(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
4 February 2016 (04.02.2016)

WIPO | PCT

(10) International Publication Number
WO 2016/018980 A1

(51) International Patent Classification:
G06Q 50/22 (2012.01)

(21) International Application Number:
PCT/US2015/042583

(22) International Filing Date:
29 July 2015 (29.07.2015)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
62/030,217 29 July 2014 (29.07.2014) US

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(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

Published:

— *with international search report (Art. 21(3))*

WO 2016/018980 A1

(54) **Title**: METHOD FOR REDUCING SKIN TEARS IN LONG TERM CARE FACILITIES

(57) **Abstract**: A method for strengthening skin to increase elasticity, resiliency, moisturization, and barrier function by following a skin hygiene regimen includes gathering information with respect to the skin conditions of individuals, identifying those at highest risk for skin tears using the information, creating a tailored product usage regime based on an individual's risk, and confirming the product usage by inventory data. The method also includes evaluating the effectiveness of the product usage regime by tracking skin tears after use of the products, and adjusting the product usage regime based on the evaluation.

METHOD FOR REDUCING SKIN TEARS IN LONG TERM CARE FACILITIES

BACKGROUND

This disclosure is concerned with the need for reducing the incidence of skin tears and other skin problems among residents of care facilities, particularly senior citizens having potentially compromised immune systems, e.g. elderly residents.

There are a number of known steps an individual can take to protect the general health of their skin. These include using sunscreen to protect the skin from too much sun exposure, not smoking, treating the skin carefully in bathing and shaving, eating well, and avoiding stress. While these steps are certainly helpful for people of all ages, aging skin has unique characteristics that require more than these steps.

Aging skin undergoes a series of structural changes, leading to thinner skin that is at greater risk for tears and damage. Illness and poor nutrition can further weaken the skin and increase susceptibility to skin tears. Moreover, aging causes a slowing of wound healing processes that can be additionally compromised by underlying diseases such as vascular disease, diabetes, or immune disorders. Senile purpura of the skin often causes a decrease in pain perception, and certain medications make skin more prone to injury. Steroids, for example, cause further thinning of skin and suppression of the immune system. This allows something as insignificant as brushing against a sharp object or the removal of tape from the skin to begin a frightening cascade of events that can ultimately lead to a poor healing wound and possibly infection. For these reasons, skin tears are generally thought to be difficult to prevent and to treat.

Skin tears are traumatic wounds that result from a separation of the two major layers of human skin, the epidermis and the dermis. They represent a major problem affecting older adults and many compromised individuals. It is estimated that at least 1.5 million skin tears occur in institutionalized older adults each year. Ultimately, they cause the patient to suffer pain, the caregiver to waste precious time, and the facility to lose money and resources. The anatomy of the skin and the changes involved with aging are primary factors in the etiology of skin tears.

The epidermis has an irregular shape, resembling downward, finger-like projections called rete ridges or rete pegs. The dermis has upward projections. The upward and downward projections fit together and these protuberances connect, anchoring the epidermis to the dermis. This bond also helps to prevent the epidermis from sliding back and forth across the dermis with normal movement and skin manipulation. In healthy young skin, the two layers of skin move as one. As the skin ages, the rete ridges begin to flatten between the dermal-epidermal junction. This epidermal/dermal

flattening typically appears by the time a person reaches their sixties. With this anchoring now diminished, there is an increased potential for the epidermis to detach from the dermis, leading to tearing of the uppermost layers of the skin.

There is a need for system or method that will promote skin health so that skin tears are less frequent and less consequential.

SUMMARY

Generally stated, the present disclosure provides a method that is a comprehensive and systematic approach to promote skin health and make skin tears less frequent and less consequential. It achieves this goal with a method for strengthening skin to increase elasticity, resiliency, moisturization, and barrier function by following a skin hygiene regimen including gathering information with respect to the skin conditions of individuals, identifying those at highest risk for skin tears using the information, creating a tailored product usage regime based on an individual's risk, and confirming the product usage by inventory data. The method also includes evaluating the effectiveness of the product usage regime by tracking skin tears after use of the products, and adjusting the product usage regime based on the evaluation.

In another aspect of the present disclosure, the method includes one or more means to motivate caregivers within a resident care location to drive compliance with the tasks. Suitable employee or user motivational means and incentives can include posters, e-mails, videos, surveys, feedback/progress cards, contests, prizes for compliance and/or positive outcomes, and combinations thereof.

