MD snapshot Prescribing

Oral Morphine Equivalents (OME) & Defined Daily Doses (DDD) in MD Snapshot

This document provides a listing of medications included in **MD Snapshot-Prescribing**. Dose calculations for analytic purposes were based on the OME and DDD values shown below.

Opioids: OME determination

For the opioid analytic class, OMEs were used as the standard measure of dose. Drug OME values were obtained primarily from the Centers for Disease Control, the previous Canadian Guideline for Safe and Effective Use of Opioids for Chronic Non-Cancer Pain and the Compendium of Pharmaceuticals and Specialties. The OME for compounds within the opioid class cannot be calculated as dose and/or route are unknown, therefore compounds do not contribute towards a patient's total dose of opioids. Compounds are captured in all other quantity measures in the Snapshot.

For MD Snapshot-Prescribing purposes, the OME for a specific drug dispense is calculated as follows:

Dispense OME = strength x quantity x drug OME factor
Patient OME / day = the sum of the OME for all drug dispenses to the patient in the time period analyzed / days in the time period analyzed

Note: Tables below are for information only and are not intended for clinical use.

Opioids		
Main ingredient	**Route**	**OME* factor**
Buprenorphine	Transdermal	Varies**
Butorphanol	Nasal	7
Codeine	Parenteral Oral	0.25 0.15
Fentanyl	Buccal Parenteral Sublingual Transdermal	130 200 130 7.2 (i.e. 2.4 x 3 days)
Hydrocodone	Oral	1
Hydromorphone	Parenteral Oral	15 4

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Opioids		
Main ingredient	**Route**	**OME* factor**
	Rectal	4
Methadone (tablets only)	Oral	Varies**
Meperidine	Parenteral Oral	0.4 0.1
Morphine	Oral	1
Oxycodone	Oral Rectal	1.5 1.5
Oxymorphone	Parenteral	30
Pentazocine	Parenteral Oral	0.5 0.37
Sufentanil (Sufentanil Citrate)	Parenteral	1200
Tapentadol	Oral	0.4
Tramadol	Oral	0.1

Ingredients not contributing to dose calculations (i.e., assigned OME= 0) include some buprenorphine products (e.g., implant, injection), methadone (liquid) and naloxone.

* OME values are ingredient and route specific. OME factors were used to standardize dose measurements across drugs in the opioid class.

** OME varies on a sliding scale for tablets, please email AIR.Inquiries@cpsa.ab.ca for details.

Benzodiazepine/z-drugs (BDZ/Z) and antibiotics: DDD determination

The number of DDDs (i.e. the dose in multiples of the DDDs) is used as the standard measure of dosing across all drugs and routes of administration within the antibiotics and BDZ/Z analytic classes or prescribing domains. The BDZ/Z class includes benzodiazepines and benzodiazepine-like drugs such as zopiclone.

BDZ/Z and antibiotics data presented using DDDs gives a rough estimate of consumption and not an exact picture of actual use. DDDs provide a fixed unit of measurement independent of price, currencies, package size and strength enabling standardization and analysis across a given drug class.

The DDDs for a specific drug dispense were calculated as follows:

Dispense DDDs = strength x quantity/drug DDD
Total patient DDDs per day = the sum of the DDDs for all drug dispenses to the patient in the period divided by the number of days in the time period analyzed

Benzodiazepines & Z-drugs		
Main ingredient	**Route**	**DDD factor* (mg)**
Alprazolam	Oral	1
Bromazepam	Oral	10
Chlordiazepoxide	Oral	30
Clobazam	Oral	20
Clonazepam	Oral	8
Clorazepate Dipotassium	Oral	20
Diazepam	Parenteral Oral Rectal	10 10 10
Flurazepam	Oral	30
Eszopiclone	Oral	2
Lorazepam	Parenteral Oral Sublingual	2.5 2.5 2.5
Midazolam	Parenteral	15
Nitrazepam	Oral	5
Oxazepam	Oral	50
Temazepam	Oral	20
Triazolam	Oral	0.25
Zaleplon	Oral	10
Zolpidem	Sublingual	10
Zopiclone	Oral	7.5

*Defined Daily Dose (DDD) values are defined by the World Health Organization (WHO) and represent the assumed average maintenance dose per day for a drug used for its main indication in adults. Multiples of DDDs were used to standardize dose measurements across drugs in the BDZ/Z-drug class.

