

Additional File 1: Codes Used to Identify Comorbid Conditions

Comorbid Conditions	
Description	ICD-9-CM Diagnosis Code
Congenital Heart Disease Chronic Lung Disease	424.x,.425.3x, 425.4x, 425.8x, 745.xx – 747.xx 770.7x,227.02,333.71,356.1,358.1,747.83,748.4, 748.5,748.6,750.3,756.6,770.12,770.81,770.82, 240-242.xx,243,244.x,246.1,277.81,277.82, 335.0,335.10,335.11,335.19,335.21,343.x,359.0, 359.1,359.21,359.22,359.6-359.7x,446.5 551.3,552.3,553.3,710.3,756.6,769,770.0,770.7x, 775.3
Muscular dystrophy	359.0x-359.1x.
Anterior horn cell disease	335.xx
Intraventricular hemorrhage	772.1x
Immunodeficiency	279.x
HIV	042.xx, V08.xx, 079.51-079.53
Sickle Cell Anemia	282.4x-282.6x
Hydrocephalus	742.3x, 741.0x
Periventricular leukomalacia	779.7x
Necrotizing enterocolitis	777.5x
Trisomy 21	758.0
Cerebral palsy	343.xx, 333.71
Other neuromuscular, immunological and genetic conditions	740.0x-759.x (except for codes in this range that are classified elsewhere), 246.1,258.1, 356.1, 277.81, 277.82,446.5,551.3,335.0, 335.10,335.11,335.19,710.3
Cystic Fibrosis	277.0x
Retinopathy of prematurity	362.21, 362.29
Failure to Thrive	783.4x
Description	ICD-9-CM Procedure Code
Congenital Heart Disease	35.41
Chronic Lung Disease	V46.2
Description	CPT Codes
Congenital Heart Disease	92992, 92993
Chronic Lung Disease	4030F
Description	Revenue Codes
Chronic Lung Disease	0277, 060x
Description	HCPCS Codes
Chronic Lung Disease	E0424-E0444, E0455, E1353, E1390, E1391, K0738
Description	Medication Name (Generic)