In a further aspect of the present disclosure, the method includes specific products and methods of using the products to improve skin health. Suitable products include but are not limited to soaps, moisturizers, skin protective, skin restorative and skin strengthening products, hand sanitizers, skin and body cleansers, and combinations thereof. These products can be in the form of water-thin liquids, gels, lotions, foams, mists, creams, pastes, ointments, powders, sprays, mousses, water, oil or silicone solutions or emulsions, including water in oil, oil in water, silicone in water, water in silicone, and combinations thereof. Additional products that can be used in the performance of the tasks include wipes, tissues, gloves, socks, and disposable and durable hand towels.

The method of the present disclosure, in a further aspect, can also include providing assistance to the resident care location with implementing the plan of action for a period of time prior to reevaluating the resident care location. Exemplary assistance includes providing employee or user

motivational means to engage people within the resident care location to drive compliance with the method.

The present disclosure also provides a method for strengthening skin to increase one or more of elasticity, resiliency, moisturization, and barrier function by following a skin hygiene regimen including gathering information with respect to the skin conditions of individuals, identifying those at highest risk for skin tears using the information, creating a tailored product usage regime of specific products based on an individual's risk, and confirming use of the specific products by inventory data. The method also includes evaluating the effectiveness of the product usage regime by tracking skin tears after use of the specific products, adjusting the product usage regime based on the evaluation, and providing incentives to caregivers to optimize the program.

The present disclosure also provides a method for strengthening skin to increase one or more of elasticity, resiliency, moisturization, and barrier function by following a skin hygiene regimen including gathering information with respect to the skin conditions of individuals, identifying those at highest risk for skin tears using the information, and creating a tailored product usage regime of specific products based on an individual's risk, wherein the specific products comprise soaps, moisturizers, skin protective, skin restorative and skin strengthening products, hand sanitizers, skin and body cleansers, and combinations thereof, and wherein the specific products are in the form of water-thin liquids, gels, lotions, foams, mists, creams, pastes, ointments, powders, sprays, mousses, water, oil or silicone solutions or emulsions, including water in oil, oil in water, silicone in water, water in silicone, and combinations thereof. The method also includes confirming use of the specific products by inventory data, evaluating the effectiveness of the product usage regime by tracking skin tears after use of the specific products, and adjusting the product usage regime based on the evaluation.

DETAILED DESCRIPTION

Generally speaking, the present disclosure relates to a comprehensive and systematic approach to promote skin health and reduce the number of skin tears and their severity.

It should be noted that, when employed in the present disclosure, the terms "comprises", "comprising" and other derivatives from the root term "comprise" are intended to be open-ended terms that specify the presence of any stated features, elements, integers, steps, or components, and are not intended to preclude the presence or addition of one or more other features, elements, integers, steps, components, or groups thereof.

As used herein, the term "long term care facility" means a place where older people live that is outside the typical home. Examples of such facilities include resident care locations and facilities, skilled nursing facilities, hospitals, urgent or emergency care, home professional services, assisted living facilities, home care, and the like.

"Caregivers" within a facility are a subset of "staff." Caregivers have person-to person contact with residents; other staff do not have such assignments.

While the use of skin care products alone can theoretically reduce the propensity for skin tears, the problem is actually much broader within a resident care facility.

A holistic approach to preventing skin tears can include adherence to skin care protocols, staff training and engagement within a resident care location, creating an environment to reduce physical hazards associated with skin tears, regularly identifying and evaluating skin to identify at-risk elders, and factoring in elements such as nutrition and disease history. Furthermore, staff should have ready access to information that can help guide skin care decisions daily. A comprehensive method to minimize skin tears in a long term care environment includes training, assessment, feedback, product regimes, and tracking. Particular concern is directed to those residing in skilled nursing facilities, hospitals, urgent or emergency care, home professional services, assisted living facilities, apartments, and home care.

The disclosed method has several steps that are used in conjunction with one another to effectively assist the resident care location and those people within the resident care location to understand and implement tasks that promote improved skin health.

The method includes the following steps that will be discussed in greater detail below:

a) gathering information with respect to the skin conditions of individuals,

b) identifying those at highest risk for skin tears using an algorithm to track skin tears,

c) creating a tailored product usage regime based on each individual's risk,

d) confirming the product usage by inventory data,

e) evaluating the effectiveness of the product usage by tracking skin tears after use of the products, and

f) adjusting product usage based on the evaluation.

