DRUG	DILUENT STABILITY	ROUTE	INFUSION	CONCENTRATION	NOTABLE INFORMATION
Abraxane (protein-bound Paclitaxel)	Reconstitute to 5mg/ml with NS=8hrs (Only put dose-no additives-when inputting)	IVPB	30 min	5mg/ml (put this conc in ml field)	Do NOT use an inline filter. Do not further dilute. Place in sterile empty container. Formulation contains albumin!! Dose adjust for toxicities and hepatic impairment. Contraindicated if **baseline** neutrophils<1500/mm3
Adcetris (Brentuximab)	NS, D5W, LR=24hr fridge	IVPB only	30 min	0.4-1.8mg/mL	CI with bleomycin. Max wt calc=100kg. Hematologic and nonhematologic dose adj. Cyp3A4 substrate. Do not shake.
Adriamycin (Doxorubicin)	D5W,NS=48HRS ; Micromedex says up to 43 days at various concentrations.	IVP IVPB CIV	3-5min 15- 60 min 24hrs	2mg/ml or less	IVPB over 20 to 30 min;CIV;**VESICANT;**cumulative dose limit 450 or 500 mg/m2 based on patient history; ejection fraction
Adria + VCR	D5W, NS	CIV	24 hrs		*Do not filter vincristine alone or mixed with doxorubicin; vesicants; refer to each drug
Adria + VCR + Etoposide					Up to 96 hour stability at various concentrations. See Micromedex. Do not filter.
Alimta (Pemetrexed)	NS Only=24hr	IVPB	10 min	Dilute in 50-200 ml	30 min. prior to cisplatin; Folic acid & B12 before & during; Decadron before, during, after; Do not use if CrCl <45
Amifostine (Ethylol)	NS Only=5hrsRT, 24h fridge	IVPB SubQ	3 to 5 min	5-40mg/ml	30 min. prior to cisplatin; 15 to 30 min. prior to XRT; Hypotension so stop antihypertensives 24hr prior to admn, N/V so antiemetics(decadron/5ht3 antag) Recommend. Monitor Calcium
Ara-C (Cytarabine)	D5W, NS=8 days	IVPB, CIV IT SQ, IM	1 to 3 hrs;24 hrs	Dilute in 250-1000 ml/ nmt 100mg/ml for syringe	Steroid eye drops with high dose (>500mg/m2) and allopurinol; IT, SQ, CIV; IT and high dose must be preserva-tive-free; diarrhea; RENALLY DOSE;poss CNS toxicity
Aredia (Pamidronate)	D5W, NS=24hrs	IVPB	2 to 24 hrs	Dilute in 250-1000 ml	do not mix with calcium-containing solutions such as LR; renally dose. Not a chemotherapeutic agent.
Arsenic trioxide (trisenox)	D5W, NS=24 hrs RT, 48h fridge	IVPB	1 to 2 up to 4 hrs	Dilute in 150-200 ml	APL differentiation syndrome; QT prolongation so don't Use with IA or IIIA antiarrhythmics; Does not have to be Given via central line.
Arzerra (ofatumumab)	NS=24 hrs, but begin infusion w/in 12 hrs of mixing	IVPB	protocol	Dose 1=0.3mg/mL Dose 2-12=2mg/mL	Premed with Apap, antihistamine, and corticosteroid. Do not give with live vaccines. Several drug interactions. Mix by inversion. Do NOT shake. Use filter/tubing supplied. Mix in polyolefin plastic container.
Elspar (Asparaginase)from E.coli	D5W,NS=8hrs; Reconstituted soln= 1 wk fridge.	IVPB IM(use NS)	At least 30 min	Dilute in 50-250ml 2000,5000 or 10,000 IU/ml	Skin test before dose; crash cart (benadryl, steroid, epi); BP every 15 min for 1 hr; may be give IM, Use 5 micron filter
Erwinaze (Aspraginase Erwinia chrysanthemi)	administer w/in 4hrs of reconstitu-tion or discard---Do not refrigerater reconstituted soln.	IM		1mL PFNS=10000IU/mL 2mL PFNS=5000IU/mL	Dose=25000 IU/m2 for each scheduled dose of Elspar. Protect from light. Do not shake or invert. If > 2ml should use multiple syringes.
Avastin (bavacizumab)	NS Only=8hrs: micromedex has up to 24hrs at various concentration	IVPB	90 min.	Dilute in 100 ml	2nd dose: 1 hr; next over 30 min; epistaxis; bowel perfs; wound dehiscence.
Benlysta (Belimumab)	NS=8hrs fridge/RT	IVPB	1 hr	to total volume of 250mL	Incompatible w/dextrose. No live vaccine w/in 30 days. Many d/d interaxns. CI: cyclophosphamide or other biologic therapies. Protect from light. Give pt. med guide. Gently invert to mix.

