

PARENTERAL NUTRITION (PN) AND DRUG COMPATIBILITY

The co-infusion of drugs and PN should be avoided. PN solutions are diverse in their composition and compatibilities with drugs can never be guaranteed. Drugs administered to patients receiving PN should be given through a separate IV site or catheter lumen. If a separate site is not available, the drug may be given through a separate line that has a Y-connection to the PN line as close to the patient as possible. The PN should not be running and the common tubing must be adequately flushed before and after drug administration.

Only if a patient's clinical status requires uninterrupted PN administration can drugs on the following list be administered through the same Y-connection with the PN (amino acid/dextrose) still running. Note that drugs in the list have not been tested with lipids as visual compatibility with opaque fat solution is not possible. These drugs have been co-infused with total PN (amino acid/dextrose/lipids) in the past without problems, but patients should be monitored for clinical effect when possible.

cefotaxime	gentamicin	meperidine	piperacillin
ceftazidime	heparin	methylprednisolone	ranitidine
clindamycin	hydrocortisone	metoclopramide	tobramycin
cloxacillin	hydromorphone	metronidazole	vancomycin
cyclosporine	insulin (regular)	morphine (up to 1 mg/mL)	
dopamine	isoproterenol	norepinephrine	
fluconazole	lidocaine	penicillin G	

Note that this compatibility refers to Y-site admixture only; drugs must not be added to PN bags.

The following drugs are **INCOMPATIBLE** with PN and **MUST NOT** be run concurrently with PN solutions under any circumstances. These drugs may be administered through a Y-connection provided the PN solution is stopped, the line clamped immediately above the Y and the line adequately flushed.

acetazolamide	calcium	doxorubicin	phenytoin
acyclovir	cefazolin	etoposide	phosphate
amphotericin	ceftriaxone	furosemide	sodium bicarbonate
ampicillin	cisplatin	mannitol	
ATG	deferoxamine	paraldehyde	

For any drugs not listed here, the prescribing physician should discuss with the pharmacist the information available on the drug and the risks/benefits of co-infusing a particular drug with PN. The physician decides to run (or not to run) a drug simultaneously with PN. This decision is documented as a physician's order e.g. "Drug X may be run concurrently with PN"

NOTE: Whenever drugs are co-infused with PN, the lines should be carefully monitored for signs of incompatibility (e.g. precipitation, color change).

PARENTERAL NUTRITION (PN) AND BLOOD PRODUCT COMPATIBILITY

No blood products are to be co-infused with PN.