Congenital Heart Disease	<p> Acebutolol Hydrochloride, Amiloride Hydrochloride, Amiloride Hydrochloride/Hydrochlorothiazide, Amlodipine Besylate/Benazepril Hydrochloride, Atenolol, Atenolol/Chlorthalidone, Benazepril Hydrochloride, Benazepril Hydrochloride/Hydrochlorothiazide, Bendroflumethiazide, Bendroflumethiazide/Nadolol, Bendroflumethiazide/Rauwolfia Serpentina, Benzthiazide, Betaxolol Hydrochloride, Bisoprolol Fumarate, Bisoprolol Fumarate/Hydrochlorothiazide, Bumetanide, Candesartan Cilexetil, Candesartan Cilexetil/Hydrochlorothiazide, Captopril, Captopril/Hydrochlorothiazide, Carteolol Hydrochloride, Carvedilol, Chlorothiazide, Chlorothiazide Sodium, Chlorothiazide/Methyldopa, Chlorothiazide/Reserpine, Chlorthalidone, Chlorthalidone/Clonidine Hydrochloride, Chlorthalidone/Reserpine, Cyclandelate, Deserpidine/Hydrochlorothiazide, Deserpidine/Methyclothiazide, Diazoxide, Digoxin, Digoxin Immune Fab (ovine), Diltiazem Maleate/Enalapril Maleate, Enalapril Maleate, Enalapril Maleate/Felodipine, Enalapril Maleate/Hydrochlorothiazide, Enalaprilat, Epoprostenol Sodium, Eprosartan Mesylate, Eprosartan Mesylate/Hydrochlorothiazide, Esmolol Hydrochloride, Ethacrynic Acid, Ethaverine Hydrochloride, Ethaverine/Apap/Salicyl/Atrop, Ethaverine/B-complex, Fenoldopam Mesylate, Fosinopril Sodium, Fosinopril Sodium/Hydrochlorothiazide, Furosemide, Guanethidine Monosulfate/Hydrochlorothiazide, HCTZ/Hydralazine HCl/Reserpine, Hydralazine Hydrochloride, Hydralazine Hydrochloride/Hydrochlorothiazide, Hydralazine Hydrochloride/Isosorbide Dinitrate, Hydralazine Hydrochloride/Reserpine, Hydrochlorothiazide, Hydrochlorothiazide/Irbesartan, Hydrochlorothiazide/Labetalol Hydrochloride, Hydrochlorothiazide/Losartan Potassium, Hydrochlorothiazide/Methyldopa, Hydrochlorothiazide/Metoprolol Tartrate, Hydrochlorothiazide/Moexipril Hydrochloride, Hydrochlorothiazide/Olmesartan Medoxomil, Hydrochlorothiazide/Propranolol Hydrochloride, Hydrochlorothiazide/Quinapril Hydrochloride, </p>
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	<p>Hydrochlorothiazide/Reserpine, Hydrochlorothiazide/Spirolactone, Hydrochlorothiazide/Telmisartan, Hydrochlorothiazide/Timolol Maleate, Hydrochlorothiazide/Triamterene, Hydrochlorothiazide/Valsartan, Hydroflumethiazide, Hydroflumethiazide/Reserpine, Indapamide, Irbesartan, Kcl/Bendroflumethiazide, Labetalol Hydrochloride, Lisinopril, Lisinopril/Hydrochlorothiazide, Losartan Potassium, Methyclothiazide, Methyclothiazide/Reserpine, Metolazone, Metoprolol Succinate, Metoprolol Tartrate, Minoxidil, Moexipril Hydrochloride, Nadolol, Nylidrin Hydrochloride, Olmesartan Medoxomil, Papaverine Hydrochloride, Papaverine/Codeine, Penbutolol Sulfate, Perindopril Erbumine, Pindolol, Polythiazide, Polythiazide/Prazosin Hydrochloride, Polythiazide/Reserpine, Propranolol Hydrochloride, Quinapril Hydrochloride, Ramipril, Reserpine/Trichlormethiazide, Spirolactone, Telmisartan, Timolol Maleate, Tolazoline Hydrochloride, Torsemide, Trandolapril, Trandolapril/Verapamil Hydrochloride, Treprostinil Sodium, Triamterene, Trichlormethiazide, Trimethaphan Camsylate, Valsartan</p>
Chronic Lung Disease	<p>arformoterol, formoterol, salmeterol, fluticasone/salmeterol, budesonide/formoterol, albuterol, bitolterol, epinephrine, isoetharine, isoproterenol, levalbuterol, metaproterenol, pirbuterol, terbutaline, aminophylline, dyphylline, oxtriphylline, theophylline, ipratropium, bendroflumethiazide, benzthiazide, chlorothiazide, chlorthalidone, hydrochlorothiazide (HCTZ), hydroflumethiazide, indapamide, methyclothiazide, metolazone, polythiazide, trichlormethiazide, bumetanide, ethacrynic acid, furosemide, torsemide, amiloride, spironolactone, triamterene, atenolol/chlorthalidone, bisoprolol/HCTZ, metoprolol/HCTZ, nadolol/bendroflumethiazide, propranolol/HCTZ, timolol/HCTZ, benazepril/HCTZ, captopril/HCTZ, enalapril/HCTZ, fosinopril/HCTZ, lisinopril/HCTZ, moexipril/HCTZ, quinapril/HCTZ, candesartan/HCTZ, eprosartan/HCTZ, irbesartan/HCTZ, losartan/HCTZ, olmesartan/HCTZ, telmisartan/HCTZ, valsartan/HCTZ, amiloride/HCTZ,</p>

	spironolactone/HCTZ, triamterene/HCTZ, prazosin/polythiazide, clonidine/chlorthalidone, dexamethasone, methylprednisolone,
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