## ADVERSE EVENTS ASSOCIATED WITH COMMON INTERVENTIONS (Part 2 of 5)

A general note: This table is intended to be non-exhaustive (it does not cover, e.g., every medication used by healthcare providers or every adverse event that any given medication might cause). According to U.S. government statistics in November 2021, there were over 20,000 prescription drug products approved by the Food and Drug Administration (FDA) for marketing, and the FDA was overseeing more than 6,700 different medical device product categories (source: <a href="https://www.fda.gov/about-fda/fda-basics/fact-sheet-fda-glance">https://www.fda.gov/about-fda/fda-basics/fact-sheet-fda-glance</a>). This table does not provide medical advice and is not a substitute for advice from a medical professional. Please also independently verify that information in this table remains up-to-date. The table was last updated on February 28, 2023.

<u>Categories:</u> Cardiovascular, Endocrine/Metabolic, Gastrointestinal, Genetic, **Hematological/Oncological, Immunological**, Microbiological, Musculoskeletal, Neurological, Ophthalmological, Psychiatric, Renal/Urological, Reproductive, Respiratory, Surgical, Toxicological

	Clinical Use	Adverse Events	Notes on Mechanism	Historical and Clinical Notes
Hematological/ Oncological				
5-Fluorouracil	Colon cancer, rectal cancer, anal cancer, GI cancers, head and neck cancer, squamous cell cancer, neuroendocrine tumors, thymic cancer, cervical cancer, bladder cancer, hepatobiliary cancer, basal cell cancer of the skin, actinic keratoses ( <a href="https://chemocare.com/chemotherapy/drug-info/fluorouracil.aspx">https://chemocare.com/chemotherapy/drug-info/fluorouracil.aspx</a> ).	Burning, crusting, redness, discoloration, irritation, pain, itching, rash, soreness at application site, severe stomach pain, bloody diarrhea, vomiting, fever, chills, severe red skin rash ( <a href="https://medlineplus.gov/druginfo/meds/a605010.html#side-effects">https://medlineplus.gov/druginfo/meds/a605010.html#side-effects</a> ).	Antineoplastic or cytotoxic chemotherapy drug; Antimetabolite, cell-cycle specific, interferes with RNA and DNA synthesis by mimicking building blocks needed for synthesis (https://chemocare.com/chemotherapy/drug-info/fluorouracil.aspx).	Given as an injection, infusion, or topical ointment (https://chemocare.com/chemotherapy/drug-info/fluorouracil.aspx).
6-mercaptopurine (Purinethol)	Acute lymphoblastic leukemia (https://chemocare.com/chemotherapy/drug-info/6-mp.aspx).	Deadly hepatosplenic T-cell lymphoma has occurred with Purinethol, usually in teenagers or young adults using the drug for bowel problems ( <a href="https://www.drugs.com/cdi/purinethol.html#uses">https://www.drugs.com/cdi/purinethol.html#uses</a> ).	Purine antagonist (https:// chemocare.com/chemotherapy/ drug-info/6-mp.aspx).	Use of some vaccines with Purinethol may raise the chance of an infection or make the vaccine not work as well (https://www.drugs.com/cdi/purinethol.html#uses).
Abiraterone (Yonsa, Zytiga)	Prostate cancer (https://www.drugs.com/abiraterone.html).	Allergic reaction, swelling, pain in legs, fast or irregular heartbeats, lightheadedness, severe headache, blurred vision, pounding in neck or ears, pain or burning with urination, low red blood cells, low blood potassium, liver problems, low blood sugar, feelings of weakness or tiredness, feeling very hot, high blood sugar, increased blood pressure, abnormal liver function tests or other blood tests, joint pain or swelling, headache, nausea, vomiting, diarrhea, cold symptoms ( <a href="https://www.drugs.com/abiraterone.html#side-effects">https://www.drugs.com/abiraterone.html#side-effects</a> ).	Antineoplastic; Reduces androgen production in the body (https://www.drugs.com/abiraterone.html).	Women of childbearing potential should not use or handle this drug without gloves (https://www.mayoclinic.org/drugs-supplements/abiraterone-oral-route/description/DRG-20074889).
Afatinib (Gilotrif)	Metastatic non-small cell lung cancer that has certain EGFR mutations (exon 19 deletion, exon 21 substitution) (https://chemocare.com/chemotherapy/drug-info/afatinib.aspx).	Cracking or swelling of lips, sores in corners of mouth, dry skin or itching, loss of appetite, nail infection, acne, nose bleeds, diarrhea, dry mouth, dark urine, decreased sweating, dry skin, dehydration, decreased urination, swelling, rash, pain or redness or peeling or blistering of skin, difficulty breathing, SOB, rapid or irregular or pounding heartbeat, sudden weight gain, cough, fever, excessive tiredness, pain in upper right part of stomach, unusual bruising or bleeding, nausea, vomiting, yellowing of the skin or eyes, dark urine, red or swollen or painful or teary eyes, sudden changes in vision, sensitivity to light ( <a href="https://medlineplus.gov/druginfo/meds/a613044.html#side-effects">https://medlineplus.gov/druginfo/meds/a613044.html#side-effects</a> ).	Tyrosine kinase inhibitor, epidermal growth factor receptor inhibitor (https://chemocare.com/chemotherapy/drug-info/afatinib.aspx).	Considered a "targeted therapy" as opposed to a chemotherapy drug (https://chemocare.com/chemotherapy/drug-info/afatinib.aspx).

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Alectinib (Alecensa)	Non-small cell lung cancer in people who have an error in their anapestic lymphoma kinase (ALK) gene (about 5% of patients with NSCLC) (https://www.drugs.com/alectinib.html).	Constipation, diarrhea, swelling, headache, weight gain, rash, new or worsening SOB or difficulty breathing or cough, fever, sudden chest pain, dizziness or lightheadedness or fainting, vision changes, sudden muscle pain or tenderness or weakness, back pain, tiredness, rash, itchy skin, loss of appetite, nausea, vomiting, yellowing of skin or whites of eyes, pain on right side of stomach, change in amount or color of urine, new or worsening swelling, bleeding or bruising more easily than normal (https://medlineplus.gov/druginfo/meds/a616007.html#side-effects).	Multikinase inhibitor; Blocks ALK receptor; ALK tyrosine kinase inhibitor (https://www.drugs.com/alectinib.html).	Approved by the FDA in 2015 (https://www.drugs.com/alectinib.html).
Alemtuzumab (Campath, Lemtrada)	B-cell chronic lymphocytic leukemia (CLL) (Campath); MS (Lemtrada) (https://www.cancer.gov/about-cancer/treatment/drugs/alemtuzumab).	Severe infusion reactions may happen up to 48 hours after taking Lemtrada; Severe and sometimes fatal autoimmune problems, infections; Rarely, strokes and tears in blood vessels in the head and neck, usually within 1 day of taking Lemtrada ( <a href="https://www.drugs.com/cdi/alemtuzumab-lemtrada.html">https://www.drugs.com/cdi/alemtuzumab-lemtrada.html</a> ).	CD52 monoclonal antibody (https://www.drugs.com/mtm/alemtuzumab.html).	Campath only available through U.S. Campath Distribution Program (https://www.cancer.gov/about-cancer/treatment/drugs/alemtuzumab).
Amifostine (Ethyol)	Protects kidneys from harmful effects of cisplatin when given to patients with ovarian cancer; Prevention of severe dry mouth caused by radiation treatment of the head and neck (https://www.drugs.com/mtm/amifostine.html).	Nausea, vomiting, flushing, feeling of warmth, chills, feeling of coldness, general feeling of tiredness, fever, drowsiness, sneezing, hiccups, SOB, dizziness, blurred vision, fainting, seizures, chest tightness, chest pain, rash, hives, itching, difficulty breathing or swallowing, peeling, blistering, fast or slow or pounding heartbeat ( <a href="https://medlineplus.gov/druginfo/meds/a696014.html#side-effects">https://medlineplus.gov/druginfo/meds/a696014.html#side-effects</a> ).	Antineoplastic detoxifying agent; Cytoprotectant (https:// www.drugs.com/mtm/ amifostine.html, https:// medlineplus.gov/druginfo/meds/ a696014.html).	This drug is injected intravenously in a medical facility prior to chemotherapy treatment (https://medlineplus.gov/druginfo/meds/a696014.html).
Anastrozole (Arimidex)	Breast cancer in postmenopausal women, often given when cancer has progressed despite tamoxifen (https://www.drugs.com/mtm/anastrozole.html).	Allergic reaction, severe skin reaction, new and worsening chest pain, SOB (even with mild exertion), swelling, rapid weight gain, numbness, prickly feeling, pain, weakness, symptoms of bone fracture, liver problems, signs of a stroke, tingling, tickling feeling in skin, hot flashes, joint pain or stiffness, bone pain, risk of fracture, sore throat, cough, headache, back pain, depression, insomnia, high blood pressure, nausea, vomiting, rash (https://www.drugs.com/mtm/anastrozole.html#side-effects).	Aromatase inhibitor, antineoplastic; Reduces estrogen in postmenopausal women, which may slow growth of breast tumors (https://www.drugs.com/mtm/anastrozole.html).	Women who are pregnant or may become pregnant should not handle this medication or breath dust from the tablets (https://www.webmd.com/drugs/2/drug-1555/anastrozole-oral/details).
Atezolizumab (Tecentriq)	Alveolar soft part sarcoma, hepatocellular carcinoma, melanoma, non-small cell lung cancer, small cell lung cancer (https://www.cancer.gov/about-cancer/treatment/drugs/atezolizumab).	Severe or fatal immune-mediated adverse events (https://www.ncbi.nlm.nih.gov/books/NBK567758/).	Humanized IgG1 monoclonal PD-L1 blocking antibody; Immune checkpoint inhibitor (https://www.fda.gov/drugs/resources-information-approved-drugs/atezolizumab-tecentriq, https://www.ncbi.nlm.nih.gov/books/NBK567758/, https://www.drugs.com/atezolizumab.html).	Approved by the FDA in 2016 (https://www.drugs.com/atezolizumab.html).

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Avelumab (Bavencio)	Merkel cell carcinoma, renal cell carcinoma, urothelial cancer (https://www.cancer.gov/about-cancer/treatment/drugs/avelumab).	Allergic reaction; During injection, lightheadedness, itching, feverishness, chills, stomach or back pain, trouble breathing, flushing; Sudden chest pain or discomfort, severe stomach pain, diarrhea, bloody or tarry stools, blistering or peeling skin rash, pounding heartbeats, fluttering in chest, flulike symptoms, pain or burning with urination, joint pain, weakness, vision changes, liver problems, heart problems, kidney problems, signs of a hormonal disorder, hoarse voice, cough, SOB, trouble speaking; Pain, blisters, bleeding, severe rash on palms of hands or soles of feet; Sores or white patches in or around the mouth, trouble swallowing, dry mouth, bad breath, altered sense of taste, severe headache, blurred vision, pounding in neck or ears, nausea, diarrhea, loss of appetite, feeling tired, chills, fever, muscle pain, back pain, bone pain, rash, swelling, redness or swelling at injection site, symptoms of underactive thyroid ( <a href="https://www.drugs.com/mtm/avelumab.html#side-effects">https://www.drugs.com/mtm/avelumab.html#side-effects</a> ).	Uses the body's immune system to fight tumor cells; Anti-PD-1 monoclonal antibody (https://www.drugs.com/mtm/avelumab.html).	Monoclonal antibodies are considered a relatively new type of "targeted" therapy for cancer (https://chemocare.com/chemotherapy/drug-info/avelumab.aspx).
Bevacizumab (Avastin)	Cervical cancer, colorectal cancer, glioblastoma, hepatocellular carcinoma, nonsquamous nonsmall cell lung cancer, renal cell carcinoma; Ovarian epithelial, fallopian tube, primary peritoneal cancer ( <a href="https://www.cancer.gov/about-cancer/treatment/drugs/bevacizumab">https://www.cancer.gov/about-cancer/treatment/drugs/bevacizumab</a> ).	Allergic reaction; During the injection, dizziness, lightheadedness, SOB, chills, sweatiness, headache, chest pain, wheezing, swelling in face; Easy bruising, unusual bleeding, bleeding that will not stop, signs of bleeding in digestive tract, signs of bleeding in brain; Rare but serious neurologic disorder affecting the brain—extreme weakness or tiredness, headache, confusion, vision problems, fainting, seizure; Fistula—chest pain, trouble breathing, stomach pain or swelling, urine leakage, choking or gagging with eating or drinking; Pain or swelling or warmth or redness in one or both legs, chest pain or pressure or pain spreading to jaw or shoulder, missed menstrual periods, kidney problems, heart problems, low white blood cell counts, signs of skin infection, increased blood pressure; Nosebleed, rectal bleeding, back pain, dry or watery eyes, dry or flaky skin, runny nose, sneezing, changes in sense of taste (https://www.drugs.com/mtm/bevacizumab.html#side-effects).	Humanized monoclonal antibody against VEGF-A; Antiangiogenesis (https://www.ncbi.nlm.nih.gov/books/NBK482126/, https://chemocare.com/chemotherapy/drug-info/bevacizumab.aspx).	Monoclonal antibodies are considered a relatively new type of "targeted" therapy for cancer (https://chemocare.com/chemotherapy/drug-info/bevacizumab.aspx).
Bicalutamide (Casodex)	Prostate cancer (https://www.drugs.com/bicalutamide.html).	Allergic reaction, breast pain or swelling, sudden chest pain, wheezing, dry cough, feeling short of breath, low red blood cells, liver problems, high blood sugar, unusual bruising or bleeding (if patient takes warfarin), blood in urine, fever, chills, flu-like symptoms, trouble breathing, hot flashes, pain in back or pelvis or stomach, swelling, increase in nigh-time urination, weakness, dizziness, nausea, diarrhea, constipation (https://www.drugs.com/bicalutamide.html#side-effects).	Antiandrogen, antineoplastic (https://www.drugs.com/bicalutamide.html).	Not used in women and children (https://www.webmd.com/drugs/2/drug-1554/bicalutamide-oral/details).

