

Review on: Formulation of semi-Solid and Liquid Dosage Form

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ABSTRACT: Lotion is a liquid preparation that is often administered externally without friction. Lotion has a thinner consistency and a higher water content. It absorbs rapidly and spreads easily. Lotion takes up a lot of space among the skin care items on the market, which gives it a lot more significance in society. Lotions are solutions, emulsions, or suspensions used to soften and smooth the skin as well as relieve the signs and symptoms of dry skin. Due to climate changes, which cause the skin to become dry or dehydrated, lotion use rises during the summer and winter seasons. So, to protect our skin, we use lotions and moisturisers. Avoid confusing the phrases lotions and moisturisers since while they are similar, they are not the same. Lotions are scarcer Compared to moisturisers and having a lot of water, oily. Depending on the substances used, lotions can have a medicinal effect in addition to their cooling, soothing, protecting, and moisturising effects.

KEYWORDS: Cream ,skin, topical drug delivery system place, lotion formulation, moisturizer.

I. INTRODUCTION:

What do lotions do?

A similar word in Latin is lotio.

Liquid or semi-liquid preparation type.

Administration: Skin-contact external application.

Uses include calming, safeguarding, and other therapeutic ones.

The Greek term "kosmesticos," which meaning to embellish, is the source of the English word "cosmetic." Since then, cosmetic refers to any item intended to enhance beauty or promote attractiveness.[9]

Cream is a dairy product made from the milk's higher-fat layer that has been skimmed off before homogenization. The fat gradually rises to the top of unhomogenized milk because it is less thick. The use of centrifuges referred to as "separators" speeds up this process in the industrial manufacturing of cream

TYPES OF CREAM:

They are separated into two categories: An emulsion in which the oil is spread as droplets throughout the aqueous phase is referred to as an oil-in-water (O/W) emulsion. Oil-in-water (O/W) creams are formed of minute droplets of oil dispersed in a continuous phase. Creams called "Water-in-Oil" (W/O) include minute water droplets scattered throughout an ongoing oily phase. The water-in-oil (W/O) kind of emulsion is created when an oil serves as both the dispersion medium and the dispersed phase.[1][2]

Viscous Liquid Or Semisolid Emulsions For Application On Skin And Mucous

Membrane Creams May Be For Specific Action Emolliente.g For Application On Burns

Medicated

Non-Medicated Two Types:

-Water In Oil Or Oily Creams: Contain W/O Emulsifier e.g Wool Fats And Wool

Alcohol

Examples: Cold Cream, Zinc Cream, Oil In Water Or Aqueous Creams:

Contain O/W Emulsifier E.G Emulsifying Wax Alkali ,Salt Of A Fatty Acid

Examples:

-Vanishing Cream

-Hydrocortisone Cream

-Oil In Water Emulsions Contain Large Percentage Of Water, Stearic Acid And Other Oleaginous Components

After Application Water Evaporates And Leaves Behind A Thin Residue Film Of Stearic Acid And Oleaginous Component So It Is Protectant In Nature Creams Are Prepared By Dispersing Or Dissolving Medicinal Agents In Emulsion In Extemporaneous Preparation

Pestle And Mortar Is Used (A Mechanical Blender) To Prepare Emulsion

Emulsifying Agent Is Mixed With Oil And Then Water Is Added After Formation Of Emulsion

Medicinal Agents Of Cream Are Dispersed

Advantages: -Over Ointments Creams Are Easier To Spread Than Ointments

-Aqueous Creams Are Easy To Wash Than All Ointments

-Same Packaging As Ointments:

-Creams Should Be Packaged So That There Are No Air Spaces In Jar

-Must Be Stored In Well Closed Container To Avoid Contamination

-Among The Antimicrobial Preservatives Used To Inhibit

Microbial Growth In Topical Preparations Are:

-Methylparaben

-Propylparaben

-Phenols

-Benzoic Acid

-Sorbic Acid [55][56][57]

TYPES OF LOTION:Lotion varieties

The following categories comprise lotions.

a) Simple Lotion

b) Therapeutic Lotion

c) Suspension Type Lotion

d) Emulsion Type Lotion

Simple Lotion: These lotions are typically used. These provide a cooling and calming effect for skin that is smooth. It also has a humectant function, which aids in retaining body moisture.

as simple lotions

b) Therapeutic Lotion: Depending on the desired impact, different therapeutic agents are included in therapeutic lotions.

