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Abstract

For Precision Ketogenic Therapy (PKT), documented precise composition of supplements is necessary to implement the PKT diet prescription. We gather this nutrient information by physically going to stores and recording nutrition data labels. However, manufacturers may make changes to their products over time, so these nutrient runs need to be done periodically to keep the database updated. The Dietary Supplement Label Database (DSLD) developed by the Office of Dietary Supplements (ODS) at the National Institutes of Health (NIH), catalogs all information printed on labels of dietary supplement products sold in the United States. Our goal was to determine whether the information on the ODS website accurately reflects the data obtained from local stores. If this held true, the ODS website could be used as an alternative and reduce the need to continuously collect Foodomics data from local stores.

We gathered data in January and February 2022 from products in local markets. Comparison of these data with what is in the ODS database showed differences in nutrient values for several products. This suggests that the ODS website cannot be the only source of vitamin and mineral data because it is crucial to have the exact nutrient amount that patients would be consuming from the products purchased in stores. However, the ODS website can be a reliable resource to find new supplement options that may be available in local markets when our frequently used supplements do not meet a patient's needs.

Methods

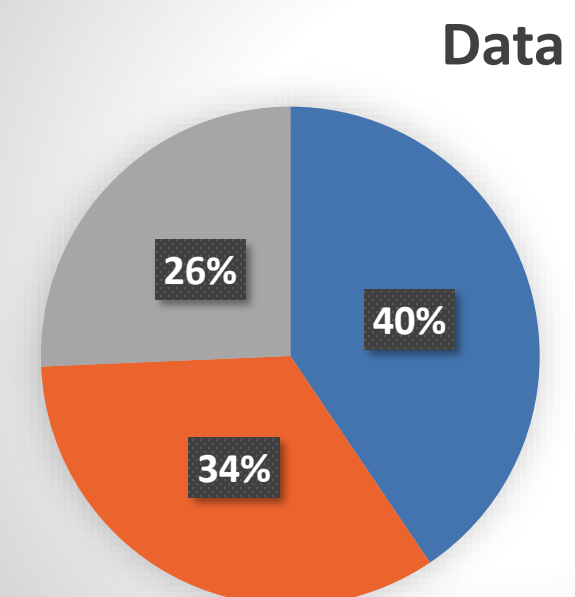
To collect the data for this project, we first referenced a list of dietary supplements that are currently in use for PKT patients in the Borum Lab. For each product on this list, we then performed 'nutrient runs' to the retailer which sold these items and photographed the label, price, control number, front of the product, package amount, and manufacturer. With these pictures, we put the supplements' information into a spreadsheet. Once this was completed for each of the dietary supplements, we referenced the Dietary Supplement Label Database (DSLDB), provided by the Office of Dietary Supplements (ODS) and researched the nutritional information for the supplements of interest. The nutritional data provided by the ODS was then entered into the same spreadsheet to conduct an analysis.

Results

After comparing the data collected from the nutrient runs with the data provided by the ODS website, we found a notable number of differences between the two sources, so the ODS is not reliable enough to use as a replacement for nutrient runs. In the study of neuroscience, it is crucial that the exact amount of vitamins and minerals is known so proper treatment can be executed. As displayed by the graph under the data section, the nutritional information was not identical for many of the supplements of interest. However, we did find that the ODS includes data for many alternative supplements that could be used for PKT patients. Lab members can use the ODS to discover different supplement options that may be better suited for patients and their specific needs.

Data

Most Recent Nutrient Run Data vs ODS



- Data Did Not Change for Supplement
- Data Changed for Supplement
- Supplement Was Not in DSLD