A key step is gathering information with respect to the skin conditions of individuals. This step involves the collection of data relating to the initial level of skin health of the individuals. This

information can include the location of any skin tears, bruises, or areas of perceived weakness or other damage, the thickness of the skin layers, the date the skin was damaged, whether the individual has a condition that affects the healing rate, and whether the individual uses any drugs that might affect the healing rate.

Another step is identifying those at highest risk for skin tears, desirably using an algorithm to track skin tears. The information gathered in the gathering step can be examined to determine the overall risk of each individual using risk weighting criteria and incorporating factors such as hydration, nutrition, serum albumin, protein intake, history of skin tears, current skin status, wheelchair status (many time patients in wheelchairs will end up with tears from their chairs), etc.. A predictive algorithm or other method can use symptomology information to give advance warning of certain types of infections. Tracking such factors and parameters can also be used to determine which are most predictive for advanced warning of skin tears. Tracking and consideration of these factors and parameters by using the information gathered and the risk weighting criteria can be used to identify individual risk.

A further step is creating a tailored product usage regime based on an individual's risk. The overall level of skin health risk of each individual developed in step b can be used to create a tailored product regime. Someone with a low risk, for example, might only require daily use of a mild cleanser and moisturizer, while someone with an elevated risk might require several moisturizer applications per day along with more intensive skin strengthening products. This would serve to drive efficient use of per patient dollars by allowing the facility to provide the right level of care for an individual. In addition, those at highest risk might also benefit from additional prevention strategies, such as buffers or guards with respect to their physical environment to help minimize tear-inducing injuries. Skin care products that potentially can be used in this step include protectants, washes, moisturizers, strengtheners, soaps, moisturizers, skin protective, skin restorative, and skin strengthening products, hand sanitizers, skin and body cleansers, combinations thereof, and any other suitable products. Three specific examples are provided below for exemplary but non-limiting purposes.

Another step is confirming the product usage by inventory data. The tasks provided in the creating step should be completed on a timely basis, using the proper skin product(s), procedures and at the prescribed frequency in order to be efficacious. Product inventory is a relatively simple method of tracking consumption of each product and is useful in determining when restocking and reordering are needed.

An additional step is evaluating the effectiveness of the product usage by tracking skin tears after use of the products. The adherence to the product usage regime provided in the creating step and measured in the confirming step can be used to determine the effectiveness and value of each product used by an individual. Tracking can be performed by any means including software-based tracking.

Yet another step is adjusting product usage based on the evaluation. The evaluation performed in the evaluating step is used to determine whether the most effective product is being used. If not, the regime can be adjusted to use different products and the effectiveness of the new product evaluated. On subsequent iterations, if the level of skin health compared to that of the gathering step has not improved or has declined, additional measures can be instituted. This can include more frequent performance of the tasks initially generated in the creating step, can involve additional or different tasks, or can involve a change in the products used in performing the tasks.

An additional step can be the creation of incentives for caregivers based on tracking, scoring, deviations, and data. When improvements in the level of skin health result, rewards for compliance can be recommended and distributed to the caregivers responsible for carrying out the tasks that led to the improvement. In a typical skilled nursing home, for example, a non-confrontational rivalry between different areas of the facility can be designed and success rewarded with prizes such as cash, time off of work, more convenient employee parking, plaques, and name recognition in a prominent place in the facility. Possible results of the feedback can be to improve caregiver staff engagement, improve skin hygiene behavior compliance, and reduce staff turnover.

High risk areas of the body such as forearms could also be targeted for rewards such as hand and arm massages with skin strengthening agents, thus creating a positive and pleasant experience to further drive healthy skin behaviors. The provision of motivational means and incentives will effectively promote compliance with the tasks generated. In this way, the full benefits of the disclosed method can be realized. Examples of suitable motivational means include, for example, e-mails, videos, surveys, contests, prizes for compliance and/or employee or user engagement, and combinations thereof.

Suitable e-mails and videos can include information regarding how to use products, the benefits of the products, results from the test protocol, improvements obtained in skin hygiene at the resident care location, percentage of the employees or users currently complying with assigned tasks, and combinations thereof. The e-mail or video can come from a designated person within the resident care location who is in charge of implementing the tasks. As a result, compliance with the tasks will

generally be improved in those areas with the poorest results as a sense of personal pride can come into play. Likewise, areas having the best results will continue to strive to be the leader, thereby maintaining compliance with the tasks in those areas as well.