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	Clinical Use	Adverse Events	Notes on Mechanism	Historical and Clinical Notes
Bleomycin	Cancer of the head and neck, penis, testicles, cervix, vulva; Hodgkin's lymphoma, non-Hodgkin's lymphoma, pleural effusions (https://medlineplus.gov/druginfo/meds/a682125.html).	Severe or life-threatening lung problems, severe allergic reaction ( <a href="https://medlineplus.gov/druginfo/meds/a682125.html">https://medlineplus.gov/druginfo/meds/a682125.html</a> ).	Antibiotic only used in cancer chemotherapy (https://medlineplus.gov/druginfo/meds/a682125.html).	Recommended to be injected under supervision of a qualified physician experienced in use of cancer chemotherapeutic agents (https://www.drugs.com/pro/bleomycin.html).
Bortezomib (Velcade)	Mantle cell lymphoma (in patients who have received at least one other type of treatment), multiple myeloma (https://www.cancer.gov/about-cancer/treatment/drugs/bortezomib).	General weakness, tiredness, nausea, vomiting, diarrhea, constipation, loss of appetite, stomach pain, headache, pain or redness or bruising or bleeding or hardness at injection site, difficulty falling asleep or staying asleep; Weakness in the arms or legs, changes in sense of touch, or pain or burning or numbness or tingling in the hands, arms, legs, or feet; Sudden shooting or stabbing pain, constant aching or burning pain, muscle weakness; SOB, fast heartbeat, headache, dizziness, pale skin, confusion, tiredness; Swelling, hives, rash, itching; Hoarseness, difficulty swallowing or breathing, swelling of the face, throat, tongue, lips, eyes, hands; Signs of infection, unusual bruising or bleeding; Black and tarry stools, red blood in stools, bloody vomit, vomiting material that looks like coffee grounds; Slurred speech or inability to speak or understand speech, confusion, paralysis, vision changes, loss of vision or balance or coordination or memory or consciousness; Fainting, dizziness, muscle cramps, chest pressure or pain, fast heartbeat, cough, wheezing, confusion, seizures, tiredness, pinpoint-sized purple dots under the skin, bruising, sleepiness, decreased urination, blood in urine, extreme tiredness, unusual bleeding or bruising, loss of appetite, pain in the upper right part of the stomach, yellowing of the skin or eyes, flu-like symptoms (https://medlineplus.gov/druginfo/meds/a607007.html#side-effects).	Proteasome inhibitor (https://www.drugs.com/pro/bortezomib.html).	For treatment of adult patients (https://www.drugs.com/pro/bortezomib.html).
Busulfan	Chronic myelogenous leukemia (https://medlineplus.gov/druginfo/meds/a682248.html).	Can cause a severe decrease in number of blood cells in bone marrow, may increase risk of developing other cancers (https://medlineplus.gov/druginfo/meds/a682248.html).	Alkylating agent (https://medlineplus.gov/druginfo/meds/a682248.html).	Also used in combination with other drugs to destroy bone marrow and cancer cells in preparation for a bone marrow transplant (https://medlineplus.gov/druginfo/meds/a682248.html).

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	Clinical Use	Adverse Events	Notes on Mechanism	Historical and Clinical Notes
Carboplatin (Paraplatin)	Ovarian, lung, head and neck, endometrial, esophageal, bladder, breast, cervical cancer; CNS or germ cell tumors, osteogenic sarcoma, preparation for stem cell or bone marrow transplant ( <a href="https://chemocare.com/chemotherapy/drug-info/carboplatin.aspx">https://chemocare.com/chemotherapy/drug-info/carboplatin.aspx</a> ).	Low blood counts, nausea and vomiting, taste changes, hair loss, weakness, abnormal magnesium level, burning sensation at the injection site, abdominal pain, diarrhea, constipation, mouth sores, infection, peripheral neuropathy, central neurotoxicity, nephrotoxicity, hearing loss, abnormal blood electrolyte levels, abnormal blood liver enzymes, cardiovascular events, allergic reaction during transfusion (https://chemocare.com/chemotherapy/drug-info/carboplatin.aspx).	Alkylating agent; Binds to DNA (https://chemocare.com/chemotherapy/drug-info/carboplatin.aspx, https://www.drugs.com/carboplatin.html).	Developed in 1980s to overcome toxic side effects of cisplatin (https://www.drugs.com/carboplatin.html).
Carfilzomib (Kyprolis)	Multiple myeloma (https://www.cancer.gov/about-cancer/treatment/drugs/carfilzomib).	Low blood counts, fatigue, nausea, SOB, diarrhea, fever, upper respiratory infection, headache, cough, swelling, increased kidney function tests (creatinine), vomiting, constipation, back pain, difficulty sleeping, muscle aches, chills, muscle spasms, numbness and tingling in hands and feet, weakness, low potassium, low magnesium, high blood pressure, arm and leg pain, dizziness, increased liver enzymes (AST), pneumonia, poor appetite, high blood sugar, high calcium, low phosphorus, chest wall pain, low sodium (https://chemocare.com/chemotherapy/drug-info/carfilzomib.aspx).	Proteasome inhibitor (https://www.drugs.com/kyprolis.html).	Used to treat relapsed or refractory MM (https://www.mayoclinic.org/drugs-supplements/carfilzomib-intravenous-route/description/drg-20075729).
Carmustine (BiCNU)	Brain tumors, Hodgkin's disease, multiple myeloma, non-Hodgkin's lymphoma (https://www.drugs.com/mtm/carmustine-injection-implant.html).	Severe decrease in white blood cells, increased risk of serious infection or bleeding, potentially fatal lung damage ( <a href="https://medlineplus.gov/druginfo/meds/a682060.html">https://medlineplus.gov/druginfo/meds/a682060.html</a> ).	Alkylating agent (https://www.drugs.com/mtm/carmustine-injection-implant.html).	Given along with prednisone for MM (https://medlineplus.gov/druginfo/meds/a682060.html).
Cemiplimab (Libtayo)	Cutaneous squamous cell carcinoma, basal cell carcinoma, non-small cell lung cancer (https://reference.medscape.com/drug/libtayo-cemiplimab-1000263).	Feeling tired, skin rash, diarrhea, itching, nausea/upset stomach, constipation, decreased appetite, muscle pain, rare but serious immune-related reaction (https://chemocare.com/chemotherapy/drug-info/cemiplimab-rwlc.aspx).	PD-1/PD-L1 inhibitor (https://reference.medscape.com/drug/libtayo-cemiplimab-1000263).	Often used when cancer has spread or cannot be treated with other drugs, radiation, or surgery (https://www.drugs.com/mtm/cemiplimab.html).
Cetuximab (Erbitux)	Colorectal cancer, squamous cell carcinoma of the head and neck (https://www.cancer.gov/about-cancer/treatment/drugs/cetuximab).	Skin reactions (e.g., acne-like rash within first 2 weeks of therapy), generalized weakness, fatigue, weight loss, poor appetite, diarrhea, nausea and vomiting, abdominal pain, constipation, stromatitis, low magnesium level, low blood counts, difficulty breathing, cough, peripheral neuropathy, liver problems, infection, headache, nail changes, insomnia, fever, confusion, chills, anxiety, depression, dehydration, low calcium level, low potassium level, upset stomach, dry mouth, bone and joint pain, eye irritation, infusion reaction, increased risk of heart attack (https://chemocare.com/chemotherapy/drug-info/cetuximab.aspx).	Monoclonal antibody; EGFR inhibitor (https://chemocare.com/chemotherapy/drug-info/cetuximab.aspx).	The drug is administered via IV infusion (https://www.ncbi.nlm.nih.gov/books/NBK459293/).

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Cisplatin (CDDP)	Bladder cancer, ovarian cancer, testicular cancer (https://www.cancer.gov/about-cancer/treatment/drugs/cisplatin).	Nausea and vomiting, low blood counts, kidney toxicity, ototoxicity, blood test abnormalities, peripheral neuropathy, loss of appetite, taste changes, metallic taste, increases in blood tests measuring liver function, hair loss (https://chemocare.com/chemotherapy/drug-info/cisplatin.aspx).	Alkylating agent (https://chemocare.com/chemotherapy/drug-info/Cisplatin.aspx).	Cisplatin came into use in the 1970s; Highly toxic, but heavily used for hematologic and solid tumor malignancies (https://www.ncbi.nlm.nih.gov/books/NBK547695/).
Cyanocobalamin	Vitamin B12 deficiency in pernicious anemia, folic acid deficiency, pregnancy, thyroid problems, stomach and intestinal disorders, bleeding, liver or kidney disease, parasite infection, cancer (https://www.drugs.com/mtm/cyanocobalamin.html).	Easy bruising or bleeding, extreme tiredness, lightheadedness, pale skin, blue lips or fingernails, eye pain, vision problems, headache, ringing in ears, chest pain or tightness, fast heartbeats, cough, wheezing, trouble breathing, trouble swallowing, little or no urination, heart problems, low potassium level, signs of a blood clot in an arm or leg, diarrhea, rash (https://www.drugs.com/mtm/cyanocobalamin.html#side-effects).	Vitamin B12 (https://www.drugs.com/mtm/cyanocobalamin.html).	Vitamin B12 deficiency may occur with certain health problems, alcoholism, or vegan diet (https://www.webmd.com/drugs/2/drug-1010/cyanocobalamin-vitamin-b-12-oral/details).
Cyclophosphamide	Malignant lymphoma, multiple myeloma, leukemias, mycosis fungoides, neuroblastoma, adenocarcinoma of the ovary, retinoblastoma, carcinoma of the breast (https://www.drugs.com/pro/cyclophosphamide.html).	Low blood counts, hair loss, nausea and vomiting, poor appetite, discoloration of the skin or nails, loss of fertility, diarrhea, mouth sores, bladder irritation and bleeding (hemorrhagic cystitis), slight risk of developing blood cancer such as myelodysplasia or leukemia ( <a href="https://chemocare.com/chemotherapy/drug-info/cyclophosphamide.aspx">https://chemocare.com/chemotherapy/drug-info/cyclophosphamide.aspx</a> ).	Alkylating agent; Nitrogen mustard (https://www.drugs.com/pro/cyclophosphamide.html, https://www.ncbi.nlm.nih.gov/books/NBK553087/).	This drug can be absorbed through the skin and lungs and can harm an unborn baby; Women who are pregnant or may become pregnant should not handle or breath this medication (https://www.webmd.com/drugs/2/drug-6093/cyclophosphamide-oral/details).
Cytarabine	Acute non-lymphocytic leukemia, meningeal leukemia, acute lymphoblastic leukemia, chronic myelogenous leukemia ( <a href="https://www.cancer.gov/about-cancer/treatment/drugs/cytarabine">https://www.cancer.gov/about-cancer/treatment/drugs/cytarabine</a> ).	Bone marrow suppression with leukopenia, thrombocytopenia, anemia (https://www.drugs.com/pro/cytarabine.html).	Antimetabolite; Anthracycline (https://www.drugs.com/pro/cytarabine.html, https://www.ncbi.nlm.nih.gov/books/NBK557680/).	Discovered as a nucleoside in Cryptotethia crypta, a species of sponges (https://www.ncbi.nlm.nih.gov/books/NBK557680/).