DRUG	DILUENT STABILITY	ROUTE	INFUSION	CONCENTRATION	NOTABLE INFORMATION
Blenoxane (Bleomycin)	NS Only=96hrs RT, 14 days fridge	IVSP IVPB SUBQ, IM Intrapleural	(10-60 min)	50-1000 mL/NS 60 units/50-100 ml	Test dose; fever, hypersensitivity, pulm.fibrosis; cumm. Dose limit 400 units; disclose H/O Bleo. If anesthesia; IM, SQ, sclerosant. IM, SQ may cause pain of injection site. renally dose
Busulfex, Myleren (Busulfan)	D5W, NS=8 hrs RT (12h fridge w/NS)	IVPB	2 hrs	At least 0.5 mg/ml	Central line only; dose based on IBW or actual, whichever Is lower; Seizure prophylaxis recommended; Oral form.
Camptosar (Irinotecan) CPT-11	**D5W**, NS=24 hrs RT, 48 hr fridge	IVPB	90 min.	0.12-2.8 mg/ml	Premed with 5HT3 blocker steroid; severe diarrhea: early Treat with atropine & delayed treat with Imodium. More stable in D5W due to pH. Do NOT refrigerate NS solution.
Campath (alemtuzumab)	D5W, NS=8 hrs	IVPB SubQ(unlabeled)	2 hrs	100 ml	Gently invert bag to mix. DO NOT SHAKE. Consider pre-medicating with apap, diphenhydrame 50mg, and hydrocortisone 200 mg. Protect from light. Hematologic and nonhematologic toxicity adjustments required. Dose escalation required. PCP and herpes prophylaxis recommeded. Do not give with live vaccines.
Paraplatin (Carboplatin)	**D5W**=9 days RT or fridge, NS=8hrsRT D5NSD5 1/4NS, D5 ½ NS	IVPB, Intraperitoneal	15 min-24 hr	0.5-2 mg/ml 4mg/ml per Micromedex	D5W preferred diluent; Avoid aluminum-containing IV sets and needles. Renally dose. **Max dose=150xAUC.** Micromedex has stable 6mg/ml in cassette and 10mg/ml vial
Gliadel wafer, BiCNU (Carmustine)	D5W, NS=8 hrsRT. 48hr fridge	IVPB	1 to 2 hrs	0.2 mg/ml	hypotension, delayed onset pulm. Fibrosis; **GLASS** container; High dose has max rate of infusion of 3mg/m2/min (at least 2 hrs)
Vistide (Cidofovir)	NS=24hrs RT or fridge	IVPB only	1 hr	100 ml	Hydrate with 1LNS first. Renally dose. Contraindicated if SrCr>1.5mg/dL, CrCl<55 ml/min, or urine protein>/= 100 mg/dL Administer with probenecid. Do not use w/in 7 days of nephrotoxic agents. Topical forms can be compounded
Platinol-AQ (Cisplatin)	NS, D5 1/2NS, D5NS=72hrs RT Stability dependent upon Cl ion conc More stable with lower pH (3.5-4.5) Not very stable in dilute D5W. Final Cl ion conc. >/=0.2%	IVPB, CIV	15 min to 24 hr	0.5-2mg/ml	Irritant;Prehydration/Premeds;compatible w/ mannitol, Mg, & KCl; Call if dose exceeds 100 mg/m2; protect from light. Hold until srcr<1.5mg/dL and/or BUN<25mg/dL. Solutions should have nacl conc. > or =0.2%. Doses greater Than 100mg/m2 produce some toxicity, greater than 400mg/ M2 usu result in death.
Clolar (clofarabine)	D5W, NS=24hrs RT	IVPB	2 hr	100-500mL to concentration of 0.15-0.4mg/mL	0.2 micrometer filter before dilution. Consider prophylaxis w/ corticosteriods, allopurinol, and hydration. Dosage adjust for hematologic and nonhematologic toxicities. Avoid live vaccines and natalizumab
Cytoxan (cyclophosphamide)	D5W, NS=24hrs RT, 6 days fridge	IVPB, CIV, IM, intrapleural, SIVP(</=1gm)	30 min to 2 hr	Varies	High dose give with mesna & adequate hydration; Up to 2 gram over 30 min; radiation recall; oral tab—can make oral elixir. Reconstitute with NS to inject directly.
Cosmegen (Dactinomycin)	D5W, NS=24hrs RT, SWFI	SIVP/IVPB	Infuse over 10-15 min.	50 ml	**VESICANT**; May be ordered in MICROgrams; Must use BSA in obese or edematous pts.
