

## Sugar Content of Selected Liquid Medicinals

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Dietary therapy for the diabetic patient has two goals: (1) to provide in proper quantities and at regular intervals that food, especially carbohydrate, which meets the metabolic needs of the patient with the least strain on impaired homeostatic mechanisms; and (2) to maintain the patient at a body weight that is compatible with the greatest longevity. All methods for determining the proper dietary prescription for a given diabetic patient strive: (1) to supply the total caloric requirement (carbohydrate, protein, and fat) of the patient for maintenance of his ideal body weight; (2) to satisfy special requirements—i.e., modifications in the amounts and types of food allowed as dictated by the presence of complications of diabetes or other diseases; and (3) to provide adequate intake of vitamins and minerals.

Medical practitioners are aware that commercially available medicinal agents are combinations of many ingredients designed to provide a pharmaceutically elegant and efficacious product. The exact composition of these agents is usually available only from the manufacturer, since the Food and Drug Administration does

not require complete disclosure of diluents, binders, fillers, flavoring agents, coloring agents, sweeteners, etc., in their labeling regulations. The data in table 1 relative to the sugar content of prescription and nonprescription pharmaceuticals marketed in liquid dosage forms was obtained directly from the manufacturers with their understanding that it might be published. It is intended to provide clinicians with an additional tool in determining the caloric intake of their patients, especially in cases in which caloric restriction is a necessity for continued well-being. For example: A male diabetic with a prescribed diet of 2800 calories per day has an upper respiratory tract infection. After evaluation, prescriptions are written for Actifed, 1 tsp. every four hours, Penbritin, 500 mg. every four hours, and Vi-Daylin, 1 tsp. every morning. From the table it is determined that the patient will ingest approximately 36.5 gm. of carbohydrate daily from this medication. This represents 13 per cent of his prescribed intake of carbohydrate. Whether this consideration would necessitate an alteration in dietary intake or drug therapy for this patient is unknown. That decision would be made by his physician. We believe that prescription and nonprescription drugs should be added to the list of items to be used with caution by persons with diabetes.

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From the School of Pharmacy and the Drug Information Services, State University of New York, Buffalo.

