

## Compounding with Hazardous Drugs – Australia

### August 2025

### Defining Hazardous Medications

Hazardous Medications (HMs) are medications that meet one or more of the below criteria in humans or animals

- certain antivirals
- cytotoxics and other antineoplastics
- genetically modified organisms (GMOs)
- highly sensitising or highly irritant substances
- medicines that can cause infection (e.g. Bacillus Calmette-Guérin instillation)
- certain monoclonal antibodies
- nicotine
- sex hormones (e.g. estrogens, progestogens, testosterone).

Hazardous Medications are divided into two categories:

**Category 1:** Medications that require handling precautions for all persons who handle the medications. This can include cytotoxic and non-cytotoxic neoplastic medication and hazardous non-antineoplastic medications.

**Category 2:** Medications that require handling precautions for persons who are pregnant, breastfeeding, or need to minimize their exposure to reproductive hazardous.

### PPE and Engineering Controls:

While APF does offer a series of resources that can aid pharmacists working with HMs, they do not offer specific guidance or requirements in terms of PPE, cleaning/deactivation/decontamination, or engineering controls within the APF. While the APF does make note of specific PPE the below is mentioned as examples of suitable PPE

- use of PPE suitable for the HM and level of risk, such as
- eye and face protection
- P2/N95 or more protective respirator masks for protection against inhalation of airborne particles (surgical masks are not sufficient protection); the mask must be fit-tested
- specific respiratory protection against inhalation of gases, vapours or liquid splashes
- impermeable gowns or coveralls (e.g. full body covering for compounding cytotoxics)
- impermeable overshoes or boots
- suitable head, hair and beard covers
- disposable gloves that are manufacturer-recommended for the HMs involved

Facilities must have a readily accessible washing facility (hand and eye wash as well as shower) and spill kit

### Monitoring:

Baseline and appropriately timed periodic health monitoring (e.g. pathology tests) of compounding personnel must be conducted in accordance with the level of risk and relevant regulatory requirements, standards and guidelines

### Documentation:

SDS documents must be readily available

Hazardous chemicals must be labeled with appropriate precautionary and labeling requirements

Personnel must be appropriately trained to interpret SDS documents

| Category 1               |                              |  |
|--------------------------|------------------------------|--|
| Abacavir                 | Cabazitaxel                  | Daunorubicin                               |
| Abemaciclib              | Cabozantinib                 | Decitabine, cedazuridine                   |
| Abiraterone              | Capecitabine                 | Deferiprone                                |
| Abrocitinib              | Capivasertib                 | Degarelix                                  |
| Afatinib                 | Carbamazepine                | Dexrazoxane                                |
| Aflibercept              | Carboplatin                  | Docetaxel                                  |
| Alectinib                | Carfilzomib                  | Doxorubicin                                |
| Alpelisib                | Carmustine                   | Enasidenib                                 |
| Anastrozole              | Cemiplimab                   | Encorafenib                                |
| Apalutamide              | Ceritinib                    | Enfortumab vedotin                         |
| Apomorphine              | Chlorambucil                 | Entecavir                                  |
| Arsenic trioxide         | Chloramphenicol              | Entrectinib                                |
| Asciminib                | Chlormethine                 | Enzalutamide                               |
| Asparaginase (colaspase) | Ciclosporin                  | Epirubicin                                 |
| Atezolizumab             | Cidofovir                    | Eribulin                                   |
| Avelumab                 | Cisplatin                    | Erlotinib                                  |
| Axitinib                 | Cladribine                   | Estetrol                                   |
| Azacitidine              | Clofarabine                  | Estradiol                                  |
| Azathioprine             | Cobimetinib                  | Estradiol/progesterone combinations        |
| Baricitinib              | Crisantaspase                | Estriol                                    |
| Bazedoxifene             | Crizotinib                   | Estrogens (conjugated)                     |
| Bendamustine             | Cyclophosphamide             | Estropipate (piperazine estrone)           |
| Bicalutamide             | Cyproterone                  | Etanercept                                 |
| Binimetinib              | Cytarabine                   | Ethinylestradiol/progesterone combinations |
| Bleomycin                | Dabrafenib                   | Etoposide                                  |
| Blinatumomab             | Dacarbazine                  | Etrasimod                                  |
| Bortezomib               | Dactinomycin (actinomycin D) | Everolimus                                 |
| Brentuximab vedotin      | Danazol                      | Exemestane                                 |
| Brigatinib               | Darolutamide                 | Finerenone                                 |
| Busulfan                 | Dasatinib                    | Fingolimod                                 |
| Fludarabine              | Mycophenolate mofetil/sodium | Sacituzumab govitecan                      |
| Fluorouracil             | Nab-paclitaxel               | Samarium                                   |

