

First FRCR Examination – Clinical Pharmacology Module List of Anti-Cancer Drugs

The table below sets out the list of drugs expected to be covered during the first year of clinical oncology training and which may be included in the clinical pharmacology module of the First FRCR examination. This list is reviewed regularly to ensure current practice is reflected. This version will apply to examinations held from spring 2022 until a further version is published.

Trainees are expected to demonstrate their knowledge of the general properties of each major class of drugs in terms of their indications, toxicity, mode of action, pharmacokinetics and pharmacodynamics and interactions. Detailed specific knowledge will only be required for the examples of each class of drug given in the table below.

Class of drugs	Examples
Cytotoxic agents	
Alkylating agents	<ul style="list-style-type: none">▪ Cyclophosphamide▪ Ifosfamide▪ Temozolomide
Anti-metabolites	<ul style="list-style-type: none">▪ Capecitabine▪ 5- Fluoro Uracil▪ Gemcitabine▪ Methotrexate▪ Pemetrexed
Anti-tumour antibiotics	<ul style="list-style-type: none">▪ Bleomycin▪ Doxorubicin (+ pegylated liposomal)▪ Epirubicin▪ Mitomycin
Plant alkaloids / microtubule inhibitors	<ul style="list-style-type: none">▪ Docetaxel▪ Eribulin▪ Etoposide▪ Irinotecan▪ Paclitaxel▪ Vincristine▪ Vinorelbine

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Class of drugs	Examples
DNA linking agents	<ul style="list-style-type: none">▪ Carboplatin▪ Cisplatin▪ Oxaliplatin
Biological agents & targeted agents	
	<ul style="list-style-type: none">▪ Alectinib▪ Afatinib▪ Bevacizumab▪ Cabozantinib▪ Cetuximab▪ Crizotinib▪ Dabrafenib▪ Denosumab▪ Erlotinib▪ Imatinib▪ Osimertinib▪ Olaparib▪ Rituximab▪ Sunitinib▪ Trametinib
CDK4/6 inhibitors	<ul style="list-style-type: none">▪ Palbociclib▪ Ribociclib▪ Abemaciclib
HER-2 targeted agents	<ul style="list-style-type: none">▪ Pertuzumab▪ Trastuzumab▪ Trastuzumab emtansine (TDM-1)
Bisphosphonates	
	<ul style="list-style-type: none">▪ Zoledronic acid
Immunotherapy	
	<ul style="list-style-type: none">▪ Atezolizumab▪ Durvalumab▪ Ipilimumab▪ Nivolumab▪ Pembrolizumab

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Class of drugs	Examples
Hormones/other	
	<ul style="list-style-type: none">▪ Abiraterone▪ Degarelix▪ Fulvestrant
Aromatase inhibitors	<ul style="list-style-type: none">▪ Anastrozole▪ Exemestane▪ Letrozole
SERM	<ul style="list-style-type: none">▪ Tamoxifen
Anti-androgens	<ul style="list-style-type: none">▪ Enzalutamide▪ Bicalutamide
LHRH agonists	<ul style="list-style-type: none">▪ Goserelin