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Dabrafenib (Tafinlar)	Melanoma, NSCLC, thyroid cancer (https://medlineplus.gov/druginfo/meds/a613038.html).	Hyperglycemia, hyperkeratosis, hypophosphatemia, headache, fever, joint pain, papilloma, hair loss, hand-foot syndrome, increased alkaline phosphatase, rash, back pain, cough, muscle aches, constipation, nasopharyngitis (https://chemocare.com/chemotherapy/drug-info/dabrafenib.aspx).	Multikinase inhibitor (https://www.drugs.com/mtm/dabrafenib.html).	Used if melanoma cells have the BRAF V600E or V600K mutations; if NSCLC and ATC cells have BRAF V600E mutations; if solid tumors have BRAF V600E mutations (https://www.mayoclinic.org/drugs-supplements/dabrafenib-oral-route/description/drg-20061178).
Dasatinib (Sprycel)	Philadelphia chromosome-positive chronic myelogenous leukemia, Philadelphia chromosome-positive acute lymphoblastic leukemia (https://www.drugs.com/dasatinib.html).	Low blood counts, diarrhea, headache, bleeding, muscle and bone pain, fatigue, fever, rash, nausea, fluid retention, infection, cough, upper respiratory tract infection, pain, abdominal pain, vomiting, generalized weakness, poor appetite, mouth sores, dizziness, constipation, weight loss, low phosphorus blood levels, low calcium blood levels, chest pain, numbness and tingling in hands or feet, arrhythmia, chills, itching, weight gain, pneumonia (https://chemocare.com/chemotherapy/drug-info/dasatinib.aspx).	BCR-ABL tyrosine kinase inhibitor (https://www.drugs.com/dasatinib.html).	Designated an orphan drug by FDA for use in CML treatment (https://www.drugs.com/monograph/dasatinib.html).
Daunorubicin (Cerubidine)	Acute myeloid leukemia (https://medlineplus.gov/druginfo/meds/a682289.html).	Serious or life-threatening heart problems during or after treatment, severe decrease in blood cells in bone marrow ( <a href="https://medlineplus.gov/druginfo/meds/a682289.html">https://medlineplus.gov/druginfo/meds/a682289.html</a> ).	Antibiotic, antineoplastic, anthracycline (https://www.drugs.com/mtm/daunorubicin.html, https://medlineplus.gov/druginfo/meds/a682289.html).	Administration should not be subcutaneous or intramuscular, as it can cause local tissue necrosis through extravasation into surrounding tissue (https://www.ncbi.nlm.nih.gov/books/NBK559073/).
Degarelix (Firmagon)	Prostate cancer (https://www.drugs.com/degarelix.html).	Increased liver enzymes, injection site reaction, hot flashes, fever, fatigue, weight gain, weight loss, QT prolongation (https://chemocare.com/chemotherapy/drug-info/degarelix.aspx).	GnRH antagonist, antineoplastic (https://www.drugs.com/degarelix.html).	After injection, pressure should be avoided at the injection site (https://medlineplus.gov/druginfo/meds/a609022.html).

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Dexrazoxane (Totect, Zinecard)	Extravasation (Totect), prevention of chemotherapy-related heart problems in women who are receiving doxorubicin for metastatic breast cancer (https://www.drugs.com/mtm/dexrazoxane.html).	Fatigue, fever, nausea, low blood counts, altered memory or thinking or concentration, infection, pain at injection site, fluid retention, fatigue, dizziness, hair loss, vomiting, diarrhea, low blood counts, liver dysfunction, kidney dysfunction, fever, interference with anti tumor effect of chemotherapy (with doxorubicin, fluorouracil, cyclophosphamide) (https://chemocare.com/chemotherapy/drug-info/dexrazoxane.aspx).	Cardioprotectant (https://www.ncbi.nlm.nih.gov/books/NBK560559/).	Does not completely eliminate risk of cardiac toxicity induced by anthracyclines (https://www.ncbi.nlm.nih.gov/books/NBK560559/).
Diethylsilbestrol	Breast cancer, prostate cancer (https://www.drugs.com/cdi/diethylstilbestrol.html).	Allergic reaction, high blood pressure, liver problems, gallstones, high calcium levels, abnormal vaginal bleeding, lump in breast, breast pain or soreness, nipple discharge, enlarged breasts, inability to get or keep an erection, depression, mood changes, bulging eyes, change in how contact lenses feel in the eyes, weakness on one side of the body, trouble speaking or thinking, change in balance, drooping on one side of face, blurred eyesight, very upset stomach, vomiting, signs of blood clot-like chest pain or pressure, coughing up blood, SOB, swelling, warmth, numbness, change of color, pain in leg or arm, trouble speaking or swallowing (https://www.drugs.com/cdi/diethylstilbestrol.html#side-effects).	Estrogen, antineoplastic (https://www.drugs.com/cdi/diethylstilbestrol.html).	Used in pregnancy between 1940 and 1971, use declined after the 1950s (https://www.cancer.gov/about-cancer/causes-prevention/risk/hormones/des-fact-sheet#what-is-des).
Docetaxel (Taxotere, Docefrez)	Breast cancer, lung cancer, prostate cancer, stomach cancer, head and neck cancer (https://www.drugs.com/mtm/docetaxel.html).	Allergic reaction (https://www.cancerresearchuk.org/about-cancer/treatment/drugs/docetaxel); Low white blood cell count, low red blood cell count, fluid retention with weight gain or swelling, peripheral neuropathy, nausea, diarrhea, mouth sores, hair loss, fatigue, weakness, infection, nail changes, vomiting, myalgias, arthralgias, low platelet count, increases in blood tests measuring liver function, infusion site reactions, unusual bleeding or bruising, black or tarry or bloody stools, blood in stools or urine, yellowing of skin or eyes, SOB (https://chemocare.com/chemotherapy/drug-info/docetaxel.aspx).	Mitotic inhibitor; Plant alkaloid, taxane, antimicrotubule agent (https://www.drugs.com/mtm/docetaxel.html, https://chemocare.com/chemotherapy/drug-info/Docetaxel.aspx).	First-line agent in treatment of prostate cancer (https://www.ncbi.nlm.nih.gov/books/NBK537242/).
Doxorubicin (Adriamycin)	Cancer of the breast, bladder, kidneys, ovaries, thyroid, stomach, lungs, bones, nerve tissues, joints, soft tissues; Hodgkin lymphoma, non-Hodgkin lymphoma, certain types of leukemia (https://www.drugs.com/mtm/doxorubicin.html).	Serious or life-threatening heart problems during or after treatment, severe decrease in blood cells in bone marrow, increased risk for developing leukemia (https://medlineplus.gov/druginfo/meds/a682221.html).	Antibiotic, antineoplastic (https://www.drugs.com/mtm/doxorubicin.html).	Derived from the Streptomyces peucetius bacterium; Used as chemotherapeutic agent since the 1960s (https://www.ncbi.nlm.nih.gov/books/NBK459232/).
Durvalumab (Imfinzi)	Cancer of the lungs, bladder, urinary tract (https://www.drugs.com/mtm/durvalumab.html).	Fatigue, infection, muscle and/or bone pain, constipation, decreased appetite, rash, nausea, swelling, UTI, abdominal pain, fever, colitis, diarrhea, decreased sodium level, decreased lymphocyte count, pneumonitis, hepatitis, colitis, hormone gland problems, kidney problems; Headache, change in balance, confusion, severe muscle weakness or pain, chest pain and tightness, trouble breathing, skin rash, change in heartbeat, flu-like symptoms (https://chemocare.com/chemotherapy/drug-info/durvalumab.aspx).	Anti-PD-L1 monoclonal antibody (https://chemocare.com/chemotherapy/drug-info/durvalumab.aspx).	May cause harm to an unborn baby if taken during pregnancy (https://www.mskcc.org/cancer-care/patient-education/medications/durvalumab).

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Encorafenib (Braftovi)	Melanoma that cannot be treated with surgery or has spread to other parts of the body; Colorectal cancer that has spread to other parts of the body (https://www.drugs.com/mtm/encorafenib.html).	Fatigue, nausea and vomiting, abdominal pain, joint pain, increased serum creatinine, new skin cancer, bleeding problems, eye problems, QT prolongation, hyperkeratosis, hyperglycemia, muscle weakness, constipation, rash, headache, dizziness, dry skin, hair loss, itching, peripheral neuropathy, increased liver enzymes, fever (https://chemocare.com/chemotherapy/drug-info/encorafenib.aspx).	Multikinase inhibitor (https://www.drugs.com/mtm/encorafenib.html).	Used if cancer has a specific genetic marker, i.e., an abnormal BRAF gene (https://www.drugs.com/mtm/encorafenib.html).
Epoetin alfa (Epogen, Procrit, Retacrit)	Anemia caused by chemotherapy in adults and children at least 5 years old; Anemia caused by chronic kidney disease in adults and children at least 1 month old (https://www.drugs.com/mtm/epoetin-alfa.html).	Increased risk of blood clots (https://medlineplus.gov/druginfo/meds/a692034.html).	Recombinant human erythropoietin; Manmade form of a protein that helps the body produce red blood cells (https://www.drugs.com/mtm/epoetin-alfa.html).	It may take 2-6 weeks or longer to feel the full benefit of this product (https://medlineplus.gov/druginfo/meds/a692034.html).
Erlotinib (Tarceva)	Pancreatic cancer and non-small cell lung cancer (NSCLC), where NSCLC has specific mutations in the EGFR protein (exon 19 deletions or exon 21 substitutions) (https://www.drugs.com/erlotinib.html).	Rash, diarrhea, poor appetite, fatigue, SOB, cough, nausea and vomiting, infection, mouth sores, itching, dry skin, eye irritation, abdominal pain (https://chemocare.com/chemotherapy/drug-info/erlotinib.aspx).	EGFR inhibitor (https://www.drugs.com/erlotinib.html).	Approved by the FDA in 2004 (https://www.drugs.com/erlotinib.html).
Etoposide	Small cell lung cancer (https://www.drugs.com/mtm/etoposide.html).	Decreased number of blood cells in bone marrow (https://medlineplus.gov/druginfo/meds/a684055.html).	Mitotic inhibitor; Plant alkaloid; Topoisomerase II inhibitor; Podophyllotoxin derivative (https://www.drugs.com/mtm/etoposide.html, https://chemocare.com/chemotherapy/drug-info/etoposide.aspx, https://medlineplus.gov/druginfo/meds/a684055.html).	Approved in 1983 by FDA for cancer therapy (https://www.ncbi.nlm.nih.gov/books/NBK557864/).
Exemestane (Aromasin)	Early breast cancer in women after menopause (https://medlineplus.gov/druginfo/meds/a607006.html#side-effects).	Hot flashes, sweating, joint pain, muscle pain, tiredness, headache, dizziness, feeling worried or anxious, depression, difficulty falling asleep or staying asleep, nausea, vomiting, increased appetite, diarrhea, hair loss, red or itchy skin, changes in vision, swelling, SOB, chest pain, possible decrease in bone mineral density and increased risk of osteoporosis (https://medlineplus.gov/druginfo/meds/a607006.html#side-effects).	Aromatase inhibitor, antineoplastic; Third-generation aromatase inhibitor (https://www.drugs.com/exemestane.html).	In postmenopausal women, the main source of estrogen is from conversion of androstenedione and testosterone by aromatase (https://www.drugs.com/exemestane.html).

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	Clinical Use	Adverse Events	Notes on Mechanism	Historical and Clinical Notes
Ferrous Sulfate (Feosol)	Iron deficiency anemia (https://www.drugs.com/ferrous_sulfate.html).	Allergic reaction, severe stomach pain or vomiting, cough with bloody mucus, vomit that looks like coffee grounds, fever, bloody or tarry stools, diarrhea, constipation, nausea, stomach pain, green-colored stools, loss of appetite (https://www.drugs.com/ferrous_sulfate.html#side-effects).	Iron product (https://www.drugs.com/ferrous_sulfate.html).	Iron overdose is a leading cause of fatal poisoning in children under age 6 (https://www.webmd.com/drugs/2/drug-4127/ferrous-sulfate-oral/details).
Filgrastim (Neupogen, Nivestym, Zarxio, Releuko)	Neutropenia caused by cancer, bone marrow transplant, chemotherapy (https://www.drugs.com/mtm/filgrastim.html).	Thrombocytopenia, nausea, fever, bone pain, blood test abnormalities, tenderness and redness at injection site, petechiae, back pain, epistaxis, cough, dyspnea ( <a href="https://chemocare.com/chemotherapy/drug-info/filgrastim.aspx">https://chemocare.com/chemotherapy/drug-info/filgrastim.aspx</a> ).	Colony stimulating factor; Manmade version of protein that stimulates growth of white blood cells (https://www.drugs.com/ mtm/filgrastim.html).	Approved by the FDA in 1991 (https://www.ncbi.nlm.nih.gov/books/NBK559282/).
Flutamide (Eulexin)	Prostate cancer (https://www.drugs.com/flutamide.html).	Hot flashes, swelling of the breasts, loss of interest in sex, nipple discharge, impotence, diarrhea, nausea and vomiting, increases in blood tests measuring liver function, yellow-green discoloration of urine ( <a href="https://chemocare.com/chemotherapy/drug-info/flutamide.aspx">https://chemocare.com/chemotherapy/drug-info/flutamide.aspx</a> ).	Antiandrogen, antineoplastic (https://www.drugs.com/flutamide.html).	Given in combination with luteinizing hormone-releasing hormone (https://www.drugs.com/flutamide.html).
Folic acid	Folic acid deficiency, anemia caused by folic acid deficiency, pernicious anemia (https://www.drugs.com/folic_acid.html).	Allergic reaction, nausea, loss of appetite, bloating, gas, stomach pain, bitter or unpleasant taste in mouth, confusion, trouble concentrating, sleep problems, depression, feeling excited or irritable ( <a href="https://www.drugs.com/folic_acid.html#side-effects">https://www.drugs.com/folic_acid.html#side-effects</a> ).	B vitamin; Helps body produce and maintain new cells (https://www.drugs.com/folic_acid.html).	Crucial nutrient during early pregnancy to reduce risk of birth defects of brain and spine (https://www.mayoclinic.org/drugs-supplements-folate/art-20364625).
Fosaprepitant (Emend for Injection)	Prevention of nausea and vomiting caused by chemotherapy in adults and children at least 6 months old (https://www.drugs.com/mtm/fosaprepitant.html).	Allergic reaction; Pain, redness, swelling, burning, blistering, or skin changes at injection site; Lightheadedness, pain or burning with urination, low blood cell counts, weakness, feeling tired, fever, painful urination, diarrhea, indigestion; Pain, numbness, or weakness in arms or legs ( <a href="https://www.drugs.com/mtm/fosaprepitant.html#side-effects">https://www.drugs.com/mtm/fosaprepitant.html#side-effects</a> ).	NK1 receptor antagonists (https://www.drugs.com/mtm/fosaprepitant.html).	Given ahead of time (https://www.drugs.com/mtm/fosaprepitant.html).
Gefitinib (Iressa)	· · · · · · · · · · · · · · · · · · ·	Diarrhea, skin reactions, nausea, vomiting, itching, poor appetite, eye irritation (https://chemocare.com/chemotherapy/drug-info/gefitinib.aspx).	EGFR inhibitor (https://www.drugs.com/mtm/gefitinib.html).	First-line treatment in patients whose tumors have certain EGFR mutations (https://www.cancer.gov/about-cancer/treatment/drugs/gefitinib).