|  |                     |                         |
|--|---------------------|-------------------------|
| Flutamide  | Nelarabine          | Selinexor               |
| Fotemustine  | Neratinib           | Selpercatinib           |
| Fruquintinib   | Nevirapine          | Selumetinib             |
| Fulvestrant  | Nilotinib           | Siponimod               |
| Ganciclovir  | Nintedanib          | Sirolimus               |
| Gefitinib  | Niraparib           | Sonidegib               |
| Gemcitabine  | Nivolumab           | Sorafenib               |
| Gemtuzumab   | Norethisterone      | Spironolactone          |
| Gilteritinib   | Olaparib            | Sunitinib               |
| Goserelin  | Osimertinib         | Tacrolimus              |
| Hydroxycarbamide (hydroxyurea)   | Oxaliplatin         | Tafasitamab             |
| Ibrutinib  | Oxcarbazepine       | Talazoparib             |
| Idarubicin   | Oxybuprocaine       | Tamoxifen               |
| Idelalisib   | Paclitaxel          | Temozolomide            |
| Ifosfamide   | Palbociclib         | Tepotinib               |
| Imatinib   | Palonosetron        | Teriflunomide           |
| Infigratinib   | Pazopanib           | Thalidomide             |
| Inotuzumab ozogamicin  | Pegaspargase        | Thiotepa                |
| Irinotecan   | Pembrolizumab       | Tioguanine              |
| Ivosidenib   | Pemetrexed          | Tipiracil, trifluridine |
| Ixazomib   | Pemigatinib         | Tirbanibulin            |
| Lamivudine   | Pentostatin         | Tirzepatide             |
| Lapatinib  | Phenoxybenzamine    | Tislelizumab            |
| Larotrectinib  | Phenytoin           | Tofacitinib             |
| Lazertinib   | Pirfenidone         | Topotecan               |
| Leflunomide  | Polatuzumab vedotin | Toremifene              |
| Lenalidomide   | Pomalidomide        | Trabectedin             |
| Lenvatinib   | Ponatinib           | Trametinib              |
| Letrozole  | Ponesimod           | Trastuzumab deruxtecan  |
| Leuprorelin  | Pralatrexate        | Trastuzumab emtansine   |
| Levonorgestrel   | Pralsetinib         | Treosulfan              |
| Lomustine  | Prasterone          | Trientine               |
| Lorlatinib   | Procarbazine        | Triptorelin             |
| Lurbinectedin  | Progesterone        | Tucatinib               |
| Lutetium (177Lu) vipivotide tetraxetan                                   | Progestins          | Valganciclovir          |
| Medroxyprogesterone  | Propylthiouracil    | Vandetanib              |
| Megestrol  | Radium (223Ra)      | Vemurafenib             |
| Melphalan  | Raloxifene          | Vinblastine             |
| Mercaptopurine   | Raltitrexed         | Vincristine             |
| Mesterolone  | Ramucirumab (RMC)   | Vinorelbine             |
| Methotrexate‡  | Rasagiline          | Vismodegib              |
| Midostaurin  | Regorafenib         | Vorasidenib             |
| Mitomycin  | Ribociclib          | Vorinostat              |
| Mitozantrone   | Ripretinib          | Zanubrutinib            |
| Mobocertinib   | Ritlecitinib        | Zidovudine              |
| Momelotinib  | Romidepsin          |                         |
| Mycobacterium bovis (Bacillus Calmett Guerin (BCG) strain) (non-vaccine) | Ruxolitinib         |                         |