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TABLE 1

Item and dosage form	Sugar content (gm./5 ml.)	Sugar form*	Manufacturer
A D C, drops	0.5	S	Parke-Davis
A D C with Fluoride, drops	0.5	S	Parke-Davis
Abdec Baby Vitamin, drops	0.3	S	Parke-Davis
Abdec with Fluoride Baby Vitamin, drops	0.3	S	Parke-Davis
Actidil, syrup	2.125	S	Burroughs Wellcome
Actifed, syrup	3.5	S	Burroughs Wellcome
Actifed-C, syrup	2.5	S	Burroughs Wellcome
Acutuss, expectorant	3.5	G/F	Philips Roxane
AD-Cebrin, drops	none		Lilly
AD-Cebrin with Fluoride, drops	none		Lilly
Adeflor, drops	none		Upjohn
Adeflor B, drops	none		Upjohn
Adophyllin, elixir	none		Bowman
Albamycin, syrup	3.25	S	Upjohn
Alkalol, solution	none		Alkalol Co.
Allurate, elixir	2.016	S	
	0.3481	G	Roche
Ambenyl, expectorant	2.096	S	
	1.752	LG	Parke-Davis
Ambodryl HCl, elixir	2.166	S	Parke-Davis
Amcill 125, suspension	1.942	S	Parke-Davis
Amcill 250, suspension	1.995	S	Parke-Davis
Amytal, elixir	none		Lilly
Antepar, syrup	2.5	S	Burroughs Wellcome
Aquasol A, drops	none		USV
Aquasol E, drops	none		USV
Aromatic Elixir, U.S.P., elixir	1.6	S	Parke-Davis
Aventyl HCl, liquid	none		Lilly
Balmial Cough Syrup	2.045	S	Clapp, Otis & Son
Bardase, liquid	0.59	S	Parke-Davis
Bar-Don, elixir	1.9777	S	Warren-Teed
Belladenal, syrup	2.79	S	Sandoz
Belladonna (leaf), tincture	none		Lilly
Bemotinic, liquid	2.47	dS	Ayerst
Benadryl, elixir	1.487	S	Parke-Davis
Benylin, expectorant	3.003	S	
	1.168	LG	Parke-Davis
Betalin S, elixir	0.02	G	Lilly
Betapen-VK, solution	2.8	S	Bristol
Brondecon, elixir	2.3	S	Warner-Chilcott
Bronkolixir, elixir	2.025	S	Breon
Butisol Sodium, elixir	none		McNiel
Calcitrine, syrup	3.95	G/S	Abbott
Camalox, suspension	none		Rorer
Cantil, liquid	1.75	G	Lakeside
Cantil-PHB, liquid	1.0	G	Lakeside
Carbrital, elixir	0.411	S	Parke-Davis
Caripeptic, liquid	0.539	S	Upjohn
Cascara Sagrada Aromatic Fluid-extract, liquid (FE 536)	0.42	S	Parke-Davis
Cascara Sagrada Aromatic Fluid-extract, liquid (FE 689)	none		Parke-Davis
Cas-Evac, liquid	0.12	S	Parke-Davis
Celestone, syrup	2.75	S	Schering
Chel-Iron, liquid	none		Kinney
Chel-Iron-112, liquid	none		Kinney
Chel-Iron Pediatric, drops	none		Kinney
Cheracol, syrup	1.805	LG	
	1.8	S	Upjohn
Cheracol D, syrup	1.805	LG	
	1.8	S	Upjohn

\*dS = sorbitol, G = glucose, G/S = glucose and sucrose, S = sucrose, S/dS = sucrose and sorbitol solution, 70 per cent U.S.P., G/F = glucose and fructose, in an equimolar mixture, F = fructose, H = honey (honey consists of 62 to 83 per cent invert sugar, in an equimolar mixture of glucose and fructose, with small quantities of sucrose, 0 to 8 per cent, and dextrin, .26 to 7 per cent), LG = liquid glucose (30 to 40 per cent glucose).

## SUGAR CONTENT OF SELECTED LIQUID MEDICINALS

TABLE 1 (continued)