Cerubidine (Daunorubicin)	D5W, NS, LR=4 weeks RT	IVP/PB	IVP=1-5 min IVPB=15 to 30 min.	100 ml	**VESICANT**; cummulative dose limit; ejection fraction; cardiotoxic. PROTECT FROM LIGHT. Renal and Hepatic dosage adjustments
DaunoXome (Daunorubicin liposomal)	D5W only=6hrs fridge	IVPB	1 hr	1mg/ml	Do NOT use with inline filter. Renal and Hepatic dosage adjustments. Cardiotoxic.

DRUG	DILUENT STABILITY	ROUTE	INFUSION	CONCENTRATION	NOTABLE INFORMATION
Cytosar-U, Tarabine PFS (Cytarabine)	NS, SW, D5W = 8 Days RT or fridge	IVPB, CIV IM, IT, SUBQ	1-3hrs, 24 hrs	250-1000 ml Syringe</=100mg/ml	Micromedex has up to 28 day stability at some concentrations for pump
DepoCyt (Cytarabine liposome)	Do not dilute=4hrs RT	IT only	1 to 5 min.		Do NOT use with inline filter. Start Decadron 4 mg IV/PO BID for 5 days;
Dacogen (Decitabine)	NS, D5W, LR=7hrs fridge	IVPB	1-6 hrs	0.1-1mg/mL	Premed with antiemetics. Temporarily holdif SrCr>/=2mg/dL, ALT or bilirubin>/=2x ULN, or active or uncontrolled infection
DTIC-Dome (Dacarbazine)	D5W, **NS**=24 hrs RT	IVPB	30 min to 1 hr	250-1000 ml	Irritant; PROTECT FROM LIGHT; discard if turns pink/red; **NS** is preferred diluent. IVP not recommended b/c painful
Prolia (Denosumab)	Store in fridge. Good at RT(NMT 77F/25C) for up to 14 days	SC		60mg q 6mos	CI: latex allergy, pre-existing hypocalcemia. Bring to RT then administer SC in upper arm, upper thigh, or abdomen. Vit D and calcium supplementation needed**.** Do Not Shake**.**
Xgeva (Denosumab)	Store in fridge. Good at RT(NMT 77F/25C) for up to 14 days	SC		120mg q 4wks	CI: pre-existing hypocalcemia. Bring to RT then administer SC in upper arm, upper thigh, or abdomen. Vit D and calcium supplementation needed. Do not shake.
Doxil (Doxorubicin, liposomal)	D5W only=24 hrs	IVPB	Begin at 1mg/min then finish over 60 min	</=90 mg=250 ml >90mg=500 ml	Cardiotoxic; flush only with D5W. Do NOT infuse with inline Filter. Hepatic dosage adjustment. Dose modification if Stomatitis,Hand Foot Syndrome, or Hematological toxicity
Elitek (Rasburicase)	NS Only=24 hrs fridge	IVPB	30 min.	50 ml final volume	Chemo. Special lab blood draw instructions for uric acid. Do not filter.
Ellence (Epirubicin)	D5W, NS=24 hrs Fridge	IVP **IVPB**	3 to 10 min 15-20min	50-250 ml	**VESICANT**; cardiotoxic; Renal and hepatic dosages.
Erbitux (Cetuximab)	12 hrs fridge, 8hrs RT	IVPB	LD=2hrs Others=1 hrs Max rate = 10mg/min	Do not dilute	Premed: Benadryl (antihistamine); Infuse with low PB inline Filter(0.22micrometer) NS flush; dose limiting rash (sunscreen) Renally dose.
Toposar, VePesid (Etoposide)VP-16	D5W, NS at RT 0.2mg/ml=96hrs 0.4mg/ml=24 hrs	IVPB CIV	At least 30 min, High dose=1-4 hrs 24hrs	0.2-0.4mg/ml	Irritant; rate dependent hypotension (monitor BP during); give after cisplatin; If H/O allergic rxn; premed w/Benadryl; oral capsule refrig., May make oral soln
Feraheme(Ferumoxytol)	30mg/mL(510mg/17mL)	IVP	</=1mL/sec	17 ml(do not dilute)	
Neupogen (filgrastim)	D5W w/or wo albumin=7days fridge but use w/in 24hrs due to poss bacterial contamination.	SubQ IVPB CIV/CSubQ	15-30min 24 hrs	D5W>15mcg/mL D5W+albumin=5-15mcg/mL using conc of alb 2mg/mL	Do not give within 24 hrs of cytotoxic chemo. Protect from light. Refrigerate. Dose using actual body weight. May increase levels of topotecan. Contraindicated if allergic to E.coli derived proteins or any component of formulation.
Fludara (fludarabine)	D5W, NS=48 hrs	IVPB CIV	15 to 30 min, 24 hrs	50-125 ml	Careful attention to correct dose; severe neurological toxicities if OVERdosed. Renally dose. Do NOT use with Pentostatin.