One very effective way to promote employee or user engagement is to have contests between different areas within the resident care location. Winners of the contests can be provided with prizes or just recognition as being the area with the best skin health. Awarding prizes provides additional incentive to comply with the tasks.

Once tasks have been generated, communicated, and implemented, the method should be repeated to ensure it is having the desired effect. The residents can be reevaluated for their skin condition and to update the resident health information. Once collected, the secondary data is compared to the initial data to determine if the tasks are effective in improving skin health at the resident care location. Tasks are again assigned and tracked for completion and the process scored. As result of the data, tracking and scoring, additional tasks can again be developed (the creating step) to obtain an overall improvement in the level of skin health.

If areas within the resident care location have not improved with respect to skin health, the tasks can be reevaluated for effectiveness and actual compliance. If the secondary data does not indicate an improvement in skin health, it might suggest that the tasks are not being followed by the resident care location and further assistance or further education might need to be provided.

In addition to collecting the secondary data, surveys or usage rates of the specific products suggested in the tasks can also be evaluated. Low product usage and/or little to no improvement in the level of skin health can indicate low user participation in the tasks. In this case, further education or other motivational means might need to be provided to people within the resident care location to improve the overall hygiene in the resident care location. It can be necessary to change the motivational means currently being used in the resident care location to others described above.

As a further aspect of the present disclosure, additional sets of data can be collected on a regular basis and compared to the prior set of data or all of the previously collected and stored data. Continued monitoring and evaluation using defined test protocols is an effective way to prevent the resident care location from regressing in its skin health. Future testing should be conducted on a regular basis and can be as extensive as the initial testing or reduced to a statistically significant sampling.

It is desired to drive behavior change among those at the resident care location in a manner so as to improve skin health in the resident care location. By providing feedback and incentives and engaging the employees and users of the resident care location, behavior change is driven in a

positive manner. Effective motivation of the employees and users at the resident care location will tend to close the gap between those who perform the tasks and those who do not. One example of an effective motivational means is to provide positive reinforcement to those who have performed their tasks therein providing an incentive for those who have not performed their tasks to do so.

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Examples

The formulation examples are intended to represent a potential regimen of products that could be used to strengthen skin of a patient. Products can be added or deleted as appropriate. The products are to be used alone or in combination and each has its benefit for the patient.

10 Example 1 is a sprayable petrolatum formulation intended to be used during the day as a moisturizer and skin protectant. The petrolatum spray includes humectants (e.g., glycerin) and emollients (e.g., petrolatum, esters) that create a barrier of protection on the skin and help the skin to stay hydrated. Also, the spray can be infused with extracts.

Trade Name	INCI Name	Supplier	Function	% Wt.	Grams
Part A					
Water	Water/Aqua	N/A	Solvent	**81.000**	**22680.000**
Keltrol CG SFT	Xanthan Gum	CP Kelco	Thickener	**0.150**	**42.000**
Glycerin	Glycerin	Cargill, Vitusa, etc. USP grade.	Humectant	**3.000**	**840.000**
Hetester PHA	Propylene Glycol Isoceteth-3 Acetate	Alzo	Skin Conditioner	**1.000**	**280.000**
Part B					
Aristoflex AVC	Ammonium Acryloyl-dimethyltaurate/VP Copolymer	Clariant	Thickener	**0.400**	**112.000**
Sitosterol 75MM	Beta-Sitosterol	MMP	Additive	**0.100**	**28.000**
Amphisol A	Cetyl Phosphate	DSM	Emulsifier	**1.000**	**280.000**
Montanov L	C14-22 alcohol, C12-20 Alkylglucoside	Seppic	Emulsifier	**1.500**	**420.000**
Sonnecone CM	Petrolatum	Sonneborn	Emollient	**2.000**	**560.000**
Dermol 99	Isononyl Isononanoate	Alzo	Emollient	**4.000**	**1120.000**
Crodamol STS	PPG-3 Benzyl Ether Myristate	Croda	Emollient	**3.000**	**840.000**
Tegosoft M	Isopropyl Myristate	Evonik	Emollient	**1.500**	**420.000**
Part C					
Optiphen VP8/043	Phenoxyethanol, Caprylyl Glycol	Ashland	Preservative	**0.500**	**140.000**
Ecobidens		Chemy Union	Additive	**0.100**	**28.000**
Undarine P		Barnet	Additive	**0.100**	**28.000**
Versene 100XL	Tetrasodium EDTA	Dow	Chelating Agent	**0.550**	**154.000**
US260085/00 (Aloe Fresh)	Fragrance	Givaudan	Fragrance	**0.100**	**28.000**
50% NaOH	Water, Sodium Hydroxide	Various	pH Adjuster	**0.013**	**3.640**
Total				**100.000**	**28000.000**

Procedure

Phase A

1) Add water to vessel. Premix glycerin and xanthan until well-dispersed and slowly add to water phase with rapid mixing. Mix until hydrated. Add PHA.