Consider the protective and astringent properties of calamine lotion and the keratolytic, bacteriostatic, and fungus-static properties of salicylic acid lotion.

c) Suspension form of Lotion: This form of lotion contains insoluble materials and is one that is found in some lotions. Here, sodium carboxymethylcellulose and bentonite are used as a suspending agent.

such as calamine, sulphur, and zinc oxide.

d) The Emulsion Type:These are diluted lotions with o/w emulsion stabilised by emulsifying wax.ex- benzoyl benzoate lotion.[3][4][5]



EXPERIMENTAL:

Materials: Mangosteen pericarp was sourced from plantations in Mekarmukti Village, Ciamis district, West Java, Indonesia. The mangosteen tree, which is five years old, produced the rich purple fruit. Universitas Padjadjaran's Plant Taxonomy Laboratory assigned the mangosteen the identification code 215/HB/07/2018. Cosmetic grade ingredients were obtained from TTK Science Co. (Thailand) and included glycerin, xanthan gum, carboxymethylcellulose, bentonite magma, stearic acid, liquid paraffin, adeps lanae, triethanolamine, and methylparaben and propylparaben. Magnesium powder, amyl alcohol, vanillin sulphate, glacial acetic acid, potassium iodide, acetic anhydrate, sulfuric acid, ammonia, chloroform, ethanol, gelatin, and bismuth subnitrate were analytical-grade materials that were purchased from Merck (Germany).

Lotion and cream formulations: The lotion was made using the ingredients listed in Table 1. Hot water was used to swell each suspending agent (xanthan gum, carboxymethylcellulose, and bentonite magma), after which the preservative solution was added and thoroughly blended. A lotion base was combined with a nanosized chitosan-mangosteen pericarp extract that had been dissolved in glycerin.

FORMULATIONS: Glycerin is a humectant found in lotions that helps the skin stay moisturised for a longer amount of time and promotes adhesion to the skin's surface. Additionally contains alcohol, which evaporates and has a cooling effect on inflammatory conditions, leaving a thin layer of powder that protects the skin's surface. If the lotion is aqueous, it has preservatives to keep it from going bad. It includes flavouring ingredients for aroma, such rose water. Sometimes it also includes a colour agent. If such products exist, different types of medicinal agents are used in them.

1. Medical treatments

They are also scabidical, paraciticide, germicide, anti-allergic, antiseptic, astringent, anti-acne, anti-inflammatory, cleaning, protecting, fairness-improving, antifungal, anti-aging, and anti-wrinkle.

