

DYSLIPIDEMIC AGENTS					
Drug Class	HMG CoA inhibitors (statins)	Nicotinic Acid (niacin)	Fibric Acid Derivatives	Bile Acid Sequestrants	Absorption Inhibitors
Medications in Class (formulary in bold)	Atorvastatin (Lipitor) Fluvastatin (Lescol) Lovastatin (Mevacor) Pravastatin (Pravachol) * Rosuvastatin (Crestor) Simvastatin (Zocor)	Crystallized (generic) Sustained Release (generic) Extended Release (Niaspan)	Gemfibrozil (Lopid) Clofibrate (Atromid-S) Fenofibrate (Tricor)	Cholestyramine (Questran) Colestipol (Colestid) Colesevelam (Welchol)	Ezetimibe (Zetia)
Physiologic outcomes					
LDL	↓18-60%	↓ 5-25%	↓ 5-20% (may ↑ if TG ↑)	↓ 15-30%	↓ 18%
HDL	↑5-15%	↑ 15-35%	↑ 10-35%	↑ 3-5%	↑1%
Triglycerides	↓7-30%	↓ 20-50%	↓ 20-50%	no effect or ↑	↓ 8%
Indications	↓ LDL cholesterol	Useful in most lipid abnormalities	Hypertriglyceridemia	↓ LDL cholesterol in pts with normal TG	↓ LDL cholesterol
Contraindications					
Absolute	Active or chronic liver disease, pregnancy	Hepatic dysfunction, active peptic ulcer disease, arterial bleeding	Severe hepatic/renal disease, preexisting gallbladder disease	Familial dysbetalipoproteinemia, TG >400mg/dL, bowel obstruction	
Relative	Concomitant use of cyclosporine, macrolide antibiotics, various anti-fungal agents, and CYP-450 inhibitors	Hyperuricemia, type 2 diabetes (high doses), high alcohol use		TG > 200mg/dL	Moderate/severe hepatic insufficiency
Common Side Effects	Mild GI complaints	Upper GI, flushing, hyperglycemia, gout	Upper GI	Upper and lower GI	Well tolerated
Major Side Effects	Myopathy, hepatotoxicity	Hepatotoxicity, myopathy	Myopathy, cholesterol gallstones	Decreased absorption of drugs	-----
Liver enzyme monitoring	0, 6,12 weeks then periodically	BL and 6-8 weeks after 1500mg reached and 6-8 weeks after max dose, then at least yearly	periodic	None	None
Starting Dose	Atorvastatin 10-40mg daily Pravastatin 40mg daily Simvastatin 20-40mg daily	Crystallized 250mg daily Extended-release 500mg daily	Gemfibrozil 1200mg daily	Cholestyramine 4gm daily	10mg QD
Dose Range	Atorvastatin 10-80mg daily Pravastatin 10-80mg daily Simvastatin 5-80mg daily	Crystallized 250-6000mg daily Extended-release 500-2000mg daily	Gemfibrozil 1200mg daily	Cholestyramine 4-24gm daily	10mg QD
AWP/30 day supply**	Atorvastatin \$72-109 Pravastatin \$91-136 Simvastatin \$59-138	Crystallized \$0.6-14 Extended-release \$30-107	Gemfibrozil \$69	Cholestyramine \$63-380	
Equipotent dosing for HMG CoA inhibitors	Pravastatin 40mg = Atorvastatin 10mg = Simvastatin 20mg				

*Pravastatin 20mg on MUSC formulary, 40mg and 80mg available on discount formulary

**AWP per RedBook 2003 pricing

References: Product package inserts, NCEP ATP III guidelines at <http://www.nhlbi.nih.gov/guidelines/cholesterol/atp3full.pdf>, Pharmacist's Letter Detail Document 190801