Item and dosage form	Sugar content (gm./5 ml.)	Sugar form*	Manufacturer
Cherry Syrup, U.S.P.	4.0	S	Parke-Davis
Chloromycetin Palmitate, suspension	1.5	S	Parke-Davis
Chlor-Trimeton, expectorant	3.0	S	Schering
Chlor-Trimeton, syrup	2.75	S	Schering
Chlor-Trimeton with Codeine, expectorant	3.0	S	Schering
Choledyl, elixir	1.0	S	Warner-Chilcott
Citralka, liquid	0.6	S	Parke-Davis
Cleocin, solution	(approx.) 1.5	S	Upjohn
Clistin Expectorant, syrup	none		McNeil
Clusivol, syrup	2.5	S	
	0.25	G	Ayerst
Colace, liquid	none		Mead Johnson
Colace, syrup	3.0	S	Mead Johnson
Coldene (adults'), elixir	1.85	S	Pharmacraft
Coldene (children's), elixir	1.845	S	Pharmacraft
Cologel, liquid	none		Lilly
Colrex, expectorant	3.0	S	Rowell
Colrex, syrup	3.0	S	
	0.49	dS	Rowell
Colrex Compound, elixir	none		Rowell
Coly-mycin-S, suspension	0.94	S	Warner-Chilcott
Compazine, syrup	3.5	S	Smith, Kline & French
Compcillin-V, suspension	none		Abbott
Compcillin-VK, drops	2.96	S	Abbott
Compcillin-VK (200,000 U./5 cc.), solution	3.02	S	Abbott
Compcillin-VK (400,000 U./5 cc.), solution	2.96	S	Abbott
Copavin Compound, elixir	0.017	G	Lilly
Co-Pyronil, suspension	2.5	S	Lilly
Coramine, solution	none		Ciba
Coricidin Cough Formula, syrup	3.5	S	Schering
Corilin Infant Liquid	2.75	S	Schering
Cortef, fluid	2.0	S	Upjohn
Cosadein, syrup	0.929	S	
	1.093	LG	Parke-Davis
	1.629	S	
Cosanyl (Improved), syrup	2.335	LG	Parke-Davis
	0.228	dS	
	1.631	S	
Cosanyl DM (Improved), syrup	2.335	LG	Parke-Davis
	0.228	dS	
Creמושxidine, suspension	0.25	S	Merck, Sharp & Dohme
Creموthalidine, suspension	0.75	S	Merck, Sharp & Dohme
C.V.P., syrup	none		USV
C.V.P. with Potassium, syrup	none		USV
Darvon-N, suspension	2.5	S	Lilly
Decadron, elixir	none		Merck, Sharp & Dohme
Deconamine, elixir	1.0625	S	
	1.9275	dS	Smith, Miller & Patch
Demazin, syrup	2.75	S	Schering
Dewitts Baby Cough Syrup	3.591	S	Dewitt
Dewitts Children's Cough Control Medicine, syrup	3.352	S	Dewitt
Dewitts Cough Control Medicine, syrup	3.352	S	Dewitt
Dewitts Creosant Cough Syrup	3.082	S	Dewitt
Dewitts Wild Cherry Cough Syrup	2.633	S	Dewitt
Dexamyl, elixir	1.0	S	
	1.25	G	Smith, Kline & French
Dexedrine, elixir	0.75	S	Smith, Kline & French
Dilantin-30, suspension	1.042	S	Parke-Davis

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TABLE 1 (continued)

Item and dosage form	Sugar content (gm./5 ml.)	Sugar form*	Manufacturer
Dilantin-125, suspension	1.042	S	Parke-Davis
Dilaudid, syrup	2.974	S/dS	Knoll
Dimacol, liquid	2.83	G/S	Robins
Dimetane, elixir	2.42	G	Robins
Dimetane, expectorant	2.8	G/S	Robins
Dimetane DC, expectorant	2.8	G/S	Robins
Dimetapp, elixir	none		Robins
Diuril, suspension	2.0	S	Merck, Sharp & Dohme
Dolophine HCl, syrup	3.75	S	Lilly
Donnagel, suspension	0.27	G	Robins
Donnagel-PG, suspension	0.24	S	Robins
Donnatal, elixir	1.6	G	Robins
Donnatal Plus, elixir	1.6	G	Robins
Dorcol Pediatric, syrup	3.424	S	Dorsey
Dramamine, liquid	2.685	S	Searle
Dristan Cough Formula, syrup	3.0	S	Whitehall
Dynapen, suspension	2.3	S	Bristol
Elixophyllin, elixir	none		Cooper
Elixophyllin KI, elixir	0.747	S	Cooper
Elkosin, suspension	1.98	S	Ciba
Emetrol, suspension	1.418	G	Rorer
	1.418	F	
Endotussin-C, syrup	3.0	S	Endo
Endotussin-NN, syrup	3.0	S	Endo
Endotussin-NN Pediatric, syrup	3.0	S	Endo
Ephedrine Sulfate, syrup No. 110	3.01	S	Lilly
Ephedrine Sulfate, syrup No. 111	4.01	S	Lilly
Erythrocin, drops	1.552	S	Abbott
Erythrocin, solution	1.55	S	Abbott
Eskaphen B, elixir	0.75	S	Smith, Kline & French
	0.75	G	
Estomul, liquid	none		Riker
Father John's Medicine, liquid	1.3	S	Father John's Medicine Co.
Feosol, elixir	0.822	S	Smith, Kline & French
	0.275	G	
Fer-in-sol, drops	1.9155	S	Mead Johnson
Fer-in-sol, syrup	3.0	S	Mead Johnson
Fergon, elixir	0.6	LG	Breon
Ferrolip, syrup	0.0001	dS	Flint
Ferrolip-T, syrup	0.0001	dS	Flint
Flavor Pak	20.0	S	Sandoz
Forhista, syrup	3.993	S	Ciba
Furadantin, suspension	none		Norwich
Furoxone, liquid	none		Norwich
Gantanol, suspension	2.54	S	Roche
Gantrisin, suspension	0.65	G/F	Roche
	2.77	S	
Gantrisin, syrup	3.5	S	Roche
Gelusil, liquid	none		Warner-Chilcott
Gelusil-M, liquid	none		Warner-Chilcott
Geriplex-FS, liquid	0.514	S	Parke-Davis
	1.0	LG	
	0.91	dS	
Gerizyme, liquid	3.0	S	Upjohn
Haldol, concentrate	none		McNiel
Haley's M.O., suspension	none		Glenbrook
Histadyl, syrup	3.52	S	Lilly

