

Anticholinergic Cognitive Burden List (ACB)

Developed by the Aging Brain Program at the IU Center for Aging Research

4/4/12

Drugs with ACB Score of 1

Generic Name	Brand Name
Alverine	Spasmonal™
Alprazolam	Xanax™
Atenolol	Tenormin™
Bupropion	Wellbutrin™, Zyban™
Captopril	Capoten™
Chlorthalidone	Diuril™, Hygroton™
Cimetidine	Tagamet™
Clorazepate	Tranxene™
Codeine	Contin™
Colchicine	Colcris™
Diazepam	Valium™
Digoxin	Lanoxin™
Dipyridamole	Persantine™
Disopyramide	Norpace™
Fentanyl	Duragesic™, Actiq™
Furosemide	Lasix™
Fluvoxamine	Luvox™
Haloperidol	Haldol™
Hydralazine	Apresoline™
Hydrocortisone	Cortef™, Cortaid™
Isosorbide	Isordil™, Ismo™
Loperamide	Imodium™, others
Metoprolol	Lopressor™, Toprol™
Morphine	MS Contin™, Avinza™
Nifedipine	Procardia™, Adalat™
Prednisone	Deltasone™, Sterapred™
Quinidine	Quinaglute™
Ranitidine	Zantac™
Risperidone	Risperdal™
Theophylline	Theodur™, Uniphyll™
Trazodone	Desyrel™
Triamterene	Dyrenium™
Warfarin	Coumadin™

Drugs with ACB Score of 2

Generic Name	Brand Name
Amantadine	Symmetrel™
Belladonna	Multiple
Carbamazepine	Tegretol™
Cyclobenzaprine	Flexeril™
Cyproheptadine	Periactin™
Loxapine	Loxitane™
Meperidine	Demerol™
Methotrimeprazine	Levoprome™
Molindone	Moban™
Oxcarbazepine	Trileptal™
Pimozide	Orap™

Scoring directions:

- Possible anticholinergics include those listed with a score of 1 in the column to the left
- Definite anticholinergics include those listed with a score of either 2 or 3 in the columns above and to the right

Scoring interpretation:

- Each definite anticholinergic may increase the risk of cognitive impairment by 46% over 6 years.³
- For each one point increase in the ACB total score, a decline in MMSE of 0.33 points over 2 years has been suggested.⁴
- Additionally, each one point increase in the ACB total score has been correlated with a 26% increase in the risk of death.⁴

COMPLETE REFERENCES:

- Boustani MA, Campbell NL, Munger S, Maidment I, Fox GC. Impact of anticholinergics on the aging brain: a review and practical application. *Aging Health.* 2008;4(3):311-20.
- Campbell N, Boustani M, Limbil T, Ott C, et al. The cognitive impact of anticholinergics: a clinical review. *Clinical Interventions in Aging.* 2009;4(1):225-33.
- Campbell N, Boustani M, Lane K, Gao S, Hendrie H, Khan B, Murrell J, Unverzagt F, Hake A, Smith-Gamble V, Hall K. Use of anticholinergics and the risk of cognitive impairment in an African-American population. *Neurology* 2010;75:152-159.
- Fox C, Richardson K, Maidment, et al. Anticholinergic medication use and cognitive impairment in the older population: the Medical Research Council Cognitive Function and Ageing Study. *J Am Geriatr Soc* 2011; epub ahead of print.

Drugs with ACB Score of 3

Generic Name	Brand Name
Amitriptyline	Elavil™
Amoxapine	Asendin™
Atropine	Sal-Tropine™
Benztropine	Cogentin™
Brompheniramine	Dimetapp™
Carboxamine	Histex™, Carbihist™
Chlorpheniramine	Chlor-Trimeton™
Chlorpromazine	Thorazine™
Clemastine	Tavist™
Clomipramine	Anafranil™
Clozapine	Clozaril™
Darifenacin	Enablex™
Desipramine	Norpramin™
Dicyclomine	Bentyl™
Dimenhydrinate	Dramamine™, others
Diphenhydramine	Benadryl™, others
Doxepin	Sinequan™
Flavoxate	Urispas™
Hydroxyzine	Atarax™, Vistaril™
Hyoscyamine	Anaspaz™, Levsin™
Imipramine	Tofranil™
Meclizine	Antivert™
Methocarbamol	Robaxin™
Nortriptyline	Pamelor™
Olanzapine	Zyprexa™
Orphenadrine	Norflex™
Oxybutynin	Ditropan™
Paroxetine	Paxil™
Perphenazine	Trilafon™
Promethazine	Phenergan™
Propantheline	Pro-Banthine™
Quetiapine	Seroquel™
Scopolamine	Transderm Scop™
Thiordiazine	Mellaril™
Tolterodine	Detrol™
Trifluoperazine	Stelazine™
Trihexyphenidyl	Artane™
Trimipramine	Surmontil™