2) Heat Phase A to 75 C.

Phase B

3) Preheat oil phase (part B) in separate beaker to 75 C.

4) Add AVC and mix to disperse.

Combination of Phases

5) Slowly add Phase B to Phase A with mixing.

6) Begin cooling to room temperature. At 40C add part C. Continue to mix until cooled.

7) Back add water to account for any lost during heating.

8) Adjust pH to 5.0 with NaOH.

Final pH = 4.52

Example 2 is a rinseless body wash. The body wash uses mild surfactants/cleansers and can be infused with skin nourishing/moisturizing ingredients including humectants (e.g., glycerin, propanediol) to moisturize skin and vitamins/extracts (e.g., aloe extract, panthenol, bidens extract, undaria extract) to nourish skin.

Trade Name	INCI Name	Supplier	Function	% Wt.	Grams
Part A					
Water	Water/Aqua	N/A	Solvent	**93.219**	**1398.278**
Versene NA2	Disodium EDTA	Dow	Chelating Agent	**0.100**	**1.500**
Aloe Vera Powder 200x	Aloe Baradensis Leaf Juice	Bell Flavors and Fragrances	Additive	**0.010**	**0.150**
L-Panthenol	Panthenol	Rita	Additive	**0.100**	**1.500**
Sodium Benzoate, FCC	Sodium Benzoate	Emerald Kalama	Preservative	**0.450**	**6.750**
Zemea propandiol	1,2-Propanediol	Dow	Humectant	**1.000**	**15.000**
Glycerin, 99.7%	Glycerin	Vitusa	Humectant	**0.500**	**7.500**
Mackam 35 UL HA	Cocamidopropyl Betaine	Solvay	Surfactant	**2.000**	**30.000**
Plantacare 2000 N UP	Decyl Glucoside	BASF	Surfactant	**0.750**	**11.250**
Part B					
Sensiva SC 50	Ethylhexylglycerine	Schulke	Preservative	**0.300**	**4.500**
Tagat CH 40	PEG-40 Hydrogenated Caster Oil	Evonik	Surfactant	**0.750**	**11.250**
Alkumuls PSML 20	Polysorbate 20	Solvay	Surfactant	**0.45**	**6.750**
Sistosterol 75 MM	Beta- Sistosterol	MMP	Additive	**0.0015**	**0.023**
Part C					
Ecobidens		Chemy Union	Additive	**0.100**	**1.500**
Undarine P		Barnet	Additive	**0.100**	**1.500**
US260085/00 (Aloe Fresh)	Fragrance	Givaudan	Fragrance	**0.100**	**1.500**
Citric Acid	Citric Acid	ADM	pH Adjuster	**0.070**	**1.050**
Total				**100.000**	**1500.000**

Procedure

Phase A

1) Add water to vessel. Add Ingredients and mix until uniform

Phase B

2) Heat EHG and BetaSit in Polysorbate-20 and PEG-60 Hydrogenated castor oil to 70C, mix until clear. Then let cool to RT

3) Combine all ingredients and mix until uniform

Combination of Phases

4) Slowly add Phase B to Phase A with mixing.

5) Adjust pH to 5.0 with Citric Acid.

pH = 5.02

Example 3 is a night cream intended to be a serious treatment product that one applies at night before bed. It is a lotion with humectants (e.g., glycerin) and emollients (e.g., esters). The night cream can also have higher levels of extracts to nourish the skin.