\*dS = sorbitol, G = glucose, G/S = glucose and sucrose, S = sucrose, S/dS = sucrose and sorbitol solution, 70 per cent U.S.P., G/F = glucose and fructose, in an equimolar mixture, F = fructose, H = honey (honey consists of 62 to 83 per cent invert sugar, in an equimolar mixture of glucose and fructose, with small quantities of sucrose, 0 to 8 per cent, and dextrin, .26 to 7 per cent), LG = liquid glucose (30 to 40 per cent glucose).

## SUGAR CONTENT OF SELECTED LIQUID MEDICINALS

TABLE 1 (continued)

Item and dosage form	Sugar content (gm./5 ml.)	Sugar form*	Manufacturer
Histadyl, E.C., syrup	3.52	S	Lilly
Humatin Pediatric, syrup	2.174	S	Parke-Davis
Hycodan, syrup	3.0	S	Endo
Hycomine, syrup	3.0	S	Endo
Hycomine Pediatric, syrup	3.0	S	Endo
Hydriodic Acid, syrup	2.315	G	Upjohn
Hydrolose, syrup	1.0	S	Upjohn
	1.75	LG	
Hydrillin, compound	3.58	S	Searle
Hydrillin, elixir	1.315	S	Searle
Iberet, solution	none		Abbott
Iberet-500, solution	none		Abbott
Ilosone, drops	0.325	S	Lilly
Ilosone 125, liquid	2.0	S	Lilly
Ilosone 250, liquid	2.0	S	Lilly
Ilosone 125, suspension	1.6	S	Lilly
Initia, drops	0.5	S	Parke-Davis
Initia with Fluoride, drops	0.5	S	Parke-Davis
Ipecac, syrup	1.17	S	Lilly
Ipsatol, syrup	0.42	S	Davies Rose Hoyt
Ipsatol C, syrup	0.417	S	Davies Rose Hoyt
Ipsatol DM, syrup	0.42	S	Davies Rose Hoyt
Kao-Chlor, concentrate	none		Warren-Teed
Kao-Chlor, liquid	none		Warren-Teed
Kao-con, suspension	none		Upjohn
Kaomycin, suspension	none		Upjohn
Kaopectate, suspension	none		Upjohn
Keflex, suspension	3.0	S	Lilly
Keflex Pediatric, drops	0.677	S	Lilly
Kesso-Pen 200,000, syrup	2.29	S	McKesson Labs
Kesso-Pen 400,000, syrup	1.96	S	McKesson Labs
Kesso-Pen VK 200,000, syrup	2.125	S	McKesson Labs
Kesso-Pen VK 400,000, syrup	1.95	S	McKesson Labs
Kesso-Tetra, syrup	3.5	S	McKesson Labs
Kondremul, liquid	none		Smith, Miller & Patch
Lactated Pepsin, elixir	0.449	S	Parke-Davis
	0.803	LG	
Lanoxin, elixir	1.5	S	Burroughs Wellcome
Lincocin, syrup	3.25	S	Upjohn
Lipo Gantrisin, suspension	0.275	S	Roche
Lipotriad, liquid	none		Smith, Miller & Patch
Livibron, liquid	1.168	LG	Parke-Davis
	0.159	S	
Lomotil, liquid	1.755	dS	Searle
Maalox, suspension	none		Rorer
Madribon, suspension	2.75	S	Roche
	0.65	S	
Mandelamine, suspension	none		Warner-Chilcott
Mandelamine Forte, suspension	none		Warner-Chilcott
Mediatric, liquid	1.92	d/S	Ayerst
Mellaril, concentrate	none		Sandoz
Mesopin, elixir	1.75	S	Endo
Mesopin-PB, elixir	none		Endo
Methajade, liquid	none		Merck, Sharp & Dohme
Midicel Acetyl, suspension	2.0	S	Parke-Davis
Milk of Bismuth, suspension	none		Parke-Davis
Milk of Magnesia, suspension	none		Parke-Davis
Milontin, suspension	1.041	S	Parke-Davis

