

# Appendix D: Medications Linked to Urinary Retention

**Drugs associated with urinary retention (Karch, 1997; Carnahan et al, 2006)**

Carnahan et al (2006) identify anticholinergics that may cause complications in patients by the severity of symptoms caused in patients. The drugs below have the following affect: Level 3=markedly anticholinergic; Level 2=sometimes anticholinergic; and, Level 1= potentially anticholinergic (Carnahan et al, 2006)

Anticholinergics (Level 3)	amitriptyline atropine benztropine brompheniramine carbinoxamine chlorpheniramine chlorpromazine clemastine clomipramine clozapine darifenacin Desipramine dicyclomine dimenhydrinate diphenhydramine doxepin flavoxate hydroxyzine	hyoscyamine imipramine meclizine nortriptyline orphenadrine oxybutynin procyclidine promethazine propantheline protriptyline pyrilamine scopolamine thioridazine tolterodine trihexyphenidyl trimipramine
Anticholinergics (Level 2)	carbamazepine cimetidine cyclobenzaprine cyproheptadine disopyramide loxapine meperidine	methotrimeprazine molindone oxcarbazepine pimozone ranitidine

Anticholinergics (Level 1)	alprazolam amantadine ampicillin azathioprine bromocriptine captopril cefamandole cefoxitin cephalothin chlordiazepoxide chlorthalidone clindamycin clonazepam clorazepate codeine cortisone cycloserine cyclosporine dexamethasone diazepam digitoxin digoxin diltiazem Dipyridamole divalproex sodium estazolam famotidine fentanyl fluoxetine fluphenazine Flurazepam fluticasone-salmeterol fluvoxamine furosemide gentamicin hydralazine	hydrocortisone isosorbide isosorbide dinitrate isosorbide mononitrate ketotifen ophthalmic loperamide lorazepam methylprednisolone midazolam morphine nifedipine nizatidine olanzapine oxazepam oxycodone pancuronium paroxetine perphenazine phenelzine piperacillin prednisolone prednisone prochlorperazine sertraline temazepam theophylline thiothixene tramadol triamcinolone triamterene triazolam trifluoperazine valproic acid vancomycin warfarin
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Tricyclic antidepressants	<ul style="list-style-type: none"> <li>◆ Amitriptyline</li> <li>◆ Amoxapine</li> <li>◆ Clomipramine</li> <li>◆ Doxepin</li> <li>◆ Imipramine</li> <li>◆ Nortriptyline</li> <li>◆ Protriptyline</li> <li>◆ Trimipramine</li> </ul>
Other antidepressants (reduced risk)	<ul style="list-style-type: none"> <li>◆ Bupropion</li> <li>◆ Paroxetine</li> <li>◆ Sertraline</li> <li>◆ Trazodone</li> </ul>
Antipsychotics	<ul style="list-style-type: none"> <li>◆ Chlorpromazine</li> <li>◆ Clozapine</li> <li>◆ Perphenazine</li> <li>◆ Promazine</li> <li>◆ Thioridazine</li> </ul>
Antiparkinsonian	<ul style="list-style-type: none"> <li>◆ Amantadine</li> <li>◆ Bromocriptine</li> <li>◆ Levodopa</li> </ul>
Calcium channel blockers (when combined with other agents)	<ul style="list-style-type: none"> <li>◆ Nifedipine</li> <li>◆ Verapamil</li> </ul>
Narcotic analgesics (when combined with other agents)	<ul style="list-style-type: none"> <li>◆ Morphine</li> <li>◆ Meperidine</li> </ul>
Anesthetic agents	<ul style="list-style-type: none"> <li>◆ General anesthesia</li> <li>◆ Spinal anesthesia</li> <li>◆ Epidural block</li> </ul>
Recreational drugs	<ul style="list-style-type: none"> <li>◆ Cannabis</li> </ul>