Trade Name	INCI	Supplier	%wt	Grams
Phase A				
Water	Water/Aqua	N/A	76.635	383.175
Arlasolve DMI (PC)	Dimethyl Isosorbide	Croda	1	5
Transcutol CG	Ethoxydiglycol	Gattefosse	1	5
Structure Solanace	Potato Starch Modified	Akzo Nobel	3	15
Phase B				
Olivem 1000	Cetearyl Olivate, Sorbitan Olivate	Hallstar	1	5
Velsan SC	Sorbitan Caprylate	Clariant	0.5	2.5
Silwax D226	Cerotyl Dimethicone	Siltech	1.5	7.5
Lanette 22	Behenyl Alcohol	BASF	1.5	7.5
Dermol 99	Isononyl Isononanoate	Alzo International	2	10
Crodamol STS	PPG-3 Benzyl Ether Myristate	Croda	1.5	7.5
Tegosoft M	Isopropyl Myristate	Evonik	0.75	3.75
Stimutex (AS)	Spent Grain Wax, Triolein, Linoleic Acid, Triticum Vulgare (Wheat) Germ Oil, Palmitic Acid, Behenic Acid, Beta-Sitosterol	DSM	0.25	1.25
BHT	BHT	Universal Preserva-Chem Inc	0.05	0.25
Sitosterol 75MM	B-Sitosterol	MMP Inc	0.1	0.5
Phase C				
Xiameter 200 100cst	Dimethicone	Dow	1	5
Undarine (P)	Glycerine, Water, Algae (Undaria pinnatifida) Extract	Barnette	2	10
Geogard ECT	Benzyl Alcohol & Salicylic Acid & Glycerin & Sorbic Acid	Lonza	1	5
Ecobidens	Water, Glycerin, Bidens Pilosa Extract	Chemy Union	5	25
Aloe Fresh	Fragrance	Givaudan	0.15	0.75
20% NaOH	Sodium Hydroxide, Water	Ricca Chemical	0.065	0.325
	Total		100	500

Procedure:
1) Charge vessel with water. Begin rapid mixing. Add Solanance and heat to 80C. Hold at 80C for 20 min
2) Cover with tinfoil to help reduce water loss to steam
3) Add Transcutol and Arlasolve.
4) In a separate vessel add Phase B ingredients and heat with mixing to 80C
5) Add Phase B to Phase A slowly with mixing until a homogenous lotion is formed.
6) Cool to below 40C (Remove from heat, water or ice bath and be used to facilitate)

ice used
7) Add Phase C and mix until homogenous. (Can be added individually or pre-mixed) pre-mixed this batch
8) Check pH and adjust as necessary (pH = 5.5-6.0)

Balance: Trace Amount of Citric Acid Lot Jungbunglauer N1560 Lot 6032601
pH final = 5.35

In a first particular aspect, a method for strengthening skin to increase one or more of elasticity, resiliency, moisturization, and barrier function by following a skin hygiene regimen includes gathering information with respect to the skin conditions of individuals, identifying those at highest risk for skin tears using the information, creating a tailored product usage regime based on an individual's risk, confirming the product usage by inventory data, evaluating the effectiveness of the product usage regime by tracking skin tears after use of the products, and adjusting the product usage regime based on the evaluation.

A second particular aspect includes the first particular aspect, further comprising providing incentives to caregivers to optimize the program.

A third particular aspect includes the first and/or second aspect, wherein the incentives include e-mails, videos, surveys, contests, prizes for compliance and/or engagement, and combinations thereof.

A fourth particular aspect includes one or more of aspects 1-3, wherein confirming includes completing surveys on usage of specific products used to execute the tasks.

A fifth particular aspect includes one or more of aspects 1-4, wherein the specific products comprise soaps, moisturizers, skin protective, skin restorative and skin strengthening products, hand sanitizers, skin and body cleansers, and combinations thereof.

A sixth particular aspect includes one or more of aspects 1-5, wherein the specific products are in the form of water-thin liquids, gels, lotions, foams, mists, creams, pastes, ointments, powders, sprays, mousses, water, oil or silicone solutions or emulsions, including water in oil, oil in water, silicone in water, water in silicone, and combinations thereof.

A seventh particular aspect includes one or more of aspects 1-6, wherein identifying includes using an algorithm to track skin tears.

An eighth particular aspect includes one or more of aspects 1-7, wherein one of the products is a night cream including a humectant and an emollients.

A ninth particular aspect includes one or more of aspects 1-8, wherein one of the products is a rinseless body wash including a mild surfactant or cleanser.

A tenth particular aspect includes one or more of aspects 1-9, wherein the rinseless body wash includes a humectant and a vitamin/extract.

An eleventh particular aspect includes one or more of aspects 1-10, wherein one of the products is a sprayable petrolatum formulation including a humectant and an emollient.