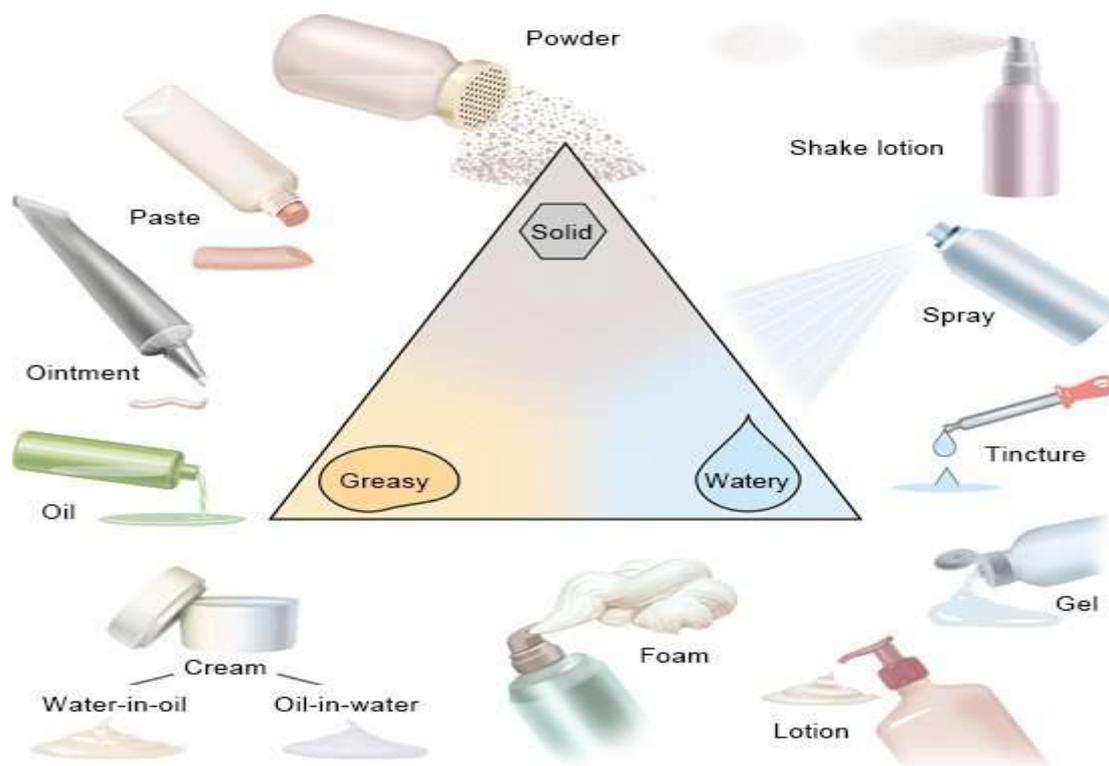
2. Vehicle Alcohol, isopropyl alcohol, and purified water.

Liquid paraffin, isopropyl myristate, and other synthetic esters are found in oily lotionsco-solvents

3. Polyethylene glycol, propylene glycol, and glycerin.

4. Flavouring substances water with roses.

5. Preservatives Parabens (propyl and methyl), parabens[7][8]



OINTMENTS: ointments are semisolid dosage forms intended for external application to skin or mucous membrane

EITHER MEDICATED OR NON MEDICATED:
MEDICATED

Either dissolved or dispersed
in a vehicle as fine powder e.g. Steroids.

UNMEDICATED

Unmedicated ointments are used for physical effects such as protectants or lubricants

Ointment Bases

Ointment bases are classified into four general groups.

- Oleaginous Bases.
- Absorption Bases.
- Water-Removable Bases.
- Water-Soluble Bases.
- Oleaginous Bases (Hydrocarbon Bases)

On application to skin they have an emollient effect. Protect against escape of moisture.

they are effective as occlusive dressings. Immiscible with water and difficult to wash off.

They can remain on skin for longer periods without drying out. Water and aqueous solutions in small amounts can be incorporated with small difficulty.

When powdered substances are to be incorporated, liquid petrolatum is used as levigating agent.

They include:

- . Petrolatum
 - . White Petrolatum
 - . Yellow Ointment
 - . White Ointment
- Absorption Bases

Two Types

Those that permit incorporation of aqueous solutions resulting in formation of W/O emulsions

Those that are already W/O emulsions and permit incorporation of additional quantity of aqueous solution

Properties of Absorption Bases

- These bases may be used as emollient
- They do not provide degree of occlusion
- These bases are not easy to remove from skin since the external phase of emulsion is oleaginous

- Difficult to water wash. They permit incorporation of aqueous solution resulting in formation of W/O emulsion. They form a greasy film on skin surface

Those that are already W/O emulsions, they permit small quantities of aqueous solution to be incorporated.

They include

- Lanolin
- Anhydrous Lanolin
- Cold Cream

Water Removable Bases (Emulsifying Bases)

They are oil in water emulsions having an emulsifier which makes them readily miscible with water.