FUDR (Floxuridine)	NS, D5W=2 weeks RT (NS in some pumps=21 days RT)	CIV(central) IVPB(unlabeled) infusion pump	24 hrs	500-1000 mL	**VESICANT**. Contraindicated if allergic to fluorouracil. Many drug interactions including vaccines, Vit K antagonists, and CYP2C9 substrates. Avoid ethanol.
Fluorouracil (Adrucil, Carac, Efudex, Fluoroplex)	Undiluted,D5W, NS=72 hrs RT	IVSP IVPB CIV	5-15 min, 24 hrs	50-1000 ml	Protect from light. CIV and topical routes. **Max dose** is 800mg daily or 1000mg weekly. IV Formulation may be given orally. Topical Cream.

DRUG	DILUENT STABILITY	ROUTE	INFUSION	CONCENTRATION	NOTABLE INFORMATION
High dose 5-FU					Must be accompanied by leucovorin and/or other chemo-therapeutics. Multiple dosage regimens. Max dose of selected regimens: 5-FU+leuco=2600mg/m2x24h CIV or 600mg/m2 weekly x 6wks. FOLFOX 1-3: 3-4 gm/m2 CIV over 2 days. FOLFOX 4: Days1&2=400mg/m2 bolus the 600mg/m2 CIV FOLFOX 6: 400mg/m2x1 then 3gm/m2 over 46 hrs FU-LV-CPT-11: 2300mg/m2 x24hrs
Foscavir (Foscarnet)	D5W, NS=24 hrs RT or fridge	IVPump IVPush	NMT 1mg/kg/min	<\=12mg/mL Central line, undiluted	Renal adjustments necessary. Many drug interactions. Prehydration fluids recommended. Qt prolongation possible.
Faslodex (Fulvestrant)	Undiluted	IM		250 MG/5 ml	
Ganite (Gallium Nitrate)	**NS**, D5W=24hrs RT, 7 days fridge	CIV	24 hrs	1000 mL	Avoid with nephrotoxic drugs. NS is preferred diluent. Maintain adequate hydration. Contraindicated if SrCr>2.5
Gemzar (Gemcitabine)	NS=**24 hr**-7 days RT	IVPB	30 min	0.1-40 mg/ml	Infusing longer than 60 min. may increase toxicity; do **NOT refrigerate**; dose limiting toxicity; myelosuppresssion.
Gleevec (Imatinib)	-	Oral	–	–	Give with meal and a large glass of water; CBCs, LFTS Weigh periodically & monitor for fluid retention; many drug interactions.
Halaven (Eribulin)	**NS Only** or undiluted=4hrs RT, 24hrs fridge	IVSP IVPB	2-5 minutes	undiluted or 100ml NS	Renally and hepatically adjust. Hematologic and non-hematical dose adjustments. CI: congenital long QT syndrome
Herceptin (Trastuzumab)	**NS Only**=24 hrs RT or fridge	IVPB	30- 90 min.	250 ml	Load dose: 90 min; Maint. Dose: 30 min; Observe for 1 hr after dose; Infusion rxn—trt with apap, Benadryl, and Demerol; cardiac/pulm. Toxicities; Her2 test.
Hycamtin (Topotecan)	D5W, NS=24hrs RT, 7days fridge	IVPB CIV	30 min 24 hrs	50-100 ml 1000 ml	Prehydration fluid if combo with cisplatin; requires renal and hepatic adjustments and hematological adjustments; do not break oral capsules; decrease dose for diarrhea(3-4)
Idarubicin PFS (Idarubicin)	D5W, NS=72 hrs RT, 7 days fridge	IVSP IVPB	3-5 min 10 to 15 min.		**VESICANT**;ejection fraction; similar side-effects as doxorubicin; IVP must be into tubing of a freely running IV infusion of NS or D5W; incompatible with heparin; CI if bilirubin>5mg/dL; App. Of heat is contraindicated. Renal and hepatic adjustments. May be used as bladder lavage.
Ifex (Ifosfamide)	D5W, NS=7days RT,6weeks frig	IVPB CIV	30min-several hrs Civ over 5 days	50-1000ml 0.6-20 mg/ml	Always with Mesna & hydration (hemorrhagic cystitis); Daily UA - hold if 10 or more RBC; Compatible in many fluids/chemos
Cerezyme (Imiglucerase)	NS=24 hrs fridge	IVPB	1-2hrs or </=1U/kg/min	100-200mL	in-line low protein binding 0.2 micron filter.
Proleukin (Aldesleukin)IL-2	D5W only	IVPB SC (unlabeled)	15 min 24 hr	See chart	protocol; many toxicities; require close monitoring;Call RX to mix. No Steroids.
Remicade (Infliximab)	NS	IVPB	At least 2 hrs	250 ml to conc. 0.4-4mg/ml	APAP, antihistamines, corticosteroids for infusion rxns. Begin infusion w/in 3hrs of preparation.
