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Objective	Product Picture	Manufacturer	Product Name	Average pH	Randomized Trial & Up USWS*
<p>Acidity causes oral complications to xerostomia patients. Numerous commercially available products claim of managing xerostomia. But only a small number of products have known pH values. The objective of this study is to determine the pH values of popular commercial products for dry mouth management, and assess if some of the products pose risks for promoting acidic environment and subsequent tooth demineralization.</p>		TheraBreath	Thera Breath oral rinse	9.82	
		Camellix	MighTeaFlow-Rinse	7.37	Yes
		Xlear	Spry - moisture mouth spray	6.98	
<h3>Methods</h3> <ul style="list-style-type: none"> <li>28 products were order from Amazon, out of which 12 were solutions and 16 were solids like Lozenges or mouth patches</li> <li>Batch number, date of expiration, manufacturer, and brand names were documented.</li> <li>Lozenges and patches were dissolved in deionized water in the ratio of 1:5 w/v, using electronic mixer.</li> <li>After the devices were dissolved in water, if necessary, the tubes were centrifuged to separate the non-dissolvable debris.</li> <li>Products in liquid form were directly measured by a pH meter or diluted by double deionized water when necessary.</li> <li>The pH of each solution prepared was measured by a pH meter after calibration with standard buffered solutions.</li> <li>Each solution was measured 3 times and the average value was generated from the three measurements.</li> </ul>		Biotene	Biotene- 16 oz Dry Mouth Oral Rinse	6.72	
		Oasis	Oasis- Mild Mint Flavour Moisturizing Mouth Wash	6.71	
		ACT mouth wash	ACT- Totalcare Anti-cavity Mouth Wash Soothing Mint	6.51	
<h3>Results</h3> <p>A total 28 products were measured. Among them, only 17 products with pH greater than 6, 11 products (39%) have pH Less than 6, among the acidic products, 4 of them are lower than pH 3.</p>		Camellix	MighTeaFlow Organic Neutral pH spray	6.43	Yes
		MedActive Oral	MedActive Rinse-SnF Base	6.18	
		MedActive Oral	Med Active -Oral Spray	5.92	
<h3>Conclusion</h3> <p>A large portion of products claiming to manage xerostomia are associated with demineralization risks. Highly acidic products could lead to enamel and dentin erosion, sensitivity, periodontal disease, and other complications in xerostomia patients. In addition, except for MighTeaFlow, none of the products was found to have double blind, randomized clinical trial evidence for increasing unstimulated saliva. Dental professionals must carefully evaluate each product for xerostomia management before recommending to patients, in order to lower the risks of acid-induced complications.</p>		MedActive Oral	MedActive Rinse-SnF Complete	5.4	
		Biotene	Biotene - 33 oz,PBF Moisturizing Oral Rinse	5.39	
		Parnell Pharmaceuticals Inc	Mouth Kote Spray	3.02	
<h3>References</h3> <ul style="list-style-type: none"> <li>Delgado AJ et al, pH and erosive potential of commonly used Oral Moisturizers. J Prosthodontics 2016 Jan</li> <li>Karevich O et al,Salese to buffer saliva in elderly patients with Xerostomia: a pilot study.J Pros 2011</li> <li>Aliko A,Alushi A, Evaluation of the clinical efficacy of Biotene Oral Balance in patients with secondary Sjogren's syndrome: a pilot study. Rheumatol Int. 2012 Sep</li> <li>De Rossi et al, A phase II clinical trial of a natural formulation containing tea catechins for Xerostomia. Oral Surg Oral Med Oral Pathol Oral Radiol 2014 Oct</li> <li>Aframian DJ, Mizrahi B, Evaluation of a mucoadhesive lipid-based bioerodable tablet compared with Biotene mouthwash for dry mouth relief – a pilot study. Quintessence Int. 2010</li> </ul>		Thera Breath	TheraBreath	8.8	
		Nuvora Inc	Salese- Winter green	8.52	
		Nuvora Inc	Salese-Mild Lemon	8.29	
<p>*Unstimulated whole saliva</p>		Nuvora Inc	Salese- New with ACP OraCoat - Xylimelts(Mint Free Disc)	8.2	
		Orahealth		8.1	
		Marble Medical	Orajel	7.11	
		Camellix	MighTeaFlow- lozenge	6.44	Yes
		Chattem Inc	ACT-Dry Mouth Lozenge with Xylitol	6.31	
		SmartMouth	Smart Mouth	6.15	
		Hylogic	Hylogic (Hylamint)	4.84	
		Quantum DenTek Oral care	OraMoist-Dry Mouth Patch	3.54	
		Thayers	Thayers- Sugar free Lozenges	3.17	
		Ludens	Ludens-Pectin Lozenges Kiwi-Strawberry	2.93	
		MedActive oral	MedActive (Ruby Raspberry)	2.73	
		MedActive oral	MedActive (Natural Spring)	2.46	
		MedActive oral	Med Active (orange crème)	2.43	