### Category 2

|               |             |                          |
|---------------|-------------|--------------------------|
| Abaloparatide | Albendazole | Armodafinil              |
| Acalabrutinib | Ambrisentan | Artemether, lumefantrine |
| Acitretin     | Amikacin    | Atorvastatin             |
| Adapalene     | Amivantamab | Avacopan                 |

|                              |                                |                                 |
|------------------------------|--------------------------------|---------------------------------|
| Basiliximab                  | Icatibant                      | Primidone                       |
| Belumosudil                  | Interferon beta-1a             | Quinapril                       |
| Belzutifan                   | Interferon beta-1b             | Quinine                         |
| Bevacizumab                  | Irbesartan                     | Ramipril                        |
| Bosentan                     | Isavuconazole                  | Ranibizumab                     |
| Brolucizumab                 | Isotretinoin                   | Relatlimab                      |
| Cabergoline                  | Ivabradine                     | Relugolix                       |
| Candesartan                  | Lamotrigine                    | Ribavirin                       |
| Captopril                    | Lisinopril                     | Riociguat                       |
| Carbimazole                  | Lithium                        | Risdiplam                       |
| Carboprost                   | Losartan                       | Rosuvastatin                    |
| Cariprazine                  | Luspatercept                   | Rozanolixizumab                 |
| Cetrorelix                   | Macitentan                     | Semaglutide                     |
| Cetuximab                    | Magnesium sulfate heptahydrate | Simvastatin                     |
| Chloroquine                  | Maribavir                      | Smallpox/monkeypox live vaccine |
| Chlorpromazine               | Mavacamten                     | Sodium Iodide (131 I)           |
| Choriogonadotropin           | Menopausal gonadotrophin       | Sotatercept                     |
| Cipaglucosidase alfa         | Methotrexate‡                  | Sotorasib                       |
| Clascoterone                 | Methylene blue                 | Sulthiame                       |
| Clomifene                    | Methylphenidate                | Tafamidis                       |
| Clonazepam                   | Mifepristone                   | Tazarotene                      |
| Colchicine                   | Miglustat                      | Telmisartan                     |
| Concizumab                   | Minocycline                    | Temazepam                       |
| Dapagliflozin                | Misoprostol                    | Terlipressin                    |
| Defibrotide                  | Modafinil                      | Testosterone                    |
| Denosumab                    | Molnupiravir                   | Testosterone undecanoate        |
| Dinoprostone                 | Nafarelin                      | Tetracosactide (tetracosactrin) |
| Dostarlimab                  | Nandrolone decanoate           | Tibolone                        |
| Doxycycline                  | Neomycin                       | Tigecycline                     |
| Durvalumab                   | Netupitant                     | Tobramycin                      |
| Dutasteride                  | Nicotine                       | Tolvaptan                       |
| Efavirenz                    | Olipudase alfa                 | Topiramate                      |
| Empagliflozin                | Olmesartan                     | Trandolapril                    |
| Enalapril                    | Osilodrostat                   | Trastuzumab                     |
| Eprosartan                   | Oxytocin                       | Tremelimumab                    |
| Ertugliflozin                | Ozanimod                       | Tretinoin                       |
| Ethosuximide                 | Palovarotene                   | Trifarotene                     |
| Faricimab                    | Pamidronate                    | Ulipristal                      |
| Fenfluramine                 | Paroxetine                     | Upadacitinib                    |
| Finasteride                  | Pasireotide                    | Valproate                       |
| Fluconazole                  | Patisiran                      | Valsartan                       |
| Fluvastatin                  | Peginterferon beta-1a          | Venetoclax                      |
| Follitropin alfa (rch)       | Penicillamine                  | Vericiguat                      |
| Follitropin beta             | Pentamidine isetionate         | Vigabatrin                      |
| Follitropin delta (rhu)      | Perindopril                    | Vitamin A (retinol palmate)     |
| Fosinopril                   | Pertuzumab                     | Voriconazole                    |
| Fosnetupitant                | Phenindione                    | Vutrisiran                      |
| Framycetin                   | Phenobarbital (phenobarbitone) | Warfarin                        |
| Gabapentin                   | Plerixafor                     | Zilucoplan                      |
| Ganirelix                    | Podophyllotoxin                | Ziprasidone                     |
| Gentamicin                   | Pravastatin                    | Zoledronic acid                 |
| Human chorionic gonadotropin | Pregabalin                     | Zonisamide                      |
| Hydroxychloroquine           | Primaquine                     |                                 |