Intron A Interferon Alfa-2B	NS, LR=24 hrs fridge	IVPB IM, SC	20 min.	100 ml to conc >/= 10million units/100mL	Refrigerate; Do NOT shake ; intralesional. Administer Injections PM if possible.

DRUG	DILUENT STABILITY	ROUTE	INFUSION	CONCENTRATION	NOTABLE INFORMATION
Ixempra (Ixabepilone)	LR, NS+bicarb soln=6 hrs RT if PH range of 6-9 maintained can also use plasmalyte	IVPB	3 hrs	0.2-0.6mg/mL with about 250 mL LR	Premed with H1 and H2 blocker and possibly steroid. Cyp 3A4 substrate. Max dose=88mg. Hepatic adjustment required. **GLASS** container. 0.2-1.2 micron filter needed. Hematologic and nonhematologic dose adjustments.
Jevtana (Cabazitaxel)	NS, D5W=8 hrs RT, 24hrs fridge	IVPB	1 hr	250ml or more for conc of 0.1-0.26mg/mL	**GLASS** container. 0.22 micrometer nominal pore size in-line filter. Add diluent to cabazitaxel. Invert for at least 45 sec to mix. Do NOT shake. Allow most foam to dissipate before further diluting(w/in 30 minutes of initial dilution). CI if PMN</= 1500cells/mm3 of allergic to polysorbate 80. Avoid Cyp 3A4 inhibitors/inducers. Not recommended w/hepatic impairment. Dose adj for diarrhea and neutropenia.
Leucovorin	**D5W**, NS?, LR=24hrs RT,4 days fridge	IVP, IM IVPB	3 min to </= 160mg/min	100-1000 ml	Do NOT exceed 160 mg/min; Also IM, Oral; Rescue after high dose methotrexate or OD, **variable stability in NS**.
Leustatin (Cladribine)	NS Only=24hrs RT.	IVPB CIV	1-2 hrs 24 hrs	500 ml; 100 ml total vol for 7day infusion	Also given CIV via ambulatory pump (7 days stability), May renally dose, neurotoxic; do not use in neonates or premies; contraindicated with LIVE vaccines.
Lumizyme, Myozyme (Alglucosidase alfa)	NS Only=24hrs fridge		4 hrs(but use protocol)	0.5-4,g/mL	Infuse through a low protein-binding 0.2 micron in-line filter. REMS program(Lumizyme ACE)--section 1 filled out by IV Room Pharmacist. Protect from light. Dilute vials with SWFI 10.3mL=5mg/mL. Tilt or roll vial only to mix. White strands removed by filtration. Black Box warnings for Anaphylaxis, Immune mediated reactions, and Risk of Cardiorespiratory Failure.
Mannitol	D5W, NS	IVP/PB	3 to 90 min		Do NOT use PVC container for 25% solution; Filter all solutions concentration 20% or more.
Alkeran (melphalan)	NS Only=1 hr	IVP, IVPB	Central:2-20min, Peripheral:1-4min; At least 15 min	250-500 ml to concentration 0.1-0.45mg/ml	**VESICANT**;follow high dose Orders if preparative for PSCT; Myelosuppression delayed & may last 4 to 6 weeks; oral form available. Renally dose. Contraindicated with live vaccines. Tablet must be refrigerated.
High dose Melphalan	Mfg diluent Or undiluted		20-60min		May give single dose or divided 2-4daily doses. Max IV doses: Single agent=200-400mg/m2, with TBI=110-140mg/m2, with Other high dose chemo=100-180mg/m2
Mesna	NS=24hrs RT, D5W, LR=48hrs RT	Oral IVPB CIV	15-30min, 24hr	</=1mg/ml NS, LR </=20mg/ml D5W	Compatible with Ifex, Cyclophosphamide, and Hydroxyzine. Has Tablet formulation and can be give via pump over 7 days. Stable For 9 days in plastic syringes.
Rheumatrex Dose Pack Trexall (Methotrexate)	D5W, NS=24hrs RT, preserv=4wk RT, 3 months refrigerated	IM, IVSP IT IVPB, CIV	1-3 min 15 min- 6 hr 24-42 hrs	25mg/ml 2.5-5mg/ml 2mg/ml(MDAnderson) 500-1000 ml	LCV rescue, urine pH, & levels for high dose; PO; IT and high dose preservative-free; Renally and hepatically dose; Contraindicated with live vaccines. Many d/d ineraxns, should not use NSAIDS (poss exception RA)
Mutamycin (Mitomycin-C)	**LR** D5W,NS=variable stability	IVSP IVPB Intravesicle Topical eye	15 to 30 min Up to 3 hrs 2-5 min	20-40mcg/ml 20-40 mg 0.2-0.5mg(per ml)	Irritant; acute SOB & bronchospasm may occur if given with vinca alkaloid; Renally dose. Must decrease dose if decreased platelets/wbc. Contraindicated with clotting/ bleeding disorder, live vaccines;

DRUG	DILUENT STABILITY	ROUTE	INFUSION	CONCENTRATION	NOTABLE INFORMATION
Novantrone (Mitoxantrone)	D5W, NS=7 days RT or fridge	IVPush IVPB, CIV IVPB-high dose	1-3 min 3 to 30 min, 24hrs 1-4 hrs	At least 50 ml	**VESICANT; cardiotoxic**; Incompatible with heparin. Consider dose adj in hepatic dysfxn. Contraindicated With live vaccines. Weak CypP450 3A4 inhibitor.
