Compatibility of Commonly Used Intravenous Drugs

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The number of available I.V. medications continues to expand. In addition, many institutions have observed an increase in patient acuity, as well as a rise in the number of medications administered to each patient. These factors have resulted in a seemingly endless number of possible combinations of I.V. medications and, along with these combinations, potential incompatibilities.

A chance of incompatibility exists whenever one or more medications are combined or added to an I.V. fluid. It is important to recognize that compatibility is not just a function of the drugs themselves, but also is dependent upon a variety of factors, including concentration, temperature, storage vehicle, infusion solution, order of mixing, and administration technique. Compatibility differences have been reported for different brands of the same drug.

The purpose of this chart is to provide data in an organized, concise format so that compatibility information can be accessed quickly and conveniently. A clear and concise compatibility chart can be a useful tool in helping healthcare professionals deliver safe, high-quality I.V. therapy to patients.

Obviously, all conditions that may affect compatibility cannot be included in such a format; however, the importance of these factors should not be overlooked.

Three types of incompatibilities are commonly discussed: physical, chemical, and therapeutic. *Physical incompatibilities* are the most easily detected and are evidenced by visible changes such as particulate formation, haze, precipitation, color change, or gas evolution. *Chemical incompatibilities* are those that result in decomposition of a drug. Loss of potency of greater than 10% over the defined testing period is considered chemical incompatibility. Most chemical incompatibilities can be detected only with a suitable analytic method. *Therapeutic incompatibilities*, in which a drug combination results in undesirable antagonistic or synergistic pharmacologic activity, are beyond the scope of most compatibility references.

Despite the differing nature of compatibilities, the type of incompatibility or compatibility is not specified in this chart. A designation of compatible indicates that the combination evaluated appears to be compatible based on the tests performed, whether these tests measured physical, chemical, or both types of compatibility.

While it is not possible to predict all incompatibilities that may arise, it is hoped that their occurrence may be minimized. Continuing research to add to the existing body of knowledge of I.V. compatibilities is vital.

Suggested Readings

Catania PN, ed. *King Guide to Parenteral Admixtures* [CD-ROM]. Napa, Calif: King Guide Publications; 2005.

Data on file, Sanofi-Aventis.

Data on file, Wyeth Pharmaceuticals.

Klasco RK, ed. DRUGDEX System. Greenwood Village, Colo: Thomson MICROMEDEX. Expires September 2005.

Trissel LA, ed. *Handbook on Injectable Drugs*. 13th ed. Bethesda, Md: American Society of Health-System Pharmacists; 2005.

Trissel LA, Saenz C, Williams KY, et al. Incompatibilities of lansoprazole injection with other drugs during simulated Y-site coadministration. *International Journal of Pharmaceutical Compounding*. 2001;5(4):314-319.

KEY

- **A** = Physically compatible for at least 2 hours
- **C** = Physically compatible
- **D** = Physically compatible in dextrose 5% in water
- **E** = Physically compatible for at least 5 minutes
- **G** = Physically compatible in glass bottle only
- **H** = Physically compatible for at least 1 hour
- **I** = Incompatible
- **N** = Information on compatibility is not available or not adequate
- **R** = Physically compatible for 24 hours under refrigeration
- **S** = Physically compatible in 0.9% sodium chloride only