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	Clinical Use	Adverse Events	Notes on Mechanism	Historical and Clinical Notes
Granisetron	Prevention of nausea and vomiting caused by chemotherapy or radiation ( <a href="https://www.drugs.com/mtm/granisetron.html">https://www.drugs.com/mtm/granisetron.html</a> ).	Headache, stomach pain, heartburn, constipation, difficulty falling asleep or staying asleep, hives, rash, itching, difficulty breathing or swallowing, shortness of breath, dizziness, lightheadedness, fainting, fast or slow or irregular heartbeat, agitation, hallucinations, fever, flushing, excessive sweating, confusion, nausea, vomiting, diarrhea, loss of coordination, stiff or twitching muscles, seizures, coma (https://medlineplus.gov/druginfo/meds/a601211.html#side-effects).	5HT3 receptor antagonist (https://www.drugs.com/mtm/granisetron.html).	Taken 1 hour before administration of chemotherapy (https://medlineplus.gov/druginfo/meds/a601211.html).
Hydroxyurea (Droxia, Hydrea, Mylocel, Siklos)	Chronic myeloid leukemia, ovarian cancer, squamous cell cancer of the head and neck (https://www.drugs.com/mtm/hydroxyurea.html).	Bone marrow suppression, leukemia, skin cancer ( <a href="https://www.healthline.com/health/drugs/hydroxyurea-oral-capsule#important-warnings">https://www.healthline.com/health/drugs/hydroxyurea-oral-capsule#important-warnings</a> ).	Antimetabolite (https://www.drugs.com/mtm/hydroxyurea.html).	Can be harmful during pregnancy (https://www.healthline.com/health/drugs/hydroxyurea-oral-capsule#important-warnings).
Ifosfamide (Ifex)	Testicular cancer in men (https://www.drugs.com/mtm/ifosfamide.html).	Low white blood cell count, low platelet count, hair loss, nausea and vomiting, poor appetite, blood in urine, central neurotoxicity, slight risk of blood cancer such as leukemia, possible effect on fertility (https://chemocare.com/chemotherapy/drug-info/ifosfamide.aspx).	Alkylating agent (https://www.drugs.com/mtm/ifosfamide.html).	Usually given after other treatments have failed (https://www.drugs.com/mtm/ifosfamide.html).
Imatinib Mesylate (Gleevec)	Leukemia, bone marrow disorders, skin cancer, GIST, dermatofibrosarcoma protuberans (https://www.drugs.com/imatinib.html, https://medlineplus.gov/druginfo/meds/a606018.html).	Low blood counts, nausea and vomiting, edema, muscle cramps, bone pain, diarrhea, hemorrhage, skin rash, fever, headache, fatigue, joint pain, indigestion, abdominal pain, cough, SOB, poor appetite, constipation, night sweats, nose bleeds, weakness, potential impact on fertility, liver toxicity (https://chemocare.com/chemotherapy/drug-info/imatinib-mesylate.aspx).	BCR-ABL tyrosine kinase inhibitor (https://www.drugs.com/imatinib.html).	Targeted therapy (https://chemocare.com/chemotherapy/drug-info/imatinib-mesylate.aspx).
Ipilimumab (Yervoy)	Colorectal cancer in adults and children ages 12 and older, esophageal cancer, hepatocellular carcinoma, malignant pleural mesothelioma, melanoma, non-small cell lung cancer, renal cell carcinoma (https://www.cancer.gov/about-cancer/treatment/drugs/ipilimumab).	Fatigue, diarrhea, itching, rash, nausea/vomiting, decreased appetite, constipation, cough, headache, abdominal pain, SOB, anemia, fever, immune-mediated reaction (https://chemocare.com/chemotherapy/drug-info/ipilimumab.aspx).	Anti-CTLA-4 monoclonal antibody (https://www.drugs.com/ipilimumab.html).	Approved by the FDA in 2011 for late-stage melanoma (https://www.drugs.com/ipilimumab.html).
Irinotecan (Camptosar)	Cancers of the colon and rectum (https://www.drugs.com/mtm/irinotecan.html).	Diarrhea (two types, early and late forms), nausea, vomiting, weakness, low white blood cell count, low red blood cell count, hair loss, poor appetite, fever, weight loss, constipation, SOB, insomnia, cough, headache, dehydration, chills, skin rash, flatulence, flushing during infusion, mouth sores, heartburn, swelling (https://chemocare.com/chemotherapy/drug-info/irinotecan.aspx).	Antineoplastic (https://www.drugs.com/mtm/irinotecan.html).	Approved for use in the United States in 1996 (https://www.ncbi.nlm.nih.gov/books/NBK554441/).

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Isotretinoin (Accutane)	Severe nodular acne that has not responded to other treatments, neuroblastoma in children, cutaneous T-cell lymphomas, squamous cell skin cancers (https://www.drugs.com/mtm/isotretinoin.html, https://chemocare.com/chemotherapy/drug-info/isotretinoin.aspx).	Retinoid toxicity, back pain, pain in muscles and joints, allergic reaction, abdominal pain, poor appetite, dizziness, drowsiness, insomnia, anxiety, numbness and tingling of hands and feet, weakness, depression, hair loss, dry eyes, sensitivity to light, decreased night vision (may persist after treatment is stopped), swelling, low blood counts, abnormal blood tests, increases in blood tests measuring liver function, blood clots, pancreatitis, APL differentiation syndrome ( <a href="https://chemocare.com/chemotherapy/drug-info/13-cis-retinoic-acid.aspx">https://chemocare.com/chemotherapy/drug-info/13-cis-retinoic-acid.aspx</a> ).	Antineoplastic; Form of vitamin A (https://www.drugs.com/mtm/isotretinoin.html).	Only available through iPLEDGE program (https://www.drugs.com/mtm/isotretinoin.html).
Ixazomib (Ninlaro)	Multiple myeloma (https://www.drugs.com/mtm/ixazomib.html).	Low blood counts, diarrhea, constipation, peripheral neuropathy, nausea, eye disease, peripheral edema, vomiting, skin rash, upper respiratory infection (https://chemocare.com/chemotherapy/drug-info/ixazomib.aspx).	Proteasome inhibitor (https://www.drugs.com/mtm/ixazomib.html).	Given in combination with lenalidomide and dexamethasone (https://www.drugs.com/mtm/ixazomib.html).
Letrozole (Femara)	Breast cancer in postmenopausal women (https://www.drugs.com/mtm/letrozole.html).	Hot flashes, high cholesterol, arthralgias, night sweats, weight gain, nausea (https://chemocare.com/chemotherapy/drug-info/Letrozole.aspx).	Aromatase inhibitor, antineoplastic (https://www.drugs.com/mtm/letrozole.html).	Often given to women who have taken tamoxifen for 5 years (https://www.drugs.com/mtm/letrozole.html).
Lomustine (Gleostine, CeeNU)	Brain tumors in patients who have already received surgery or radiation, Hodgkin's disease after other treatments have failed (https://www.drugs.com/mtm/lomustine.html).	Low blood counts, nausea, vomiting, poor appetite, mouth sores, loss of fertility, hair loss; Delayed effects: pulmonary toxicity, kidney toxicity, slight risk of blood cancer such as leukemia ( <a href="https://chemocare.com/chemotherapy/drug-info/Lomustine.aspx">https://chemocare.com/chemotherapy/drug-info/Lomustine.aspx</a> ).	Alkylating agent (https://www.drugs.com/mtm/lomustine.html).	Taking too much of this drug or taking it too often can cause serious, life-threatening problems (https://medlineplus.gov/druginfo/meds/a682207.html).
Mesna (Mesnex)	Reduces incidence of ifosfamide-induced hemorrhagic cystitis (https://www.drugs.com/pro/mesna.html).	Bad taste when taken by mouth, vomiting, allergic reaction (https://chemocare.com/chemotherapy/drug-info/Mesna.aspx).	Antineoplastic detoxifying agent (https://www.drugs.com/pro/mesna.html).	Patients may take the drug with a strong-tasting liquid such as grape juice, in order to mask the taste (https://chemocare.com/chemotherapy/drug-info/Mesna.aspx).

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Methotrexate (Rheumatrex)	Leukemia; Cancers of the breast, skin, head and neck, lung, uterus (https://www.drugs.com/methotrexate.html).	Low blood counts, mouth sores, poor appetite, kidney toxicity, skin rash, diarrhea, nausea, vomiting, increases in blood tests measuring liver function, darkening of skin with previous radiation treatment has been given, alopecia, skin photosensitivity, acute chemical arachnoiditis, central neurotoxicity, acute renal failure, bone marrow suppression, serious skin reactions, GI and liver toxicity, acute or interstitial pneumonitis, opportunistic infections, secondary malignancies such as lymphoma, tumor lysis syndrome in patients with rapidly growing tumors, increased risk of soft tissue necrosis and osteonecrosis (when given with radiotherapy) (https://chemocare.com/chemotherapy/drug-info/methotrexate.aspx).	Antimetabolite (https://www.drugs.com/methotrexate.html).	May cause harm or death to fetus when taken during pregnancy (https://medlineplus.gov/druginfo/meds/a682019.html).
Nilotinib (Tasigna)	Philadelphia chromosome-positive myeloid leukemia in adults and children at least 1 year old (https://www.drugs.com/mtm/nilotinib.html).	Low blood counts, rash, headache, itching, diarrhea, nausea, vomiting, constipation, fatigue, joint pain, elevated liver enzymes, fever, muscle pain, cough, weakness, cold symptoms, abdominal pain, muscle spasm, edema, bone pain, back pain, SOB, high blood glucose, liver toxicity (https://chemocare.com/chemotherapy/drug-info/Nilotinib.aspx).	Signal transduction inhibitor, protein-tyrosine kinase inhibitor (https://chemocare.com/chemotherapy/drug-info/Nilotinib.aspx).	Usually given after other treatments have failed (https://www.drugs.com/mtm/nilotinib.html).
Nivolumab (Opdivo)	Classic Hodgkin lymphoma, colorectal cancer, esophageal cancer, gastroesophageal junction adenocarcinoma, gastric cancer, gastroesophageal junction adenocarcinoma, esophageal cancer, malignant pleural mesothelioma, melanoma, non-small cell lung cancer, renal cell carcinoma, squamous cell carcinoma of the head and neck, urothelial carcinoma (https://www.cancer.gov/about-cancer/treatment/drugs/nivolumab).	Fatigue, lymphocytopenia, low sodium, SOB, musculoskeletal pain, decreased appetite, cough, nausea, anemia, constipation, increased serum creatinine, colitis, low potassium, low magnesium, high calcium, vomiting, weakness, diarrhea, high potassium, low calcium, swelling, fever, rash, abdominal pain, increased serum AST, thrombocytopenia, increased serum alkaline phosphatase, chest pain, weight loss, joint pain, increased serum ALT, itching, pneumonia, pain, immune-mediated pneumonitis, immune-mediated colitis, immune-mediated hepatitis, immune-mediated nephritis and renal dysfunction, immune-mediated hypothyroidism and hyperthyroidism (https://chemocare.com/chemotherapy/drug-info/Nivolumab.aspx).	Anti-PD-1 monoclonal antibody (https://www.drugs.com/nivolumab.html).	Often given when cancer has spread or cannot be surgically removed, or has come back after prior treatment (https://www.drugs.com/nivolumab.html).
Olaparib (Lynparza)	Cancer of the breast, ovary, fallopian tube, pancreas, prostate, peritoneum (https://www.drugs.com/mtm/olaparib.html).	Decreased hemoglobin, nausea, fatigue, decreased white blood cell count, abdominal pain, vomiting, upper respiratory tract infection, anemia, decreased neutrophils, musculoskeletal pain, diarrhea, decreased platelet count, increased serum creatinine, heartburn, decreased appetite, myalgia, headache, skin rash, back pain, taste changes, cough, swelling, dizziness, constipation, UTI, SOB (https://chemocare.com/chemotherapy/drug-info/Olaparib.aspx).	PARP inhibitor (https://www.drugs.com/mtm/olaparib.html).	Affects the immune system, patients may get infections more easily (https://www.drugs.com/mtm/olaparib.html).
Ondansetron (Zofran)	Nausea and vomiting that may be caused by surgery, chemotherapy, radiation treatment (https://www.drugs.com/ondansetron.html).	Headache, constipation, weakness, tiredness, chills, drowsiness, blurred vision or vision loss, rash, hives, itching, swelling, hoarseness, difficulty breathing or swallowing, chest pain, SOB, dizziness, lightheadedness, fainting, fast or slow or irregular heartbeat, agitation, hallucinations, fever, excessive sweating, confusion, nausea or vomiting or diarrhea, loss of coordination, stiff or twitching muscles, seizures, coma (https://medlineplus.gov/druginfo/meds/a601209.html#side-effects).	5HT3 receptor antagonist (https://www.drugs.com/ondansetron.html).	IV form given only by a healthcare professional (https://www.healthline.com/health/drugs/ondansetron-orally-disintegrating-solid).

