

Essential Medicine List for Cancers

WHO Essential medicines for cancer 2015 and their common toxicities

S/N	MEDICINE	DRUG CLASS	KNOWN TOXICITY	PREGNANCY & LACTATION CATEGORY
1.	Asparaginase	Antineoplastic; Enzyme	Allergy, CNS toxicity	C:
2.	Bleomycin	Antineoplastic; antibiotic	Pulmonary fibrosis	D:
3.	Leucovorin	Reduced folic acid; supportive	Enhances side effects of 5-Fu	A:
4.	Carboplatin	Antineoplastic; alkylating, agent	Nephrotoxicity, CNS toxicity	D:
5.	Chlorambucil	Antineoplastic; alkylating agent	Myelosuppression, neurotoxicity, infertility, hepatotoxicity	D: Potentially mutagenic, carcinogenic and teratogenic. Avoid in pregnancy
6.	Cyclophosphamide	Antineoplastic; alkylating agent	Myelosuppression, haemorrhagic cystitis	X: foetal malformation, miscarriage, foetal growth retardation
7.	Cytarabine	Antineoplastic; antimetabolite	Myelosuppression, oral ulceration	D: avoid in pregnancy
8.	Dacarbazine	Antineoplastic; alkylating agent	Myelosuppression, hepatic necrosis	D: avoid in pregnancy
9.	Dactinomycin	Antineoplastic; antibiotic	Alopecia, myelosuppression, risk of secondary malignancy	D: risk of foetal harm
10	Daunorubicin	Antineoplastic; anthracycline	Myocardial toxicity, myelosuppression	D:
11	Docetaxel	Antineoplastic; antimicrotubular	Hepatotoxicity	D:
12	Doxorubicin	Antineoplastic; anthracycline	Myocardial toxicity, myelosuppression	D:
13	Etoposide	Antineoplastic; podophyllotoxin	Severe myelosuppression	D: oligospermia, azoospermia, permanent infertility
14	Fluorouracil	Antineoplastic; antimetabolite	Mucositis, myelosuppression, alopecia	D: avoid in pregnancy
15	Hydroxycarbamide	Antineoplastic; antimetabolite	Myelosuppression, hyperpigmentation, genetic mutation and secondary malignancy on long term use	NA: mutagenic

			genetic mutation and secondary malignancy on long term use	
16	Ifosfamide	Antineoplastic; alkylating agent	Alopecia, haematuria, neurotoxicity, CNS toxicity, nephrotoxicity	D; excreted in breast milk, avoid during pregnancy
17	Mercaptopurine	Antineoplastic; antimetabolite	Myelosuppression, hepatotoxicity, nephrotoxicity	D: avoid in pregnancy. Potential for infertility
18	Mesna	Uro-protectant; protects against cyclophosphamide and ifosfamide	Hypersensitivity	NA:

19	Methotrexate	Antineoplastic; antimetabolite	Ulcerative stomatitis, demyelinating encephalitis, myelosuppression	X: teratogenic
20	Paclitaxel	Antineoplastic; antimicrotubular	Myelosuppression, alopecia, Hypersensitivity	D:
21	Procarbazine	Antineoplastic; alkylating agent	Neuropathy/toxicity, myelosuppression	D: excreted in breast milk, impairment of fertility
22	Tamoxifen	Hormone; anti-oestrogen	Risk of uterine cancer, stroke, pulmonary embolism	D: Carcinogenic
23	Tioguanine	Antineoplastic; antimetabolite	Myelosuppression, hepatotoxicity, mucositis	D: teratogenic
24	Vinblastine	Antineoplastic; vinca alkaloids	Tissue necrosis, peripheral neuropathy	D:

25	Vincristine	Antineoplastic; vinca alkaloids	Tissue necrosis, peripheral neuropathy	D:
26	All-trans retinoic acid	Antineoplastic; retinoid	Shortness of breath, neuropathy, depression	D:
27	Aromatase inhibitors	Hormone; anti-oestrogen	Osteoporosis, cardiomyopathy, carcinogenic	D: carcinogenic
28	Bendamustine	Antineoplastic; alkylating agent	Myelosuppression	D: foetal harm, impaired male fertility
29	Bicalutamide	Antineoplastic; antiandrogenic agent	Hepatotoxicity, impaired spermatogenesis	foetal harm, impaired male fertility
30	Capecitabine	Antineoplastic; antimetabolite	Myelosuppression, potentiates warfarin anticoagulant effect, cardiomyopathy	D: foetal harm

31	Cisplatin	Antineoplastic; alkylating agent; platinum analogue	Severe nephrotoxicity, myelosuppression	X: foetal harm
32	Fludarabine	Antineoplastic; antimetabolite	Myelosuppression, neurotoxicity	D:
33	Gemcitabine	Antineoplastic; antimetabolite	Pulmonary toxicity	D: potential for genotoxicity
34	Granulocyte colony-stimulating factors	Growth factor	Hypersensitivity	B
35	Imatinib	Antineoplastic; Targeted therapy; tyrosine kinase inhibitor	Myelosuppression, Hypopigmentation, fluid retention, hepatotoxicity	C: avoid in early pregnancy, excreted in breast milk
36	Irinotecan	Antineoplastic; topoisomerase inhibitor	Severe myelosuppression, alopecia, hepatotoxicity	D: impaired female and male fertility
37	Leuprolin class	Antineoplastic; GnRH agonist	Neuropathy, vasodilation	D:
38	Oxaliplatin	Antineoplastic; alkylating agent; platinum analogue	Severe nephrotoxicity, myelosuppression	X: foetal harm
39	Rituximab	Antineoplastic; Biologic; targeted therapy, Monoclonal antibody	Angioedema, neuropathy, myelosuppression (hypoplasia), fatal infusion reaction (Sc now available)	D: foetal B cell lymphocytopenia
40	Trastuzumab	Antineoplastic; anti HER2; targeted therapy,	Neuropathy, cardiomyopathy, pulmonary toxicity	X: Embryo foetal toxicity
41	Vinorelbine	Antineoplastic; vinca alkaloid	Myelosuppression, neuropathy, hepatotoxicity and pulmonary toxicity	D: may cause foetal harm
42	Arsenic trioxide	Antineoplastic; other	Myelosuppression, hepatotoxicity, encephalopathy	C: potential for foetal harm and testicular toxicity
43	Dasatinib	Antineoplastic; Targeted therapy; tyrosine kinase inhibitor	Myelosuppression, Hypopigmentation, fluid retention, hepatotoxicity	C: avoid in early pregnancy, excreted in breast milk
44	Diethylstilboestrol	Hormone agonist; non-steroidal	Cardiomyopathy, VTE	X:

45	Erlotinib	Antineoplastic; targeted therapy, TKI	Hepatotoxicity, pulmonary toxicity	D: foetal harm
46	Gefitinib	Antineoplastic; targeted therapy, EGFR inhibitor	Interstitial lung disease	D: foetal harm
47	Nilotinib	Antineoplastic; Targeted therapy; tyrosine kinase inhibitor	Myelosuppression, Hypopigmentation, fluid retention, hepatotoxicity	C: avoid in early pregnancy, excreted in breast milk
48	Prednisolone	Glucocorticoid;	Hyperglycaemia, gastric ulcers, adrenal insufficiency (withdrawal effect)	A, C or D: birth defect (cleft palate)
49	Dexamethasone	Corticosteroid; anti-inflammatory	Anaphylactoid reaction, angioedema	Crosses the placenta and may cause orofacial cleft
50	Immunomodulators e.g. bortezomib	Antineoplastic; proteasome inhibitor	Peripheral neuropathy, cardiac tamponade, encephalopathy	C: risk of foetal harm
51	Thalidomide	Antineoplastic; immunomodulator	Peripheral neuropathy, VTE	X: absolutely contraindicated teratogenic
52	Lenalidomide	Antineoplastic; immunomodulator	Peripheral neuropathy, VTE	X: teratogenic