Supplementary Text

Algorithm’s sequence of the 7 tested algorithms

1. Predefined
   1. Decision rules
2. Code
   1. Drug identification Number (DIN)
   2. Natural Product Number (NPN)
3. Direct
   1. Product name
   2. Active ingredient
   3. Brand name
   4. Medicinal ingredient
4. Word
   1. Product name
   2. Active ingredient
   3. Brand name
   4. Medicinal ingredient
5. Reverse-word
   1. Product name
   2. Active ingredient
6. Simple
   1. Product name
   2. Active ingredient
   3. Brand name
   4. Medicinal ingredient
7. No-units
   1. Product name
   2. Active ingredient
   3. Brand name
   4. Medicinal ingredient

The variables ‘product name’ and ‘active ingredient’ are from the Health Canada Drug Product Database.

The variables ‘brand name’ and ‘medicinal ingredient’ are from the Health Canada Licensed Natural Health Products Database.

Decision Rules

|  |  |  |
| --- | --- | --- |
| **Decision rules** | **Input examples** | **Recoded** |
| **Natural Health Products** |  |  |
| Calcium | Calcium | NPN = 80083109 |
| Calcium plus Vitamin D | Calcium plus Vitamin D | NPN = 80007620 |
| Calcium and Magnesium | Calcium and Magnesium | NPN = 02040875 |
| Calcium plus Vitamin D plus  Magnesium | Calcium plus Vitamin D plus Magnesium | NPN = 02040905 |
| Coenzyme Q10 | CoQ10 | NPN = 02176955 |
| Collagen | Collagen | NPN = 80039378 |
| Cranberry | Cranberry | NPN = 80028197 |
| Digestive enzymes | Digestive enzymes | NPN = 02242303 |
| Echinacea | Echinacea | NPN = 02143445 |
| Fibre | Fibre | NPN = 80061769 |
| Fish oil | Fish oil, Halibut liver oil, Wild  Alaskan Salmon Oil | NPN = 80003210 |
| Folic acid | Folic acid | NPN = 00318973 |
| Garlic | Garlic | NPN = 80000011 |
| Ginkgo biloba | Ginkgo biloba | NPN = 80000241 |
| Glucosamine | Glucosamine | NPN = 80000083 |
| Glucosamine plus chondroitin | Glucosamine plus chondroitin | NPN = 80001336 |
| Glucosamine plus chondroitin  plus methylsulfonylmethane | Glucosamine plus chondroitin  plus MSM | NPN = 80000269 |
| Glucosamine plus  methylsulfonylmethane | Glucosamine plus MSM | NPN = 80003966 |
| Hormone replacement therapy,  female, herbal, plant-based | HRT female natural | NPN = 80080885 |
| Magnesium | Magnesium | NPN = 02040921 |
| Magnesium plus Vitamin D | Magnesium plus Vitamin D | NPN = 80048427 |
| Melatonin | Melatonin | NPN = 80000834 |
| Minerals, Electrolytes | Minerals, Electrolytes | NPN = 80067448 |
| Multivitamin – general | Multivitamin, Centrum Women | NPN = 80068809 |
| Multivitamin - eye | Vitalux Advanced, Ocuvite Adult 50+ | NPN = 80016965 |
| Omega (not specified as fish oil source) | Omega | NPN = 80002617 |
| Omega (not specified as fish oil source) plus Vitamin D | Omega plus Vitamin D | NPN = 80030004 |
| Omega (not specified as fish oil source) plus Coenzyme 10 | Omega plus Coenzyme 10 | NPN = 80021693 |
| Potassium | Potassium | NPN = 80015552 |
| Saw palmetto | Saw palmetto | NPN = 80001088 |
| Selenium | Selenium | NPN = 00554987 |
| Tumeric / Curcumin | Tumeric, Curcumin | NPN = 80057587 |
| Vitamin B1 | Vitamin B1, Thiamine | NPN = 00407011 |
| Vitamin B5 | Vitamin B5, Pantothenic Acid | NPN = 80003684 |
| Vitamin B6 | Vitamin B6, Riboflavine | NPN = 00309702 |
| Vitamin B3 | Vitamin B3, Vit B3 | NPN = 80004529 |
| Vitamin B6 | Vitamin B6, Vit B6 | NPN = 00122645 |
| Vitamin B6 plus Vitamin B12 | Vitamin B6 plus Vitamin B12 | NPN = 80001219 |
| Vitamin B6 plus Vitamin B12 plus Folic Acid | Vitamin B6 plus Vitamin B12 plus Folic Acid | NPN = 80021128 |
| Vitamin B12 | Vitamin B12, Vit B12 | NPN = 00406988 |
| Vitamin B12 plus folic acid | Vitamin B12 plus folic acid | NPN = 02243119 |
| Vitamin B complex | Vitamin B complex | NPN = 00455377 |
| Vitamin C | Vitamin C, Vit C | NPN = 80021855 |
| Vitamin C plus Vitamin D | Vitamin C plus Vitamin D | NPN = 80017620 |
| Vitamin D | Vitamin D, Vit D, D-tabs | NPN = 00765384 |
| Vitamin D plus Vitamin K | Vitamin D plus Vitamin K | NPN = 80009878 |
| Vitamin E | Vitamin E, Vit E | NPN = 00122823 |
| Vitamin K | Vitamin K, Vit K | NPN = 80070693 |
| Zinc | Zinc | NPN = 00297666 |
| **Drugs** |  |  |
| Acetaminophen | Acetaminophen | DIN = 00559393 |
| Acetaminophen plus codeine | Acetaminophen plus codeine | DIN = 00425362 |
| ASA - low dose plus other ASA | Aspirin low dose, ASA low  dose | DIN = 02237726 |
| ASA - regular strength and higher | Aspirin regular strength | DIN = 02150328 |
| ASA plus codeine | ASA plus codeine | DIN = 00589470 |
| Estrogens | Estrogens | DIN = 02451239 |
| Eye lube drops or ointment | Eye lube drops/ointment | DIN = 02321696 |
| Hormone replacement therapy  male | HRT male (androgen, testosterone) | DIN = 02322498 |
| Ibuprofen | Ibuprofen | DIN = 01933531 |
| Iron | Iron | DIN = 02241634 |
| Naproxen | Naproxen | DIN = 02301733 |
| Probiotic/Probiotique | Probiotic | DIN = 02172909 |
| Progesterone | Progesterone | DIN = 02493578 |
| **Other Classifications** |  |  |
| Incorrect spelling | Alopurinil, cod live oil | Code correct spelling in interpretation and code DIN |
| Drug class not coded further | Anti-anxiety, blood pressure, company without product | Drug class not coded further  DIN column left blank |
| Drug class to be coded further | Beta blocker | Drug class to be coded further  DIN column left blank |
| Product name not coded further (multiple possible extensions) | GENECOL, Swiss Natural HRT Nightime, Ultraflora, Vitalux | Product name not coded further  DIN column left blank |
| Not a drug | Cider vinegar, CPAP | Not a drug  DIN column left blank |
| Not enough information | Research study drug, heart health, Hydro | Not enough information  DIN column left blank |
| Cannabis | Cannabis, Marijuana | Cannabis  DIN column left blank |