What’s an Alkyl Glucoside?

To begin with alkyl glucosides are the American Contact Dermatitis Society’s selection for the 2017 Allergen of the Year. These plant-derived, nonionic surfactants, however, have much to recommend them. They are used for their emulsification, cleansing, and foaming properties. They are considered eco-friendly because they are bio-degradable and manufactured from renewable resources. Furthermore, compared to many other surfactants, their irritation potential is low because their stability at room temperature means they can be used in lower concentrations than classic surfactants (for example, polysorbates). Consequently, alkyl glucosides are used in household and personal products—both stay-on (for example, sunscreens, deodorants, antiseptics, fragrances and hair dyes) and rinse-off (for example, shampoos and other cleansers).

Chemically, alkyl glucosides are stable compounds formed by a reaction (condensation) between a sugar (usually a glucose ring such as D-glucopyranose) and fatty alcohols with a linear side chain composed of 2 to 22 carbon atoms. The 19 distinct members in this group of organic molecules are considered safe to use by the Cosmetic Ingredient Review Expert Panel. Originally, alkyl glucosides were introduced in the 1960s but were quickly replaced by newer surfactants. In the 1990s alkyl glucosides again found favor for use in personal products because of their low irritancy potential. Decyl glucoside has been reported to be the most widely used alkyl glucoside for its surfactant-cleansing properties. Other compounds that serve the same purpose include arachidyl glucoside, lauryl glucoside, caprylyl/capryl glucoside, and coco-glucoside. Cetearyl glucoside and C12-20 alkyl glucoside primarily function as surfactant-emulsifying agents while ethyl glucoside serves as a skin-conditioning agent-humectant.

Why then was this apparently benign group of chemicals chosen as this year’s Allergen of the Year? Alkyl glucosides earned this status to help clinicians recognize their role as emerging allergens. In 2003 the first three cases of allergic contact dermatitis to alkyl glucosides were reported. Exposures included shampoos, soaps, sunscreens and an antiseptic gel. More cases, several of which were traced to decyl glucoside in sunscreens, were published during the ensuing years and now amount to about 20 cases. Furthermore, in 2014 a retrospective series of 30 patients (24 women and 6 men) who had relevant positive patch test reactions to one or more alkyl glucoside over the course of 19 years was reported. The North American Contact Dermatitis Group (NACDG) began testing with...
decyl glucoside in their standard series in 2009. Across the first two testing periods (2009-2010 and 2011-2012), the prevalence of positive reactions was about 1.5%, but it increased slightly to 1.7% for the 2013-2014 period. For perspective other allergens in the NACDG standard series associated with similar positivity rates include imidazolidinyl urea, potassium dichromate, bronopol, and epoxy resin to name just a few.

What type of patient might you expect to be sensitized to alkyl glucosides? Based on the patients reported thus far, most have been women and their mean age is near 50 years (age range 7 to 86 years), demographics that may reflect the relatively common use of cosmetics among women. About 40% of the patients were atopic. Although a few cases have involved nurses, hairdressers and housekeepers who may frequently be exposed to cleaning or cosmetic products, no clear occupational risk has been identified.

An interesting feature of patients who have reacted to alkyl glucosides is that the majority have exhibited polysensitization, that is, a positive reaction to more than one allergen. Sometimes these other reactions have been to nonrelated chemicals, and sometimes they have been to other glucosides. The latter may represent cross reactions reflecting the structural commonalities of the different alkyl glucosides, which primarily differ in terms of the chain length, or they may represent concomitant sensitization because more than one alkyl glucoside (for example, coco- and laurel glucosides) can be found in some products. Cross reactions with other structurally similar but nonglycoside chemicals (for example, between decyl glucoside and methyl glucoside dioleate) have also been posited but are unconfirmed.

The apparent tendency toward multiple sensitivities could make diagnosis challenging because one allergen could mask another. Nonetheless, cross reactions are not automatic; consequently, patients suspected of hypersensitivity should be tested with more than one alkyl glucoside to increase the yield. The areas of skin affected with dermatitis will reflect the use of the responsible product. Reactions to alkyl glucosides in sun-screens have tended to be concentrated on the upper body. In patients exposed via hair products (i.e., shampoo, hair color, conditioner), dermatitis may be concentrated along the hairline. Occupational exposures may involve the hands from exposure to creams, antiseptics or cleansers. Deodorant wipes containing alkyl glucosides have caused dermatitis outbreaks involving the ears, face, and inguinal folds. Once diagnosed, patients who are allergic to alkyl glucosides can be expected to improve when they follow a regimen of allergen avoidance. Acute cases have been treated with moisturizing creams and topical corticosteroids with good results.

Much remains to be learned about this group of emerging allergens. The mechanism underlying sensitization is unclear. Although testing with patient products has been common and may be helpful, systematic testing with individual product components would help remove ambiguity about the identity of the causative allergen(s) and help streamline patient avoidance strategies. Alkyl glucosides can be found in foods, but whether dietary intake needs to be restricted in sensitized patients is unknown. It also will be interesting to see whether the prevalence of allergic contact dermatitis to alkyl glucosides will increase over time in response to the widespread use of this group of chemicals and therefore whether alkyl glucosides will live up to their title of Allergen of the Year.

References
Gijbels D, Timmermans A, Serrano P, Verreycken E, Goossens A. Allergic contact dermatitis caused by alkyl glucosides. Contact Dermatitis 2014;70:175-183

What’s an Alkyl Glucoside?…continued

Contact the SmartPractice Allergen Bank pharmacy if expanded testing is necessary after your initial patch test screening.