A twelfth particular aspect includes one or more of aspects 1-11, wherein the sprayable petrolatum formulation includes an extract.

In a thirteenth particular aspect, a method for strengthening skin to increase one or more of elasticity, resiliency, moisturization, and barrier function by following a skin hygiene regimen includes gathering information with respect to the skin conditions of individuals, identifying those at highest risk for skin tears using the information, creating a tailored product usage regime of specific products based on an individual's risk, confirming use of the specific products by inventory data, evaluating the effectiveness of the product usage regime by tracking skin tears after use of the specific products, adjusting the product usage regime based on the evaluation, and providing incentives to caregivers to optimize the program.

A fourteenth particular aspect includes the thirteenth particular aspect, wherein the incentives include e-mails, videos, surveys, contests, prizes for compliance and/or engagement, and combinations thereof.

A fifteenth particular aspect includes the thirteenth and/or fourteenth particular aspect, wherein confirming comprises completing surveys on the specific products used to execute the tasks.

A sixteenth particular aspect includes one or more of aspects 13-15, wherein the specific products comprise soaps, moisturizers, skin protective, skin restorative and skin strengthening products, hand sanitizers, skin and body cleansers, and combinations thereof.

A seventeenth particular aspect includes one or more of aspects 13-16, wherein the specific products are in the form of water-thin liquids, gels, lotions, foams, mists, creams, pastes, ointments, powders, sprays, mousses, water, oil or silicone solutions or emulsions, including water in oil, oil in water, silicone in water, water in silicone, and combinations thereof.

An eighteenth particular aspect includes one or more of aspects 13-17, wherein identifying includes using an algorithm to track skin tears.

In a nineteenth particular aspect, a method for strengthening skin to increase one or more of elasticity, resiliency, moisturization, and barrier function by following a skin hygiene regimen includes gathering information with respect to the skin conditions of individuals, identifying those at highest risk for skin tears using the information, creating a tailored product usage regime of specific products based on an individual's risk, wherein the specific products comprise soaps, moisturizers, skin protective, skin restorative and skin strengthening products, hand sanitizers, skin and body cleansers, and combinations thereof, and wherein the specific products are in the form of water-thin liquids, gels, lotions, foams, mists, creams, pastes, ointments, powders, sprays, mousses, water, oil or silicone solutions or emulsions, including water in oil, oil in water, silicone in water, water in silicone, and combinations thereof, confirming use of the specific products by inventory data, evaluating the effectiveness of the product usage regime by tracking skin tears after use of the specific products, and adjusting the product usage regime based on the evaluation.

A twentieth particular aspect includes the nineteenth particular aspect, wherein confirming comprises completing surveys on usage of specific products used to execute the tasks.

Although the present disclosure has been described with reference to various aspects, those skilled in the art will recognize that changes can be made in form and detail without departing from the spirit and scope of the disclosure. As such, it is intended that the foregoing detailed description be regarded as illustrative rather than limiting and that it is the appended claims, including all equivalents thereof, which are intended to define the scope of the disclosure.

What is claimed is:

1. A method for strengthening skin to increase one or more of elasticity, resiliency, moisturization, and barrier function by following a skin hygiene regimen comprising:

a) gathering information with respect to the skin conditions of individuals,

b) identifying those at highest risk for skin tears using the information,

c) creating a tailored product usage regime based on an individual's risk,

d) confirming the product usage by inventory data,

e) evaluating the effectiveness of the product usage regime by tracking skin tears after use of the products, and

f) adjusting the product usage regime based on the evaluation.

2. The method of claim 1, further comprising providing incentives to caregivers to optimize the program.

3. The method of claim 2, wherein the incentives include e-mails, videos, surveys, contests, prizes for compliance and/or engagement, and combinations thereof.

4. The method of claim 1, wherein confirming comprises completing surveys on usage of specific products used to execute the tasks.

5. The method of claim 4, wherein the specific products comprise soaps, moisturizers, skin protective, skin restorative and skin strengthening products, hand sanitizers, skin and body cleansers, and combinations thereof.

6. The method of claim 4, wherein the specific products are in the form of water-thin liquids, gels, lotions, foams, mists, creams, pastes, ointments, powders, sprays, mousses, water, oil or silicone solutions or emulsions, including water in oil, oil in water, silicone in water, water in silicone, and combinations thereof.

