSP); Pharmacy Services Technical Practice Leads, Human Factors, Workplace Health and Safety (WHS), and COV Medication Management & Safety Team.

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Please direct questions related to safe handling of hazardous medications to the WHS Services Team in your Zone or send your questions to hazardousmedication@albertahealthservices.ca

[i] Product information and monographs at Drug Product Database, Lexicomp, DrugBank, and U.S. National Library of Medicine (DailyMed)

[ii] Government of South Australia, Cytotoxic Drugs and Related Waste [Internet]Department for Health and Ageing, Government of South Australia; June 2015 [cited 2021 October 22]. Available from https://www.sahealth.sa.gov.au/wps/wcm/connect/f8aa68004b3f6cf6a340afe79043faf0/Safe+Handling+Cytotoxic+Guidelines.pdf?MOD=AJPERES&%3bCACHEID=ROOTWORKSPACE-f8aa68004b3f6cf6a340afe79043faf0-nwLgTKw