Compatibility of Selected I.V. Drugs

	Acyclovir	Amikacin	Amphotericin B	Ampicillin	Ampicillin-sulbactam	Azithromycin	Aztreonam	Bumetanide	Calcium gluconate	Cefazolin	Cefepime	Cefotaxime	Cefotetan	Ceftazidime	Ceftizoxime	Ceftriaxone	Ciprofloxacin	Clindamycin	Dexamethasone	Dextrose 5% in water	Diazepam	Diltiazem	Diphenhydramine	Dobutamine	Dolasetron	Dopamine	Doxycycline	Enalaprilat	Epinephrine	Erythromycin	Esmolol	Esomeprazole	Famotidine	Fentanyl	Fluconazole	Flumazenil	Furosemide	Gatifloxacin	Gentamicin	Granisetron
Acyclovir		C	N	C	N	N	I	N	N	C	I	C	N	C	C	C	N	C	C	C	N	I	C	I	I	I	C	N	N	C	N	N	C	N	C	N	N	C	C	C
Amikacin	C		I	I	N	I	C	N	C	C	C	I	C	H	N	C	C	C	C	C	N	C	C	N	N	N	N	C	C	N	C	N	N	N	C	N	C	C	N	C
Amphotericin B	N	I		N	N	N	I	N	I	N	I	N	N	N	N	N	I	N	N	C	N	C	I	N	I	I	N	I	N	N	N	N	C	N	I	N	N	I	I	I
Ampicillin	C	I	N		N	N	A	N	I	S	H	N	C	N	N	N	I	C	N	I	N	I	N	N	I	I	I	C	I	C	C	N	C	C	I	N	C	C	I	C
Ampicillin-sulbactam	N	N	N	N		N	C	N	N	N	C	N	N	N	N	N	I	N	N	A	N	I	N	N	N	N	N	C	N	N	N	N	C	N	C	N	N	C	N	C
Azithromycin	N	I	N	N	N		I	N	N	N	N	I	N	I	N	I	I	I	N	C	N	N	H	N	N	N	N	N	N	N	N	N	I	I	N	N	I	N	I	N
Aztreonam	I	C	I	A	C	I		C	C	C	C	C	C	C	C	C	C	C	C	C	N	C	C	C	N	C	C	C	N	N	N	N	C	N	C	N	C	C	C	C
Bumetanide	N	N	N	N	N	N	C		N	N	C	N	N	N	N	N	N	N	N	C	N	C	N	I	N	N	N	N	N	N	N	N	N	N	N	N	C	N	N	C
Calcium gluconate	N	C	I	I	N	N	C	N		A	C	N	N	N	N	N	A	I	C	C	N	N	C	A	C	N	N	C	A	N	N	N	C	C	I	N	C	C	N	C
Cefazolin	C	C	N	S	N	N	C	N	A		N	N	N	N	N	N	N	C	C	C	C	C	N	N	I	N	N	C	N	N	C	N	C	C	C	N	N	C	I	C
Cefepime	I	C	I	H	C	N	C	C	C	N		N	N	N	N	N	I	C	C	C	I	N	I	I	N	I	N	I	N	N	N	N	I	N	C	N	C	N	I	C
Cefotaxime	C	I	N	N	N	I	C	N	N	N	N		N	N	N	N	N	C	N	C	N	C	N	N	N	N	N	N	N	N	N	N	C	C	I	N	N	N	I	C
Cefotetan	N	C	N	C	N	N	C	N	N	N	N	N		N	N	N	N	N	N	C	N	C	N	N	N	C	C	N	C	C	N	N	C	N	C	N	C	C	I	C
Ceftazidime	C	H	N	N	N	I	C	N	N	N	N	N	N		N	N	C	C	N	C	N	C	N	N	N	N	N	C	N	I	C	N	C	N	I	N	N	C	H	C
Ceftizoxime	C	N	N	N	N	N	C	N	N	N	N	N	N	N		N	N	C	N	C	N	N	N	N	C	N	N	C	N	N	C	N	C	N	N	N	N	C	N	C
Ceftriaxone	C	C	N	N	N	I	C	N	N	N	N	N	N	N	N		N	I	N	C	N	C	N	N	N	N	N	N	N	N	N	N	C	N	I	N	N	C	I	C
Ciprofloxacin	N	C	I	I	I	I	C	N	A	N	I	N	N	C	N	N		I	I	C	N	C	C	C	N	C	N	N	N	N	N	N	N	N	C	N	I	N	C	C
Clindamycin	C	C	N	C	N	I	C	N	I	C	C	C	N	C	C	I	I		N	C	N	C	N	N	I	N	N	C	N	N	C	N	N	C	I	N	N	C	C	C
Dexamethasone	C	C	N	N	N	N	C	N	C	C	C	N	N	N	N	N	I	N		C	I	N	I	N	N	N	N	N	N	N	N	N	C	C	C	N	C	C	N	C
Dextrose 5% in water	C	C	C	I	A	C	C	C	C	C	C	C	C	C	C	C	C	C	C		I	C	C	C	C	C	C	C	C	I	C	C	C	C	C	N	N	C	C	C
Diazepam	N	N	N	N	N	N	N	N	N	C	I	N	N	N	N	N	N	N	I	I		I	N	I	N	N	N	N	I	N	I	N	N	C	I	N	I	I	N	N
Diltiazem	I	C	C	I	I	N	C	C	N	C	N	C	C	C	N	C	C	C	N	C	I		N	C	N	C	C	N	C	C	C	N	N	C	C	N	I	N	C	N
Diphenhydramine	C	C	I	N	N	H	C	N	C	N	I	N	N	N	N	N	C	N	I	C	N	N		N	C	N	N	N	N	C	N	N	C	C	C	N	I	C	N	C
Dobutamine	I	N	N	N	N	N	C	I	A	N	I	N	N	N	N	N	C	N	N	C	I	C	N		N	C	N	C	C	N	C	N	C	C	C	C	I	C	N	C