7. The method of claim 1, wherein identifying includes using an algorithm to track skin tears.

8. The method of claim 1, wherein one of the products is a night cream including a humectant and an emollients.

9. The method of claim 1, wherein one of the products is a rinseless body wash including a mild surfactant or cleanser.

10. The method of claim 9, wherein the rinseless body wash includes a humectant and a vitamin/extract.

11. The method of claim 1, wherein one of the products is a sprayable petrolatum formulation including a humectant and an emollient.

12. The method of claim 11, wherein the sprayable petrolatum formulation includes an extract.

13. A method for strengthening skin to increase one or more of elasticity, resiliency, moisturization, and barrier function by following a skin hygiene regimen comprising:

a) gathering information with respect to the skin conditions of individuals,

b) identifying those at highest risk for skin tears using the information,

c) creating a tailored product usage regime of specific products based on an individual's risk,

d) confirming use of the specific products by inventory data,

e) evaluating the effectiveness of the product usage regime by tracking skin tears after use of the specific products,

f) adjusting the product usage regime based on the evaluation, and

g) providing incentives to caregivers to optimize the program.

14. The method of claim 13, wherein the incentives include e-mails, videos, surveys, contests, prizes for compliance and/or engagement, and combinations thereof.

15. The method of claim 13, wherein confirming comprises completing surveys on the specific products used to execute the tasks.

16. The method of claim 13, wherein the specific products comprise soaps, moisturizers, skin protective, skin restorative and skin strengthening products, hand sanitizers, skin and body cleansers, and combinations thereof.

17. The method of claim 13, wherein the specific products are in the form of water-thin liquids, gels, lotions, foams, mists, creams, pastes, ointments, powders, sprays, mousses, water, oil or silicone solutions or emulsions, including water in oil, oil in water, silicone in water, water in silicone, and combinations thereof.

18. The method of claim 13, wherein identifying includes using an algorithm to track skin tears.

19. A method for strengthening skin to increase one or more of elasticity, resiliency, moisturization, and barrier function by following a skin hygiene regimen comprising:

a) gathering information with respect to the skin conditions of individuals,

b) identifying those at highest risk for skin tears using the information,

c) creating a tailored product usage regime of specific products based on an individual's risk, wherein the specific products comprise soaps, moisturizers, skin protective, skin restorative and skin strengthening products, hand sanitizers, skin and body cleansers, and combinations thereof, and wherein the specific products are in the form of water-thin liquids, gels, lotions, foams, mists, creams, pastes, ointments, powders, sprays, mousses, water, oil or silicone solutions or emulsions, including water in oil, oil in water, silicone in water, water in silicone, and combinations thereof,

d) confirming use of the specific products by inventory data,

e) evaluating the effectiveness of the product usage regime by tracking skin tears after use of the specific products, and

f) adjusting the product usage regime based on the evaluation.

20. The method of claim 19, wherein confirming comprises completing surveys on usage of specific products used to execute the tasks.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2015/042583

A. CLASSIFICATION OF SUBJECT MATTER

G06Q 50/22(2012.01)i

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
G06Q 50/22; G06F 15/16; G06Q 50/10; G06F 17/60; G06Q 30/06

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
Korean utility models and applications for utility models
Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
eKOMPASS(KIPO internal) & Keywords: skin, strengthening, product usage regime, tracking

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2003-0093297 A1 (KURT MATTHEW SCHILLING et al.) 15 May 2003 See abstract, paragraphs [0036]-[0037] and claims 1-5, 12, 14-15.	1-20
Y	US 2003-0065523 A1 (FRANCIS PRUCHE et al.) 03 April 2003 See abstract, paragraphs [0030], [0050], [0058], [0061]-[0062], [0067]-[0068], [0087], [0096]-[0098], [0103]-[0105], claims 1, 21 and figures 1A, 6.	1-20
A	US 2003-0078971 A1 (SHIGERU MORI et al.) 24 April 2003 See abstract, paragraphs [0017]-[0020], [0103]-[0107], claims 1-4 and figures 1-5, 8-9.	1-20
A	KR 10-0708319 B1 (ARAM HUVIS CO., LTD.) 18 April 2007 See abstract, pages 5-7, claims 1-2, 5, 7 and figures 3-5.	1-20
A	KR 10-2003-0005518 A (MYUNG ROUNG KIM) 23 January 2003 See abstract, claims 1-4 and figures 1-4.	1-20

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents,such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
27 October 2015 (27.10.2015)	**27 October 2015 (27.10.2015)**

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.
PCT/US2015/042583

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