They may be diluted with water or aqueous solutions. Because of their surface active property they facilitate contact B/W skin and medicament.

Readily water washable

They include: Hydrophilic ointments, vanishing creams, water soluble bases. Unlike other bases they contain only water soluble components (greaseless bases)

They are completely water washable

Aqueous solutions can not be incorporated efficiently because they soften greatly with water addition

They mostly are used for incorporation of solid substances

These bases are used for local anaesthetics and are used when easy washing from skin is required

They include:

- Peg ointment
- Selection of appropriate base depends upon purpose for which ointment is going to be applied
- Desired release of drug substance from ointment base
- Desirability of topical absorption
- Desirability of occlusion of moisture from skin
- Stability of drug in ointment base
- Desirability of surface to which it is to be applied
- Equally efficient on dry and oily skin should have a suitable pH
- No dehydrating effect
- Non irritant and non sensitising
- Compatible with a large number of drugs
- Miscible with skin secretions and excretions e.g. sebum, sweat etc

Two General Methods Depending Primarily On Nature Of Ingredients And Physical Properties Of Constituents Of Base Incorporation Fusion

- Incorporation Of Solids
- Incorporation Of Liquids
- Incorporation
- Incorporation

The Components Are Mixed Until A Uniform Preparation Is Attained On Small Scale As In Extemporaneous Compounding The Components Are Mixed Using Pestle And Mortar Or Spatula May Be Used To Rub Ingredients On An Ointment Slab Medicament Is Mixed With Small Amount Of Base And Remainder Is Mixed Gradually And Triturated Continuously.

If Material To Be Incorporated Is Solid Then First Solid Is Triturated To Fine Powder And Then Should Be Incorporated (Incorporation Of Solid)

It Is Often Desirable To Reduce Particle Size Of Crystalline Material So That Final Product Will Not Be Gritty

This Is Done By Levigating Or Mixing Substance In A Vehicle In Which It Is Insoluble So That A Smooth Dispersion Is Formed Levigating Agent Should Be In Equal Volume To Solid Material.

If Material To Be Incorporated Is Soluble In One Of Ingredients Of Base, First Dissolve In That Ingredient And Then Incorporate Twin-Roller Mills Are Available For Preparation Of Small Quantities Of Ointments By Hand

If Ingredients Of Ointments Are Reactive With Stainless Steel Spatula (As Does Iodine For Example) Hard Rubber Spatula May Be Used Incorporation (Incorporation Of Liquid)

Liquids Are Added Only After Due Consideration Of An Ointment Base Capacity To Accept Volume Required

Only Small Amount Of Aqueous Solution Is Incorporated Into Oleaginous Ointment Hydrophilic Ointments Readily Accept Large Volumes

When It Is Necessary To Add Aqueous Preparation To Hydrophobic Base, Solution

First May Be Incorporated Into Minimum Amount Of Hydrophilic Base And Then Added To Hydrophobic Base All Liquids Have Their Limits To Retain Liquids

Beyond Which They Become Too Soft Or Semisolid

Fusion

Medicated Ointments And Ointment Bases Containing Components Such As Beeswax, Paraffin, Stearyl Alcohol And High M.W. Waxes Which Do Not Lend Themselves Well To Mixture By Incorporation Are Prepared By Fusion Ointments Containing Ingredients Which Are Quite Solid At Room Temperature Are Prepared By Melting Ingredients In A Porcelain Dish Over Water Bath The Usual Method Is To Melt Substance With Highest Melting Point First, And Then Add Ingredients In Order Of Their Melting Points Stirring Should Be Continuous Until Ointment Is Homogeneous And Reaches To Congealing Point An Insoluble Substance Is Incorporated After Levigating With Oil On Large Scale Fusion Is Carried Out In Steam Jacketed Kettles

Topical Applications Are Not Required To Be Sterile, However Consideration Must Be Given To Infectious Response Caused By Certain Microorganisms Dermatologic Products Should Be Free Of Staphylococcus Aureus Pseudomonas Aeruginosa Bases Having High Water Content Support Microbial Growth