Dolasetron	I	N	I	I	N	N	N	N	C	I	N	N	N	N	C	N	N	I	N	C	N	N	C	N		C	N	N	N	C	N	N	N	A	N	N	N	N	C	N
Dopamine	I	N	I	I	N	N	C	N	N	N	I	N	C	N	N	N	C	N	N	C	N	C	N	C	C		I	C	C	N	C	N	C	C	C	C	I	C	C	C
Doxycycline	C	N	N	I	N	N	C	N	N	N	N	N	C	N	N	N	N	N	N	C	N	C	N	N	N	I		N	N	N	N	N	N	N	N	N	N	N	N	C
Enalaprilat	N	C	I	C	C	N	C	N	C	C	I	N	N	C	C	N	N	C	N	C	N	N	N	C	N	C	N		N	C	C	N	C	C	N	N	N	C	C	C
Epinephrine	N	C	N	I	N	N	N	N	A	N	N	N	C	N	N	N	N	N	N	C	I	C	N	C	N	C	N	N		N	N	N	C	C	N	N	A	N	N	N
Erythromycin	C	N	N	C	N	N	N	N	N	N	N	N	C	I	N	N	N	N	N	I	N	C	C	N	C	N	N	C	N		C	N	C	N	I	N	I	N	N	N
Esmolol	N	C	N	C	N	N	N	N	N	C	N	N	N	C	C	N	N	C	N	C	I	C	N	C	N	C	N	C	N	C		N	C	C	N	N	I	C	C	N
Esomeprazole	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	C	N	N	N	N	N	N	N	N	N	N	N		N	N	N	N	N	N	N	N
Famotidine	C	N	C	C	C	I	C	N	C	C	I	C	C	C	C	C	N	N	C	C	N	N	C	C	N	C	N	C	C	C	C	N		N	C	C	I	C	C	C
Fentanyl	N	N	N	C	N	I	N	N	C	C	N	C	N	N	N	N	N	C	C	C	C	C	C	C	A	C	N	C	C	N	C	N	N		N	N	C	C	C	N
Fluconazole	C	C	I	I	C	N	C	N	I	C	C	I	C	I	N	I	C	I	C	C	I	C	C	C	N	C	N	N	N	I	N	N	C	N		N	I	C	C	C
Flumazenil	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	C	N	C	N	N	N	N	N	N	C	N	N		N	N	N	N
Furosemide	N	C	N	C	N	I	C	C	C	N	C	N	C	N	N	N	I	N	C	N	I	I	I	I	N	I	N	N	A	I	I	N	I	C	I	N		I	I	C
Gatifloxacin	C	C	I	C	C	N	C	N	C	C	N	N	C	C	C	C	N	C	C	C	I	N	C	C	N	C	N	C	N	N	C	N	C	C	C	N	I		C	C
Gentamicin	C	N	I	I	N	I	C	N	N	I	I	I	I	H	N	I	C	C	N	C	N	C	N	N	C	C	N	C	N	N	C	N	C	C	C	N	I	C		C
Granisetron	C	C	I	C	C	N	C	C	C	C	C	C	C	C	C	C	C	C	C	C	N	N	C	C	N	C	C	C	N	N	N	N	C	N	C	N	C	C	C	
Heparin	C	I	E	C	C	N	C	C	C	C	C	E	A	C	N	C	I	C	C	C	I	N	C	I	I	C	I	C	C	I	C	N	C	C	C	C	C	I	I	C
Hydrocortisone Sodium Succinate	C	C	C	I	N	N	C	N	N	N	C	N	N	N	N	N	I	C	C	C	I	C	C	N	C	C	I	C	C	C	C	N	C	C	C	N	C	C	I	C
Hydromorphone	C	C	N	C	N	N	C	N	N	C	C	C	N	C	C	N	N	C	I	C	I	C	C	C	N	C	C	N	C	C	N	N	C	C	N	N	C	C	C	C
Imipenem-cilastatin	C	N	N	N	N	I	C	N	N	N	C	N	N	N	N	N	N	N	N	N	N	C	N	N	N	N	N	N	N	N	N	N	C	N	I	N	N	C	N	C
Insulin, regular	N	N	N	A	A	N	A	C	N	A	N	N	A	N	N	N	N	N	N	C	N	I	N	I	N	I	N	N	N	N	C	N	C	N	N	N	N	N	C	N
Lansoprazole	C	C	I	I	N	N	I	N	I	I	I	N	I	I	I	C	I	I	C	C	I	I	I	I	N	I	N	I	N	N	I	N	N	C	C	N	I	I	C	I
Levofloxacin	I	C	N	C	N	I	N	N	N	N	N	C	N	N	N	N	N	C	C	C	N	N	N	C	N	C	N	N	C	N	N	N	N	C	N	N	I	N	C	N
Linezolid	C	C	I	C	C	N	C	N	C	C	N	N	C	C	C	I	C	C	C	C	I	N	C	C	N	C	C	C	N	I	C	N	C	C	C	N	C	N	C	C
Lorazepam	C	C	N	N	N	N	I	C	N	N	C	C	N	N	N	N	C	N	C	C	N	C	N	C	N	C	N	N	C	C	N	N	C	C	C	N	C	C	C	C
Magnesium sulfate	C	C	I	C	N	N	C	N	C	C	I	C	N	N	N	N	I	C	N	C	N	N	N	A	C	N	C	C	N	C	C	N	C	N	N	N	N	C	C	C
Mannitol	N	C	C	N	N	N	C	N	N	N	I	N	N	N	N	N	N	N	N	C	N	N	N	N	N	C	N	N	N	N	N	N	N	N	N	N	I	C	N	N
Meperidine	H	C	N	C	H	N	C	C	N	C	I	C	H	C	C	C	N	C	C	C	I	C	C	C	A	C	C	N	N	C	N	N	C	E	C	N	I	C	C	C
Meropenem	I	N	I	N	N	N	N	N	A	N	N	N	N	N	N	N	N	N	C	I	I	N	C	C	N	C	I	C	N	N	N	N	N	N	C	N	C	N	C	N