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Oxaliplatin (Eloxatin)	Colon or rectal cancer that has spread (https://chemocare.com/chemotherapy/drug-info/Oxaliplatin.aspx).	Infusion-related: difficulty swallowing, SOB, jaw spasm, abnormal tongue sensation, feeling of chest pressure (generally within hours of infusion, occurring upon exposure to cold); Peripheral neuropathy, nausea, vomiting, diarrhea, mouth sores, low blood counts, fatigue, loss of appetite, constipation, fever, generalized pain, headache, cough, temporary increases in blood tests measuring liver function, allergic reaction (https://chemocare.com/chemotherapy/drug-info/Oxaliplatin.aspx).	Alkylating agent (https://chemocare.com/chemotherapy/drug-info/Oxaliplatin.aspx).	Approved by the FDA in 2002 (https://www.drugs.com/oxaliplatin.html).
Paclitaxel (Onxol, Taxol)	AIDS-related Kaposi sarcoma, breast cancer, non-small cell lung cancer, ovarian cancer (https://www.cancer.gov/about-cancer/treatment/drugs/paclitaxel).	Low blood counts, hair loss, arthralgias, myalgias, peripheral neuropathy, nausea, vomiting, diarrhea, mouth sores, hypersensitivity reaction, swelling, increases in blood tests measuring liver function, low blood pressure, darkening of skin where previous radiation treatment was given, nail changes (https://chemocare.com/chemotherapy/drug-info/Paclitaxel.aspx).	Taxane, antimicrotubule agent, mitotic inhibitor (https://chemocare.com/chemotherapy/drug-info/Paclitaxel.aspx, https://www.drugs.com/mtm/paclitaxel.html).	Patients should not use this drug if they are allergic to castor oil (https://www.drugs.com/mtm/paclitaxel.html).
Palbociclib (Ibrance)	Breast cancer (HR+, HER2-) (https://www.cancer.gov/about-cancer/treatment/drugs/palbociclib).	Low blood counts, fatigue, upper respiratory infection, nausea, mouth sores, hair loss or thinning, diarrhea, decreased appetite, vomiting, peripheral neuropathy, weakness, nosebleeds, PE (https://chemocare.com/chemotherapy/drug-info/palbociclib.aspx).	CDK 4/6 inhibitor (https://chemocare.com/chemotherapy/drug-info/palbociclib.aspx).	Used in combination with letrozole, an aromatase inhibitor (https://chemocare.com/chemotherapy/drug-info/palbociclib.aspx).
Panitumumab (Vectibix)	Colorectal cancer (https://www.cancer.gov/about-cancer/treatment/drugs/panitumumab).	Skin reactions, low magnesium in blood, fatigue, general deterioration, abdominal pain, nausea, diarrhea, vomiting, swelling, cough, dry skin, inflammation of the bed of the fingernails, eye irritation, severe infusion reaction, may impair fertility in women ( <a href="https://chemocare.com/chemotherapy/drug-info/Panitumumab.aspx">https://chemocare.com/chemotherapy/drug-info/Panitumumab.aspx</a> ).	Monoclonal antibody, signal transduction inhibitor, binds EGFR (https://chemocare.com/chemotherapy/drug-info/Panitumumab.aspx).	Approved for use in cancer that does not involve a RAS gene mutation (https://www.cancer.gov/about-cancer/treatment/drugs/panitumumab).
Pembrolizumab (Keytruda)	Advanced cases of melanoma, other cancers (https://www.drugs.com/pembrolizumab.html).	Anemia, fatigue, hyperglycemia, hyponatremia, hypoalbuminemia, itching, cough, nausea, rash, decreased appetite, hypertriglyceridemia, increased liver enzymes, hypocalcemia, constipation, diarrhea, arthralgia, pain in extremity, SOB, swelling, headache, vomiting, chills, myalgia, insomnia, abdominal pain, back pain, fever, vitiligo, dizziness, upper respiratory tract infections, immune-mediated reaction (https://chemocare.com/chemotherapy/drug-info/Pembrolizumab.aspx).	Anti-PD-1 monoclonal antibody; Immune checkpoint inhibitor, blocks PD-1 (https:// www.drugs.com/ pembrolizumab.html).	Approved by the FDA in 2014 (https://www.drugs.com/pembrolizumab.html).
Pentostatin (Nipent)	Hairy cell leukemia (https://www.drugs.com/mtm/pentostatin.html).	Nausea, vomiting, low blood counts, skin rash, fever, fatigue, itching, cough, muscle aches, chills, headache, diarrhea, abdominal pain, anorexia, weakness, upper respiratory infection, elevated liver enzymes, SOB, CNS toxicity (https://chemocare.com/chemotherapy/drug-info/Pentostatin.aspx).	Anibiotic, antineoplastic (https://www.drugs.com/mtm/pentostatin.html).	May harm an unborn baby (https://www.drugs.com/mtm/pentostatin.html).

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	Clinical Use	Adverse Events	Notes on Mechanism	Historical and Clinical Notes
Procarbazine (Matulane)	Hodgkins disease (https://medlineplus.gov/druginfo/meds/a682094.html).	Low white blood cell count, low platelet count, nausea, vomiting, poor appetite, hair loss, mouth sores, diarrhea, constipation, flu-like symptoms, central neurotoxicity, hypersensitivity reaction, loss of fertility, slight risk of developing blood cancer such as leukemia years after treatment ( <a href="https://chemocare.com/chemotherapy/drug-info/Procarbazine.aspx">https://chemocare.com/chemotherapy/drug-info/Procarbazine.aspx</a> ).	Alkylating agent (https://medlineplus.gov/druginfo/meds/a682094.html).	Foods containing high amounts of tyramine should be avoided during treatment (https://medlineplus.gov/druginfo/meds/a682094.html).
Rasburicase (Elitek)	High levels of uric acid in the blood, tumor lysis syndrome (https://www.cancer.gov/about-cancer/treatment/drugs/rasburicase).	Nausea, vomiting, constipation, diarrhea, stomach pain, mouth sores, throat pain, fever, headache, anxiety, joint pain, swelling, pain or redness or swelling or tenderness at the injection site (https://medlineplus.gov/druginfo/meds/a610008.html#side-effects).	Enzyme (https://medlineplus.gov/druginfo/meds/a610008.html#side-effects).	Patients should inform their doctor if they have a G6PD deficiency (https://medlineplus.gov/druginfo/meds/a610008.html#side-effects).
Rituximab (Rituxan, Ribani, Ruxience, Truxima)	Non-Hodgkin lymphoma (https://www.drugs.com/rituximab.html).	Fever and chills, weakness, nausea, headache, cough, runny nose, SOB, sinusitis, throat irritation, severe infusion reaction, heart pain, irregular heartbeats, kidney problems ( <a href="https://chemocare.com/chemotherapy/drug-info/Rituximab.aspx">https://chemocare.com/chemotherapy/drug-info/Rituximab.aspx</a> ).	Antirheumatic, CD20 monoclonal antibody (https://www.drugs.com/rituximab.html).	Approved by the FDA in 1997 (https://www.drugs.com/rituximab.html).
Ruxolitinib (Jakafi)	Myelobibrosis, polycythemia vera, graft versus host disease in adults and children at least 12 years old (https://www.drugs.com/mtm/ruxolitinib.html).	Anemia, thrombocytopenia, increased liver enzymes, diarrhea, bruising, swelling, neutropenia, dizziness, increased cholesterol, SOB, nasopharyngitis, headache, constipation, nausea, vomiting, insomnia (https://chemocare.com/chemotherapy/drug-info/ruxolitinib.aspx).	Multikinase inhibitor (https://www.drugs.com/mtm/ruxolitinib.html).	Usually given after other treatments have failed (https://www.drugs.com/mtm/ruxolitinib.html).
Sargramostim (Leukine)	Prevention of serious infection in conditions including leukemia, bone marrow transplant, prechemotherapy blood cell collection; Reduces risk of death from bone marrow suppression after exposure to radiation in adults and children, including newborns (https://www.drugs.com/mtm/sargramostim.html).	Low blood pressure, fast heart rate, flushing, lightheadedness, feeling faint, diarrhea, local reactions at injection site, weakness, fatigue, mild flu-like syndrome, swelling, blood clots, capillary leak syndrome (https://chemocare.com/chemotherapy/drug-info/Sargramostim.aspx).	Colony stimulating factor; Manmade version of protein that stimulates growth of white blood cells (https://www.drugs.com/ mtm/sargramostim.html).	Should not be used within 24 hours of receiving chemotherapy or radiation, or in the 24 hours after chemotherapy (https://www.drugs.com/mtm/sargramostim.html).
Tamoxifen (Soltamox, Nolvadex)	Breast cancer in men and women (https://www.drugs.com/tamoxifen.html).	Hot flashes, vaginal discharge, swelling, loss of libido, nausea, menstrual irregularities, vaginal bleeding, weight loss, mood changes, DVT, PE, development of uterine cancer, may impact fertility (https://chemocare.com/chemotherapy/drug-info/Tamoxifen.aspx).	Hormone, antineoplastic, selective estrogen receptor modulator (https://www.drugs.com/tamoxifen.html).	Some patients take tamoxifen to reduce the risk of developing breast cancer (https://my.clevelandclinic.org/health/drugs/9785-tamoxifen).

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	Clinical Use	Adverse Events	Notes on Mechanism	Historical and Clinical Notes
Teniposide (Vumon)	Acute lymphocytic leukemia, particularly in children (https://chemocare.com/chemotherapy/drug-info/Teniposide.aspx).	Low blood cell counts, bleeding, infection, anemia, allergic reactions (https://www.drugs.com/cdi/teniposide.html).	Mitotic inhibitor, podophyllotoxin derivative (https://www.drugs.com/cdi/teniposide.html, https://medlineplus.gov/druginfo/meds/a692045.html).	For 48 hours after drug is given, caregivers should take safety precautions when handling the patient's bodily fluids (https://www.stjude.org/treatment/patient-resources/caregiver-resources/medicines/a-z-list-of-medicines/teniposide.html).
Topotecan (Hycamtin)	Cancer of the ovaries, small cell lung cancer (https://chemocare.com/chemotherapy/drug-info/Topotecan.aspx).	Low blood counts, nausea, vomiting, hair loss, diarrhea, constipation, fatigue, fever, abdominal pain, bone pain, weakness, mouth sores, poor appetite, rash, SOB, cough, headache (https://chemocare.com/chemotherapy/drug-info/Topotecan.aspx).	Topoisomerase 1 inhibitor (https://chemocare.com/chemotherapy/drug-info/Topotecan.aspx).	This drug may harm a baby developing in the womb (https://www.cancerresearchuk.org/about-cancer/treatment/drugs/topotecan).
Trastuzumab (Herceptin)	Breast cancer, stomach adenocarcinoma, gastroesophageal junction adenocarcinoma (https://www.cancer.gov/about-cancer/treatment/drugs/trastuzumab).	Chills, fever, body pain, weakness, nausea, headache, diarrhea, abdominal pain, back pain, infection, flu-like symptoms, vomiting, cough, SOB, rhinitis, pharyngitis, insomnia, rash, dizziness, swelling, hypersensitivity reactions, heart problems (https://chemocare.com/chemotherapy/drug-info/Trastuzumab.aspx).	Monoclonal antibody (https://chemocare.com/chemotherapy/drug-info/Trastuzumab.aspx).	Can be used for HER2- positive breast cancer that is early-stage or advanced stage/ metastatic (https:// www.breastcancer.org/ treatment/targeted- therapy/herceptin).
Tretinoin (Vesanoid)	Acute promyelocytic leukemia (https://www.drugs.com/mtm/tretinoin.html).	Retinoid toxicity, flu-like symptoms, bleeding problems, shivering, sweating, infections, increased white blood cell count, swelling, SOB, changes in breathing, pain, abdominal pain, changes in cholesterol levels, changes in liver function tests, weight increase, heart rate irregularities, flushing, poor appetite, weight loss, earache, feeling of fullness in the ears, diarrhea, dizziness, constipation, numbness, tingling, anxiety, heartburn, fluid build-up around the lungs, low blood pressure, insomnia, depression, muscle pain, high blood pressure, confusion, hair loss, skin changes, APL differentiation syndrome (https://chemocare.com/chemotherapy/drug-info/Tretinoin.aspx).	Antineoplastic (https://www.drugs.com/mtm/tretinoin.html).	It is not known if this drug is safe and effective in children (https://www.rxlist.com/vesanoid-drug.htm).