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TABLE 1 (continued)

Item and dosage form	Sugar content (gm./5 ml.)	Sugar form*	Manufacturer
Mintezol, suspension	none		Merck, Sharp & Dohme
Mol-Iron, drops	0.995	S	Schering
	0.705	LG	
Mol-Iron, liquid	2.535	S	Schering
	0.695	LG	
Mycostatin, suspension	none		Squibb
Mylanta, liquid	0.67	dS	Stuart
Mylicon, drops	none		Stuart
Mysoline, suspension	none		Ayerst
Mysteclin-F, drops	1.65	S	Squibb
Mysteclin-F, syrup	2.2	S	Squibb
Naldecon, syrup	3.9	S	Bristol
Naldecon (Pediatric), drops	0.78	S	Bristol
Naldecon (Pediatric), syrup	3.9	S	Bristol
Naldetuss, syrup	3.1	S	Bristol
Nembu-Donna, elixir	2.6	S	Abbott
Nembutal, elixir	2.6	S	Abbott
Neo-calglucon, syrup	1.05	S	Sandoz
Neo Kondremul, liquid	none		Smith, Miller & Patch
Neothylline, elixir	none		Lemmon
Neothylline-G, elixir	none		Lemmon
Neotrizine, suspension	1.75	S	Lilly
Neutradon, liquid	0.375	S	Lemmon
Neutralox, liquid	none		Lemmon
Nicol TM, elixir	1.5	S	Warner-Chilcott
Nico-metrazol, elixir	1.555	S	Knoll
Noctec, syrup	3.5	S	Squibb
Norisodrine with Calcium Iodine, syrup	3.95	G/S	Abbott
Novacebrin, drops	none		Lilly
Novacebrin with Fluoride, drops	none		Lilly
Novahistine, elixir	1.25	S	Dow
Novahistine, expectorant	2.1	S	Dow
Novahistine DH, elixir	1.85	S	Dow
	0.6	G	
Novatrin, compound	none		Ayerst
Nydrazid, syrup	none		Squibb
Opium, tincture	none		Lilly
Organidin, elixir	3.25	G	Wampole
Orthoxicol, syrup	2.996	S	Upjohn
Orthoxine HCl, syrup	3.474	S	Upjohn
Oxacol, liquid	0.75	S	Philips Roxane
Paladac, liquid	1.0	S	Parke-Davis
Pamine PB, drops	none		Upjohn
Pamine PB, elixir	1.0	S	Upjohn
Panmycin, syrup	3.25	S	Upjohn
Panmycin Aqua drops	3.25	S	Upjohn
Paregoric, tincture	none		Upjohn
Paregoric, tincture	none		Lilly
Paregoric, tincture	none		Parke-Davis
Parepectolin, suspension	none		Rorer
Paragel, suspension	none		Parke-Davis
Pectocel, liquid	0.0085	G	Lilly
Pecto-Kalin, liquid	none		Lemmon
Pediaflor, drops	none		Ross
Penbritin, drops	2.32	S	Ayerst
Penbritin (125 mg. bottle), suspension	2.325	S	Ayerst
Penbritin (250 mg. bottle), suspension	2.195	S	Ayerst
Penetro Baby Cough Syrup, syrup	3.895	S	Plough
	0.15	H	