Methohexitol	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	C	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Methylprednisolone	C	N	C	N	N	N	C	N	I	N	C	N	N	N	N	N	I	C	N	C	N	I	I	N	I	C	N	C	N	N	N	N	C	N	N	N	N	C	N	C
Metoclopramide	C	N	N	I	N	N	C	N	I	N	I	N	N	N	N	N	C	C	C	C	N	C	C	N	A	N	N	N	N	I	N	N	C	C	C	N	I	C	N	C
Metronidazole	C	C	N	C	N	N	I	N	N	C	C	C	N	C	C	C	C	C	N	C	N	C	N	N	C	I	N	C	N	N	C	N	N	C	C	N	N	C	C	C
Midazolam	N	C	N	I	N	N	N	I	C	C	N	C	N	I	N	N	C	C	I	C	N	C	C	I	A	C	N	N	C	C	C	N	C	C	C	N	I	C	C	N
Milrinone	C	C	N	C	N	N	N	C	C	C	C	C	N	C	N	N	C	C	C	C	N	C	N	C	N	C	N	N	C	N	N	N	N	C	N	N	I	N	C	N
Morphine sulfate	I	C	N	C	H	I	C	C	N	C	I	C	C	C	C	C	N	C	C	C	C	C	C	C	A	C	C	C	C	C	C	N	C	C	C	N	I	C	C	C
Nafcillin	C	N	N	N	N	N	I	N	N	N	N	N	N	N	N	N	N	N	C	C	C	I	C	I	N	N	N	C	N	N	C	N	C	C	C	N	N	N	I	N
Nitroglycerin	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	G	N	C	N	C	N	C	N	C	C	N	C	N	C	C	C	N	I	C	N	N
Nitroprusside	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	C	N	C	N	C	N	C	N	C	C	N	C	N	C	N	N	N	C	N	N	N
Norepinephrine	N	C	N	I	N	N	N	N	C	N	N	N	N	N	N	N	C	N	N	C	I	C	N	C	C	C	I	N	I	N	C	N	C	C	N	N	C	N	N	N
Ondansetron	I	C	I	I	I	H	C	N	N	C	I	C	N	C	C	N	N	C	C	C	N	N	C	N	N	C	C	N	N	N	N	N	C	C	C	N	I	C	C	N
Pantoprazole	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	C	N	N	C	N	N	N	C	N	N	N	N	C	N	N	N	N	N	N	N	N	N	C	N
Penicillin G potassium	C	C	I	C	N	N	N	N	C	C	N	N	C	N	N	N	N	C	C	C	N	C	C	N	C	C	N	C	I	C	C	N	N	N	C	N	C	N	N	N
Phenylephrine	N	N	N	N	N	N	N	N	C	N	N	N	N	N	N	N	N	N	N	C	N	N	C	C	N	N	N	N	N	N	N	N	C	N	N	N	N	N	N	N
Phenytoin	N	I	N	N	N	N	N	N	N	N	N	N	N	N	N	N	I	N	N	I	N	I	I	I	N	N	N	I	N	N	C	N	C	I	C	N	N	I	N	N
Piperacillin-tazobactam	I	N	I	N	N	I	C	C	C	N	C	N	N	N	N	N	N	C	C	C	N	N	C	I	N	C	I	C	N	N	N	N	I	N	C	N	C	I	N	C
Potassium chloride	C	C	I	C	N	I	C	N	C	C	C	N	N	C	N	N	C	C	C	C	I	C	C	A	C	C	N	C	C	C	C	N	C	C	C	N	C	C	N	C
Prochlorperazine	N	C	I	I	N	N	I	N	I	C	I	N	N	N	N	N	N	N	I	C	N	N	C	N	C	N	N	N	I	C	N	N	N	E	C	N	I	C	N	C
Ringer's, lactated	N	C	I	I	R	C	C	C	C	C	N	C	C	C	N	I	C	C	N	C	I	N	C	C	N	C	N	C	C	C	C	C	N	N	C	C	C	N	C	N
Sodium bicarbonate	C	C	C	N	N	N	C	N	I	N	C	N	N	I	N	C	I	C	C	C	I	I	N	I	I	I	I	N	I	C	C	N	C	C	N	N	C	C	N	C
Sodium chloride 0.9%	C	C	I	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	I	C	C	C	C	C	C	C	C	C	C	C	C	C	N	C	C	C	C	C
Ticarcillin-clavulanate	N	N	N	N	N	I	C	N	N	N	C	N	N	N	N	N	N	N	N	C	N	C	N	N	N	N	N	N	N	N	N	N	C	N	C	N	N	C	N	C
Tobramycin	C	N	N	N	N	I	C	N	H	C	I	C	C	C	N	N	C	C	N	C	N	C	N	N	C	N	N	C	N	N	C	N	N	N	C	N	C	C	C	C
Trimethoprim-sulfamethoxazole	C	N	N	N	N	N	C	N	N	N	C	N	N	N	N	N	N	N	N	C	N	C	N	N	I	N	N	C	N	N	C	N	N	N	I	N	N	C	N	C
Vancomycin	C	C	N	C	C	N	I	N	C	I	I	I	I	I	C	I	N	N	I	C	N	C	C	N	C	N	N	C	I	N	C	N	C	C	C	N	N	I	N	C
Vasopressin	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	C	N	C	N	C	N	C	N	N	C	N	N	N	N	N	N	N	N	N	N	N