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	Clinical Use	Adverse Events	Notes on Mechanism	Historical and Clinical Notes
Vemurafenib (Zelboraf)	Erdheim-Chester disease, melanoma (https://www.cancer.gov/about-cancer/treatment/drugs/vemurafenib).	Joint pain, fatigue, rash, sensitivity to sun, hair loss, nausea, itching, skin warts, diarrhea, hyperkeratosis, headache, vomiting, skin cancers, muscle aches, swelling, decreased appetite, dry skin, fever, limb pain, increased liver enzymes, sun burn, redness of skin, taste alteration, cough, back pain, musculoskeletal pain, weakness, fever, inability to eat or drink for 24 hours, signs of dehydration, sudden change in eyesight, sudden onset of SOB accompanied by cough and/or fever, yellowing of skin or whites of the eyes, dark or brown urine, decreased appetite, pain on the right side of the stomach, bleeding or bruising more easily, fast heartbeat, cough with or without mucus, change in color or size of a mole, skin irritation or itching or rash or change (https://chemocare.com/chemotherapy/drug-info/zelboraf.aspx).	BRAF kinase inhibitor (https://chemocare.com/chemotherapy/drug-info/zelboraf.aspx).	Approved to treat cancer with a BRAF gene mutation (https://www.cancer.gov/about-cancer/treatment/drugs/vemurafenib).
Vinblastine	Hodgkin's lymphoma, non-Hodgkin's lymphoma, testicular cancer, Langerhans cell histiocytosis, breast cancer, gestational trophoblastic tumor (https://medlineplus.gov/druginfo/meds/a682848.html).	Low blood counts, injection site reactions, fatigue, weakness, nausea, vomiting, poor appetite, peripheral neuropathy, constipation, diarrhea, fever, hair loss, hearing loss, mouth sores, taste changes, metallic taste, headache, depression, jaw pain, bone pain, tumor pain, high blood pressure, tiredness, SOB, myalgias, arthralgias, extravasation ( <a href="https://chemocare.com/chemotherapy/drug-info/Vinblastine.aspx">https://chemocare.com/chemotherapy/drug-info/Vinblastine.aspx</a> ).	Vinca alkaloid (https://medlineplus.gov/druginfo/meds/a682848.html).	This drug is also used to treat tumors in dogs and cats (https:// petcancersociety.com/ types-of-drug/ vinblastine/).
Vincristine (Vincasar PFS, Oncovin)	Leukemia, Hodgkin's disease, non-Hodgkin's lymphoma, rhabdomyosarcoma, neuroblastoma, Wilms' tumor (https://www.drugs.com/mtm/vincristine.html).	Hair loss, constipation, low blood counts, abdominal cramps, weight loss, nausea and vomiting, mouth sores, diarrhea, loss of appetite, taste changes, peripheral neuropathy ( <a href="https://chemocare.com/chemotherapy/drug-info/Vincristine.aspx">https://chemocare.com/chemotherapy/drug-info/Vincristine.aspx</a> ).	Mitotic inhibitor (https://www.drugs.com/mtm/vincristine.html).	Patients should not use this drug if they have a nerve-muscle disorder such as Charcot-Marie-Tooth syndrome (https://www.drugs.com/mtm/vincristine.html).
Immunological				
Adalimumab (Humira)	Ulcerative colitis, RA, psoriatic arthritis, ankylosing spondylitis, plaque psoriasis, hidradenitis suppurativa, Crohn's disease, juvenile idiopathic arthritis, uveitis (https://www.drugs.com/mtm/adalimumab.html).	At the injection site: redness, itching, bruising, pain, swelling; Nausea, headache, back pain, numbness, tingling, vision problems, weakness in the legs, chest pain, SOB, rash (especially on the cheeks or arms, sensitive to light), new joint pain, hives, itching, swelling, difficulty breathing or swallowing, signs of an infection, unusual bruising or bleeding, pale skin, dizziness, red or scaly patches or pus-filled bumps on the skin, possible increased risk of skin cancer or lymphoma or other cancer (https://medlineplus.gov/druginfo/meds/a603010.html#side-effects).	Antirheumatic, TNFa inhibitor (https://www.drugs.com/mtm/adalimumab.html).	Doctor may perform a skin test for inactive TB or hepatitis B infections (https://medlineplus.gov/druginfo/meds/a603010.html).

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	Clinical Use	Adverse Events	Notes on Mechanism	Historical and Clinical Notes
Anakinra (Kineret)	Moderate to severe RA, NOMID, DIRA (https://www.drugs.com/mtm/anakinra.html).	At the injection site: redness, swelling, bruising, itching, pain; Headache, nausea, vomiting, diarrhea, runny nose, stomach pain, joint pain, rash, itching, hives, swelling, dizziness, fainting, difficulty breathing, wheezing, sweating, fast or racing heart beat, possible increased risk of lymphoma and skin cancer (https://medlineplus.gov/druginfo/meds/a602001.html#side-effects).	Antirheumatic, interleukin inhibitor (https://www.drugs.com/mtm/anakinra.html).	It is not known if this drug can harm an unborn baby (https://www.kineretrx.com/).
Azathioprine (Azasan, Imuran)	Transplant rejection, RA (https://www.drugs.com/mtm/azathioprine.html).	Nausea, vomiting, diarrhea, rash, fever, weakness, muscle pain (https://medlineplus.gov/druginfo/meds/a682167.html#side-effects).	Antirheumatic, immunosuppressant (https://www.drugs.com/mtm/azathioprine.html).	This drug can harm an unborn baby (https://www.drugs.com/mtm/azathioprine.html).
Azelastine (Astepro, Astelin)	Sneezing, runny or stuffy nose, itching, nasal symptoms of allergies (https://www.drugs.com/mtm/azelastine-nasal.html).	Bitter taste, tiredness, weight increase, muscle pain, nasal burning ( <a href="https://medlineplus.gov/druginfo/meds/a697014.html#side-effects">https://medlineplus.gov/druginfo/meds/a697014.html#side-effects</a> ).	Nasal antihistamine, decongestant (https://www.drugs.com/mtm/azelastine-nasal.html).	For adults and children at least 6 years old (https://www.drugs.com/mtm/azelastine-nasal.html).
Celecoxib (CeleBREX, Elyxyb)	Arthritis, ankylosing spondylitis, menstrual pain (https://www.drugs.com/celecoxib.html).	Gas or bloating, sore throat, cold symptoms, constipation, dizziness, dysgeusia, unexplained weight gain, SOB, difficulty breathing, swelling, diarrhea, nausea, excessive tiredness, unusual bleeding or bruising, itching, lack of energy, loss of appetite, pain in upper right part of the stomach, yellowing of the skin or eyes, flu-like symptoms, blisters, fever, rash, hives, hoarseness, difficulty swallowing or breathing, pale skin, fast heartbeat, cloudy or discolored or bloody urine, back pain, difficult or painful urination, frequent urination (especially at night) (https://medlineplus.gov/druginfo/meds/a699022.html#side-effects).	Cox-2 inhibitor (https://www.drugs.com/celecoxib.html).	This drug has FDA boxed warnings (https://www.healthline.com/health/celecoxib-oral-capsule).
Certolizumab (Cimzia)	Crohn's disease (after other treatments have failed), RA, psoriatic arthritis, ankylosing spondylitis, plaque psoriasis (https://www.drugs.com/mtm/certolizumab.html).	Respiratory tract infections, UTIs, arthralgia, abdominal pain, diarrhea, intestinal obstruction, redness, pain, itching at injection site ( <a href="https://www.medicinenet.com/certolizumab/">https://www.medicinenet.com/certolizumab/</a> article.htm#what are the side effects of certolizumab).	TNFa inhibitor (https://www.drugs.com/mtm/certolizumab.html).	Like other drugs that block TNFa, associated with serious infections such as TB, sepsis, and fungal infections (https://www.medicinenet.com/certolizumab/article.htm#what_are_the_side_effects_of_certolizumab).
Chlorpheniramine	Allergies, hay fever, common cold (https://medlineplus.gov/druginfo/meds/a682543.html#side-effects).	Drowsiness, dry mouth or nose or throat, nausea, vomiting, loss of appetite, constipation, headache, increased chest congestion, vision problems, difficulty urinating (https://medlineplus.gov/druginfo/meds/a682543.html#side-effects).	Antihistamine (https://www.drugs.com/mtm/chlorpheniramine.html).	Misuse of cough and cold medicines in very young children can cause death (https://www.drugs.com/mtm/chlorpheniramine.html).

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	Clinical Use	Adverse Events	Notes on Mechanism	Historical and Clinical Notes
Clobetasol (Temovate)	Plaque psoriasis (https://www.drugs.com/clobetasol-topical.html).	Burning, itching, irritation, redness, dryness; Acne, tiny red bumps or rash around the mouth, small white or red bumps on skin, bruising or shiny skin, red or purple blotches or lines under skin, thin or fragile or dry skin, changes in skin color, signs of skin infection where applied, severe rash, skin sores, changes in fat distribution around the body, sudden weight gain, unusual tiredness, muscle weakness, depression, irritability; In children: slowed growth, delayed weight gain (https://medlineplus.gov/druginfo/meds/a686008.html#side-effects).	Topic steroid (https://www.drugs.com/clobetasol-topical.html).	Using more than 50 grams in a given week increases the risk of serious side effects (https://www.webmd.com/drugs/2/drug-4403-451/clobetasol-topical/clobetasol-lotion-topical/details).
Colchicine (Colcrys, Mitigare, Gloperba)	Treatment and prevention of gout in adults, Familial Mediterranean fever in adults and children at least 4 years old (https://www.drugs.com/mtm/colchicine.html).	Nausea, vomiting, diarrhea, stomach cramps, pain, muscle pain, weakness, numbness or tingling in fingers or toes, unusual bruising or bleeding, signs of infection, weakness, tiredness, paleness or grayness of the lips or tongue or palms, possible decreased fertility in men ( <a href="https://medlineplus.gov/druginfo/meds/a682711.html#side-effects">https://medlineplus.gov/druginfo/meds/a682711.html#side-effects</a> ).	Antigout agent (https://www.drugs.com/mtm/colchicine.html).	Colchicine overdose can be serious enough to cause death (https://www.healthline.com/health/drugs/colchicine-oral-tablet).
Cromolyn	Mastocytosis (https://www.mayoclinic.org/drugs-supplements/cromolyn-oral-route/description/drg-20063181).	Coughing, difficulty in swallowing, hives or itching of skin, swelling, wheezing or difficulty breathing, skin rash, diarrhea, headache, abdominal pain, irritability, muscle pain, nausea, trouble sleeping ( <a href="https://www.mayoclinic.org/drugs-supplements/cromolyn-oral-route/side-effects/drg-20063181">https://www.mayoclinic.org/drugs-supplements/cromolyn-oral-route/side-effects/drg-20063181</a> ).	Acts on mast cells to prevent release of substances causing the symptoms of mastocytosis (https://www.mayoclinic.org/drugs-supplements/cromolynoral-route/description/drg-20063181).	Should not be mixed with fruit juice, milk, or food (https://www.mayoclinic.org/drugs-supplements/cromolyn-oral-route/proper-use/drg-20063181).
Cyclosporine	Prevention of organ rejection after kidney, heart, liver transplant; Severe psoriasis, severe RA (https://www.drugs.com/mtm/cyclosporine.html).	Headache, diarrhea, heartburn, gas, increased hair growth, growth of extra tissue on the gums, acne, flushing, uncontrollable shaking, burning or tingling, muscle or joint pain, cramps, pain or pressure in the face, ear problems, breast enlargement in men, depression, difficulty falling asleep or staying asleep, unusual bleeding or bruising, pale skin, yellowing of the skin or eyes, seizures, loss of consciousness, changes in behavior or mood, difficulty controlling body movements, changes in vision, confusion, rash, purple blotches on the skin, swelling (https://medlineplus.gov/druginfo/meds/a601207.html#side-effects).	Calcineurin inhibitor (https://www.drugs.com/mtm/cyclosporine.html).	All doctors involved in the patient's care should be aware that the patient is taking cyclosporine (https://www.drugs.com/mtm/cyclosporine.html).
Desloratadine (Clarinex)	Hay fever and allergy symptoms (https://medlineplus.gov/druginfo/meds/a602002.html#side-effects).	Headache, nausea, diarrhea, dizziness, sore throat, dry mouth, muscle pain, extreme tiredness, sleepiness, painful menstruation, rash, itching, hives, difficulty breathing or swallowing, swelling ( <a href="https://medlineplus.gov/druginfo/meds/a602002.html#side-effects">https://medlineplus.gov/druginfo/meds/a602002.html#side-effects</a> ).	Antihistamine (https://www.drugs.com/mtm/desloratadine.html).	Some antibiotics can increase the amount of this drug in the body (https://www.healthline.com/health/drugs/desloratadine-oral-tablet#interactions).