Among The Antimicrobial Preservatives Used To Inhibit Microbial Growth In Topical Preparations Are:

- Methylparaben
- Propylparaben
- Phenols
- Benzoic Acid
- Sorbic Acid

Filling Is Done By Two Ways:

- Hand Filling
- Mechanical Filling

Hand Filling:

Weighted Amount Of Ointment Is Placed In A Jar With The Help Of Flexible Spatula Ointment Is Forced Down To Bottom And Along Walls Of Jar To Avoid Air Entrapment

Mechanical Filling:

In This Method Ointments Can Be Filled In Tin Jars And Polyethylene Tubes

Filling Is Done By Pressure Filler Which Consist Of Nozel And Piston From Which Ointment Oozes Out On Applying Pressure On Piston Tubes Are Filled From Back Side And Then Are Sealed

Vacuum Fillers Are Also Available In Which Nozel Is Attached To Vacuum Pump An Ointment Filler

Ointments Should Be Packaged So That There Are No Air Spaces In Jar Must Be

Stored In Well Closed Container To Avoid Contamination
Store At Cool Place To Avoid Softening And Liquification Of Base
It Should Be Labelled As: "For External Use Only" [55][56][57]

GEL: Gels are a homogeneous, semi-solid remedy used to treat skin conditions. Since gels are more hydrophilic by nature, the rate at which the medicine or active component was released was quick. A gel is made of two components and three-dimensional cross-linked material that has a sufficient proportion of liquid in it to build an appropriate stiff network that immobilises the continuous liquid phase. In order to create the structural network of gel, 3'4 both organic and inorganic macromolecules are utilised. In a chemical gel, the particles are bound together permanently by covalent bonds, whereas in a physical topical gel, the particles are bound together by secondary intermolecular forces that are weaker and reversible, such as hydrogen bonds, electrostatic interactions, hydrophobic interactions, and van der Waals forces.

THE IDEAL FEATURES OF TOPICAL GEL-The gel should be clear and homogenous.

- The gel should be easily broken when shear or force is applied during shaking the container.
- The gel should be inert in nature.
- The gel should be not sticky.
- The gel should be never interacting with other formulation component.
- The gel should be stable.
- It should not be irate the skin or any part where the gel is applied The viscosity is optimum.
- It should have anti- microbial activity.

PERFECT GELS QUALIFICATIONS.6

Swelling: When a liquid medium comes into touch with the gelling chemical needed to prepare gel, the liquid might swell. The gelling ingredient determines the gel's swelling characteristics, which reveal the gel's particle strength and bonding.

Syneresis: After days of storage, the majority of gels discharged some water or liquid after standing. This process is known as syneresis. This indicates that the gelling agent concentration is dropping or that there is not enough gelling agent in the gel. It demonstrates the formulation's thermodynamic instability as well. The gel must not undergo syneresis.

Structure: The gelling agent determines the gel's stiffness. Most important is the choice of gelling

agentis the formulation's most crucial component. The networking and bonding between particles and the formulation medium that results in viscosity (resistance to flow) are caused by the gelling ingredient.

Isotonicity is required for the pH of the gel. Skin irritation could be brought on by the gel's pH change.

Spreadability: The gel's ability to spread should be excellent. It denotes the region the gel has covered.

A PROCEDURE FOR MAKING GEL 7

Gels can be made using one of three processes.

1. **Fusion method:** In this process, the vehicles, gelling agents, additives, and medication are all mixed together at high heat until a semi-solid texture is not produced.
2. **Cold method:** With the exception of drugs or active medicinal ingredients, all the components are heated and combined simultaneously after which the formulation's temperature is lowered, the medicine is added, and the blending process is repeated until no gel has formed.
3. **Dispersion method:** In this technique, the gelling agent is mixed with water until it swells up, at which point the medicine is dissolved in the medium and mixed in. If required, add buffer solution to the gel to correct pH.