Compatibility of Selected I.V. Drugs

Heparin	Hydrocortisone Sod. Succ.	Hydromorphone	Imipenem-cilastatin	Insulin, regular	Lansoprazole	Levofloxacin	Linezolid	Lorazepam	Magnesium sulfate	Mannitol	Meperidine	Meropenem	Methohexitol	Methylprednisolone	Metoclopramide	Metronidazole	Midazolam	Milrinone	Morphine sulfate	Nafcillin	Nitroglycerin	Nitroprusside	Norepinephrine	Ondansetron	Pantoprazole	Penicillin G Potassium	Phenylephrine	Phenytoin	Piperacillin-tazobactam	Potassium chloride	Prochlorperazine	Ringer's, lactated	Sodium bicarbonate	Sodium chloride 0.9%	Ticarcillin-clavulanate	Tobramycin	Trimethoprim-sulfamethoxazole	Vancomycin	Vasopressin	
C	C	C	C	N	C	I	C	C	C	N	H	I	N	C	C	C	N	C	I	C	N	N	N	I	N	C	N	N	I	C	N	N	C	C	N	C	C	C	N	Acyclovir
I	C	C	N	N	C	C	C	C	C	C	C	N	N	N	N	C	C	C	C	N	N	N	C	C	N	C	N	I	N	C	C	C	C	C	N	N	N	C	N	Amikacin
E	C	N	N	N	I	N	I	N	I	C	N	I	N	C	N	N	N	N	N	N	N	N	N	I	N	I	N	N	I	I	I	I	C	I	N	N	N	N	N	Amphotericin B
C	I	C	N	A	I	C	C	N	C	N	C	N	N	N	I	C	I	C	C	N	N	N	I	I	N	C	N	N	N	C	I	I	N	C	N	N	N	C	N	Ampicillin
C	N	N	N	A	I	N	C	N	N	N	H	N	N	N	N	N	N	N	H	N	N	N	N	I	N	N	N	N	N	N	N	R	N	C	N	N	N	C	N	Ampicillin-sulbactam
N	N	N	I	N	N	I	N	N	N	N	N	N	N	N	N	N	N	N	I	N	N	N	N	H	N	N	N	N	I	I	N	C	N	C	I	I	N	N	N	Azithromycin
C	C	C	C	A	I	N	C	I	C	C	C	N	N	C	C	I	N	N	C	I	N	N	N	C	N	N	N	N	C	C	I	C	C	C	C	C	C	I	N	Aztreonam
C	N	N	N	C	N	N	N	C	N	N	C	N	N	N	N	N	I	C	C	N	N	N	N	N	N	N	N	N	C	N	N	C	N	C	N	N	N	N	N	Bumetanide
C	N	N	N	N	I	N	C	N	C	N	N	A	N	I	I	N	C	C	N	N	N	N	C	N	N	C	C	N	C	C	I	C	I	C	N	H	N	C	N	Calcium gluconate
C	N	C	N	A	I	N	C	N	C	N	C	N	N	N	N	C	C	C	C	N	N	N	N	C	N	C	N	N	N	C	C	C	N	C	N	C	N	I	N	Cefazolin
C	C	C	C	N	I	N	N	C	I	I	I	N	N	C	I	C	N	C	I	N	N	N	N	I	N	N	N	N	C	C	I	N	C	C	C	I	C	I	N	Cefepime
E	N	C	N	N	N	C	N	C	C	N	C	N	N	N	N	C	C	C	C	N	N	N	N	C	N	N	N	N	N	N	N	C	N	C	N	C	N	I	N	Cefotaxime
A	N	N	N	A	I	N	C	N	N	N	H	N	N	N	N	N	N	N	C	N	N	N	N	N	N	C	N	N	N	N	N	C	N	C	N	C	N	I	N	Cefotetan
C	N	C	N	N	I	N	C	N	N	N	C	N	N	N	N	C	I	C	C	N	N	N	N	C	N	N	N	N	N	C	N	C	I	C	N	C	N	I	N	Ceftazidime
N	N	C	N	N	I	N	C	N	N	N	C	N	N	N	N	C	N	N	C	N	N	N	N	C	N	N	N	N	N	N	N	N	N	C	N	N	N	C	N	Ceftizoxime