Mozobil (Plerixafor)	RT	SubQ		20 mg/mL	Dose using ABW up to 160 kg. 0.24mg/kg daily up to 4 days after 4days of neupogen begun. Max=40mg/day. Renally dose.
Mustargen (mechlorethamine)	NS-variable SWFI=15-60min	IVSP IVPB	5 to 30 min.	Conc.SW=1mg/ml NS100-topical/intracavitary	**VESICANT**; Stable for 15-60 min; Avoid inhalation/skin contact Contraindicated with live vaccines-major interaxnw/warfarin
Mylotarg (gemtuzumab)	NS=16 hrs RT	IVPB	2 hrs	100 ml	Premed with Tylenol & Benadryl; VS during & for 4 hrs after; have Benadryl, steroid, epi. available; protect from light; 0.2-1.2micron inline filter recommended. **Single agent chemo!!** Caution with antiplatelets/anticoags. Severe myelosuppression. Prepare in hood w/o lights on. Avoid vaccines during therapy.
Navelbine (vinorelbine)	D5W, NS=24h RT, LR	IVPB IVSP	Up to 30 min IVP: 6 to 10 min	0.5-2 mg/mL(10-50ml) 1.5-3 mg/mL	**VESICANT**; IVPB OVER AT LEAST 10 MIN; Flush with 75 to 125 ml NS, LR or D5W; neurotoxicity. Hepatic/ granulocytopenia dosing. Metabolised via P450 CYP3A. Has active metabolite. Do NOT give intrathecally!! Many d/d interaxns
Arranon (Nelarabine)	Reconstitution not required=8hrs RT	IVPB	2 hrs(adult) Day1,3,5	undiluted	IV hydration recommended. May use allopurinol. Neurotoxicity is dose limiting factor. Contraindicated with live vaccines and natalizumab. Not recommended with pentostatin.
Nipent (pentostatin)	**NS=**48hrs RT LR D5W=8 hrs RT	IVPB IVSP	20 to 30 min 5 min	25-50 mL	Hold if neurotoxicity; Hydrate 500-1000 ml before and 500 ml after. Do NOT exceed recommended dose. Do NOT use with fludarabine. D/D interaxns: Cyclophosphamide, fludarabine, pegadamase, nelarabine, Vidarabine. May renally dose.
Nplate (Romiplostim)	PF-SWFI only=24hrs fridge/RT	SQ			Do not shake. Protect from light. Dose by ABW. Pt med guide.
Ontak (denileukin)	Preservative free NS Only-use w/in 6 hrs	IVPB	30-60 min	At least 15mcg/mL	Premed with antihistamine and apap.VLS; hypersensitivity (Benadryl, steroid, epinephrine, & code cart. Do not use in-line filter. Do not shake. Do not bolus. Hold if Sr alb<3. CI with BCG, Natalizumab, Pimecrolimus, Tacrolimus(topical), live vaccines. Black Box warnings: vision loss, fatal infusion reactions, and capillary leak syndrome.
Orencia (Abatacept)	NS Only=24 hrs fridge, RT	SC IVPB	125mg/mL 30 min	100 mL total volume	Infuse through a 0.2-1.2 micron low protein-binding filter. Do not use w/TNF-blockers.

DRUG	DILUENT STABILITY	ROUTE	INFUSION	CONCENTRATION	NOTABLE INFORMATION
Eloxatin (oxaliplatin)	D5W only=6hrs RT, 24 hrs fridge	IVPB	2-6hrs	250-500 mL	Premed w/antiemetics; Y-site with LCV; Incompatible with 5-FU; AVOID ice & cold; Administer prior to taxanes. Dosage adjustments for neuropathy, neutropenia, GI toxicity And thrombocytopenia. Consider omitting if CrCl<20mL/min. Incompatable with Chloride solns and alkaline solns. May decrease levels of digoxin. Doses of 500mg or more Produce toxicity and can be fatal.
Vectibix (Panitumumab)	NS=24hrs fridge, 6hrs RT	IVPB	</=1000mg=1hr >1000mg=90 min	100-150mL to concentration <\=10mg/mL	Do NOT shake. Invert gently to mix. Flush with NS pre and post admin. Use 0.2 or 0.22 micron filter. Dosage adjust for dermatologic toxicity and infusion reactions. Protect from light. Do not infuse with other products.