GELLING AGENT: Gelling agents are the polymers that give gels their structural framework or their textural characteristics. Gelling agents are divided into four categories: Natural ingredients include things like gelatin, Xanthine, collagen, pectin, and Guar gum.

Carbopol 934, Carbopol 940, Polyvinyl Alcohol, and other synthetic materials include Polaxamers.

Three materials are semi-synthetic: hydroxypropyl methyl cellulose, carboxymethyl cellulose, and hydroxyethyl cellulose.

GEL'S USED ADDITIVES FORMULATION

Preservative: Preservatives are used to keep the gel fresh for a longer period of time and to keep it from spoiling. Examples include propyl and methyl parabens.

Drug solubilizer: In the event that a drug has low solubility, a drug solubilizer is utilised. Drug solubilizers are used to aid some medications that are poorly soluble in the medium dissolve. Triethyl o-amine with PVP (polyvinylpyrrolidone), for instance.

Chelating agents, such E.D.T.A. (Ethylene diamine tetra acetic acid), are used to stabilise several heavy metal and agent-containing gels.

PARAMETERS FOR TOPICAL GEL EVALUATION

Manifestation and uniformity Visual inspection was used to assess the consistency and physical appearance.

A gel's pH Using a digital pH metre, the gel's pH was determined. One gramme of gel is dissolved in the medium, and the pH is measured.

Viscosity The Brookfield Viscometer was used to determine how viscous the gel was.

Spreadability

Gel was put in a circle using 0.5 g pre-marked 2 cm diameter circle on a glass plate, which was then covered by another glass plate. For 10 minutes, a weight of around 500 g was left to rest on the top glass plate. It was observed that the diameter increased as a result of gel spreading.

Extradurability

A closed, collapsible gel tube was squeezed impermanently at the folded end to gauge extradurability. When the top was removed, gel was discharged until the weight dispersed. It was determined the weight in grammes needed to eject a 0.5 cm gel ribbon in 10 seconds. The average expulsion pressure was reported in g.

Skin irritancy examination

Swiss albino mice strain and Guinea pigs (400-500gm of either sex) were utilised as test subjects for the skin irritancy experiment.

Sex is also utilised. Three mice are employed, on which normal saline, blank gel, and formulation were used in order to remove the hairs and then wipe the skin with spirit. This is done in order to test the irritation in animals.

Stability Research

According to ICH requirements, the gel's stability research was carried out. The gel was kept at temperatures between 30°C and 20°C and 60% and 5% relative humidity. The formulation's changes in viscosity, pH, spreadability, and physical appearance were all examined.

Research on in vitro diffusion For the investigation of topical gel disintegration and release, Franz diffusion cells are employed. The dissolution release was performed at 37 °C using phosphate buffer having a concentration of 0.5g of gel sample in membrane.

The dissolving media is pH 7.4 (250 ml). Withdraw the 5ml sample at intervals of 1, 2, 3, 4, 5, 6, 7 and 8 hours, replacing each sample with a fresh solution of buffer in a quantity equal to that of the sample, and then analyse the sample using a spectrophotometer while using phosphate buffer as a control reagent.

Contains drugs: Take 1g of gel, dissolve it in 100ml of a suitable medium, and filter the mixture to find out how much medication is in it. Following this, the filtrate is checked using a spectrophotometer, absorbance is determined, and a regression linear analysis of the calibration curve is used to determine the drug level. [58][59][60][61][62][63][64]

SKIN CARE PROCEDURE AND SKIN CARE PRODUCTS:

Although there is a tonne of information available about SCP, it isn't always well-supported by science. However, there are a virtually limitless number of products for cleaning, restoring, strengthening, and protecting. A needs assessment determines which skin care procedures are [10]: Reduce/eliminate unpleasant skin symptoms (such as pruritus, burning, odour), restore (sub-clinically) damaged skin (such as dry or inflamed skin), reinforce/fortify undamaged but vulnerable skin (such as by maintaining skin surface pH balance [11], reduce microorganisms), and protect damaged, undamaged, and vulnerable skin from various noxes. • Offer a comfortable skin and body feeling (well-being)