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## SUGAR CONTENT OF SELECTED LIQUID MEDICINALS

TABLE 1 (continued)

Item and dosage form	Sugar content (gm./5 ml.)	Sugar form*	Manufacturer
Penetro Cough & Cold Medicine, liquid	1.91	S	Plough
	0.95	G	
	0.95	F	
Pentids, syrup	2.8	S	Squibb
Pepto-Bismol, liquid	none		Norwich
Periactin, syrup	1.25	S	Merck, Sharp & Dohme
Peri-Colace, syrup	2.25	S	Mead Johnson
Permitil Oral, concentrate	none		Schering
Pertussin 8-Hour, syrup	1.955	S	Chesebrough-Pond's
Pertussin Plus, syrup	2.25	S	Chesebrough-Pond's
Pertussin Wild Berry, syrup	1.75	S	Chesebrough-Pond's
Pediaquil, liquid	1.5	G	Philips Roxane
Pfizerpen, syrup	1.796	S	Pfizer
Phenobarbital, elixir	0.635	S	Lilly
Phenobarbital, elixir	0.637	S	Parke-Davis
Phenobarbital, elixir	0.638	S	Philips Roxane
Phenobarbital, elixir	0.6375	S	Upjohn
Phillips' Milk of Magnesia, suspension	none		Glenbrook
Phos-flur, liquid	none		Davies Rose Hoyt
Phospho-soda (Regular & Flavored), liquid	none		Fleet
Polaramine, expectorant	2.75	S	Schering
Polaramine, syrup	2.75	S	Schering
Polycillin, drops	0.38	S	Bristol
Polycillin, suspension	1.9	S	Bristol
Potassium Chloride, liquid	none		Philips Roxane
Potassium Gluconate, elixir	none		Philips Roxane
Potassium Iodide, liquid	none		Philips Roxane
Potassium Triplex, liquid	none		Lilly
Povan, suspension	1.15	S	Parke-Davis
Principen, suspension	3.2	S	Squibb
Prolixin, elixir	3.0	S	Squibb
Propadrine, elixir	1.2	S	Merck, Sharp & Dohme
Prostaphlin, solution	2.3	S	Bristol
Pyribenzamine, elixir	2.121	S	Ciba
Pyribenzamine with Ephedrine, expectorant	3.488	S	Ciba
Pyribenzamine with Ephedrine & Codeine, expectorant	3.488	S	Ciba
Quadrinal, suspension	2.52	S	Knoll
Quelidrine, syrup	4.30	G/S	Abbott
Quibron, elixir	2.25	S	Mead Johnson
Reserpoid, elixir	none		Upjohn
Riopan, suspension	none		Ayerst
Robalate, liquid	none		Robins
Robicillin VK 125, solution	2.1	S	Robins
Robicillin VK 250, solution	1.9	S	Robins
Robitet, syrup	none		Robins
Robitussin, syrup	2.8	G/S	Robins
Robitussin AC, syrup	2.75	S	Robins
Robitussin DM, syrup	2.83	G/S	Robins
Robitussin PE, syrup	2.83	G/S	Robins
Ro-cillin VK, solution	2.0	S	Rowell
Romilar, syrup	1.75	S	Sauter
	0.75	G/F	
Romilar (Children's), syrup	2.5	S	Sauter
	1.0	G/F	
Romilar CF, syrup	1.0	S	Sauter
	2.0	G/F	
	0.4	G	
Romilar III, syrup	none		Sauter
Rondec D, drops	3.7	G/S	Ross
Rondec DM, drops	3.7	G/S	Ross
Rondec DM, syrup	3.7	G/S	Ross