An example of DDD/day calculation for an antibiotic would be:

If a patient is dispensed cefixime 400mg once daily for 5 days the DDD/day would be calculated:
(400 mg x 5) divided by 400= 5, divided by 92 days (in the quarter) = 0.05

Antibiotics		
Main ingredient	**Route**	**DDD factor (mg)**
Amikacin	Parenteral	1000
Amoxicillin	Oral	1500
Amoxicillin	Parenteral	3000
Ampicillin	Oral	2000
Ampicillin	Parenteral	6000
Atovaquone	Oral	2250
Azithromycin	Oral	300
Azithromycin	Parenteral	500
Aztreonam	Inhalation	225
Bacampicillin	Oral	1200
Cefaclor	Oral	1000
Cefadroxil	Oral	2000
Cefamandole	Parenteral	6000
Cefazolin	Parenteral	3000
Cefdinir	Oral	600
Cefepime	Parenteral	4000
Cefixime	Oral	400
Cefonicid	Parenteral	1000
Cefotaxime	Parenteral	4000
Cefotetan	Parenteral	4000
Cefoxitin	Parenteral	6000
Cefpodoxime	Oral	400
Cefprozil	Oral	1000
Ceftazidime	Parenteral	4000
Ceftibuten	Oral	400
Ceftizoxime	Parenteral	4000

Antibiotics		
Main ingredient	**Route**	**DDD factor (mg)**
Ceftolozane	Parenteral	3000
Ceftriaxone	Parenteral	2000
Cefuroxime	Oral	500
Cefuroxime	Parenteral	3000
Cephalexin	Oral	2000
Chloramphenicol	Oral	3000
Chloramphenicol	Parenteral	3000
Chlortetracycline	Oral	1000
Ciprofloxacin	Oral	1000
Ciprofloxacin	Parenteral	800
Clarithromycin	Oral	500
Clindamycin	Oral	1200
Clindamycin	Parenteral	1800
Cloxacillin	Oral	2000
Cloxacillin	Parenteral	2000
Colistin	Parenteral	270
Dalbavancin	Parenteral	1500
Dalfopristin	Parenteral	1500
Dapsone	Oral	50
Daptomycin	Parenteral	280
Dirithromycin	Oral	500
Doripenem	Parenteral	1500
Doxycycline	Oral	100
Doxycycline	Parenteral	100
Ertapenem	Parenteral	1000
Erythromycin	Oral	1000
Erythromycin	Parenteral	1000
Erythromycin ethylsuccinate	Oral	2000
Ethambutol	Oral	1200
Fidaxomicin	Oral	400
Fleroxacin	Oral	400

Antibiotics		
Main ingredient	**Route**	**DDD factor (mg)**
Fleroxacin	Parenteral	400
Fosfomycin	Oral	3000
Fosfomycin	Parenteral	8000
Fusidic acid	Oral	1500
Fusidic acid	Parenteral	1500
Gatifloxacin	Oral	400
Gatifloxacin	Parenteral	400
Gemifloxacin	Oral	320
Gentamicin	Parenteral	240
Grepafloxacin	Oral	400
Imipenem	Parenteral	2000
Levofloxacin	Oral	500
Levofloxacin	Parenteral	500
Lincomycin	Oral	1800
Lincomycin	Parenteral	1800
Linezolid	Oral	1200
Linezolid	Parenteral	1200
Loracarbef	Oral	600
Meropenem	Parenteral	3000
Methenamine	Oral	2000
Metronidazole	Oral	2000
Metronidazole	Parenteral	1500
Minocycline	Oral	200
Minocycline	Parenteral	200
Moxifloxacin	Oral	400
Moxifloxacin	Parenteral	400
Nafcillin	Parenteral	3000
Nalidixic acid	Oral	4000
Neomycin	Oral	1000
Netilmicin	Parenteral	350
Nitrofurantoin	Oral	200

Antibiotics		
Main ingredient	**Route**	**DDD factor (mg)**
Norfloxacin	Oral	800
Ofloxacin	Oral	400
Ofloxacin	Parenteral	400
Oxytetracycline	Oral	1000
Oxytetracycline	Parenteral	1000
Paromomycin	Oral	3000
Penicillin	Oral	2000
Penicillin	Parenteral	3600
Piperacillin	Parenteral	14000
Pivampicillin	Oral	1050
Pivmecillinam	Oral	600
Polymyxin b	Parenteral	150
Pyrazinamide	Oral	1500
Quinupristin	Parenteral	1500
Rifabutin	Oral	150
Rifampin	Oral	600
Rifaximin	Oral	600
Rolitetracycline	Parenteral	350
Spectinomycin	Parenteral	3000
Spiramycin	Oral	3000
Streptomycin	Parenteral	1000
Sulbactam	Parenteral	1000
Sulfadiazine	Oral	600
Sulfadimethoxine	Oral	500
Sulfamerazine	Oral	3000
Sulfamethoxazole	Oral	2000
Tedizolid	Oral	200
Tedizolid	Parenteral	200
Telithromycin	Oral	800
Tetracycline	Oral	1000
Ticarcillin	Parenteral	15000

Antibiotics		
Main ingredient	**Route**	**DDD factor (mg)**
Tigecycline	Parenteral	100
Tobramycin capsule	Inhalation	112
Tobramycin solution	Inhalation	300
Tobramycin	Parenteral	240
Trimethoprim	Oral	400
Trimethoprim	Parenteral	400
Trovafloxacin	Oral	200
Trovafloxacin	Parenteral	200
Vancomycin	Parenteral	2000

*Defined Daily Dose (DDD) values are defined by the World Health Organization (WHO) and represent the assumed average maintenance dose per day for a drug used for its main indication in adults.

DDDs have not been assigned for ophthalmic and otic antibiotic products (e.g., drops, ointment).