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Didanosine (Videx)	HIV (https://www.drugs.com/mtm/didanosine.html).	Headache, hives, rash, itching, difficulty breathing or swallowing, numbness or tingling or burning or pain in hands or feet, vision changes, difficulty seeing colors clearly ( <a href="https://medlineplus.gov/druginfo/meds/a691006.html#side-effects">https://medlineplus.gov/druginfo/meds/a691006.html#side-effects</a> ).	NRTI; Antiviral, prevents HIV from multiplying (https://www.drugs.com/mtm/didanosine.html).	Used in adults and children at least 2 weeks old (https://www.drugs.com/mtm/didanosine.html).
Dimenhydrinate (Dramamine)	Motion sickness (https://www.drugs.com/mtm/dimenhydrinate.html).	Drowsiness, excitement, hyperactivity, headache, new or worsening dizziness, blurred vision, ringing in the ears, dry mouth or nose or throat, problems with coordination, fainting, dizziness, nausea, fast or pounding or irregular heartbeat ( <a href="https://medlineplus.gov/druginfo/meds/a607046.html#side-effects">https://medlineplus.gov/druginfo/meds/a607046.html#side-effects</a> ).	Anticholinergic antiemetic (https://www.drugs.com/mtm/dimenhydrinate.html).	It is not known whether this medication can harm an unborn baby (https://www.everydayhealth.com/drugs/dramamine).
Doxylamine	Nasal congestion, insomnia (https://www.verywellhealth.com/doxylamine-and-insomnia-3015179).	Dry mouth or nose or throat, drowsiness, nausea, increased chest congestion, headache, excitement, nervousness, vision problems, difficulty urinating ( <a href="https://medlineplus.gov/druginfo/meds/a682537.html#side-effects">https://medlineplus.gov/druginfo/meds/a682537.html#side-effects</a> ).	Anxiolytic, sedative, hypnotic (https://www.drugs.com/mtm/doxylamine.html).	Available OTC (https://www.verywellhealth.com/doxylamine-and-insomnia-3015179).
Epinephrine	Anaphylaxis, low blood pressure due to septic shock (https://www.drugs.com/mtm/epinephrine-injection.html).	At the injection site: difficulty breathing, pounding or fast or irregular heartbeat, nausea, vomiting, sweating, dizziness, nervousness or anxiety or restlessness, weakness, pale skin, headache, uncontrollable shaking (https://medlineplus.gov/druginfo/meds/a603002.html#side-effects).	Sympathomimetic agent, alpha- and beta-adrenergic agonist (https://medlineplus.gov/druginfo/ meds/a603002.html).	Helps to treat serious allergic reactions, does not take the place of medical treatment (https://medlineplus.gov/druginfo/meds/a603002.html).
Etanercept (Enbrel)	RA, psoriatic arthritis, ankylosing spondylitis, plaque psoriasis (adults and children at least 4 years old), juvenile idiopathic arthritis in children at least 2 years old ( <a href="https://www.drugs.com/mtm/etanercept.html">https://www.drugs.com/mtm/etanercept.html</a> ).	At the injection site: redness, itching, pain, swelling, bleeding, bruising; Seizures, vision problems, bruising, bleeding, pale skin, rash, hives, itching, swelling, difficulty breathing or swallowing, SOB, rash on face and arms that worsens in the sun, numbness, tingling, weakness in arms or legs, dizziness, red or scaly patches or pus-filled bumps on the skin, possible increased risk of lymphoma or leukemia or skin cancer or other types of cancer (https://medlineplus.gov/druginfo/meds/a602013.html#side-effects).	Antirheumatic, TNFa inhibitor (https://www.drugs.com/mtm/etanercept.html).	Healthcare provider should test for TB before the patient takes this drug (https://www.enbrel.com/).
Fexofenadine (Allegra)	Allergy symptoms (https://www.webmd.com/drugs/2/drug-13823-2204/fexofenadine-oral/fexofenadine-oral/details).	Headache, dizziness, diarrhea, vomiting, pain in arms or legs or back, pain, pain during menstrual period, cough, hives, rash, itching, difficulty breathing or swallowing, swelling, hoarseness (https://medlineplus.gov/druginfo/meds/a697035.html#side-effects).	Works selectively on histamine-1 receptors in the body, not on the CNS (https://www.drugs.com/fexofenadine.html).	Approved by the FDA in 1996 (https://www.drugs.com/fexofenadine.html).
Fluocinonide	Plaque psoriasis (https://www.drugs.com/fluocinonide-topical.html).	Burning, itching, irritation, redness, drying or cracking of the skin, acne, change in skin color, bruising or shiny skin, tiny red bumps or rash around the mouth, small white or red bumps on skin, severe skin rash, redness or swelling or oozing pus or other signs of infection at application site, changes in fat distribution around the body, sudden weight gain, unusual tiredness, muscle weakness, depression, irritability; In children: slowed growth, delayed weight gain ( <a href="https://medlineplus.gov/druginfo/meds/a601054.html#side-effects">https://medlineplus.gov/druginfo/meds/a601054.html#side-effects</a> ).	Topical corticosteroid (https://www.drugs.com/fluocinonide-topical.html).	Children may have an increased risk of side effects (https://www.medicalnewstoday.com/articles/fluocinonide#dosage).

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	Clinical Use	Adverse Events	Notes on Mechanism	Historical and Clinical Notes
Fluticasone (Flonase)	Nasal congestion, sneezing, runny nose, itchy or watery eyes (https://www.drugs.com/mtm/fluticasone-nasal.html).	Headache, dryness or stinging or burning or irritation on the nose, nausea, vomiting, diarrhea, bloody mucus in the nose, dizziness, severe face pain, thick nasal discharge, signs of infection, whistling sound from the nose, hives, rash, itching, swelling, hoarseness, difficulty breathing or swallowing, wheezing, feeling faint, severe or frequent nosebleeds, increased risk of glaucoma or cataracts; In children, slowed growth ( <a href="https://medlineplus.gov/druginfo/meds/a695002.html#side-effects">https://medlineplus.gov/druginfo/meds/a695002.html#side-effects</a> ).	Nasal steroid (https://www.drugs.com/mtm/fluticasone-nasal.html).	Xhance brand is only used by adults, Veramyst may be used in children as young as 2 years old, and Flonase is for use in adults and children at least 4 years old (https://www.drugs.com/mtm/fluticasone-nasal.html).
Fluticasone + Salmeterol (Advair)	Asthma attacks, flare-ups or worsening of chronic obstructive pulmonary disease associated with chronic bronchitis and/or emphysema (https://www.drugs.com/mtm/fluticasone-and-salmeterol.html).	Allergic reaction, wheezing, choking, breathing problems, fever, chills, cough with mucus, SOB, chest pain, fast or irregular heartbeats, severe headache, pounding in neck or ears, tremor, nervousness, signs of thrush (fungal infection), blurred vision, tunnel vision, eye pain, seeing halos around lights, increased thirst, increased urination, dry mouth, fruity breath odor, leg cramps, constipation, irregular heartbeats, fluttering in your chest, increased thirst or urination, numbness or tingling, muscle weakness or limp feeling, worsening tired or weakness, feeling light-headed, nausea, vomiting, possible impact on growth in children, pain, throat irritation, ongoing cough, hoarseness or deepened voice, cold symptoms, ear infection (in a child) (https://www.drugs.com/advair.html#side-effects).	Bronchodilator combination (https://www.drugs.com/mtm/fluticasone-and-salmeterol.html).	FDA approved for asthma in ages 12 and older (https://www.medicalnewstoday.com/articles/326322#for-professionals).
Golimumab	RA, psoriatic arthritis, ankylosing spondylitis, ulcerative colitis, polyarticular juvenile idiopathic arthritis (https://www.ncbi.nlm.nih.gov/books/NBK576392/).	URTIs, sinusitis, bronchitis, viral infections, injection site reactions, elevated liver enzymes, hypertension, dizziness, paresthesia, constipation, pyrexia, leukopenia, superficial fungal infection (https://www.ncbi.nlm.nih.gov/books/NBK576392/).	Human monoclonal antibody TNFa blocker (https:// www.ncbi.nlm.nih.gov/books/ NBK576392/).	Use during pregnancy may result in increase of infections for up to 6 months in newborns (https://www.ncbi.nlm.nih.gov/books/NBK576392/).
Hydroxyzine (Vistaril)	Hives, contact dermatitis, anxiety, tension, general anesthesia (with other medications) (https://www.drugs.com/hydroxyzine.html).	Dry mouth, constipation, confusion, dizziness, headache, unintentional trembling or shaking movements, seizures, rash, pus-filled blister-like sores or areas of swelling and redness on the skin and fever (https://medlineplus.gov/druginfo/meds/a682866.html#side-effects).	Antihistamine, anxiolytic, sedative, hypnotic (https://www.drugs.com/hydroxyzine.html).	May be useful for patients with anxiety that has not responded to other treatments, such as benzodiazepines (https://www.drugs.com/tips/hydroxyzine-patient-tips).
Indinavir (Crixivan)	HIV (https://www.drugs.com/mtm/indinavir.html).	Change in sense of taste, rash, hives, itching, peeling skin, blistering, back pain, pain on side of body, middle to lower stomach, pain, blood in urine, muscle pain or weakness, nausea, excessive tiredness, unusual bleeding or bruising, loss of appetite, pain in upper right part of stomach, flu-like symptoms, dark yellow or brown urine, yellowing of skin or eyes, SOB, fast heartbeat, confusion, dizziness, headache, paleness (https://medlineplus.gov/druginfo/meds/a696028.html#side-effects).	Protease inhibitor; Prevents HIV from multiplying (https://www.drugs.com/mtm/indinavir.html).	FDA-approved in 1996, one of the first HIV protease inhibitors authorized in the U.S. (https://www.ncbi.nlm.nih.gov/books/NBK554396/).

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	Clinical Use	Adverse Events	Notes on Mechanism	Historical and Clinical Notes
Infliximab (Remicade, Avsola, Inflectra, Ixifi, Renflexis)	Moderate to severe active Crohn's disease in adults and children 6 years and older, ulcerative colitis, active RA, ankylosing spondylitis, psoriatic arthritis, chronic severe plaque psoriasis in adults (https://www.ncbi.nlm.nih.gov/books/NBK500021/).	Nausea, heartburn, headache, runny nose, white patches in mouth, signs of a yeast infection, flushing, rash, chest pain, irregular heartbeat, pain, swelling, sudden weight gain, SOB, blurred vision or vision changes, sudden weakness in arm or leg or face, numbness or tingling, sudden confusion or trouble speaking or trouble understanding, sudden trouble walking, dizziness or faintness, loss of balance or coordination, sudden or severe headache, seizures, yellowing of skin or eyes, dark urine, loss of appetite, pain in upper right part of stomach, unusual bruising or bleeding, blood in stool, pale skin, red or scaly patches or pus-filled bumps on skin (https://medlineplus.gov/druginfo/meds/a604023.html#side-effects).	Antrheumatic, TNFa inhibitor; Monoclonal antibody (https://www.drugs.com/infliximab.html).	Remicade brand approved by FDA in 1998, biosimilar products later approved (https://www.drugs.com/infliximab.html).
Levocetirizine (Xyzal)	Red, itchy, watery eyes; Runny nose, sneezing, rashes, reactions to insect bites or stings (https://www.drugs.com/levocetirizine.html).	Sleepiness, tiredness, weakness, sore throat, dry mouth, fever, cough, nosebleed, hives, rash, itching, swelling ( <a href="https://medlineplus.gov/druginfo/meds/a607056.html#side-effects">https://medlineplus.gov/druginfo/meds/a607056.html#side-effects</a> ).	Antihistamine (https://www.drugs.com/levocetirizine.html).	Side effects can vary according to age (https://www.medicalnewstoday.com/articles/levocetirizine-oral-tablet#side-effects).
Loratadine (Claritin)	Sneezing, runny nose, watery eyes, hives, skin rash, hay fever, itching (https://www.drugs.com/loratadine.html).	Headache, dry mouth, nosebleed, sore throat, mouth sores, difficulty falling asleep or staying asleep, nervousness, weakness, stomach pain, diarrhea, red or itchy eyes, rash, hives, itching, swelling, hoarseness, difficulty breathing or swallowing, wheezing ( <a href="https://medlineplus.gov/druginfo/meds/a697038.html#side-effects">https://medlineplus.gov/druginfo/meds/a697038.html#side-effects</a> ).	Antihistamine ( <u>https://</u> <u>www.drugs.com/loratadine.html</u> ).	OTC medication (https://www.verywellhealth.com/claritin-loratadine-oral-6747950).
Meclizine (Antivert)	Vertigo (https://www.healthline.com/health/drugs/meclizine-oral-tablet#about).	Drowsiness, tiredness, headache, blurry vision, dry mouth, serious allergic reactions (https://www.healthline.com/health/drugs/meclizine-oral-tablet#side-effects).	Anticholinergic antiemetic (https://www.drugs.com/meclizine.html).	May be used with other drugs as part of a combination therapy (https://www.healthline.com/health/drugs/meclizine-oral-tablet#about).
Megestrol (Megace)	Loss of appetite and wasting syndrome in AIDS (https://www.drugs.com/mtm/megestrol.html).	Impotence, decreased sexual desire, unexpected vaginal bleeding, difficulty falling asleep or staying asleep, gas, rash, nausea, vomiting, dizziness, weakness, blurred vision, extreme thirst, frequent urination, extreme hunger, leg pain, difficulty breathing, sharp or crushing chest pain or heaviness in chest, slow or difficult speech, weakness or numbness of arm or leg (https://medlineplus.gov/druginfo/meds/a682003.html#side-effects).	Progestin, antineoplastic (https://www.drugs.com/mtm/megestrol.html).	This drug should not be taken more often or for longer than prescribed, as this will increase the risk of side effects (https://www.webmd.com/drugs/2/drug-8946-136/megestrol-oral/details).