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TABLE 1 (continued)

Item and dosage form	Sugar content (gm./5 ml.)	Sugar form*	Manufacturer
Rondec S, syrup	3.7	G/S	Ross
Roniacol, elixir	1.312	S	Roche
Rubraton, liquid	none		Squibb
St. Joseph's Cough Syrup	3.895	S	Plough
Seconal, elixir	0.65	S	Lilly
Sedaphen, liquid	none		Smith, Miller & Patch
Sedatole, liquid	3.055	S	Merck, Sharp & Dohme
Senokot, syrup	3.3	S	Purdue Frederick
Serpasil, elixir	2.01	S	Ciba
Silain-Gel, liquid	none		Robins
Silexin Cough Syrup	1.505	S	
	0.75	G/F	Clapp, Otis & Son
Stelazine, concentrate	3.6	S	Smith, Kline & French
Stuart Formula, liquid	4.9	S	Stuart
Stuart Hematinic, liquid	4.0	S	Stuart
Sudafed, syrup	3.5	S	Burroughs Wellcome
Sugracillin 125,000, solution	1.983	S	Upjohn
Sugracillin 250,000, solution	2.08	S	Upjohn
Tacaryl HCl, syrup	3.0	S	Mead Johnson
Taka Combex, elixir	1.484	S	Parke-Davis
Taka Diastase, liquid	0.021	S	Parke-Davis
Tedral, suspension	1.44	G/F	Warner-Chilcott
Tegopen, solution	2.4	S	Bristol
Temaril, syrup	3.619	S	Smith, Kline & French
Tempra, drops	1.25	S	Mead Johnson
Tempra, syrup	3.0	S	Mead Johnson
Terfonyl, suspension	1.25	S	Squibb
Terpin Hydrate & Codeine, elixir	0.4246	S	Upjohn
Terpin Hydrate & Codeine, elixir	none		Parke-Davis
Terpin Hydrate & Codeine Sulfate, elixir	none		Upjohn
Terpin Hydrate N.F., elixir	0.425	S	Parke-Davis
Terramycin, drops	none		Pfizer
Terramycin, syrup	none		Pfizer
Terrastatin, suspension	1.7	S	Pfizer
Tetrachel-S, syrup	1.45	LG	
	1.35	S	Rachelle
Tetrachel-S Pediatric, drops	0.75	LG	
	0.25	S	Rachelle
Tetrex, drops	0.6	S	Bristol
Tetrex, syrup	0.6	S	Bristol
Tetrex F, syrup	1.76	S	Bristol
Theragran, liquid	none		Squibb
Thiosulfil, suspension	none		Ayerst
Thorazine, concentrate	none		Smith, Kline & French
Thorazine, syrup	4.215	S	Smith, Kline & French
Titralac, liquid	none		Riker
Triactin, liquid	none		Norwich
Triaminic, concentrate	1.453	S	Dorsey
Triaminic, expectorant	3.581	S	Dorsey
Triaminic, syrup	3.581	S	Dorsey
Triaminic DH, expectorant	1.79	S	Dorsey
Triaminicol, syrup	3.544	S	Dorsey
Trilafon, concentrate	2.75	S	Schering
Trilafon, syrup	2.75	S	Schering
Trind, syrup	2.5	S	Mead Johnson
Trind DM, syrup	2.5	S	Mead Johnson
Trisogel, liquid	none		Lilly
Tfi-Vi-Flor, drops	none		Mead Johnson
Tri-Vi-Sol, drops	none		Mead Johnson
Troph-Iron, liquid	2.0	G	Smith, Kline & French
Trophite, liquid	1.0	G	Smith, Kline & French