Removal of Abnormal Materials There is always some disruption connected with the removal of undesirable substances from the skin. Products for Skin Care for Healthy and Ill Skin 187of the underlying tissue. Even the mildest cleaning chemical will, to some extent, remove skin-essential lipids, impair protein structures of the stratum corneum, and inevitably weaken the skin barrier [12 -13]. Despite the fact that this imbalance is temporary in healthy skin, there are several reports that the surfactants in cleansers have an impact on skin conditions and that cleaners with a higher pH tend to irritate the skin [14-17]. Additionally, the pH of the skin's surface rises when soaps or soap-based cleaners are used [14]. The raised pH often returns to an acidic pH within 6 hours due to the buffer function, depending on the length and intensity of exposure [14, 18, 19]. The detergents and skin cleansers, however, may also enter the stratum corneum or deeper in addition to being adsorbed on the skin's surface [20]. It is therefore assumed that the ongoing absorption of detergent into the stratum corneum

may have an impact on the pH-balancing mechanism, influence skin pH, or speed up or slow down pH recovery. According to various reports, the pH of the skin is raised by regularly using soap or an alkaline skin cleanser [19, 21–24]. For instance, Korting et al. [19] showed that a cleanser (pH 7.0 or 8.5) altered the skin surface pH after 1 week of continuous usage on the face and forearm [19, 22]. In a paper by Barel et al. [23], it was found that, but not on the hand or forearm, 10 weeks of soap use resulted in a considerable elevation in pH on the upper arm, neck, and lower leg. It is reasonable to believe that these products have an impact on the pH-balancing system of human skin based on the numerous research that have examined the potential impact of skin cleansers on skin surface pH. Observations to the contrary do exist, though. In a 5-year study, Takagi et al. [25] discovered that users of "mild-acid cleanser" and "soap-based cleanser" had no impact on the pH-balancing mechanism. In addition to surfactants, skin cleansers also include a variety of additional chemicals, such as ones that increase viscosity, preservatives, or fragrances. Some of these components may irritate people and cause allergies [26]. The most common method of cleansing is with water or water and cleaning chemicals. Afterward, dry the skin in some manner. The mechanical stress caused by careless usage of (hard) towels may influence the bio-physical characteristics of the skin and may result in an adverse skin reaction, hence this activity should be carried out with extreme attention [27-30]. Reduce or eliminate unpleasant skin symptoms, repair damaged skin, and strengthen or fortify vulnerable but unaffected skin. Defence of Skin Damaged, Undamaged, and Vulnerable. Sunscreens and a wide range of products that are frequently referred to as barrier goods and creams offer protection for skin that is damaged, undamaged, or vulnerable against various noxes. The effectiveness of sunscreen products has been well investigated [45]. In Europe, three main skin types are covered by the umbrella of sunscreen products. 188 Surber, Dragicevic, and Kottner products can be divided into three categories: (a) the traditional sun-screen products with sunscreen filters absorbing/scattering the harmful UV radiation, (b) the products with antioxidants neutralising free radicals arising from the sunlight radiation (including visible light, infrared radiation), and (c) the products that provide skin repair in addition to the traditional protection by sunscreen filters. These last two are successfully marketed as "active" sunscreen