C	N	N	N	N	C	N	I	N	N	N	C	N	N	N	N	C	N	N	C	N	N	N	N	N	N	N	N	N	N	N	N	I	C	C	N	N	N	I	N	Ceftriaxone
I	I	N	N	N	I	N	C	C	I	N	N	N	N	I	C	C	C	C	N	N	N	N	C	N	C	N	N	I	N	C	N	C	I	C	N	C	N	N	N	Ciprofloxacin
C	C	C	N	N	I	C	C	N	C	N	C	N	N	C	C	C	C	C	C	N	N	N	N	C	N	C	N	N	C	C	N	C	C	C	N	C	N	N	N	Clindamycin
C	C	I	N	N	C	C	C	C	N	N	C	C	N	N	C	N	I	C	C	C	N	N	N	C	N	C	N	N	C	C	I	N	C	C	N	N	N	I	N	Dexamethasone
C	C	C	N	C	C	C	C	C	C	C	C	I	C	C	C	C	C	C	C	C	G	C	C	C	C	C	C	I	C	C	C	C	C	C	C	C	C	C	C	Dextrose 5% in water
I	I	I	N	N	I	N	I	N	N	N	I	I	N	N	N	N	N	N	C	C	N	N	I	N	N	N	N	N	N	I	N	I	I	I	N	N	N	N	N	Diazepam
N	C	C	C	I	I	N	N	C	N	N	C	N	N	I	C	C	C	C	C	I	C	C	C	N	N	C	N	I	N	C	N	N	I	C	C	C	C	C	C	Diltiazem
C	C	C	N	N	I	N	C	N	N	N	C	C	N	I	C	N	C	N	C	C	N	N	N	C	N	D	C	I	C	C	C	C	N	C	N	N	N	C	N	Diphenhydramine
I	N	C	N	I	I	C	C	C	A	N	C	C	N	N	N	N	I	C	C	I	C	C	C	N	C	N	C	I	I	A	N	C	I	C	N	N	N	N	C	Dobutamine
I	C	N	N	N	N	N	N	N	C	N	A	N	N	I	A	C	A	N	A	N	N	N	C	N	N	C	N	N	N	C	C	N	I	C	N	C	I	C	N	Dolasetron
C	C	C	N	I	I	C	C	C	N	C	C	C	N	C	N	I	C	C	C	N	C	C	C	C	N	C	N	N	C	C	N	C	I	C	N	N	N	N	C	Dopamine
I	I	C	N	N	N	N	C	N	C	N	C	I	N	N	N	N	N	N	C	N	N	N	I	C	N	N	N	N	I	N	N	N	I	C	N	N	N	N	N	Doxycycline
C	C	N	N	N	I	N	C	N	C	N	N	C	N	C	N	C	N	N	C	C	C	C	N	N	N	C	N	I	C	C	N	N	N	C	N	C	C	C	N	Enalaprilat
C	C	C	N	N	N	C	N	C	N	N	N	N	N	N	N	N	C	C	C	N	C	C	I	N	C	I	N	N	N	C	I	C	I	C	N	N	N	I	C	Epinephrine
I	C	C	N	N	N	N	I	C	C	N	C	N	N	N	I	N	C	N	C	N	N	N	N	N	N	C	N	N	N	C	C	C	C	C	N	N	N	N	N	Erythromycin
C	C	N	N	C	I	N	C	N	C	N	N	N	N	N	N	C	C	N	C	C	C	C	C	N	N	C	N	C	N	C	N	C	C	C	N	C	C	C	N	Esmolol
N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	C	N	C	N	N	N	N	N	Esomeprazole
C	C	C	C	C	N	N	C	C	C	N	C	N	N	C	C	N	C	N	C	C	C	C	C	C	N	N	C	C	I	C	N	N	C	C	C	N	N	C	N	Famotidine
C	C	C	N	N	C	C	C	C	N	N	E	N	N	N	C	C	C	C	C	C	C	N	C	C	N	N	N	I	N	C	E	N	C	C	N	C	N	C	N	Fentanyl
C	C	N	I	N	C	N	C	C	N	N	C	C	N	N	C	C	C	N	C	C	C	N	N	C	N	C	N	C	C	C	C	C	N	N	C	C	I	C	N	Fluconazole
C	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	C	N	C	N	N	N	N	N	Flumazenil
C	C	C	N	N	I	I	C	C	N	I	I	C	N	N	I	N	I	I	I	N	C	C	C	I	N	C	N	N	C	C	I	C	C	C	N	C	N	N	N	Furosemide
I	C	C	C	N	I	N	N	C	C	C	C	N	N	C	C	C	C	N	C	N	C	N	N	C	N	N	N	I	I	C	C	N	C	C	C	C	C	I	N	Gatifloxacin