MISCELLANEOUS AGENTS		
Drug Class	Angiotensin Converting Enzyme Inhibitors (ACEI)	Angiotensin Receptor Antagonists (ARB)
Medications in Class (formulary in bold)	Benazepril (Lotensin) Captopril (Capoten, generic) Enalapril (Vasotec, generic) Fosinopril (Monopril) Lisinopril (Prinivil, Zestril) Moexipril (Univasc) Perindopril (Aceon) Quinapril (Accupril) Ramipril (Altace) Trandolapril (Mavik)	Candesartan (Atacand) Eprosartan (Teveten) Irbesartan (Avapro) Losartan (Cozaar) Olmesartan (Benicar) Telmisartan (Micardis) Valsartan (Diovan)
Indications	Hypertension, congestive heart failure, diabetes nephropathy, left ventricular dysfunction	Hypertension, congestive heart failure, type 2 diabetes nephropathy
Contraindications	Angioedema to ACEI, pregnancy	Pregnancy
Common Side Effects	Cough	Well tolerated
Major Side Effects	Angioedema, hyperkalemia, renal insufficiency, neutropenia	Angioedema, hyperkalemia, renal insufficiency
Drug Interactions	Diuretics Lithium Potassium/Potassium sparing agents	Diuretics Potassium/Potassium sparing agents
Lab Monitoring	Periodic BMP and CBC	Periodic BMP
Starting Dose	Benazepril 10mg QD (5mg in patients on diuretics) Captopril 25mg BID – TID (12.5 in patient on diuretics) Enalapril 5mg QD (2.5mg in patients on diuretics) Ramipril 2.5mg QD (1.25mg in patients on diuretics)	Irbesartan 150mg QD Losartan 50mg QD (25mg in patients on diuretics) Valsartan 80-160mg QD
Dose Range	Benazepril 5 - 80mg QD or divided BID Captopril 6.25 - 150mg TID Enalapril 2.5 - 40mg QD or divided BID Ramipril 1.25 - 20mg QD	Irbesartan 75 - 300mg QD Losartan 25 - 100mg QD or divided BID Valsartan 40 - 320mg QD or divided BID
AWP/30 day supply **	Benazepril \$31-63 Captopril \$32-232 Enalapril \$24-91 Ramipril \$32-101	Irbesartan \$44-55 Losartan \$48-65 Valsartan \$39-63

**AWP per RedBook 2003 pricing

References: Product package inserts, Facts and Comparisons 2003, Pharmacist's Letter Detail Documents 181023 and 180611

DIABETES ORAL AGENTS					
Drug Class (formulary in bold)	Sulfonylureas	Biguanides	Meglitinides	Alpha-Glucosidase Inhibitors	Thiazolidinediones
	Acetohexamide (Dymelor) Chlorpropamide (Diabinese) Tolazamide (Tolinase) Tolbutamide (Orinase) Glyburide (Micronase, Diabeta , Glynase) Glipizide (Glucotrol , Glucotrol XL) Glimepiride (Amaryl)	Metformin (Glucophage , Glucophage XR)	Repaglinide (Prandin) Nateglinide (Starlix)	Acarbose (Precose) Miglitol (Glyset)	Pioglitazone (Actos) Rosiglitazone (Avandia)
Actions	Stimulates insulin secretion	Decreases hepatic glucose production Improves insulin sensitivity	Stimulates insulin secretion Shorter and quicker acting than sulfonylureas	Slows absorption of carbohydrates	Improves insulin sensitivity Decreases hepatic glucose production
Indications	Type 2 diabetes < 5 years	Overweight Insulin resistant	Recent type 2 diabetes Elevated postprandial glucose	Elevated postprandial glucose	Insulin resistant
Contraindications	Caution in patients with sulfa allergies	SCr \geq 1.5mg/dL (males), \geq 1.4mg/dL (females) CHF requiring treatment, acute MI, metabolic acidosis		Inflammatory bowel disease, intestinal obstruction, Scr > 2mg/dL	CHF (caution)
Common Side Effects	Upper GI, Hypoglycemia, weight gain	Upper and lower GI	Hypoglycemia, weight gain	Upper and lower GI	Weight gain, fluid retention
Major Side Effects	-----	Lactic acidosis, anemia	-----	-----	Hepatotoxicity, CHF
Lab Monitoring	BG	BMP, CBC at least annually, BS	-----		LFT BL and Q 2mo X 1 year, then PRN
Starting Dose	Glyburide 2.5-5mg QD Glipizide 2.5-5mg QD	500mg BID	-----	Miglitol 25mg TID	Pioglitazone 15-30mg QD Rosiglitazone 4mg QD
Dose Range	Glyburide 2.5 - 20mg Glipizide 2.5 - 40mg (little benefit >20mg/d)	500 - 2500mg (little benefit >2000mg/d)	-----	Miglitol 25-100mg TID	Pioglitazone 15-45mg QD Rosiglitazone 2-8mg QD (divided BID better BS control)
Reduction in HgA1c	0.9 - 1.8	0.8 - 2	0.6 - 1.9	0.4 - 1.3	1.1 - 1.6
Reduction in FPG	60 - 70	50 - 70	65 - 75	35 - 40	25 - 50
AWP/30 day supply**	Glyburide \$8-94 Glipizide \$5-35	Metformin \$80-97		Miglitol \$55-63	Pioglitazone \$92-160 Rosiglitazone \$77-154