Alimta (pemetrexed)	Preservative free NS	IVPB	10 min	50-200 mL NS/total vol of 100ml	Need folic acid/B12 supplementation. Premed w/steroid+ vitamins. Dosage adjustments required for neutropenia, thrombocytopenia and hepatic dysfxn and other toxicities (i.e. diarrhea, mucositis, neurotoxicities, and others). Hold if CrCl less than 45mL/min. D/d interaxn with NSAIDS and probenecid. Max dose recommended is 500 mg/m2.
Matulane (procarbazine)		Oral			Is a weak MAO Inhibitor. no alcohol (disulfuram rxn); low tyramine diet; avoid MAOI drugs (5HT syndrome); Caution with CNS depressants. Hold for CNS toxicity,leucopenia, thrombocytopenia, stomatitis, hypersensitivity,diarrhea or hemorrhage. Many d/d interaxns. Avoid ASA, caffeine, and tobacco.
Rituxan (rituximab)	D5W, NS=24 hrs fridge, 48 hrs RT	IVPB	Protocol	1-4 mg/mL (1mg/mL at this institution)	Premed with Tylenol & Benadryl; hypersensitivity & infusion rxn; Protocol. Can activate Hepatitis B infections. Administer non-live vaccines to RA pts at least 4 wks prior to therapy. Do NOT shake. Avoid hypoglycemic herbs.
Zanosar (Streptozocin)	D5W, NS=48hrs RT, 96 fridge if protected from light	IVPush IVPB	Rapid 30-60min, 6 hr	100 mg/mL	May renally dose. Monitor for hypoglycemia. Dose related renal toxicity. Vesicant. Mfg recommends use w/in 12 hrs.
Taxol (PACLItaxel)	D5W, NS=up to 3 days RT; D5NS,D5LR=27hrs RT	IVPB	1-96 hrs	250-1000 mL to conc. of 0.3-1.2 mg/mL	TAXOL tubing (PVC-free); Irritant; protocol; Premed with Pepcid, steroid, & Benadryl. Hold if solid tumor+PMN count less than 1500 cells/mm3. Hold of AIDS Kaposi sarcoma+PMN less than 1000 cells/mm3. Contraindicated if hypersensitive to paclitaxel or other drugs formulated in Cremophor(R) EL (polyoxyethylated castor oil). Weak CYP3A4 inducer. Substrate of CYP2C8 and CYP3A4. Do NOT use chemo dispensing pen. Do NOT use PVC containers. Infuse through 0.22micron inline filter. Hepatic dosage adjustments, toxicity, and immunosuppression. Glass container.
Taxotere (DOCEtaxel)	D5W, LR=4 wks RT, NS=variable	IVPB	1 hr	250-1000 mL NS/D5W to conc of 0.3-0.9mg/mL	PVC-free tubing; **glass** container; protocol; Decadron 8mg po BID day before, day or, day after. Hold if PMN less than 1500 cells/mm3 or hypersensitivity to drugs formulate with polysorbate 80. Metabolized via CYP3A4. Dosage adj. required for hepatic impairment. Adj for toxicities varies depending on cancer type. Many d/d interaxns.

DRUG	DILUENT STABILITY	ROUTE	INFUSION	CONCENTRATION	NOTABLE INFORMATION
Torisel (temsirolimus)	NS=6hr	IVPB	30-60min	250 mL	Premed with H1 blocker. CYP3A4 substrate. Protect from light. **GLASS** container. Do not mix with other solutions or meds. Degraded by acids and bases. Hematologic and nonhematologic toxicity dose adjustments required. Use at least 5 micron filter.
Temodar (temozolomide)	Sterile Water=14 hrs	IV PO	90 min via pump	41mL=2.5mg/mL	Take on empty stomach at bedtime to reduce n/v. Hematologic and toxicity dosage adjustments. Do NOT shake. Avoid inhalation of product. 2000mg/m2 x5 days is FATAL.
Treanda (bendamustine)	D2.5W/0.5NS, NS=24hrs fridge, 3hrs RT	IVPB	30-60min	500 ml to concentration of 0.2-0.6mg/mL	Discontinue if hepatically impaired or CrCl <40ml/min; May give allopurinol if high risk for tumor lysis syndrome. D/d interaxns w/ cipro, fluvoxamine, omeprazole, and tobacco. Contraindicated if allergic to bendamustine or **mannitol**. Not recommended if CrCl<40mL/min or mod to severe hepatic impairment. Adjust for hemotologic and nonhemotologic toxicity.
Tysabri (natalizumab)	NS=8hr fridge or use immediately	IVPB	1 hr	100 mL	Do NOT shake. Contraindicated w/history of or existing progressive multifocal leukoencephalopathy. TOUCH™ Prescribing Program.