I	I	C	N	C	C	C	C	C	C	N	C	C	N	N	N	C	C	C	C	I	N	N	N	C	C	N	N	N	N	N	N	C	N	C	N	C	N	N	N	Gentamicin
C	C	C	C	N	I	N	C	C	C	N	C	N	N	C	C	C	N	N	C	N	N	N	N	N	N	N	N	N	C	C	C	N	C	C	C	C	C	C	N	Granisetron
	N	N	C	A	C	I	C	C	C	N	I	C	N	C	C	C	C	C	I	C	C	C	C	C	C	N	C	I	C	C	N	C	C	C	C	I	E	S	C	Heparin
N		N	N	C	I	N	C	C	C	N	C	N	N	N	C	C	I	N	C	I	N	N	C	C	N	C	N	I	C	C	I	C	C	C	N	N	N	N	N	Hydrocortisone Sodium Succinate
N	N		N	N	I	N	C	C	C	N	N	N	N	N	C	C	C	C	C	C	C	N	C	C	N	C	N	I	C	C	I	C	I	C	N	C	C	C	N	Hydromorphone
C	N	N		A	I	N	C	I	N	N	I	N	N	N	N	N	I	I	N	N	N	N	C	N	N	N	N	N	N	N	N	N	I	R	N	N	N	N	N	Imipenem-cilastatin
A	C	N	A		N	I	N	N	A	N	C	C	N	N	C	N	C	C	C	I	C	C	I	N	N	I	N	I	N	C	N	C	A	C	A	A	N	A	N	Insulin, regular
C	I	I	I	N		I	N	I	I	C	I	N	N	I	I	I	I	I	I	N	I	N	N	I	N	N	I	I	C	I	I	C	I	C	I	I	C	I	N	Lansoprazole
I	N	N	N	I	I		C	C	N	N	N	N	N	N	C	N	N	N	C	N	I	I	N	N	N	N	C	N	N	N	N	N	C	C	N	N	N	C	N	Levofloxacin
C	C	C	C	N	N	C		C	C	C	C	C	N	C	C	C	C	N	C	N	C	N	N	C	N	N	N	I	C	C	C	C	C	C	N	C	I	C	N	Linezolid
C	C	C	I	N	I	C	C		N	N	N	N	N	N	N	C	C	C	C	N	C	N	C	I	N	N	N	N	C	C	N	N	N	C	N	N	C	C	N	Lorazepam
C	C	C	N	A	I	N	C	N		N	C	C	N	N	C	C	N	C	C	C	N	C	C	C	N	C	N	N	C	C	I	C	I	C	N	C	C	C	N	Magnesium sulfate
N	N	N	N	N	C	N	C	N	N		N	I	N	N	C	N	N	N	N	N	N	N	N	C	N	C	N	N	C	I	N	C	C	C	N	C	N	N	N	Mannitol
I	C	N	I	C	I	N	C	N	C	N		N	N	C	C	C	C	N	I	I	N	N	N	C	N	C	N	I	C	C	C	C	I	C	H	C	C	C	N	Meperidine
C	N	N	N	C	N	N	C	N	C	I	N		N	N	C	I	N	C	C	N	N	N	C	I	N	N	N	N	N	N	N	N	I	R	N	N	N	C	N	Meropenem
N	N	N	N	N	N	N	N	N	N	N	N	N		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	I	C	N	C	N	N	N	N	N	Methohexitol
C	N	N	N	N	I	N	C	N	N	N	C	N	N		C	C	N	C	C	I	N	N	C	I	N	C	N	N	C	I	N	N	C	C	N	N	N	N	N	Methylprednisolone
C	C	C	N	C	I	C	C	N	C	C	C	C	N	C		N	C	N	C	N	N	N	N	C	N	I	N	N	C	C	C	N	I	C	N	N	N	N	N	Metoclopramide
C	C	C	N	N	I	N	C	C	C	N	C	I	N	C	N		C	C	C	N	N	N	N	N	N	C	N	N	C	N	N	C	N	C	N	C	N	N	N	Metronidazole
C	I	C	I	C	I	N	C	C	N	N	C	N	N	N	C	C		C	C	I	C	C	C	C	I	N	N	N	N	C	I	I	I	C	N	C	I	C	N	Midazolam
C	N	C	I	C	I	N	N	C	C	N	N	C	N	C	N	C	C		C	N	C	C	C	N	N	N	N	N	C	C	N	C	C	C	C	C	N	C	C	Milrinone