Through our licensed pharmacy, you can order customized patch test panels on a patient-specific basis.

This service allows you to easily expand your patch testing without the investment in additional training and materials.
As clinicians we may have a tendency to disdain overt efforts at marketing our practice, which we may see as unworthy of our energies as medical professionals or, in some cases, even as unethical. Yet, everything we do as clinicians, whether intended or not, can translate to an inadvertent marketing message that our patients may share with their friends and families—an important source of potential patients. Marketing is about making conscious choices to ensure that the message you deliver is the one you intend—your commitment to providing them outstanding and professional care.

From that perspective marketing is nothing more nefarious than letting the public and referrals sources know who you are, what you do, and where to find you. Clinicians employed by larger institutions may have the luxury of delegating marketing activities to trained marketing professionals. Private-practice physicians who opt to ignore rational marketing strategies, however, may be doing so at the peril of the success of their practice—a disservice not only to themselves but also to the patients in their care.

But how do busy clinicians primarily concerned with caring for their patients and beset by endless regulatory and complex coding and billing requirements incorporate time for unfamiliar marketing activities into their already burdened schedules? Focusing on three simple strategies—keeping your existing patients, building a strong professional referral network, and choosing and using social media—may make it easier than you think. This article discusses actions you can take to retain your existing patients. The latter two strategies will be explored in upcoming issues of this newsletter—so remember to check back later this year for the companion articles!

The first marketing strategy, retaining your existing patients, is common sense. This step not only makes the most sense in terms of the economics of a practice, it also requires the least amount of effort. But how do you know where you stand with your patients? Do you request and receive their feedback about their experience and perceptions of their care and your practice? If not, you are not alone. When that question was posed at our most recent Patch Test Workshop in January, more than half of the respondents—52%—answered “no.” What a missed opportunity!

There is, however, an easy way to redress this situation. You can tap into how patients perceive your practice and their care by adopting a simple metric known as the net promoter score (NPS). The NPS is an index that measures the willingness of customers (that is, your patients) to recommend a company’s products or services (your practice) to others. You can use the NPS as a proxy for gauging your patients’ overall satisfaction with their experience and their loyalty to your clinic. The NPS is calculated from scores ranging from 0 (lowest ranking) to 10 (highest ranking) in response to a single question such as how likely the patient is to refer your clinic to friends or family. A short survey card (hard copy or electronic) given to patients when their appointment is over can be used to obtain this valuable feedback (Figure 1), which can be enhanced further by asking patients to explain their response and what actions would be needed to improve their ranking.

The time interval for collecting cards will vary by practice, but calculating the NPS at a regularly scheduled interval (e.g., monthly) is advisable. After you have obtained a sufficient number of responses, it’s time to calculate your NPS. The responses are tallied into detractors (those who respond with scores of 0-6 indicating they are unlikely to recommend and can actually damage your reputation), promoters (those who respond with a score of 9 and 10 indicating they are extremely likely to recommend your clinic), and passives (patients who score their experience as a 7 or 8 are considered passively satisfied—for now). The NPS is then calculated by subtracting the percentage of detractors (number of detractors ÷ total respondents) from the percentage of promoters (number of promoters ÷ total respondents): percentage of promoters – percentage of detractors = NPS. The result is a whole number between -100 (all detractors) and +100 (all promoters). Clearly the higher that number, the more favorably patients perceive your practice. Before making judgments it may be wise to gather data for several months to establish your personal baseline.

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In the meantime, however, you will certainly want to review the survey cards for patients’ written suggestions and follow through appropriately. You’ll want to keep doing what you are doing well to retain your promoters, and take a hard look at how you can rectify issues raised by your detractors. In terms of boosting patient retention, focusing on the passive group provides the biggest return on your investment of time and resources. Why? The promoters are already fans while the detractors are unlikely to change their mind. Even if the detractors or passives share no specific complaints, research has shown that patients are unlikely to make referrals if they score a practice less than 9. However, patients falling in the passive group can most readily be influenced to become a potential detractor or promoter. How do you make sure you influence their opinion in the right direction?

Because your entire office experience is marketing, start by evaluating the impression your clinic makes—from adequate and accessible parking to the appearance of your reception area and the cleanliness of the examination rooms. Make sure your front office staff are the right fit, capable of greeting each patient with a smile and extending a warm welcome because this encounter can set the tone for a patient’s entire visit. Are your insurance and history forms easy to fill out? How long must patients wait to get an appointment? Are you tracking wait times? Whether for an appointment or in the waiting room, lengthy wait times frustrate patients and may indicate a need to adjust your scheduling process. Small investments in bolstering loyalty—such as acknowledging referrals with a thank-you card or a giving a small token of thanks (for example, a coffee mug or personal thermos sporting your practice name and contact information) to patients who consistently refer new patients—may reap big dividends. Sending birthday cards and holiday cards is another way to remind patients that you are there to care for them.

These are just a small sample of tactics that not only can help retain your patient base but can help you expand it as well. If you need assistance with marketing or want to learn more about this important but often neglected aspect of managing a clinical practice, SmartPractice offers many helpful resources that range from self-paced educational opportunities to survey cards for measuring NPS. For more information, call 1-800-878-3838.

In summary, the NPS is simple tool for taking control of what you already do well and of identifying issues that could be improved to ensure that you keep your existing patients happy. Patients satisfied with their care who share their experiences with family, friends and acquaintances, and coworkers offer unparalleled credibility to a practice, especially in this era of social media. They are one of the most promising avenues to help you expand your practice with new patient referrals, a topic we will consider in a future issue of *All Things Contact Dermatitis*.