protection! A topical solution that serves as a physical barrier between the skin and impurities that could injure the skin is referred to as a barrier cream [36-38]. Creams that act as barriers may also be intended as skin-restoration products. Any emollient or moisturising product might be viewed as a potential skin care product in this way. Any moisturising or emollient substance might be viewed as a possible skin barrier improver in this regard [39, 40]. Regrettably, both in guidelines and scientific papers, the term "barrier cream" is used ill-definedly. Furthermore, the term "cream" only refers to one conceivable format for such goods; other forms include ointments, pastes, films, and foams. The terms "barrier products" and "barrier repair products" might be distinguished to prevent language mistakes. The first is described as a product that truly protects against noxious agents, whereas the later is defined as a product with a clear intention to restore and reinforce the skin barrier in order to keep the noxious agents at bay. Not all toxic substances are simultaneously protected by a barrier product. It is generally accepted that formulations that are more lipophilic are more effective against hydrophilic solutions of irritants, whereas formulations that are more hydrophilic are more effective against lipophilic materials. Studies have indicated that barrier products can help with age-related skin disorders, however (prevention of superficial pressure ulcers and in-contenance-associated dermatitis), their general benefits are still debated [41, 42]. More recently, a new group of products has evolved – protecting skin from airborne pollution [43, 44]. Their mode of action may be based (a) on the anti-oxidative action of the active principle or (b) on the "sealing" of the skin. Evidence for their effectiveness is still undetermined. provision of a comfortable body and skin feeling. The provision of a pleasing skin and body sensation is another crucial aspect of skin care. Both the product format (such as lotion, cream, gel, or foam) and the vehicle ingredients utilised to create the product format are responsible for achieving this. The recipient must consider how the application feels as it is being made as well as how the skin feels afterward, when the volatile vehicle elements have all evaporated. Product adherence and purchasing decisions are heavily influenced by application and skin feel, which are primarily dependent on product viscosity and polarity (lipophilic/hydrophilic). Some products have a quick influence on the customer through immediate sensory or visual skin and physical sensations. Both the product format

(such as lotion, cream, gel, or foam) and the vehicle ingredients utilised to create the product format are responsible for achieving this. The recipient must consider how the application feels as it is being made as well as how the skin feels afterward, when the volatile vehicle elements have all evaporated. Product adherence and purchasing decisions are heavily influenced by application and skin feel, which are primarily dependent on product viscosity and polarity (lipophilic/hydrophilic). Some products have an instant, sensory or visual effect on the skin, such as wetness, tightness (astringent), or matting, which gives the user a quick sense of their effectiveness. Product Types: Leave-On, Rinse-Off When used as rinse-off goods (like cleansers) or leave-on products (like moisturisers), skin care products reveal their capabilities. Leave-on products interact with the underlying skin over an extended length of time when they are applied to the skin. As an illustration, the application of hydrophilic materials may result in the stratum corneum being initially over-hydrated and the lipid bilayers becoming disorganised [45]. Aqueous Cream BP, a popular leave-on treatment for treating dry skin on the UK market, was once known to harm the skin's protective layer [46]. Normal skin may become more sensitive to irritants and develop a dysfunctional barrier as a result of prolonged use of leave-on cosmetics [47, 48]. This discovery is supported by past study findings that show topical therapies only strengthen the skin barrier in skin that is damaged or dry. Topical leave-on skin products must be applied to "normal" skin for the skin barrier function to take effect. was cut down [49]. Plant oils, especially the free fatty acids from them (some of which are known as permeability enhancers!) may irritate the skin [50, 51], especially when applied topically. Skin Care Products for Healthy and Diseased Skin 189where, bath or shower oils are not adequately removed after washing [52]. Even very low concentrations may cause unwanted skin reactions [53] and the life-long exposure to various chemicals increases the risk for sensitization [54]

ADVANTAGE:

- Additionally, it may be applied to broken skin
- it has a local therapeutic impact
- it is simple to use and portable
- it is easy to self-medicate and it is better for people who have swallowing difficulties.
- Patient adherence
- Stabler than liquid

- No need for massaging or rubbing
- Simple and easy to formulate
- easy to apply
- no need for dose measurement

DISADVANTAGES:

- Lotion has a number of drawbacks, including:
 - Babies can ingest lotion if applied to their hands
 - poor medication penetration into deeper skin layers
 - less stability than solid dosage forms
 - need to shake containers before use.[3][4][5][6]

II. CONCLUSION:

In conclusion it may be said that the two components of dosage form, the drug and additives, must be given due consideration related to the properties of the drugs and a few important categories of pharmaceutical additives are discussed in the succeeding chapters

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