**AWP per RedBook 2003 pricing

Combinations: rosiglitazone/metformin (Avandamet), glyburide/metformin (Glucovance), glipizide/metformin (Metaglip)

References: Product package inserts, Facts and Comparisons 2003, Pharmacist's Letter Detail Document 180608

INSULINS										
	Ultra-Short	Short	Intermediate		Long		Combinations			
Types (formulary in bold)	Lispro (Humalog) Aspart (Novolog)	Regular (R) (Novolin R) (Humulin R) (Humulin R-500)	NPH (N) (Novolin N) (Humulin N)	Lente (Humulin L)	Ultralente (UL) (Humulin U)	Glargine (Lantus)	70/30 (N/R) (Humulin 70/30) (Novolin 70/30)	70/30 (N/aspart) (Novolog 70/30)	75/25 (N/Lispro) (Humalog 75/25)	50/50 (N/R) (Humulin 50/50)
Activity/Action										
Onset	0-15 min	30-60 min	1-1.5 hours	1-2.5 hours	4-8 hours	15 min	30 min	10-20 min	15 mins	30 min
Peak	30-180 min	2-5 hours	4-12 hours	7-15 hours	minimal	peakless	2-12 hours	2-3 hours	2-12 hours	2-12 hour
Duration	3-8 hours	8-12 hours	14-24 hours	16-24 hours	20-36 hours	18-26 hours	18-24 hours	18-24 hours	18-26 hours	18-24 hours
Indications	Type 2 diabetes that cannot be controlled with PO medications in combination with MNT. Therapy of choice during pregnancy or in patients with type 1 diabetes. Can be used in conjunction with PO meds in type 2 diabetes.									
Cautions	Hypoglycemic unawareness can occur in setting of frequent hypoglycemia and rarely with B-blocker therapy. Glargine cannot be mixed with other insulins in the same syringe. UL may have unpredictable peak and duration									
Side Effects	Hypoglycemia > May occur quickly with Lispro or Aspart > Unpredictable in patients with gastroparesis > May occur more frequently in patients with renal insufficiency and concomitant use of alcohol Weight gain									
Dosing Guidelines	Type 1: Average dose is 0.4 – 0.8 units/kg body weight per 24 hours. This can be divided into a variety of intensive insulin regimens Type 2: Average dose is 1 – 1.5 units/kg body weight per 24 hours.									
AWP/Vial**	\$59	\$28	\$28	\$28	\$28	\$51	\$28	\$59	\$59	\$28

MNT – medical nutrition therapy

**AWP per RedBook 2003 pricing

References: Product package inserts, Facts and Comparisons 2003, Pharmacist's Letter Detail Document 190806