Velcade (bortezomib)	NS=8 hr	IVP	3-5 seconds	1mg/mL	Administer post dialysis. Metabolized via Cyp3A4 and 2C19. Dose 2.6mg/m2 is FATAL. Contraindicated if hypersensitivity to **bortexomib, mannitol, boron,** or components of formulation. Associated with QT prolongation. Vesicant.
Vidaza (azacatidine)	NS,LR=1 hr Sterile Water=1 hr RT, 8hr fridge	IV(NS/LR) SC(SW)	10-40 min	50-100mL 4 mL=25mg/mL	Invert syringe 2-3 times and gently roll syringe in the palm of hand for 30 seconds just prior to SC administration. More than 4mL SC admin requires multiple injections. Contra-indicated if hypersensitivity to **azacitidine** or **mannitol** or advanced malignant hepatic tumor. Hematologic adjust-ments required. Must adjust for Bicarb<20meq/L or un-explained increases in BUN/SrCr. Premed for N/V.
Velban (vinblastine)	bacteriostatic H2O/NS for IVP=21days D5W, NS, LR	IVP CIV IVPB	1 to 3 min 24 hrs 5-15min/<30min	1mg/mL 500-1000 ml <100 ml	**VESICANT**; FATAL if given IT; Contraindicated if bacterial infection. Contraindicated w/sig granulocytopenia unless result of dz being treated. Many d/d interaxns. Metabolized via CYP 3A4. Hepatic adjustment.
Oncovin (vincristine)	NS,D5W=7 days fridge, 2 days RT LR	IVP IVPB CIV	1 to 3 min 10-15min 24 hr	undiluted 25-50mL 500-1000 mL	**VESICANT**; FATAL if given IT; Hold if severe paresthesias, motor weakness; W/ Doxorubicin CIV. Intralesional for Kaposi Sarcoma. Dose adj for hepatic impairment or neuromuscular dz. Need prophylactic bm regimen. Metabolized via Cyp 3A4. Interaxn w/digoxin, mitomycin-c, and many other drugs. Ambulatory pump stable for 7-10 days. Do not filter. **Orders >2.5mg single dose or > 5mg/txt cycle should be verified with txt regimen and/or oncologist.**

DRUG	DILUENT STABILITY	ROUTE	INFUSION	CONCENTRATION	NOTABLE INFORMATION
Xeloda (capecitabine)	RT	Oral			Take with water within 30 min. after meal; converted to 5-FU;Educate patient regarding toxicities and dose. Contraindicated if DPD deficiency. Renal/toxicity dosage adjustments. Interaxn w/Coumadin and phenytoin.
Yervoy (Ipilimumab)	NS, D5W	IVPB	90 min	1-2mg/mL	Infuse through a low protein-binding in-line filter. Flush w/NS or D5W at end of infusion. US Boxed Warning for Severe Immune Mediated Adverse Effects. Do not shake. Protect from light.
Zevalin (ibritumomab)	refrigerate	IV	10 min.		Use w/in 4 hrs after Rituxan dose; like Rituxan but radioactive; given in PET scan. 0.22 micron filter. Max dose = 32mCi. D/d interaxn w/ anticoags and antiplatelets. Many contraindications (rxn to indium CL, yttrium CL, murines, etc.)
Zinecard (Dexrazoxan)	0.167M Na lactate D5W, NS=6hr RT/ fridge	SIVP IVPB CIV	2 min 5-15min(prevent) 1-2hrs(txt) 24 hrs(prevent)	10mg/mL 1.3-5mg/mL 1000 mL	30 min. or less before anthracycline to prevent cardio-myopathy or w/in 6hrs of extravasation. Renally dose. Decrease if decrease doxorubicin dose.
Zometa, Reclast (Zoledronic acid)	D5W, NS=24 hrs	IVPB	15-30 min	100 mL	Do not give with divalent cation solns(LR). Contraindicated with hypocalcemia or hypersensitivity to bisphosphonates. Dose=4-5mg. Renally dose.

Disclaimer: This compiled information is concise and may not contain all of the possible fluid and/or concentration options. Please consult literature for more detailed information.

Clinical Pearls:

1. All intrathecal/epidural injections must be preservative and pyrogen free.
2. Rotavirus vaccine is contraindicated and live vaccines are not recommended concurrently with chemo.
3. Do not use aluminum needles with platinum compounds.
4. Avoid Black Cohosh and Dong quai in estrogen dependent tumors.
5. Taxane derivatives should be given prior to platinums.
6. Cytochrome P450 3A4 is a major enzyme for drug metabolism so it has many drug and food interactions.
7. Vesicants should generally be administered quickly to prevent irritation/extravasation.

References:

Drug Information Handbook for Oncology 7th Edition
Micromedex
Velbane Package Insert Updated

Last updated 02/21/2012