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	Clinical Use	Adverse Events	Notes on Mechanism	Historical and Clinical Notes
Methotrexate (Trexall, Xatmep)	Leukemia; Cancers of the breast, skin, head and neck, lung, uterus; Severe psoriasis, RA, in adults; Polyarticular-course juvenile RA in children (https://www.drugs.com/methotrexate.html).	Dizziness, drowsiness, headache, swollen or tender gums, decreased appetite, reddened eyes, hair loss, blurred vision or sudden loss of vision, seizures, confusion, weakness or difficulty moving one or both sides of the body, loss of consciousness ( <a href="https://medlineplus.gov/druginfo/meds/a682019.html#side-effects">https://medlineplus.gov/druginfo/meds/a682019.html#side-effects</a> ).	Antimetabolite, antipsoriatic, antirheumatic, immunosuppressant (https://www.drugs.com/methotrexate.html).	May cause very serious, life-threatening side effects, should only be taken for conditions that are very severe and cannot be treated with other medications (https://medlineplus.gov/druginfo/meds/a682019.html).
Methylprednisolone (Medrol)	Arthritis, lupus, psoriasis, ulcerative colitis, allergic disorders, gland (endocrine) disorders; Inflammatory conditions affecting the skin, eyes, lungs, stomach, nervous system, blood cells (https://www.drugs.com/methylprednisolone.html).	Upset stomach, stomach irritation, vomiting, headache, dizziness, insomnia, restlessness, depression, anxiety, acne, increased hair growth, easy bruising, irregular or absent menstrual periods, skin rash, swelling, vision problems, cold or infection that lasts a long time, muscle weakness, black or tarry stool ( <a href="https://medlineplus.gov/druginfo/meds/a682795.html#side-effects">https://medlineplus.gov/druginfo/meds/a682795.html#side-effects</a> ).	Glucocorticoid (https://www.drugs.com/methylprednisolone.html).	This medication is usually taken with food or milk (https://www.webmd.com/drugs/2/drug-6470/methylprednisolone-oral/details).
Mometasone (Nasonex)	Psoriasis, eczema (https://medlineplus.gov/druginfo/meds/a687014.html).	Burning, itching, irritation, redness, dryness of the skin, acne, skin sores, tiny red bumps or rash around the mouth, small white or red bumps on the skin, bruising or shiny skin, changes in skin color, severe skin rash, redness or swelling or other signs of infection where the drug was applied; In children: slowed growth, delayed weight gain ( <a href="https://medlineplus.gov/druginfo/meds/a687014.html#side-effects">https://medlineplus.gov/druginfo/meds/a687014.html#side-effects</a> ).	Corticosteroid (https:// medlineplus.gov/druginfo/meds/ a687014.html).	Inhaled drug is used to prevent asthma attacks, does not relieve an attack that has already started (https://www.mayoclinic.org/drugs-supplements/mometasone-inhalation-route/proper-use/drg-20067282).
Pilocarpine (Salagen)	Dry mouth due to Sjogren syndrome or from salivary gland damage due to radiation treatment of head/neck for cancer, glaucoma (https://www.webmd.com/drugs/2/drug-78603/pilocarpine-oral/details, https://www.visioncenter.org/blog/pilocarpine/).	Sweating, nausea, runny nose, diarrhea, chills, flushing, frequent urination, dizziness, weakness, headache, vomiting, heartburn, stomach pain, swelling, changes in vision, fast or slow heartbeat ( <a href="https://medlineplus.gov/druginfo/meds/a608039.html#side-effects">https://medlineplus.gov/druginfo/meds/a608039.html#side-effects</a> ).	Cholinergic agonist (https://www.drugs.com/mtm/pilocarpine.html).	Cholinergic receptors are also located on sweat glands, hence sweating as one of the most common side effects (https://www.goodrx.com/pilocarpine/what-is).

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	Clinical Use	Adverse Events	Notes on Mechanism	Historical and Clinical Notes
Prednisone (Rayos, Sterapred, Deltasone)	Allergic disorders, skin conditions, ulcerative colitis, Crohn's disease, arthritis, lupus, psoriasis, asthma, COPD (https://www.drugs.com/prednisone.html).	Headache, dizziness, difficulty falling asleep or staying asleep, inappropriate happiness, extreme changes in mood, changes in personality, bulging eyes, acne, thin or fragile skin, red or purple blotches or lines under the skin, slowed healing of cuts and bruises, increased hair growth, changes in fat distribution around the body, extreme tiredness, weak muscles, irregular or absent menstrual periods, decreased sexual desire, heartburn, increased sweating, vision problems, eye pain or redness or tearing, signs of infection, seizures, depression, loss of contact with reality, confusion, muscle twitching or tightening, shaking of hands that cannot be controlled, numbness or burning or tingling, upset stomach, vomiting, lightheadedness, irregular heartbeat, sudden weight gain, SOB especially at night, dry or hacking cough, swelling or pain in the stomach, swelling, difficulty breathing or swallowing, rash, hives, itching, possible increased risk of osteoporosis, Kaposi's sarcoma; In children: possible slowed growth and development (https://medlineplus.gov/druginfo/meds/a601102.html#side-effects).	Glucocorticoid (https://www.drugs.com/prednisone.html).	This medication should be carefully measured if taken in liquid form, a household spoon may not provide the correct dose (https://www.webmd.com/drugs/2/drug-6007-9383/prednisone-oral/prednisone-oral/details).
Promethazine (Phenergan)	Nausea and vomiting related to motion sickness or before/after surgery, allergy, relaxation before or after surgery, pain (https://www.rxlist.com/consumer_promethazine_phenergan/drugs-condition.htm).	Dry mouth, drowsiness, listlessness, difficulty falling asleep or staying asleep, nightmares, dizziness, ringing in ears, blurred or double vision, loss of coordination, nausea, vomiting, nervousness, restlessness, hyperactivity, abnormally happy mood, stuffy nose, itching, wheezing, slowed breathing, breathing stops for a short time, fever, sweating, stiff muscles, decreased alertness, fast or irregular pulse or heartbeat, faintness, abnormal or uncontrollable movements, hallucinations, confusion, overwhelming or unmanageable fear or emotion, seizures, uncontrollable shaking, unusual bruising or bleeding, signs of infection, uncontrolled eye movements, tongue sticking out, abnormal neck position, inability to respond to people around patient, yellowing of skin or eyes, rash, hives, swelling, hoarseness, difficulty breathing or swallowing (https://medlineplus.gov/druginfo/meds/a682284.html#side-effects).	Antihistamine, phenothiazine antiemetic (https://www.drugs.com/promethazine.html).	May cause death in children (https://medlineplus.gov/druginfo/meds/a682284.html#sideeffects).
Rapamycin (Sirolimus)	Prevention of kidney transplant rejection (https://medlineplus.gov/druginfo/meds/a602026.html).	Stomach pain, headache, constipation, diarrhea, nausea, joint pain, unusual bleeding or bruising, cough, swollen or red or cracked or scaly skin, hives, rash, itching, difficulty breathing or swallowing, swelling, hoarseness (https://medlineplus.gov/druginfo/meds/a602026.html#side-effects).	Immunosuppressant (https://medlineplus.gov/druginfo/meds/a602026.html).	May increase risk of developing infection or cancer, especially lymphoma (https://medlineplus.gov/druginfo/meds/a602026.html).
Ranitidine (Zantac)	Ulcers, GERD, Zollinger-Ellison syndrome (https://medlineplus.gov/druginfo/meds/a601106.html).	Headache, constipation, diarrhea, nausea, vomiting, stomach pain (https://medlineplus.gov/druginfo/meds/a601106.html#side-effects).	H2 antagonist (https://www.drugs.com/ranitidine.html).	OTC version used for symptoms of heartburn (https://medlineplus.gov/druginfo/meds/a601106.html).

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	Clinical Use	Adverse Events	Notes on Mechanism	Historical and Clinical Notes
Sulfasalazine (Azulfidine)	RA, IBD, ulcerative colitis (https://www.drugs.com/sulfasalazine.html).	Yellow or orange discoloration of urine or skin, diarrhea, headache, loss of appetite, upset stomach, vomiting, stomach pain, rash or hives or itching or peeling or blistering of skin, swelling, difficulty breathing or swallowing, swollen glands, signs of infection, pale skin, tiredness, SOB, joint or muscle aches, yellowing of skin or eyes, pain in upper part of stomach, difficult or painful urination, cloudy or discolored or bloody urine, chest pain, new or worsening cough, tiredness, unusual bleeding or bruising, weakness, seizures (https://medlineplus.gov/druginfo/meds/a682204.html#side-effects).	DMARD; 5-aminosalicylate, antirheumatic (https://www.drugs.com/sulfasalazine.html).	Slow-acting, takes time to start working (https://www.drugs.com/sulfasalazine.html).
Tacrolimus (Astagraf XL, Envarsus XR, Prograf)	Prevention of organ rejection in patients with a kidney transplant, fistulizing Crohn's disease (https://medlineplus.gov/druginfo/meds/a601117.html).	Headache, diarrhea, constipation, nausea, vomiting, heartburn, stomach pain, difficulty falling asleep or staying asleep, dizziness, weakness, back or joint pain, burning or numbness or pain or tingling in hands or feet, decreased urination, pain or burning on urination, SOB, hives, rash, itching, pale skin, fast heartbeat, tiredness, weight gain, swelling, unusual bleeding or bruising, seizures, vision changes, headache, confusion, uncontrollable shaking, coma, pinpoint-sized purple dots under skin, bruising, fever, tiredness, sleepiness, confusion, yellowing of skin or eyes, decreased urination (https://medlineplus.gov/druginfo/meds/a601117.html#side-effects).	Immunosuppressant (https://medlineplus.gov/druginfo/meds/a601117.html#side-effects).	When the immune system is not working normally, there may be a greater risk of cancer, especially lymphoma (https://medlineplus.gov/druginfo/meds/a601117.html#side-effects).
Tenofovir (Vemlidy, Viread)	HIV, chronic hepatitis B (https://www.everydayhealth.com/drugs/tenofovir).	Depression, pain, back pain, diarrhea, headache, trouble sleeping, nausea, vomiting, rash, lactic acidosis, liver enlargement, worsening hepatitis B infection, decreased bone mineral density, immune reconstitution syndrome, kidney damage, reduced kidney function ( <a href="https://www.healthline.com/health/drugs/tenofovir-oral-tablet#side-effects">https://www.healthline.com/health/drugs/tenofovir-oral-tablet#side-effects</a> ).	NRTI (https://www.drugs.com/mtm/tenofovir.html).	This drug has a boxed warning (https://www.healthline.com/health/drugs/tenofoviroral-tablet#side-effects).
Triamcinolone (Aristocort)	Allergic disorders, skin conditions, ulcerative colitis, arthritis, lupus, psoriasis, breathing disorders (https://www.drugs.com/triamcinolone.html).	Burning, itching, irritation, stinging, redness, drying skin, acne, change in skin color, unwanted hair growth, tiny red bumps or rash around the mouth, small white or red bumps on the skin, severe rash, redness or swelling or other signs of skin infection where applied; In children: slowed growth, delayed weight gain ( <a href="https://medlineplus.gov/druginfo/meds/a601124.html#side-effects">https://medlineplus.gov/druginfo/meds/a601124.html#side-effects</a> ).	Glucocorticoid (https://www.drugs.com/triamcinolone.html).	Can also be used as a dental paste to relieve discomfort of mouth sores (https://medlineplus.gov/druginfo/meds/a601124.html#side-effects).