I	C	C	N	C	I	C	C	C	C	N	I	C	N	C	C	C	C	C		C	C	C	C	C	N	C	N	I	C	C	I	C	A	C	H	C	C	C	N	Morphine sulfate
C	I	C	N	I	N	N	N	N	C	N	I	N	N	I	N	N	I	N	C		N	N	C	N	N	N	N	N	N	C	C	C	C	C	N	I	N	I	N	Nafcillin
C	N	C	N	C	I	I	C	C	N	N	N	N	N	N	N	N	C	C	C	N		C	C	N	N	N	N	I	N	N	N	G	N	G	N	N	N	N	C	Nitroglycerin
C	N	N	N	C	N	I	N	N	C	N	N	N	N	N	N	N	C	C	C	N	C		C	N	N	N	N	N	N	C	N	N	N	C	N	N	N	N	N	Nitroprusside
C	C	C	N	I	N	N	N	C	C	N	N	C	N	C	N	N	C	C	C	C	C	C		N	N	I	C	I	N	C	N	N	I	N	N	N	N	N	C	Norepinephrine
C	C	C	C	N	I	N	C	I	C	C	C	I	N	I	C	N	C	N	C	N	N	N	N		N	N	N	I	C	C	C	C	I	C	C	N	N	C	N	Ondansetron
C	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	I	N	N	N	N	N	N	N		N	N	N	N	N	N	C	N	C	N	N	N	N	N	Pantoprazole
N	C	C	N	I	N	N	N	N	C	C	C	N	N	C	I	C	N	N	C	N	N	N	I	N	N		C	I	N	C	N	C	I	C	N	N	N	I	N	Penicillin G Potassium
C	N	N	N	N	I	C	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	C	N	N	C		I	N	C	C	C	C	C	N	N	N	C	C	Phenylephrine
I	I	I	N	I	I	N	I	N	N	N	I	N	N	N	N	N	N	N	I	N	I	N	I	I	N	I	I		N	I	I	I	I	H	N	N	N	I	N	Phenytoin
C	C	C	N	N	C	N	C	C	C	C	C	N	N	C	C	C	N	C	C	N	N	N	N	C	N	N	N	N		C	I	I	C	C	N	N	C	I	N	Piperacillin-tazobactam
C	C	C	N	C	I	N	C	C	C	I	C	N	N	I	C	N	C	C	C	C	N	C	C	C	N	C	C	I	C		C	C	C	C	N	N	N	C	N	Potassium chloride
N	I	I	N	N	I	N	C	N	I	N	C	N	I	N	C	N	I	N	I	C	N	N	N	C	N	N	C	I	I	C		C	C	C	N	N	N	I	N	Prochlorperazine
C	C	C	N	C	C	N	C	N	C	C	C	N	C	N	N	C	I	C	C	C	G	N	N	C	C	C	C	I	I	C	C		I	N	C	C	N	C	N	Ringer's, lactated
C	C	I	I	A	I	C	C	N	I	C	I	I	N	C	I	N	I	C	A	C	N	N	I	I	N	I	C	I	C	C	C	I		C	N	N	N	I	N	Sodium bicarbonate
C	C	C	R	C	C	C	C	C	C	C	C	R	C	C	C	C	C	C	C	C	G	C	N	C	C	C	C	H	C	C	C	N	C		C	C	N	C	C	Sodium chloride 0.9%
C	N	N	N	A	I	N	N	N	N	N	H	N	N	N	N	N	N	C	H	N	N	N	N	C	N	N	N	N	N	N	N	C	N	C		N	N	I	N	Ticarcillin-clavulanate
I	N	C	N	A	I	N	C	N	C	C	C	N	N	N	N	C	C	C	C	I	N	N	N	N	N	N	N	N	N	N	N	C	N	C	N		N	N	N	Tobramycin
E	N	C	N	N	C	N	I	C	C	N	C	N	N	N	N	N	I	N	C	N	N	N	N	N	N	N	N	N	C	N	N	N	N	N	N	N		N	N	Trimethoprim-sulfamethoxazole
S	N	C	N	A	I	C	C	C	C	N	C	C	N	N	N	N	C	C	C	I	N	N	N	C	N	I	C	I	I	C	I	C	I	C	I	N	N		N	Vancomycin
C	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	C	N	N	C	N	C	N	N	N	C	N	N	N	N	N	N	C	N	N	N	N		Vasopressin