A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Lab Member	Enter Stage	DSLD ID	NDDI	Product Name	Source	USDA Food Group	Sub Food Group	Sub-sub Food Group	Price/oz	Raw/Cooked	Package Type	Weight
95	Needs Nutrition	RD		NDDI905	Equate Calcium 600 + D3 (tablet)	Brandname Products	Supplement	Mineral	Null	NDDI905			As per
96				NDDI905	Equate Calcium 600 + D3 (Maximum) (tablet)								
97				239876	Equate Calcium 600 + D3 + Minerals								
98	Needs Nutrition	RD		NDDI906	Equate Calcium Citrate + D3 (Maximum) (tablet)	Brandname Products	Supplement	Mineral	Null	NDDI906	Null	Bottle	As per
99				NDDI906	Equate Calcium Citrate + D3 (Maximum) (tablet)								
100				69758	Equate Calcium Citrate + D3								
101	Needs Nutrition	RD		NDDI907	Equate Complete Multivitamin Adults 50+ (tablet)	Brandname Products	Supplement	Multivitamin	Null	NDDI907			As per
102				NDDI907	Equate Complete Multivitamin Adults 50+ (tablet)								
103				178555	Equate Complete Multivitamin Adults 50+								
104	Needs Nutrition	RD		NDDI908	Equate Complete Multivitamin Adults Under 50 (tablet)	Brandname Products	Supplement	Multivitamin	Null	NDDI908	Null	Bottle	As per
105				NDDI908	Equate Complete Multivitamin Adults Under 50 (tablet)								
106				208190	Equate Complete Multivitamin Men 50+ (tablet)								
107	Needs Nutrition	RD		NDDI909	Equate Complete Multivitamin Men 50+ (tablet)	Brandname Products	Supplement	Multivitamin	Null	NDDI909	Null	Bottle	As per
108				NDDI909	Equate Complete Multivitamin Men 50+ (tablet)								
109				208299	Equate Complete Multivitamin Men 50+ (tablet)								
110	Needs Nutrition	RD		NDDI910	Equate One Daily Multivitamin Men's Health (tablet)	Brandname Products	Supplement	Multivitamin	Null	NDDI910			As per
111				NDDI910	Equate One Daily Multivitamin Men's Health (tablet)								
112				208119	Equate One Daily Men's Health								
113	Needs Nutrition	RD		NDDI911	Equate One Daily Multivitamin Women's Health (tablet)	Brandname Products	Supplement	Multivitamin	Null	NDDI911			As per
114				NDDI911	Equate One Daily Multivitamin Women's Health (tablet)								
115				208247	Equate One Daily Women's Health								
116	Needs Nutrition	RD		NDDI912	CVS Calcium 600 mgp + D3 + Minerals (tablet)	Brandname Products	Supplement	Mineral	Null	NDDI912			As per
117				NDDI912	CVS Calcium 600 mgp + D3 + Minerals (tablet)								
118				212126	CVS Calcium 600 mgp + D3 + Minerals (tablet)								
119	Needs Nutrition	RD		NDDI923	Nature Made Magnesium 250mg (tablet)	Brandname Products	Supplement	Mineral	Null	NDDI923			As per
120				NDDI923	Nature Made Magnesium 250mg (tablet)								
121				179404	Nature Made Magnesium 250mg (tablet)								
122	Needs Nutrition	RD		NDDI924	Nature Made Flaxseed Oil 1000mg Liquid Softgels	Brandname Products	Supplement	Omega	Null	NDDI924			As per
123				NDDI924	Nature Made Flaxseed Oil 1000mg Liquid Softgels								
124				179529	Nature Made Flaxseed Oil 1000 mg								
125	Needs Nutrition	RD		NDDI925	Nature Made Multi For Her Softgels	Brandname Products	Supplement	Multivitamin	Null	NDDI925	Null	Bottle	As per
126				NDDI925	Nature Made Multi For Her Softgels								
127				180162	Nature Made Multi For Her Softgels								
128	Needs Nutrition	RD		NDDI926	CVS Men's Multivitamin/Multimineral (tablet)	Brandname Products	Supplement	Multivitamin	Null	NDDI926			As per
129				NDDI926	CVS Men's Multivitamin/Multimineral (tablet)								
130				211233	CVS Men's Multivitamin/Multimineral (tablet)								
131	Needs Nutrition	RD		NDDI927	CVS Calcium Citrate + D3 (capslet)	Brandname Products	Supplement	Mineral	Null	NDDI927			As per
132				NDDI927	CVS Calcium Citrate + D3 (capslet)								
133				21105	CVS Calcium Citrate + D3 (capslet)								
134	Needs Nutrition	RD		NDDI928	CVS Citrate + D3 630mg (tablet)	Brandname Products	Supplement	Mineral	Null	NDDI928			As per
135				NDDI928	CVS Citrate + D3 630mg (tablet)								
136				211053	CVS Citrate + D3 630mg (tablet)								

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