\*dS = sorbitol, G = glucose, G/S = glucose and sucrose, S = sucrose, S/dS = sucrose and sorbitol solution, 70 per cent U.S.P., G/F = glucose and fructose, in an equimolar mixture, F = fructose, H = honey (honey consists of 62 to 83 per cent invert sugar, in an equimolar mixture of glucose and fructose, with small quantities of sucrose, 0 to 8 per cent, and dextrin, .26 to 7 per cent), LG = liquid glucose (30 to 40 per cent glucose).



TABLE 1 (continued)

Item and dosage form	Sugar content (gm./5 ml.)	Sugar form*	Manufacturer
Tussagesic, suspension	3.581	S	Dorsey
Tussar S.F., syrup	none		Armour
Tussar-2, syrup	3.25	S	Armour
	0.85	LG	
Tuss Ornade, liquid	none		Smith, Kline & French
2/G Cough Expectorant	1.75	S	Dow
	0.6	G	
2G/DM, expectorant	2.4	S	Dow
	0.6	G	
Tylenol, drops	none		McNiel
Uticillin VK 125, solution	2.09	S	Upjohn
Uticillin VK 250, solution	1.922	S	Upjohn
Valpin, elixir	none		Endo
Valpin-PB, elixir	none		Endo
V-Cillin K 125, solution	3.0	S	Lilly
V-Cillin K 250, solution	3.0	S	Lilly
Veetids 125, solution	2.9	S	Squibb
Veetids 250, solution	2.7	S	Squibb
Verequad, suspension	2.52	S	Knoll
Versapen, suspension	2.0	S	Bristol
Vesprin, suspension	none		Squibb
Vibramycin, suspension	1.581	S	Pfizer
Vi-Daylin, drops	none		Ross
Vi-Daylin, liquid	4.85	G/S	Ross
Vi-Daylin ADC, drops	none		Ross
Vi-Daylin/F, drops	none		Ross
Vi-Daylin/F ADC, drops	none		Ross
Vi-Daylin M, liquid	4.45	G/S	Ross
Vi-Daylin Plus Iron, drops	none		Ross
Vi-Daylin Plus Iron ADC, drops	none		Ross
Vi Penta, drops	none		Roche
Vi Penta with Fluoride, drops	none		Roche
Vistaril, suspension	none		Pfizer
X-Prep, liquid	3.3	S	Gray
Zentron, liquid	0.25	S	Lilly
	4.7	G	
Zymadrops, drops	none		Upjohn
Zymalixir, elixir	2.996	S	Upjohn
	0.749	LG	
Zymasyrup, syrup	2.996	S	Upjohn
Zymatinic, drops	2.994	S	Upjohn

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## ABSTRACTS

Archer, J. A., Gordon, P., Gavin, J. R., III, Lesniak, M. A., and Roth, J. (Diabetes Section, Clin. Endocrinol. Branch, Natl. Inst. Arthritis, Metabolism and Dig. Dis., N.I.H., Bethesda, Md.): INSULIN RECEPTORS IN HUMAN CIRCULATING LYMPHOCYTES: APPLICATION TO THE STUDY OF INSULIN RESISTANCE IN MAN. *J. Clin. Endocrinol. and Metab.* 36:627-33, April 1973.

I-125 insulin was found to bind to circulating lymphocytes

with displacement by unlabeled insulin. The authors compared the binding displacement curves of I-125 insulin in the circulating lymphocytes in normal subjects with those in insulin-resistant obese and acromegalic patients and insulin-sensitive hypopituitary subjects. The initial I-125 insulin binding for normal subjects had a mean value of 2.9 ng./1 ml. (range 1.9 to 3.4) per  $70 \times 10^6$  cells, which is not statis-